

Spojmart SM s.r.o.



KATALÓG

Nerezový spojovací materiál





Content DIN/ISO/EN

DIN/ISO/EN

DIN 1 (ISO 2339**)		Taper pins
DIN 7 (ISO 2338**)		Parallel pins
DIN 84 (ISO 1207**)		Slotted cheese head screws
DIN 85 (ISO 1580**)		Slotted pan head screws
~DIN 93		Tap washers with a long tap
DIN 94 (ISO 1234*)		Split pins
DIN 94		Article 82094 Split pins assortment
DIN 95		Slotted raised countersunk head wood screws
DIN 96		Slotted round head wood screws
DIN 97		Slotted countersunk head wood screws
		SPAX and chipboard screws
DIN 98		Rotatable ball handles
DIN 99		Tapered handles
DIN 125 (ISO 7089**) (ISO 7090**)		Plain washers, product grade A
DIN 125 125/127		Article 82125/Article 82127 Washers assortment Washers and spring lock washers assortment
DIN 126 (ISO 7091*)		Plain washers, product grade C
		Article 88100 Plain washers ("type 1")
~DIN 127		Spring lock washers

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	33			
	33			
	35			
	37			
	38			
	38			
	39			
	40			
	40			
	161			
	41			
	41			
	42			

* DIN : ISO identical = interchangeable

** DIN : ISO/EN mostly interchangeable

*** Standard conversion
DIN : ISO → red pages/
1/2 Technical Information_

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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Content DIN/ISO/EN

DIN/ISO/EN

DIN/ISO/EN	Image	Description	Steel Plain/Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
		Article 88123-88129 TECKENTRUP lock washers for hexagon head screws and hexagon socket head cap screws		164			
		Article 88130/88131 Lock rings		165			
~DIN 128		Spring lock washers		43			
~DIN 137		Spring washers		43			
DIN 186		T-head bolts with square neck					
DIN 258		Taper pins with external thread, constant taper length					
DIN 261		T-head bolts					
DIN 315		Wing nuts, rounded or edged wings		44			
		Article 88215 Wing nuts, small "American" type		44			
DIN 316		Wing screws, rounded or edged wings		45			
DIN 319		Ball knobs					
DIN 404		Slotted capstan screws		45			
DIN 417 (ISO 7435*)		Slotted grub screws with full dog point					
DIN 427 (ISO 2342*)		Slotted headless screws with chamfered end		45			
DIN 431		Pipe nuts		45			
~DIN 432		Washers with external tap		46			

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*** Standard conversion
DIN : ISO → red pages/
/3/Technical Information_

Steel Plain/Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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Content DIN/ISO/EN

DIN/ISO/EN

DIN 433 (ISO 7092**)		Washers for cheese head screws
DIN 434		Square taper washers for U beams (taper 8 %)
DIN 435		Square taper washers for double-T beams (taper 14 %)
DIN 436		Square washers
DIN 439 (ISO 4035/ 8675***)		Hexagon thin nuts
DIN 440 (ISO 7094**)		Washers for wood constructions
DIN 443		Sealing push-in type caps
DIN 444		Eye bolts
DIN 462		Internal tab washers
~DIN 463		Washers with 2 tabs
DIN 464		Knurled thumb screws
DIN 466		Knurled nuts, high type
DIN 467		Knurled nuts, low type
DIN 470		Sealing discs
DIN 471		Retaining rings for shafts, normal type, heavy type
DIN 471		Article 82471 Assortment of retaining rings for shafts

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	46			
	46			
	46			
	46			
	47			
	47			
	48			
	48			
	49			
	49			
	49			
	49			

* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ 1/5 Technical Information_	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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Content DIN/ISO/EN

DIN/ISO/EN

DIN/ISO/EN			Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
DIN 472		Retaining rings for bores		49			
DIN 478		Square head bolts with collar					
DIN 479		Square head bolts with dog point					
DIN 480		Square head bolts with collar, short dog point and rounded end					
DIN 508		T-slot nuts					
DIN 525		Studs for welding					
DIN 529		Masonry bolts (anchor bolts)					
DIN 546		Slotted round nuts		50			
DIN 551 (ISO 4766*)		Slotted grub screws with flat point		50			
DIN 553 (ISO 7434*)		Slotted grub screws with cone point		50			
DIN 555 (ISO 4034****)		Hexagon nuts	WW				
DIN 557		Square nuts		51			
DIN 561		Hexagon head set screws with dog point					
DIN 562		Square thin nuts		51			
DIN 564		Hexagon head set screws with short dog point and flat cone end					
DIN 571		Hexagon head wood screws		51			
		Article 88005 Plastic sealings/caps for hexagon head, wood screws for corrugated roof panels					

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** DIN : ISO/EN mostly interchangeable

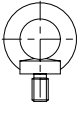


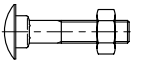
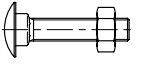
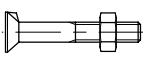
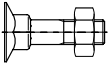
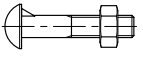
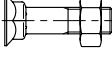

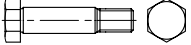

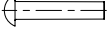
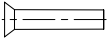


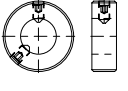

*** Standard conversion
DIN : ISO → red pages/
1/2 Technical Information_

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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Content DIN/ISO/EN

DIN/ISO/EN

DIN 580		Lifting eye bolts
DIN 582		Lifting eye nuts
DIN 601 (ISO 4016***)		Hexagon head bolts
DIN 603		Cup head square neck bolts
DIN 603		Cup head square neck bolts, thread up to square neck
DIN 604		Flat countersunk nib bolts
DIN 605		Flat countersunk square neck bolts
DIN 607		Cup head nib bolts
DIN 608		Flat countersunk square neck bolts with short square
DIN 609		Hexagon fit bolts with long thread
~DIN 610		Hexagon fit bolts with short thread
DIN 653		Knurled thumb screws, low type
DIN 660 (ISO 1051*)		Round head rivets
DIN 661 (ISO 1051*)		Countersunk head rivets
DIN 662 (ISO 1051*)		Mushroom head rivets (sheet metal rivets)
DIN 674 (ISO 1051*)		Flat round head rivets
~DIN 703		Adjusting rings, heavy range
DIN 705		Adjusting rings, light range

Steel Plain/Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	52			
	52			
	53			
	54			
	54			
	54			
	54			

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*** Standard conversion
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1/2 Technical Information_

Steel Plain/Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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Content DIN/ISO/EN

DIN/ISO/EN

DIN/ISO/EN			Steel Plain/Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
~DIN 741		U-bolt wire rope grips		55			
DIN 787		T-slot screws					
DIN 835		Studs, metal end ≈ 2 d		55			
DIN 906		Hexagon socket pipe plugs with taper thread		55			
DIN 908		Hexagon socket screw plugs with cylindrical thread		55			
DIN 909		Hexagon head pipe plugs with taper thread					
DIN 910		Hexagon head screw plugs with cylindrical thread		56			
DIN 911 (ISO 2936*)		Hexagon socket screw keys (socket wrenches)					
DIN 912 (ISO 4762*)		Hexagon socket head cap screws		56			M UNC
~DIN 912 (ISO 12474*)		Hexagon socket head cap screws with thread up to head, with fine pitch thread		56			
~DIN 912 ISR (ISO 14579)		Hexalobular socket head cap screws					
		Article 88912 Hexagon socket cap screws with flange, lock ribs under the flange					
DIN 913 (ISO 4026*)		Hexagon socket set screws with flat point		60			
DIN 914 (ISO 4027*)		Hexagon socket set screws with cone point		61			
DIN 915 (ISO 4028*)		Hexagon socket set screws with full dog point		62			
DIN 916 (ISO 4029*)		Hexagon socket set screws with cup point		62			
DIN 917		Hexagon cap nuts, low type		63			

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*** Standard conversion
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1/2 Technical Information_

Steel Plain/Coated

Stainless steel

Brass Cu / Al / Ti Plastic

Fixing Technology

Dimensions TI

Content DIN/ISO/EN

DIN/ISO/EN

DIN 920		Slotted small cheese head screws	
DIN 921		Slotted large cheese head screws	
DIN 923		Slotted cheese head shoulder screws	
DIN 927		Slotted shoulder screws	
DIN 928		Square weld nuts	
		Article 88109 Square caged nuts	
DIN 929		Hexagon weld nuts	
DIN 931 (ISO 4014***)		Hexagon head bolts with shank	M UNC
DIN 933 (ISO 4017***)		Hexagon head screws with thread up to head	M UNC
DIN 933		Slotted hexagon head screws	
		Article 88913 Hexagon head screws with flange and lock ribs	
		Article 88933 Hexagon head locking screws with flange	
		Article 88914 Hexagon nuts with flange and lock ribs	
		Article 88934 Hexagon locking nuts	
DIN 934 (ISO 4032, 4033*** 8673/8674***)		Hexagon nuts	M WW UNC
DIN 934		Article 82934, 82935 Hexagon nut assortment	
DIN 935		Hexagon slotted and castle nuts	

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	64			
	64			
	64			
	70			
	72 73 157			
	74			

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1/2 Technical Information_

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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Content DIN/ISO/EN

DIN/ISO/EN

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	74			
	75			
	76			
	77			
	79			
	80			
	82			
	83			
	84			
	84			
	157			
	85			

DIN 936 (ISO 4035/ 8675***)		Hexagon thin nuts	
DIN 937 (→DIN 979)		Hexagon thin slotted and castle nuts	
DIN 938		Studs, metal end ≈ 1 d	AD
DIN 939		Studs, metal end ≈ 1,25 d	AD
DIN 960 (ISO 8765***)		Hexagon head bolts with shank, with metric fine pitch thread	
DIN 961 (ISO 8676***)		Hexagon head screws with thread up to head, with metric fine pitch thread	
DIN 962		Additional types and finishes for screws/bolts (→ Technical Information)	
DIN 963 (ISO 2009**)		Slotted countersunk head screws	
DIN 964 (ISO 2010**)		Slotted raised countersunk head screws	
DIN 965 (ISO 7046**)		Countersunk head screws with cross recess	
~DIN 965 1/2ISR_		Countersunk head screws with hexalobular socket	
DIN 966 (ISO 7047**)		Raised countersunk head screws with cross recess	
~DIN 975 DIN 976-1		Threaded rods	1000mm 2000mm WW
~DIN 975		Threaded rods with trapezoidal thread	
		Article 88089, 88090 Nuts with trapezoidal thread, round, hexagon	
DIN 976-1		Stud bolts	
DIN 979		Hexagon thin slotted and castle nuts	

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1/2Technical Information_

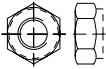
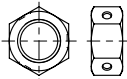
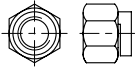

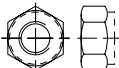

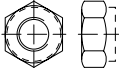

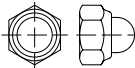

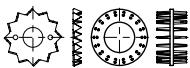

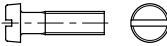



Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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Content DIN/ISO/EN

DIN/ISO/EN

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	85			
	85			
	86			
	86			
	86			
	87			
	87			
	87			
	89			
	90			

DIN 980 (DIN 6925***) (ISO 7042/ 7719/10513)		Prevailing torque type hexagon nuts, all-metal
		Article 84032 Biloc nuts/prevailing torque type hexagon nuts
~DIN 980		Article 88105 THERMAG nuts, prevailing torque type hexagon nuts, all-metal
DIN 981		Locknuts for rolling bearings
DIN 982 (DIN 6924***) (ISO 7040/ 7041/10512)		Prevailing torque type hexagon nuts with non-metallic insert (plastic), high type
DIN 983		Retaining rings with lugs for shafts, (retainer rings)
DIN 985 (DIN 6924***) (ISO 10511/ 10512)		Prevailing torque type hexagon nuts with non-metallic insert (plastic), low type
DIN 985		Article 82985 Assortment of prevailing torque type hexagon nuts
DIN 986		Prevailing torque type hexagon domed cap nuts with non-metallic insert
DIN 988		Shim rings/supporting rings
DIN 1052		Timber connectors, spikes one sided or two sided, metal sheet/malleable cast iron
DIN 1052		Washers for timber connectors
ISO 1207 (DIN 84**)		Slotted cheese head screws
ISO 1234 (DIN 94*)		Split pins
DIN 1440 (ISO 8738**)		Washers for clevis pins, product grade A
DIN 1441		Washers for clevis pins, product grade C

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1/5 Technical Information_






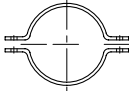

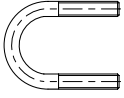





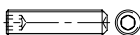
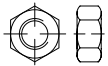
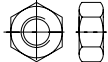
Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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Content DIN/ISO/EN

DIN/ISO/EN

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	101			
	102			
	102 104			
	108 109			
	113			
	115			
	115			
	116			
	117 117			

DIN 3017		Hose clamps type A = with worm gear drive type B = with fastening lugs type C = with hinge bolts
		
		
DIN 3404		Lubricating nipples, button head
DIN 3405		Lubricating nipples, cupped type
DIN 3567		Pipe clamps
DIN 3568		Clamping plates for pipe fixings
DIN 3570		Stirrup bolts
ISO 4014 (DIN 931*/***)		Hexagon head bolts with shank
	AD DGRL UNC	
ISO 4017 (DIN 933*/***)		Hexagon head screws with thread up to head
	AD DGRL UNC	
ISO 4026 (DIN 913*)		Hexagon socket set screws with flat point
ISO 4027 (DIN 914*)		Hexagon socket set screws with cone point
ISO 4028 (DIN 915*)		Hexagon socket set screws with full dog point
ISO 4029 (DIN 916*)		Hexagon socket set screws with cup point
ISO 4032 (DIN 934***)		Hexagon nuts, ISO type 1, coarse thread
	AD DGRL UNC	
ISO 4033 (DIN 934***)		Hexagon nuts, ISO type 2, coarse thread, property class 12

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Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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Content DIN/ISO/EN

DIN/ISO/EN

Steel Plain/Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	124			
	125			
	125			
	125			
	125			
	125			
	164			
	165			
	125			
	126			

DIN 6331		Hexagon nuts with collar, with a height of 1,5 d
DIN 6332		Grub screws with thrust point
~DIN 6334		Hexagon nuts with a height of 3 d
DIN 6335		Palm grips
DIN 6336		Star grips
DIN 6340		Washers for clamping devices, hardened
DIN 6796 (ISO 10670**)		Conical spring washers
~DIN 6797		Toothed lock washers type A = external teeth type I = internal teeth type V = countersunk
		Article 88123-88126 TECKENTRUP lock washers for hexagon head screws and hexagon socket cap screws
		Article 88129 TECKENTRUP lock washers with contact serrations
~DIN 6798		Serrated lock washers type A = external teeth type I = internal teeth type V = countersunk
DIN 6799		Retaining rings for shafts
DIN 6880		Key steel

* DIN : ISO identical = interchangeable

** DIN : ISO/EN mostly interchangeable

*** Standard conversion
DIN : ISO → red pages/
1/3 Technical Information_

Steel Plain/Coated

Stainless steel

Brass Cu / Al / Ti Plastic

Fixing Technology

Dimensions TI

Content DIN/ISO/EN

DIN/ISO/EN

DIN 6885		Parallel keys
DIN 6887		Taper keys with gib head
DIN 6888		Woodruff keys
DIN 6899		Thimbles for fibre ropes
DIN 6911		Hexagon socket screw keys (pin wrenches) with pilot for hexagon socket cap screws acc. to DIN 6912
DIN 6912		Hexagon socket head cap screws with low head and centre
DIN 6914 (→EN 14399)		Hexagon bolts with large head for high-strength structural bolting, system HV
DIN 6915 (→EN 14399)		Hexagon nuts with large wrench size for high-strength structural bolting, system HV
DIN 6916 (→EN 14399)		Plain chamfered washers for high-strength structural bolting, system HV
DIN 6917		Square taper washers for friction grip bolts on double-T beams in steel constructions
DIN 6918		Square taper washers for friction grip bolts on U beams in steel constructions
DIN 6921 (EN 1665****)		Hexagon flange bolts
		Article 10105 Hexagon flange bolts acc. to MBN 10105
DIN 6923 (EN 1661****)		Hexagon flange nuts
		Article 13023 Hexagon flange nuts acc. to MBN 13023

Steel Plain/Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	126			
	127			
	128			
	128			

* DIN : ISO identical = interchangeable

** DIN : ISO/EN mostly interchangeable

*** Standard conversion
DIN : ISO → red pages/
1/5 Technical Information_

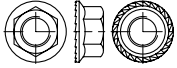
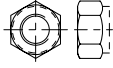
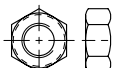
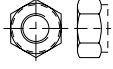
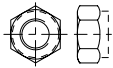
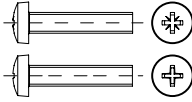
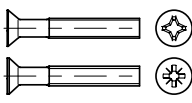

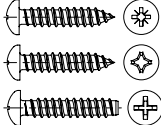
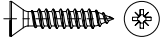
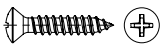



Steel Plain/Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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Content DIN/ISO/EN

DIN/ISO/EN

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	128			
	128			
	129			
	129			
	130			
	132			
	134			
	134			
	136			
	136			
	137			
	138			

~DIN 6923		Hexagon locking nuts with flange
DIN 6924 (ISO 7040**/ 10512)		Prevailing torque type hexagon nuts with non-metallic insert (plastic)
DIN 6925 (ISO 7042**/ 10513)		Prevailing torque type hexagon nuts, all-metal
ISO 7040 (DIN 6924*)		Prevailing torque type hexagon nuts with non-metallic insert (plastic)
ISO 7042 (DIN 6925**)		Prevailing torque type hexagon nuts, all-metal
ISO 7045 (DIN 7985*)		Cheese head screws with cross recess
ISO 7046 (DIN 965*)		Countersunk head screws with cross recess
ISO 7047 (DIN 966**)		Raised countersunk head screws with cross recess
ISO 7049 (DIN 7981*)		Pan head tapping screws with cross recess
ISO 7050 (DIN 7982***)		Countersunk head tapping screws with cross recess, countersunk $\alpha = 90^\circ$
ISO 7051 (DIN 7983***)		Raised csk. head tapping screws with cross recess
ISO 7089 (DIN 125**)		Plain washers, normal series, without chamfer, product grade A
ISO 7090 (DIN 125**)		Plain washers, normal series, with chamfer, product grade A
ISO 7091 (DIN 126*)		Plain washers, normal series, product grade C

* DIN : ISO identical = interchangeable

** DIN : ISO/EN mostly interchangeable

*** Standard conversion
DIN : ISO → red pages/
1/Technical Information_

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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Content DIN/ISO/EN

DIN/ISO/EN

ISO 7092 (DIN 433**)		Plain washers, small series, product grade A
ISO 7093 (DIN 9021**)		Plain washers, large series, product grade A
ISO 7094 (DIN 440**)		Plain washers, extra large series, product grade C
DIN 7337 (ISO 15973-16585)		Blind rivets → Article 88401-88488
DIN 7338		Rivets for brake linings and clutch linings
DIN 7343 (ISO 8750*/8751)		Spring-type straight pins, coiled, standard duty
DIN 7344 (ISO 8748**)		Spring-type straight pins, coiled, heavy duty
DIN 7346 (ISO 13337*)		Spring-type straight pins, slotted, light duty
DIN 7349		Washers for screws with heavy spring-type straight pins
ISO 7379		Hexagon socket head shoulder screws
ISO 7380-1		Hexagon socket button head screws
ISO 7380-2		Hexagon socket button head screws with flange
~ISO 7380 ISR (ISO 14583)		Hexalobular socket button head screws
ISO 7434 (DIN 553*)		Slotted grub screws with cone point
ISO 7435 (DIN 417*)		Slotted grub screws with full dog point

Steel Plain/Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	138			
	139			
	139			
	139			
	140			
	140			
	140			
	141			
	141			

* DIN : ISO identical = interchangeable

** DIN : ISO/EN mostly interchangeable

*** Standard conversion
DIN : ISO → red pages/
1/5 Technical Information_

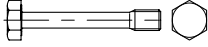

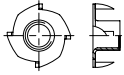
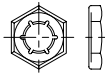
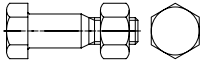
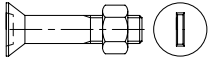
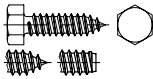
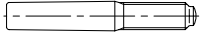

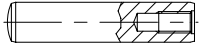



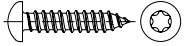
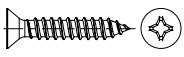


Steel Plain/Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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Content DIN/ISO/EN

DIN/ISO/EN

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	141			
	142			
	142			
	142			
	142			
	142			
	142			
	142			
	142			
	142			
	143			
	144			
	156			
	144			
	156			
	145			

- ~DIN 7964  Hexagon head screws with waisted shank type D1 = hexagon head acc.to ISO 4014
- DIN 7965  Screwed inserts "RAMPA"
-  Article 88108 Tee nuts with prong
- ~DIN 7967  Self locking counter nuts
- DIN 7968  Hexagon fit bolts for steel structures
- DIN 7969  Slotted countersunk head bolts for steel structures
- DIN 7976 (ISO 1479**)  Hexagon head tapping screws, type C = cone end, type F = flat end
- DIN 7977 (ISO 8737*)  Taper pins with external thread, constant threaded part
- DIN 7978 (ISO 8736*)  Taper pins with internal thread
- DIN 7979 (ISO 8733/ 8735***)  Parallel pins with internal thread
- ~DIN 7980  Spring lock washer for cheese head screws
- DIN 7981 (ISO 7049**)  Pan head tapping screws with cross recess, type C = cone end, type F = flat end
-  Article 88981 Cap-head tapping screws
- ~DIN 7981 ISR (ISO 14585)  Pan head tapping screws with hexalobular socket
- DIN 7982 (ISO 7050***)  Countersunk head tapping screws with cross recess
- ~DIN 7982 ISR (ISO 14586)  Countersunk head tapping screws with hexalobular socket
- DIN 7983 (ISO 7051***)  Raised countersunk head tapping screws with cross recess

* DIN : ISO identical = interchangeable

** DIN : ISO/EN mostly interchangeable

*** Standard conversion DIN : ISO → red pages/ 1/2Technical Information_

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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Content DIN/ISO/EN

DIN/ISO/EN

DIN/ISO/EN	Image	Description	Steel Plain/Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
DIN 7984		Hexagon socket head cap screws with low head		146			
~DIN 7984 ISR (ISO 14580)		Hexalobular socket head cap screws with low head					
DIN 7985 (ISO 7045**)		Pan head screws with cross recess		147			
~DIN 7985 ISR (ISO 14583**)		Pan head screws with hexalobular socket		148			
DIN 7989		Washers for steel structures		149			
DIN 7990		Hexagon head bolts for steel structures					
DIN 7991 (→ISO 10642)		Hexagon socket countersunk head screws		154			
~DIN 7991 ISR (ISO 14581) (→ISO 10642 ISR)		Hexalobular socket countersunk head screws					
DIN 7993		Snap rings for shafts and bores					
DIN 7999 (→EN 14399-8)		Hexagon fit bolts with large head for high-strength structural bolting, system HV					
DIN 8140		Article 88330-88346 Wire thread inserts, coarse thread, fine pitch thread, with locking		167			
		Article 88340, 88342 Assortment thread inserts		169			
ISO 8673 (DIN 934***)		Hexagon nuts, ISO type 1, metric fine pitch thread		149			
ISO 8675 (DIN 439***)		Hexagon thin nuts with chamfers, metric fine pitch thread		149			
ISO 8676 (DIN 961*/***)		Hexagon head screws with thread up to head, metric fine pitch thread					
ISO 8734 (DIN 6325*)		Parallel pins					

* DIN : ISO identical = interchangeable

** DIN : ISO/EN mostly interchangeable

*** Standard conversion
DIN : ISO → red pages/
½technical information_

Steel Plain/Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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Content DIN/ISO/EN

DIN/ISO/EN

ISO 8735 (→ DIN 7979***)		Parallel pins with internal thread
ISO 8736 (DIN 7978*)		Taper pins with internal thread
ISO 8737 (DIN 7977*)		Taper pins with external thread, constant threaded part
ISO 8738 (DIN 1440*)		Washers for clevis pins
ISO 8740 (DIN 1473**)		Grooved pins, full length parallel grooved
ISO 8741 (DIN 1474**)		Grooved pins, half length reverse grooved
ISO 8742 (DIN 1475**)		Grooved pins, third length centre grooved
ISO 8744 (DIN 1471**)		Grooved pins, full-length taper grooved
ISO 8745 (DIN 1472**)		Grooved pins, half length taper grooved
ISO 8746 (DIN 1476*)		Grooved pins with round head
ISO 8747 (DIN 1477*)		Grooved pins with countersunk head
ISO 8748 (DIN 7344**)		Spring-type straight pins, coiled, heavy duty
ISO 8750 (DIN 7343**)		Spring-type straight pins, coiled, standard duty
ISO 8752 (DIN 1481**)		Spring type straight pins, heavy duty
ISO 8765 (DIN 960*/****)		Hexagon head bolts with shank, metric fine pitch thread
DIN 9021 (ISO 7093**)		Plain washers, outside diameter ≈ 3 x d
ISO 10511 (DIN 985***)		Prevailing torque type hexagon nuts with non-metallic insert
ISO 10512 (DIN 982***)		Prevailing torque type hexagon nuts with non-metallic insert, high type, with metric fine pitch thread
ISO 10513 (DIN 980***)		Prevailing torque type hexagon nuts with metric fine pitch thread, all metal nuts

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	150			
	150			
	150			
	151			
	151			
	151			
	152			
	153			
	153			

* DIN : ISO identical = interchangeable

** DIN : ISO/EN mostly interchangeable

*** Standard conversion
DIN : ISO → red pages/
1/5technical information_

Steel Plain/ Coated

Stainless steel

Brass Cu / Al / Ti Plastic


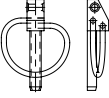

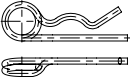

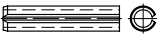
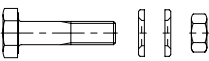
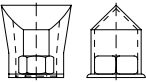
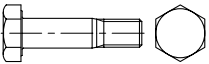

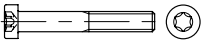




Fixing Technology

Dimensions TI



Content DIN/ISO/EN

DIN/ISO/EN

ISO 10642 (DIN 7991**)		Hexagon socket countersunk head screws
DIN 11023		Linch pins
		Article 88023 Linch pins for tubes
DIN 11024		Spring cotters for a bolt
ISO 12474 (DIN 912*)		Hexagon socket head cap screws with metric fine pitch thread
ISO 13337 (DIN 7346**)		Spring-type straight pins, slotted, light duty
EN 14399 -4/-6 (DIN 6914μ 6916)		Assemblies of hexagon bolts, nuts and washers for high-strength structural bolting, system HV
		Article 88916 Safety sockets for high-strength structural bolting assemblies
EN 14399-8 (DIN 7999)		Hexagon fit bolts with large head for high-strength structural bolting, system HV
ISO 14579 (DIN 912 ISR*)		Hexalobular socket head cap screws
ISO 14580 (→DIN 7984 ISR*)		Hexalobular socket head cap screws with low head
~ISO 14581 (ISO 10642 1/2ISR***)		Senkschrauben mit Innensechsrund
ISO 14583 (DIN 7985 ISR)		Cheese head screws with hexalobular socket
ISO 14585 (DIN 7981 ISR)		Pan head tapping screws with hexalobular socket
ISO 14586 (→DIN 7982 ISR)		Countersunk head tapping screws $\sphericalangle = 90^\circ$, with hexalobular socket

Steel Plain/Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	154			
	155			
	156			
	156			

* DIN : ISO identical = interchangeable

** DIN : ISO/EN mostly interchangeable

*** Standard conversion
DIN : ISO → red pages/
1/2technical information_

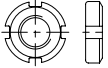
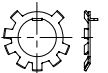
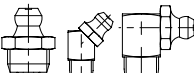

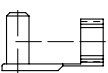
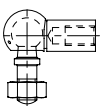
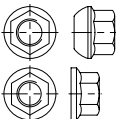
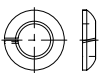

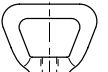
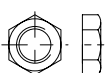
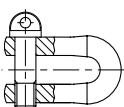


Steel Plain/Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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Content DIN/ISO/EN

DIN/ISO/EN

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	157			
	157			

DIN 70852		Locknuts for hook spanners
DIN 70952		Lockwashers/safety plates for locknuts
DIN 71412		Lubricating nipples
DIN 71752		Fork joints
		Article 88752 Spring flap bolts ("ES bolts")
DIN 71802		Angle joints (ball joints)
DIN 74361		Nuts with spherical collar (type A), Flat collar nuts (type B)
DIN 74361		Spherical springwashers (type C)
DIN 80701		Butterfly nuts
DIN 80704		Bow nuts
DIN 80705		Thin hexagonal nuts with small wrench size
DIN 82101		D-shackles, forged
MBN 10105		Hexagon head bolts with flange acc. to MBN 10105
MBN 13023		Prevailing torque type hexagon nuts with flange acc. to MBN 13023

* DIN : ISO identical = interchangeable

** DIN : ISO/EN mostly interchangeable

*** Standard conversion
DIN : ISO → red pages/
1/2 Technical Information_

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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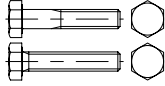
Content DIN/ISO/EN

DIN/ISO/EN

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
---------------------	-----------------	----------------------------	-------------------	---------------

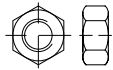
Fasteners acc. to ASME/ANSI standards

ASME B18.2.1



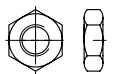
Hex cap screws with shank/full thread, with UNC/UNF thread

ASME B18.2.2



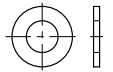
Hex nuts with UNC/UNF thread

ASME B18.2.2



Hex jam nuts with UNC/UNF thread

ANSI B18.22.1



Plain washers, N = narrow, W = wide

ASME B18.3



Hexagon socket head cap screws with UNC thread

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	157			

* DIN : ISO identical = interchangeable

** DIN : ISO/EN mostly interchangeable

*** Standard conversion
DIN : ISO → red pages/
1/2 Technical Information_


Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
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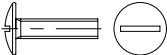




t


88086  Spacers with thread and with hexagon


88095  Chipboard screws with Pozidriv cross recess Z
88096 - hexalobular socket
88097 - pan head
- countersunk head

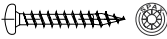
88098  Chipboard screws with partial thread, countersunk head, hexalobular socket


88107  Slotted mushroom head screws

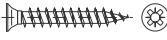
 **SPAX**
88099  SPAX chipboard screws with countersunk head, with Pozidriv cross recess Z and center hole



88091  SPAX chipboard screws with countersunk head, with hexalobular socket

88092  SPAX chipboard screws with raised countersunk head, with Pozidriv cross recess Z, hexalobular socket

88093  SPAX chipboard screws with pan head, with Pozidriv cross recess Z, hexalobular socket

88094  SPAX chipboard screws with countersunk head, with Pozidrive cross recess Z

88094  SPAX chipboard screws with small countersunk head, with Pozidrive cross recess Z

88187  SPAX window air screws FEX
88188 type A = for fastening metal reinforcements
88189  for simple-wall profiles
type KS = fitting screws for plastic profiles
type H = screws for wooden window frames

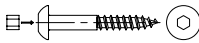

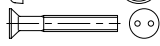



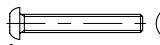

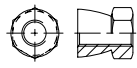
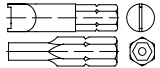
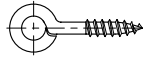

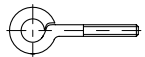
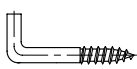
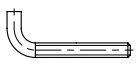
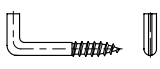
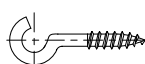
88190  SPAX glass strip screws

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	160			
	161			
	162			
	158-160			
	158			
	158			
	159			
Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI



t

Fasteners with Theft Resistant Drives

- 88110  Wood screws thread with hexagon socket and rivet pin
- 88111  Pan head/flush head screws with snake eyes drive, metric thread
- 88112  Pan head/flush head screws with snake eyes drive, metric thread
- 88113  Button head screws with hexagon socket and pin, metric thread
- 88114  Pan head/flush head screws with hexalobular socket and pin, tapping screw thread
- 88115  Pan head/flush head screws with hexalobular socket and pin, tapping screw thread
- 88116  Button head/flush head screws with hexalobular socket and pin, metric thread
- 88117  Button head/flush head screws with hexalobular socket and pin, metric thread
- 88118  Theft resistant nuts/pull-off nuts for one-way assembly
-  Special bits → Articles 88665-88667
- 88133  Screw eyes with wood screw thread
- 88135  S-hooks
- 88136  Screw eyes with metric thread
- 88137  Square bend screw hooks with wood screw thread
- 88138  Straight screw hooks with metric thread
- 88139  Square bend slotted screw hooks with wood screw thread
- 88140  Cup hooks with wood screw thread

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	162			
	162			
	163			
	163			
	164			
	165			
Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI



t

84032		Biloc nuts/prevailing torque type hexagon nuts
88081		Locknuts with non-metallic insert GUK
88087		Hexagon couplings
88088		Round couplings
88089 88090		Round and hexagon nuts with trapezoidal thread
88105		THERMAG nuts, all-metal nuts with prevailing torque type hexagon nuts
88106		Rivet nuts
88108		Tee nuts with prong
88109		Square caged nuts
88118		Theft resistant nuts/pull-off nuts for one-way assembly
88153		RUV-REYHER captivity nuts for usage acc. to EC machinery directive
88215		Wing nuts, small "American" type
88301 88302 88305 88307 88308		ENSAT threaded inserts, short, long, setting tools for ENSAT threaded inserts
88330 88331- 88346		AMECOIL wire thread inserts, coarse thread, fine pitch thread, self locking, setting tools
88342 88344		AMECOIL assortment box with threaded inserts

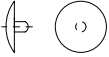



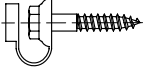





Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	85			
	157			
	157			
	157			
	162			
	164			
	166			
	44			
	167			
	167			
	169			
Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI



t

- 88914  Hexagon locking nuts with lock ribs
- 88934  Hexagon locking nuts, surface hardened
- 88951-88955  T-head thread plates/slide nuts for (Halfen-) profiles
- 88964  Sleeve nuts with internal thread

Non Standardized Accessories

- 88001  Caps with pin for chipboard screws for SPAX screws with inner hole
- 88002  Caps with pin for chipboard screws with Pozidriv cross recess Z
-  Decorative caps for cap screws
Article 88981 Ø 3.9
- 88004  Caps with pin for chipboard screws, for Phillips cross recess H
- 88005  Plastic sealings and caps for hexagon wood screws, 7 mm Ø for corrugated roof panels
- 88006  Caps for countersunk head screws with hexalobular/star socket
- 88008  Caps for tapping screws for facing
- 88023  Linch pins for tubes
- 88100  Washers "Article 1"
- 88101  Plain washers/"Cupal" washers

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	170			
Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI



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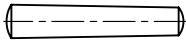
88102		Joint washers to use with cup head square neck bolts acc. to DIN 603
88104		Washers with large outside diameter
88119		LOCKTIX washers
88120 88121		SCHNORR safety washers with serrations on both sides S, VS
88122		Axle locking rings
88123 88124 88125 88126		TECKENTRUP lock washers for hexagon head screws and hexagon socket head cap screws
88129		TECKENTRUP lock washers with contact serrations
88130 88131		Lock rings
88132		NORD-LOCK washers, preassembled pairs standard = normal outer diameter SP = enlarged outer diameter SC = for HV fastenings X-series
88151 88152		RUV-REYHER captivity washers
88251		Ribe caps for hexagon socket head screws
88277		Sealing washers (convex metal washers with vulcanised sealing)
88494 88495		DUBO profile washers
88496		DUBO lock washers

Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
	162			
	164			
	164			
	165			
	165			
	165			
	165			
	166			
	167			
Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI



DIN 7

DIN	00001.912	RAZ 10
1	A 1	type B



**Taper pins,
taper 1 : 50,
B = turned**

Dimensions → **TI-115** Standard conversion → **TI-10**

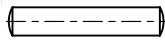
Steel → **S. 59**

DIN 1 → replaced by ISO 2339 (DIN EN ISO 22339)

∅ x length (without cone)

B 3	x	16	S	50	39,00A1
B 3	x	20	S	50	48,50A1
B 3	x	24	S	50	59,00A1
B 3	x	30	S	50	72,00A1
B 3	x	50	S	50	92,00A1
B 4	x	20	S	50	65,00A1
B 4	x	24	S	50	78,00A1
B 4	x	26	S	25	84,00A1
B 4	x	30	S	25	96,00A1
B 4	x	50	S	25	144,00A1
B 4	x	60	S	25	174,00A1
B 5	x	20	S	25	88,00A1
B 5	x	26	S	25	108,00A1
B 5	x	30	S	25	121,00A1
B 5	x	32	S	25	127,00A1
B 5	x	36	S	25	138,00A1
B 5	x	40	S	25	147,00A1
B 5	x	50	S	10	176,00A1
B 5	x	70	S	10	225,00A1
B 6	x	24	S	10	130,00A1
B 6	x	26	S	10	136,00A1
B 6	x	30	S	10	149,00A1
B 6	x	36	S	10	170,00A1
B 6	x	40	S	10	186,00A1
B 6	x	50	S	10	224,00A1
B 6	x	60	S	10	265,00A1
B 8	x	30	S	10	255,00A1
B 8	x	40	S	10	350,00A1
B 8	x	45	S	10	385,00A1
B 8	x	50	S	10	420,00A1
B 8	x	60	S	10	475,00A1
B 8	x	90	S	1	630,00A1
B 8	x	100	S	1	680,00A1
B 10	x	36	S	10	410,00A1
B 10	x	40	S	10	430,00A1
B 10	x	55	S	1	530,00A1
B 10	x	60	S	1	570,00A1
B 10	x	70	S	1	620,00A1
B 10	x	80	S	1	670,00A1
B 10	x	100	S	1	820,00A1

DIN	00007.910	RAZ 10
7	A 1	m6



**Parallel pins,
tolerance zone m6**

Dimensions → **TI-114** Standard conversion → **TI-10**

Mech. properties → **TI-224**

Steel → **S. 60**

DIN 7 → replaced by ISO 2338

∅ - tol. x length (without cone)

0,8 m6	x	4	S	100	9,70A1
0,8 m6	x	8	S	100	10,70A1
0,8 m6	x	10	S	100	11,10A1
1 m6	x	3	S	100	7,00A1
1 m6	x	4	S	100	7,20A1
1 m6	x	5	S	100	7,60A1
1 m6	x	6	S	100	7,80A1
1 m6	x	8	S	100	8,00A1
1 m6	x	10	S	100	8,30A1
1 m6	x	12	S	100	8,70A1
1,5 m6	x	3	S	100	7,80A1
1,5 m6	x	4	S	100	8,00A1
1,5 m6	x	5	S	100	8,20A1
1,5 m6	x	6	S	100	8,40A1
1,5 m6	x	8	S	100	8,90A1
1,5 m6	x	10	S	100	9,30A1
1,5 m6	x	12	S	100	9,70A1
1,5 m6	x	14	S	100	10,10A1
1,5 m6	x	16	S	100	10,70A1
1,5 m6	x	20	S	100	17,50A1
2 m6	x	3	S	100	8,20A1
2 m6	x	4	S	100	8,60A1
2 m6	x	5	S	100	8,80A1
2 m6	x	6	S	100	9,00A1
2 m6	x	8	S	100	9,90A1
2 m6	x	10	S	100	10,30A1
2 m6	x	12	S	100	10,70A1
2 m6	x	14	S	100	11,10A1
2 m6	x	16	S	100	11,60A1
2 m6	x	18	S	100	12,10A1
2 m6	x	20	S	100	13,10A1
2,5 m6	x	4	S	100	9,70A1
2,5 m6	x	5	S	100	10,00A1
2,5 m6	x	6	S	100	10,30A1
2,5 m6	x	8	S	100	10,70A1
2,5 m6	x	10	S	100	11,10A1
2,5 m6	x	12	S	100	11,70A1
2,5 m6	x	14	S	100	13,50A1
2,5 m6	x	16	S	100	14,60A1
2,5 m6	x	18	S	100	16,00A1
2,5 m6	x	20	S	100	16,60A1
2,5 m6	x	24	S	100	19,70A1
3 m6	x	4	S	100	12,10A1
3 m6	x	5	S	100	12,50A1
3 m6	x	6	S	100	12,90A1
3 m6	x	8	S	100	13,70A1
3 m6	x	10	S	100	14,20A1
3 m6	x	12	S	100	14,80A1
3 m6	x	14	S	100	15,60A1
3 m6	x	16	S	100	16,00A1
3 m6	x	18	S	50	18,70A1
3 m6	x	20	S	50	19,80A1
3 m6	x	24	S	50	22,50A1
3 m6	x	28	S	50	26,00A1
3 m6	x	30	S	50	29,00A1

3 m6	x	32	S	50	31,00A1
3 m6	x	40	S	50	55,00A1
3 m6	x	45	S	50	66,00A1
3 m6	x	50	S	50	78,00A1
3 m6	x	60	S	50	200,00A1
4 m6	x	5	S	50	17,30A1
4 m6	x	6	S	50	17,70A1
4 m6	x	8	S	50	18,80A1
4 m6	x	10	S	50	21,50A1
4 m6	x	12	S	50	23,50A1
4 m6	x	14	S	50	26,50A1
4 m6	x	16	S	50	27,50A1
4 m6	x	18	S	50	29,00A1
4 m6	x	20	S	50	32,00A1
4 m6	x	24	S	50	33,50A1
4 m6	x	26	S	50	36,00A1
4 m6	x	28	S	25	40,00A1
4 m6	x	32	S	25	45,50A1
4 m6	x	36	S	25	53,00A1
4 m6	x	40	S	25	56,00A1
4 m6	x	50	S	25	90,00A1
4 m6	x	60	S	25	132,00A1
5 m6	x	5	S	50	19,10A1
5 m6	x	6	S	50	19,20A1
5 m6	x	8	S	50	25,50A1
5 m6	x	10	S	50	26,00A1
5 m6	x	12	S	50	28,00A1
5 m6	x	14	S	50	29,50A1
5 m6	x	16	S	50	30,50A1
5 m6	x	18	S	25	36,00A1
5 m6	x	20	S	25	37,50A1
5 m6	x	24	S	25	40,50A1
5 m6	x	28	S	25	43,50A1
5 m6	x	30	S	25	46,00A1
5 m6	x	32	S	25	51,00A1
5 m6	x	36	S	25	56,00A1
5 m6	x	40	S	25	64,00A1
5 m6	x	45	S	25	74,00A1
5 m6	x	50	S	25	83,00A1
6 m6	x	6	S	50	32,50A1
6 m6	x	8	S	50	34,00A1
6 m6	x	10	S	50	36,00A1
6 m6	x	12	S	25	40,50A1
6 m6	x	14	S	25	42,00A1
6 m6	x	16	S	25	43,50A1
6 m6	x	18	S	25	44,50A1
6 m6	x	20	S	25	46,00A1
6 m6	x	24	S	25	59,00A1
6 m6	x	28	S	25	62,00A1
6 m6	x	30	S	25	71,00A1
6 m6	x	32	S	25	65,00A1
6 m6	x	36	S	25	69,00A1
6 m6	x	40	S	10	86,00A1
6 m6	x	45	S	10	92,00A1
6 m6	x	50	S	10	97,00A1
6 m6	x	55	S	10	105,00A1
6 m6	x	60	S	10	111,00A1
8 m6	x	10	S	10	61,00A1
8 m6	x	12	S	10	63,00A1
8 m6	x	14	S	10	66,00A1
8 m6	x	16	S	10	72,00A1
8 m6	x	18	S	10	76,00A1
8 m6	x	20	S	10	79,00A1
8 m6	x	24	S	10	83,00A1
8 m6	x	28	S	10	86,00A1
8 m6	x	30	S	10	94,00A1
8 m6	x	32	S	10	95,00A1
8 m6	x	36	S	10	120,00A1
8 m6	x	40	S	10	128,00A1
8 m6	x	45	S	10	136,00A1
8 m6	x	50	S	10	151,00A1
8 m6	x	55	S	10	167,00A1
8 m6	x	60	S	10	178,00A1
8 m6	x	70	S	1	209,00A1
8 m6	x	80	S	1	255,00A1

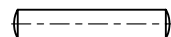


DIN 7

10 m6 x 10	S 10	91,00 A1
10 m6 x 12	S 10	94,00 A1
10 m6 x 14	S 10	97,00 A1
10 m6 x 16	S 10	100,00 A1
10 m6 x 18	S 10	105,00 A1
10 m6 x 20	S 10	130,00 A1
10 m6 x 24	S 10	140,00 A1
10 m6 x 28	S 10	157,00 A1
10 m6 x 32	S 10	171,00 A1
10 m6 x 36	S 10	182,00 A1
10 m6 x 40	S 10	193,00 A1
10 m6 x 45	S 10	208,00 A1
10 m6 x 50	S 10	236,00 A1
10 m6 x 55	S 10	260,00 A1
10 m6 x 60	S 10	275,00 A1
10 m6 x 70	S 10	310,00 A1
10 m6 x 80	S 10	350,00 A1
10 m6 x 90	S 10	390,00 A1
10 m6 x 100	S 10	480,00 A1
12 m6 x 16	S 10	198,00 A1
12 m6 x 18	S 10	220,00 A1
12 m6 x 20	S 10	236,00 A1
12 m6 x 24	S 10	243,00 A1
12 m6 x 30	S 10	305,00 A1
12 m6 x 32	S 10	345,00 A1
12 m6 x 40	S 10	415,00 A1
12 m6 x 45	S 10	470,00 A1
12 m6 x 50	S 10	510,00 A1
12 m6 x 55	S 10	560,00 A1
12 m6 x 60	S 10	600,00 A1
12 m6 x 70	S 10	710,00 A1
12 m6 x 80	S 10	780,00 A1
12 m6 x 90	S 10	870,00 A1
12 m6 x 100	S 10	950,00 A1
16 m6 x 20	S 10	590,00 A1
16 m6 x 24	S 10	610,00 A1
16 m6 x 28	S 10	680,00 A1
16 m6 x 32	S 10	840,00 A1
16 m6 x 36	S 10	1160,00 A1
16 m6 x 40	S 10	1250,00 A1
16 m6 x 45	S 10	1410,00 A1
16 m6 x 50	S 10	1540,00 A1
16 m6 x 55	S 10	1700,00 A1
16 m6 x 60	S 10	1820,00 A1
16 m6 x 70	S 10	2010,00 A1
16 m6 x 80	S 10	2150,00 A1
16 m6 x 90	S 10	2290,00 A1
16 m6 x 100	S 10	2410,00 A1

DIN 00007.940 RAZ 10

7 A 4 m6



Parallel pins, tolerance zone m6

Dimensions → TI-114 Standard conversion → TI-10

Mech. properties → TI-224

Steel → S. 60

DIN 7 → replaced by ISO 2338

∅ - tol. x length (without cone)

1 m6 x 3	S 100	11,40 A4
1 m6 x 4	S 100	11,40 A4
1 m6 x 5	S 100	11,40 A4
1 m6 x 6	S 100	11,90 A4
1 m6 x 8	S 100	12,60 A4
1 m6 x 10	S 100	12,70 A4

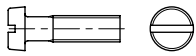
1 m6 x 12	S 100	12,70 A4
1,5 m6 x 3	S 100	12,80 A4
1,5 m6 x 4	S 100	12,80 A4
1,5 m6 x 5	S 100	12,80 A4
1,5 m6 x 6	S 100	13,20 A4
1,5 m6 x 8	S 100	13,20 A4
1,5 m6 x 10	S 100	14,10 A4
1,5 m6 x 12	S 100	14,60 A4
1,5 m6 x 14	S 100	15,30 A4
1,5 m6 x 16	S 100	15,80 A4
1,5 m6 x 18	S 100	22,30 A4
1,5 m6 x 20	S 100	24,10 A4
2 m6 x 4	S 100	13,50 A4
2 m6 x 5	S 100	14,00 A4
2 m6 x 6	S 100	14,10 A4
2 m6 x 8	S 100	14,70 A4
2 m6 x 10	S 100	15,60 A4
2 m6 x 12	S 100	16,70 A4
2 m6 x 14	S 100	17,70 A4
2 m6 x 16	S 100	19,00 A4
2 m6 x 18	S 100	22,30 A4
2 m6 x 20	S 100	24,10 A4
2 m6 x 24	S 100	27,50 A4
2,5 m6 x 5	S 100	14,70 A4
2,5 m6 x 6	S 100	15,60 A4
2,5 m6 x 8	S 100	16,70 A4
2,5 m6 x 10	S 100	17,70 A4
2,5 m6 x 12	S 100	19,00 A4
2,5 m6 x 14	S 100	19,90 A4
2,5 m6 x 16	S 100	21,00 A4
2,5 m6 x 20	S 100	24,10 A4
2,5 m6 x 24	S 100	27,50 A4
3 m6 x 4	S 100	16,40 A4
3 m6 x 5	S 100	14,10 A4
3 m6 x 6	S 100	18,30 A4
3 m6 x 8	S 100	19,90 A4
3 m6 x 10	S 100	21,30 A4
3 m6 x 12	S 100	23,30 A4
3 m6 x 14	S 100	26,00 A4
3 m6 x 16	S 100	27,50 A4
3 m6 x 18	S 50	31,00 A4
3 m6 x 20	S 50	33,50 A4
3 m6 x 24	S 50	36,50 A4
3 m6 x 28	S 50	38,50 A4
3 m6 x 30	S 50	41,00 A4
3 m6 x 32	S 50	42,00 A4
4 m6 x 5	S 50	24,70 A4
4 m6 x 6	S 50	27,50 A4
4 m6 x 8	S 50	31,00 A4
4 m6 x 10	S 50	34,50 A4
4 m6 x 12	S 50	38,00 A4
4 m6 x 14	S 50	41,00 A4
4 m6 x 16	S 50	44,00 A4
4 m6 x 18	S 25	51,00 A4
4 m6 x 20	S 25	54,00 A4
4 m6 x 24	S 25	61,00 A4
4 m6 x 28	S 25	68,00 A4
4 m6 x 30	S 25	71,00 A4
4 m6 x 32	S 25	74,00 A4
4 m6 x 36	S 25	82,00 A4
4 m6 x 40	S 25	91,00 A4
5 m6 x 6	S 50	30,50 A4
5 m6 x 8	S 50	34,50 A4
5 m6 x 10	S 50	39,00 A4
5 m6 x 12	S 50	41,00 A4
5 m6 x 14	S 25	44,50 A4
5 m6 x 16	S 25	47,00 A4
5 m6 x 18	S 25	51,00 A4
5 m6 x 20	S 25	54,00 A4
5 m6 x 24	S 25	61,00 A4
5 m6 x 28	S 25	68,00 A4
5 m6 x 30	S 25	71,00 A4
5 m6 x 32	S 25	75,00 A4
5 m6 x 36	S 25	81,00 A4
5 m6 x 40	S 25	89,00 A4

5 m6 x 45	S 25	98,00 A4
5 m6 x 50	S 25	106,00 A4
6 m6 x 6	S 50	58,00 A4
6 m6 x 8	S 25	47,50 A4
6 m6 x 10	S 25	49,00 A4
6 m6 x 12	S 25	53,00 A4
6 m6 x 14	S 25	58,00 A4
6 m6 x 16	S 25	61,00 A4
6 m6 x 18	S 10	75,00 A4
6 m6 x 20	S 10	79,00 A4
6 m6 x 24	S 10	87,00 A4
6 m6 x 28	S 10	99,00 A4
6 m6 x 30	S 10	100,00 A4
6 m6 x 32	S 10	105,00 A4
6 m6 x 36	S 10	115,00 A4
6 m6 x 40	S 10	125,00 A4
6 m6 x 45	S 10	135,00 A4
6 m6 x 50	S 10	146,00 A4
6 m6 x 55	S 10	156,00 A4
6 m6 x 60	S 10	167,00 A4
8 m6 x 10	S 10	82,00 A4
8 m6 x 12	S 10	88,00 A4
8 m6 x 14	S 10	96,00 A4
8 m6 x 16	S 10	102,00 A4
8 m6 x 18	S 10	109,00 A4
8 m6 x 20	S 10	116,00 A4
8 m6 x 24	S 10	129,00 A4
8 m6 x 28	S 10	142,00 A4
8 m6 x 30	S 10	147,00 A4
8 m6 x 32	S 10	155,00 A4
8 m6 x 36	S 10	169,00 A4
8 m6 x 40	S 10	185,00 A4
8 m6 x 45	S 10	202,00 A4
8 m6 x 50	S 10	218,00 A4
8 m6 x 55	S 10	236,00 A4
8 m6 x 60	S 1	265,00 A4
8 m6 x 70	S 1	315,00 A4
8 m6 x 80	S 1	350,00 A4
10 m6 x 12	S 10	156,00 A4
10 m6 x 14	S 10	156,00 A4
10 m6 x 16	S 10	157,00 A4
10 m6 x 18	S 10	160,00 A4
10 m6 x 20	S 10	168,00 A4
10 m6 x 24	S 10	188,00 A4
10 m6 x 28	S 10	210,00 A4
10 m6 x 30	S 10	220,00 A4
10 m6 x 32	S 10	231,00 A4
10 m6 x 36	S 10	270,00 A4
10 m6 x 40	S 10	290,00 A4
10 m6 x 45	S 10	315,00 A4
10 m6 x 50	S 10	345,00 A4
10 m6 x 55	S 10	370,00 A4
10 m6 x 60	S 10	395,00 A4
10 m6 x 70	S 10	475,00 A4
10 m6 x 80	S 1	520,00 A4
10 m6 x 90	S 1	580,00 A4
10 m6 x 100	S 1	620,00 A4
12 m6 x 14	S 10	350,00 A4
12 m6 x 16	S 10	280,00 A4
12 m6 x 18	S 10	300,00 A4
12 m6 x 20	S 10	325,00 A4
12 m6 x 24	S 10	350,00 A4
12 m6 x 28	S 10	395,00 A4
12 m6 x 32	S 10	440,00 A4
12 m6 x 36	S 10	485,00 A4
12 m6 x 40	S 10	550,00 A4
12 m6 x 45	S 10	600,00 A4
12 m6 x 50	S 10	650,00 A4
12 m6 x 55	S 10	720,00 A4
12 m6 x 60	S 10	760,00 A4
12 m6 x 70	S 10	880,00 A4
12 m6 x 80	S 10	1040,00 A4
12 m6 x 100	S 10	1270,00 A4
16 m6 x 20	S 10	580,00 A4
16 m6 x 24	S 10	640,00 A4



16 m6 x 28	S	10	750,00 A4
16 m6 x 32	S	10	830,00 A4
16 m6 x 36	S	10	890,00 A4
16 m6 x 40	S	10	950,00 A4
16 m6 x 45	S	10	1040,00 A4
16 m6 x 50	S	10	1110,00 A4
16 m6 x 55	S	10	1190,00 A4
16 m6 x 60	S	10	1290,00 A4
16 m6 x 70	S	10	1410,00 A4
16 m6 x 80	S	10	1560,00 A4
16 m6 x 90	S	10	1720,00 A4
16 m6 x 100	S	10	1870,00 A4

DIN	00084.914	RAZ 30
84	A 1	turned



Slotted cheese head screws

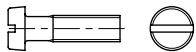
Dimensions → **TI-37** Standard conversion → **TI-11**
 Mech. properties → **TI-224**

Steel → **S. 61**
 Brass → **S. 565**

DIN 84 → replaced by ISO 1207 (compatible)

M 1,4 x 3	S	100	55,20 A1
M 1,4 x 4	S	100	56,20 A1
M 1,4 x 5	S	100	58,20 A1
M 1,4 x 6	S	100	61,80 A1
M 1,4 x 8	S	100	64,40 A1
M 1,4 x 10	S	100	68,50 A1
M 1,6 x 3	S	100	15,80 A1
M 1,6 x 4	S	100	11,90 A1
M 1,6 x 5	S	100	11,00 A1
M 1,6 x 6	S	100	10,40 A1
M 1,6 x 8	S	100	11,50 A1
M 1,6 x 10	S	100	12,70 A1
M 1,6 x 12	S	100	17,30 A1

DIN	00084.920	RAZ 30
84	A 2	



Slotted cheese head screws

Partly from l = 60mm partial thread

Dimensions → **TI-37** Standard conversion → **TI-11**
 Mech. properties → **TI-224**

Steel → **S. 61**
 Brass, plastic → **S. 565**

DIN 84 → replaced by ISO 1207 (compatible)

M 1 x 2	S	2000	150,00 A2
M 1 x 3	S	2000	150,00 A2
M 1 x 4	S	2000	150,00 A2
M 1 x 5	S	2000	150,00 A2
M 1 x 6	S	2000	150,00 A2
M 1 x 8	S	2000	175,00 A2
M 1 x 10	S	2000	195,00 A2
M 1,2 x 2	S	2000	150,00 A2

M 1,2 x 3	S	2000	150,00 A2
M 1,2 x 4	S	2000	150,00 A2
M 1,2 x 5	S	2000	150,00 A2
M 1,2 x 6	S	2000	175,00 A2
M 1,2 x 6	S	2000	195,00 A2
M 1,2 x 10	S	2000	225,00 A2
M 1,2 x 12	S	2000	255,00 A2
M 1,4 x 2	S	2000	150,00 A2
M 1,4 x 3	S	2000	150,00 A2
M 1,4 x 4	S	2000	150,00 A2
M 1,4 x 5	S	2000	150,00 A2
M 1,4 x 6	S	2000	175,00 A2
M 1,4 x 8	S	2000	195,00 A2
M 1,4 x 10	S	2000	225,00 A2
M 1,4 x 12	S	2000	255,00 A2
M 1,6 x 2	S	2000	150,00 A2
M 1,6 x 3	S	2000	150,00 A2
M 1,6 x 4	S	2000	150,00 A2
M 1,6 x 5	S	2000	150,00 A2
M 1,6 x 6	S	2000	175,00 A2
M 1,6 x 8	S	2000	195,00 A2
M 1,6 x 10	S	2000	225,00 A2
M 1,6 x 12	S	2000	255,00 A2
M 1,6 x 16	S	2000	295,00 A2
M 2 x 3	S	1000	3,90 A2
M 2 x 4	S	1000	3,80 A2
M 2 x 5	S	1000	3,85 A2
M 2 x 6	S	1000	3,90 A2
M 2 x 8	S	1000	4,10 A2
M 2 x 10	S	1000	4,45 A2
M 2 x 12	S	1000	5,00 A2
M 2 x 16	S	1000	5,40 A2
M 2 x 20	S	1000	9,00 A2
M 2,5 x 3	S	1000	3,90 A2
M 2,5 x 4	S	1000	3,80 A2
M 2,5 x 5	S	1000	3,85 A2
M 2,5 x 6	S	1000	3,90 A2
M 2,5 x 8	S	1000	4,10 A2
M 2,5 x 10	S	1000	4,45 A2
M 2,5 x 12	S	1000	5,00 A2
M 2,5 x 16	S	1000	5,40 A2
M 2,5 x 18	S	1000	10,00 A2
M 2,5 x 20	S	1000	7,75 A2
M 2,5 x 22	S	1000	13,29 A2
M 2,5 x 25	S	1000	9,30 A2
M 2,5 x 30	S	1000	15,00 A2
M 2,5 x 35	S	1000	27,00 A2
M 2,5 x 40	S	1000	51,00 A2
M 3 x 3	S	1000	10,00 A2
M 3 x 4	S	1000	6,10 A2
M 3 x 5	S	1000	4,10 A2
M 3 x 5	K	200	5,10 A2
M 3 x 6	S	1000	2,75 A2
M 3 x 6	K	200	3,75 A2
M 3 x 8	S	1000	2,40 A2
M 3 x 8	K	200	3,40 A2
M 3 x 10	S	1000	2,50 A2
M 3 x 10	K	200	3,50 A2
M 3 x 12	S	1000	2,70 A2
M 3 x 12	K	200	3,70 A2
M 3 x 14	S	1000	3,90 A2
M 3 x 14	K	200	4,90 A2
M 3 x 16	S	1000	3,00 A2
M 3 x 16	K	200	4,00 A2
M 3 x 18	S	1000	4,30 A2
M 3 x 18	K	200	5,30 A2
M 3 x 20	S	1000	3,30 A2
M 3 x 20	K	200	4,30 A2
M 3 x 22	S	1000	5,85 A2
M 3 x 22	K	200	6,85 A2
M 3 x 25	S	1000	3,80 A2
M 3 x 25	K	200	4,80 A2
M 3 x 30	S	1000	6,35 A2
M 3 x 30	K	200	7,35 A2
M 3 x 35	S	1000	9,25 A2

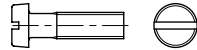
M 3 x 40	K	200	12,55 A2
M 3 x 45	S	500	18,00 A2
M 3 x 50	K	200	36,00 A2
M 3 x 55	K	200	70,00 A2
M 3,5 x 6	K	200	20,00 A2
M 3,5 x 8	K	200	16,15 A2
M 3,5 x 10	K	200	15,95 A2
M 3,5 x 12	K	200	16,85 A2
M 3,5 x 16	K	200	17,85 A2
M 3,5 x 20	K	200	21,65 A2
M 3,5 x 25	K	200	32,50 A2
M 4 x 4	K	200	11,50 A2
M 4 x 5	S	1000	6,60 A2
M 4 x 5	K	200	7,60 A2
M 4 x 6	S	1000	4,30 A2
M 4 x 6	K	200	5,30 A2
M 4 x 8	S	1000	4,30 A2
M 4 x 8	K	200	5,30 A2
M 4 x 10	S	1000	3,50 A2
M 4 x 10	K	200	4,50 A2
M 4 x 12	S	1000	3,80 A2
M 4 x 12	K	200	4,80 A2
M 4 x 14	S	1000	5,60 A2
M 4 x 16	S	1000	4,30 A2
M 4 x 16	K	200	5,30 A2
M 4 x 18	S	1000	6,15 A2
M 4 x 18	K	200	7,15 A2
M 4 x 20	S	1000	4,70 A2
M 4 x 20	K	200	5,70 A2
M 4 x 22	K	200	9,15 A2
M 4 x 25	S	500	5,75 A2
M 4 x 25	K	200	6,75 A2
M 4 x 30	S	500	6,60 A2
M 4 x 30	K	200	7,60 A2
M 4 x 35	S	500	11,50 A2
M 4 x 35	K	100	12,15 A2
M 4 x 40	K	100	15,05 A2
M 4 x 45	K	100	15,05 A2
M 4 x 50	K	100	21,45 A2
M 4 x 55	K	100	30,00 A2
M 4 x 60	K	100	29,05 A2
M 4 x 70	K	100	34,75 A2
M 4 x 80	K	100	43,00 A2
M 4 x 90	K	100	60,50 A2
M 4 x 100	K	100	87,00 A2
M 5 x 6	S	500	9,00 A2
M 5 x 8	S	500	6,35 A2
M 5 x 8	K	200	7,35 A2
M 5 x 10	S	500	5,25 A2
M 5 x 10	K	200	6,25 A2
M 5 x 12	S	500	5,75 A2
M 5 x 12	K	200	6,75 A2
M 5 x 14	K	200	8,40 A2
M 5 x 16	S	500	6,40 A2
M 5 x 16	K	200	7,40 A2
M 5 x 18	S	500	9,45 A2
M 5 x 18	K	200	10,45 A2
M 5 x 20	S	500	7,25 A2
M 5 x 20	K	200	8,25 A2
M 5 x 22	K	200	8,95 A2
M 5 x 25	S	500	8,10 A2
M 5 x 25	K	200	9,10 A2
M 5 x 30	S	500	9,95 A2
M 5 x 30	K	200	10,95 A2
M 5 x 35	S	200	10,90 A2
M 5 x 35	K	100	12,95 A2
M 5 x 40	S	200	14,80 A2
M 5 x 40	K	100	16,85 A2
M 5 x 45	K	100	19,05 A2
M 5 x 50	K	100	23,65 A2
M 5 x 55	K	100	37,45 A2
M 5 x 60	K	100	37,45 A2
M 5 x 70	K	100	40,35 A2
M 5 x 80	K	100	43,45 A2
M 5 x 90	K	100	62,00 A2



DIN 84

M 5	x	100	S 100	127,00 A2
M 6	x	8	K 100	10,30 A2
M 6	x	10	S 200	8,25 A2
M 6	x	10	K 100	10,30 A2
M 6	x	12	S 200	7,05 A2
M 6	x	12	K 100	9,10 A2
M 6	x	16	S 200	7,95 A2
M 6	x	16	K 100	10,00 A2
M 6	x	18	S 200	11,40 A2
M 6	x	18	K 100	13,45 A2
M 6	x	20	S 200	8,70 A2
M 6	x	20	K 100	10,75 A2
M 6	x	25	S 200	9,95 A2
M 6	x	25	K 100	12,00 A2
M 6	x	30	S 200	11,30 A2
M 6	x	30	K 100	13,35 A2
M 6	x	35	S 100	12,80 A2
M 6	x	35	K 50	16,90 A2
M 6	x	40	S 100	14,40 A2
M 6	x	40	K 50	18,50 A2
M 6	x	45	S 100	17,80 A2
M 6	x	45	K 50	21,90 A2
M 6	x	50	K 50	35,20 A2
M 6	x	60	K 50	43,00 A2
M 6	x	70	K 50	47,50 A2
M 6	x	75	K 50	78,00 A2
M 6	x	80	K 50	52,10 A2
M 6	x	90	K 50	56,70 A2
M 6	x	100	K 50	61,30 A2
M 8	x	10	K 50	35,00 A2
M 8	x	12	S 100	22,90 A2
M 8	x	12	K 50	27,00 A2
M 8	x	16	S 100	20,90 A2
M 8	x	16	K 50	25,00 A2
M 8	x	20	S 100	21,50 A2
M 8	x	20	K 50	25,60 A2
M 8	x	25	S 100	22,90 A2
M 8	x	25	K 50	27,00 A2
M 8	x	30	S 100	25,60 A2
M 8	x	30	K 50	29,70 A2
M 8	x	35	S 100	30,30 A2
M 8	x	35	K 50	34,40 A2
M 8	x	40	S 100	35,00 A2
M 8	x	40	K 50	39,10 A2
M 8	x	50	S 100	45,80 A2
M 8	x	50	K 50	49,90 A2
M 8	x	60	K 50	60,80 A2
M 8	x	70	K 50	71,00 A2
M 8	x	80	K 50	77,65 A2
M 8	x	90	K 50	85,90 A2
M 8	x	100	K 50	93,00 A2
M 10	x	12	K 50	50,00 A2
M 10	x	16	K 50	51,60 A2
M 10	x	20	K 50	38,30 A2
M 10	x	25	K 50	42,40 A2
M 10	x	30	K 50	46,00 A2
M 10	x	35	K 50	51,60 A2
M 10	x	40	K 50	55,70 A2
M 10	x	45	K 50	55,70 A2
M 10	x	50	K 50	78,20 A2
M 10	x	60	K 50	102,00 A2
M 10	x	75	K 25	115,00 A2
M 10	x	80	K 25	124,00 A2
M 10	x	90	K 25	135,00 A2
M 10	x	100	K 25	147,00 A2

DIN	00084.940	RAZ 30
84	A 4	



Slotted cheese head screws

Partly from l = 60mm partial thread

Dimensions → TI-37 Standard conversion → TI-11
Mech. properties → TI-224

Steel → S. 61
Brass, plastic → S. 565

DIN 84 → replaced by ISO 1207 (compatible)

M 2	x	3	S 1000	3,90 A4
M 2	x	3	K 200	4,90 A4
M 2	x	4	S 1000	3,80 A4
M 2	x	4	K 200	4,80 A4
M 2	x	5	S 1000	3,85 A4
M 2	x	5	K 200	4,85 A4
M 2	x	6	S 1000	3,90 A4
M 2	x	6	K 200	4,90 A4
M 2	x	8	S 1000	4,10 A4
M 2	x	8	K 200	5,10 A4
M 2	x	10	S 1000	4,45 A4
M 2	x	10	K 200	5,45 A4
M 2	x	12	S 1000	5,00 A4
M 2	x	12	K 200	6,00 A4
M 2	x	16	S 1000	5,45 A4
M 2	x	16	K 200	6,45 A4
M 2	x	20	S 1000	7,80 A4
M 2	x	20	K 200	8,80 A4
M 2	x	25	K 200	15,00 A4
M 2,5	x	3	S 1000	3,90 A4
M 2,5	x	3	K 200	4,90 A4
M 2,5	x	4	S 1000	3,80 A4
M 2,5	x	4	K 200	4,80 A4
M 2,5	x	5	S 1000	3,85 A4
M 2,5	x	5	K 200	4,85 A4
M 2,5	x	6	S 1000	3,90 A4
M 2,5	x	6	K 200	4,90 A4
M 2,5	x	8	S 1000	4,10 A4
M 2,5	x	8	K 200	5,10 A4
M 2,5	x	10	S 1000	4,45 A4
M 2,5	x	10	K 200	5,45 A4
M 2,5	x	12	S 1000	5,00 A4
M 2,5	x	12	K 200	6,00 A4
M 2,5	x	14	K 200	9,10 A4
M 2,5	x	16	S 1000	5,45 A4
M 2,5	x	16	K 200	6,45 A4
M 2,5	x	18	K 200	8,75 A4
M 2,5	x	20	S 1000	7,75 A4
M 2,5	x	20	K 200	8,75 A4
M 2,5	x	22	K 200	16,85 A4
M 2,5	x	25	K 200	17,75 A4
M 3	x	3	S 1000	10,70 A4
M 3	x	3	K 200	11,70 A4
M 3	x	4	S 1000	6,85 A4
M 3	x	4	K 200	7,85 A4
M 3	x	5	S 1000	5,45 A4
M 3	x	5	K 200	6,45 A4
M 3	x	6	S 1000	3,45 A4
M 3	x	6	K 200	4,45 A4
M 3	x	8	S 1000	3,15 A4
M 3	x	8	K 200	4,15 A4
M 3	x	10	S 1000	2,90 A4
M 3	x	10	K 200	3,90 A4
M 3	x	12	S 1000	3,20 A4

M 3	x	12	K 200	4,20 A4
M 3	x	14	K 200	4,50 A4
M 3	x	16	S 1000	3,50 A4
M 3	x	16	K 200	4,50 A4
M 3	x	18	K 200	5,95 A4
M 3	x	20	S 1000	3,95 A4
M 3	x	20	K 200	4,95 A4
M 3	x	22	K 200	8,95 A4
M 3	x	25	S 1000	5,30 A4
M 3	x	25	K 200	6,30 A4
M 3	x	30	S 1000	7,40 A4
M 3	x	30	K 200	8,40 A4
M 3	x	35	S 500	13,20 A4
M 3	x	35	K 100	15,25 A4
M 3	x	40	S 500	15,90 A4
M 3	x	40	K 100	17,95 A4
M 3	x	50	S 500	28,90 A4
M 3	x	50	K 100	30,95 A4
M 3	x	55	K 100	46,45 A4
M 3	x	60	K 100	46,45 A4
M 3,5	x	6	K 100	25,00 A4
M 3,5	x	8	K 200	19,55 A4
M 3,5	x	10	K 200	19,25 A4
M 3,5	x	20	S 500	28,00 A4
M 3,5	x	20	K 200	30,00 A4
M 4	x	4	K 200	12,75 A4
M 4	x	5	S 1000	7,55 A4
M 4	x	5	K 200	8,55 A4
M 4	x	6	S 1000	5,05 A4
M 4	x	6	K 200	6,05 A4
M 4	x	8	S 1000	4,90 A4
M 4	x	8	K 200	5,90 A4
M 4	x	10	S 1000	4,30 A4
M 4	x	10	K 200	5,30 A4
M 4	x	12	S 1000	4,60 A4
M 4	x	12	K 200	5,60 A4
M 4	x	16	S 1000	5,30 A4
M 4	x	16	K 200	6,30 A4
M 4	x	18	S 1000	7,50 A4
M 4	x	18	K 200	8,50 A4
M 4	x	20	S 1000	5,75 A4
M 4	x	20	K 200	6,75 A4
M 4	x	22	K 200	11,20 A4
M 4	x	25	S 500	7,05 A4
M 4	x	25	K 200	8,05 A4
M 4	x	30	S 500	8,00 A4
M 4	x	30	K 200	9,00 A4
M 4	x	35	S 500	11,40 A4
M 4	x	35	K 100	13,45 A4
M 4	x	40	S 500	14,10 A4
M 4	x	40	K 100	16,15 A4
M 4	x	45	K 100	18,85 A4
M 4	x	50	S 500	19,90 A4
M 4	x	50	K 100	21,95 A4
M 4	x	55	K 100	34,25 A4
M 4	x	60	K 100	34,25 A4
M 4	x	70	K 100	42,15 A4
M 4	x	80	K 100	44,95 A4
M 5	x	6	S 500	8,70 A4
M 5	x	6	K 200	9,70 A4
M 5	x	8	S 500	8,40 A4
M 5	x	8	K 200	9,40 A4
M 5	x	10	S 500	7,40 A4
M 5	x	10	K 200	8,40 A4
M 5	x	12	S 500	7,25 A4
M 5	x	12	K 200	8,25 A4
M 5	x	16	S 500	8,10 A4
M 5	x	16	K 200	9,10 A4
M 5	x	18	K 200	13,95 A4
M 5	x	20	S 500	9,15 A4
M 5	x	20	K 200	10,15 A4
M 5	x	25	S 500	10,20 A4
M 5	x	25	K 200	11,20 A4
M 5	x	30	S 500	12,50 A4
M 5	x	30	K 200	13,50 A4



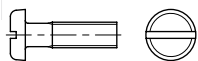
DIN 85

M 5	x	35	S	200	13,80 A4
M 5	x	35	K	100	15,85 A4
M 5	x	40	S	200	20,60 A4
M 5	x	40	K	100	22,65 A4
M 5	x	45	K	100	23,95 A4
M 5	x	50	S	200	23,30 A4
M 5	x	50	K	100	25,35 A4
M 5	x	60	K	100	44,35 A4
M 5	x	70	K	100	51,05 A4
M 5	x	80	K	100	57,75 A4
M 5	x	100	K	100	71,05 A4
M 6	x	8	S	200	10,90 A4
M 6	x	8	K	100	12,95 A4
M 6	x	10	S	200	10,40 A4
M 6	x	10	K	100	12,45 A4
M 6	x	12	S	200	9,30 A4
M 6	x	12	K	100	11,35 A4
M 6	x	16	S	200	10,40 A4
M 6	x	16	K	100	12,45 A4
M 6	x	18	K	100	17,05 A4
M 6	x	20	S	200	11,50 A4
M 6	x	20	K	100	13,55 A4
M 6	x	22	K	100	19,15 A4
M 6	x	25	S	200	13,10 A4
M 6	x	25	K	100	15,15 A4
M 6	x	30	S	200	15,00 A4
M 6	x	30	K	100	17,05 A4
M 6	x	35	S	100	17,10 A4
M 6	x	35	K	50	21,20 A4
M 6	x	40	S	100	25,10 A4
M 6	x	40	K	50	29,20 A4
M 6	x	45	K	50	33,00 A4
M 6	x	50	S	100	31,70 A4
M 6	x	50	K	50	35,80 A4
M 6	x	60	K	50	47,40 A4
M 6	x	70	K	50	60,80 A4
M 6	x	75	K	50	71,00 A4
M 6	x	80	K	50	71,00 A4
M 8	x	10	S	100	35,80 A4
M 8	x	10	K	50	39,90 A4
M 8	x	12	S	100	27,90 A4
M 8	x	12	K	50	32,00 A4
M 8	x	16	S	100	24,50 A4
M 8	x	16	K	50	28,60 A4
M 8	x	20	S	100	25,70 A4
M 8	x	20	K	50	29,80 A4
M 8	x	25	S	100	28,20 A4
M 8	x	25	K	50	32,30 A4
M 8	x	30	S	100	31,20 A4
M 8	x	30	K	50	35,30 A4
M 8	x	35	S	100	37,40 A4
M 8	x	35	K	50	41,50 A4
M 8	x	40	S	100	41,70 A4
M 8	x	40	K	50	45,80 A4
M 8	x	45	K	50	54,85 A4
M 8	x	50	S	100	59,30 A4
M 8	x	50	K	50	63,40 A4
M 8	x	55	K	50	76,10 A4
M 8	x	60	K	50	76,10 A4
M 8	x	70	K	50	103,00 A4
M 10	x	16	K	50	70,30 A4
M 10	x	20	K	50	48,00 A4
M 10	x	25	K	50	52,10 A4
M 10	x	30	K	50	57,20 A4
M 10	x	35	K	50	63,40 A4
M 10	x	40	K	50	69,00 A4
M 10	x	50	K	50	98,10 A4
M 10	x	60	K	50	119,00 A4
M 10	x	65	K	50	165,00 A4
M 10	x	70	K	50	165,00 A4

DIN 00085.920 RAZ 30

85

A 2



Slotted pan head screws

Dimensions → TI-37 Standard conversion → TI-11
Mech. properties → TI-224

Steel → S. 63
Brass, plastic → S. 566

DIN 85 → replaced by ISO 1580 (compatible)

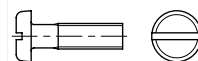
M 3	x	4	S	1000	9,00 A2
M 3	x	5	S	1000	6,10 A2
M 3	x	6	S	1000	3,35 A2
M 3	x	6	K	200	4,35 A2
M 3	x	8	S	1000	3,10 A2
M 3	x	8	K	200	4,10 A2
M 3	x	10	S	1000	2,95 A2
M 3	x	10	K	200	3,95 A2
M 3	x	12	S	1000	3,20 A2
M 3	x	12	K	200	4,20 A2
M 3	x	14	S	1000	3,50 A2
M 3	x	16	S	1000	3,60 A2
M 3	x	16	K	200	4,60 A2
M 3	x	20	S	1000	4,00 A2
M 3	x	20	K	200	5,00 A2
M 3	x	25	K	200	4,85 A2
M 3	x	30	S	500	9,00 A2
M 3	x	35	K	200	6,90 A2
M 4	x	5	S	1000	9,00 A2
M 4	x	5	K	200	10,95 A2
M 4	x	6	S	1000	6,00 A2
M 4	x	8	S	1000	4,80 A2
M 4	x	8	K	200	5,80 A2
M 4	x	10	S	1000	4,35 A2
M 4	x	10	K	200	5,35 A2
M 4	x	12	S	1000	4,35 A2
M 4	x	12	K	200	5,35 A2
M 4	x	16	S	1000	4,80 A2
M 4	x	16	K	200	5,80 A2
M 4	x	20	S	1000	5,00 A2
M 4	x	20	K	200	6,00 A2
M 4	x	25	S	500	6,00 A2
M 4	x	25	K	200	7,00 A2
M 4	x	30	S	500	6,70 A2
M 4	x	35	S	500	9,00 A2
M 4	x	40	S	500	11,00 A2
M 4	x	50	S	500	18,85 A2
M 4	x	60	S	500	22,20 A2
M 5	x	6	S	500	11,70 A2
M 5	x	6	K	100	13,75 A2
M 5	x	8	S	500	10,20 A2
M 5	x	8	K	200	11,20 A2
M 5	x	10	S	500	8,00 A2
M 5	x	10	K	200	9,00 A2
M 5	x	12	S	500	6,00 A2
M 5	x	12	K	200	7,00 A2
M 5	x	16	S	500	6,70 A2
M 5	x	16	K	200	7,70 A2
M 5	x	20	S	500	7,45 A2
M 5	x	20	K	200	8,45 A2
M 5	x	25	S	500	8,50 A2
M 5	x	25	K	100	10,55 A2
M 5	x	30	S	500	10,10 A2
M 5	x	30	K	100	12,15 A2
M 5	x	35	S	500	14,10 A2
M 5	x	40	K	100	18,15 A2

M 5	x	45	S	500	19,65 A2
M 5	x	50	S	500	24,30 A2
M 5	x	60	S	500	28,80 A2
M 5	x	70	S	200	35,00 A2
M 5	x	80	S	200	50,00 A2
M 6	x	8	S	500	12,00 A2
M 6	x	10	S	200	8,95 A2
M 6	x	10	K	100	11,00 A2
M 6	x	12	S	200	8,20 A2
M 6	x	12	K	100	10,25 A2
M 6	x	16	S	200	8,80 A2
M 6	x	16	K	100	10,85 A2
M 6	x	20	S	200	9,75 A2
M 6	x	20	K	100	11,80 A2
M 6	x	25	S	200	10,90 A2
M 6	x	25	K	100	12,95 A2
M 6	x	30	S	200	12,70 A2
M 6	x	30	K	100	14,75 A2
M 6	x	35	S	200	17,50 A2
M 6	x	40	K	100	18,25 A2
M 6	x	45	K	100	20,95 A2
M 6	x	50	K	50	42,70 A2
M 6	x	60	S	200	65,00 A2
M 6	x	70	S	200	78,00 A2
M 6	x	80	S	200	95,00 A2

DIN 00085.940 RAZ 30

85

A 4



Slotted pan head screws

Dimensions → TI-37 Standard conversion → TI-11
Mech. properties → TI-224

Steel → S. 63
Brass, plastic → S. 566

DIN 85 → replaced by ISO 1580 (compatible)

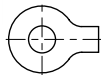
M 2	x	3	S	1000	35,00 A4
M 2	x	4	S	1000	20,00 A4
M 2	x	5	S	1000	21,00 A4
M 2	x	6	S	1000	17,00 A4
M 2	x	8	S	1000	18,00 A4
M 2	x	10	S	1000	19,00 A4
M 2	x	12	S	1000	20,00 A4
M 2	x	16	S	1000	25,00 A4
M 2	x	20	S	1000	28,00 A4
M 2	x	25	S	1000	36,00 A4
M 2	x	30	S	1000	45,00 A4
M 2,5	x	3	S	1000	40,00 A4
M 2,5	x	4	S	1000	32,00 A4
M 2,5	x	5	S	1000	28,00 A4
M 2,5	x	6	S	1000	29,00 A4
M 2,5	x	8	S	1000	30,00 A4
M 2,5	x	10	S	1000	31,00 A4
M 2,5	x	12	S	1000	32,00 A4
M 2,5	x	16	S	1000	35,00 A4
M 2,5	x	20	S	1000	42,00 A4
M 2,5	x	25	S	1000	50,00 A4
M 2,5	x	30	S	1000	65,00 A4
M 3	x	5	S	1000	6,90 A4
M 3	x	5	K	200	7,90 A4
M 3	x	6	S	1000	4,30 A4
M 3	x	6	K	200	5,30 A4
M 3	x	8	S	1000	4,00 A4
M 3	x	8	K	200	5,00 A4
M 3	x	10	S	1000	3,80 A4
M 3	x	10	K	200	4,80 A4



DIN 85

M 3	x	12	S 1000	4,00 A 4
M 3	x	12	K 200	5,00 A 4
M 3	x	16	S 1000	4,60 A 4
M 3	x	16	K 200	5,60 A 4
M 3	x	20	S 1000	4,90 A 4
M 3	x	20	K 200	5,90 A 4
M 3	x	25	K 100	6,30 A 4
M 3	x	30	K 100	8,35 A 4
M 4	x	5	S 1000	11,30 A 4
M 4	x	5	K 200	12,30 A 4
M 4	x	6	S 1000	6,40 A 4
M 4	x	6	K 200	7,40 A 4
M 4	x	8	S 1000	6,10 A 4
M 4	x	8	K 200	7,10 A 4
M 4	x	10	S 1000	5,60 A 4
M 4	x	10	K 200	6,60 A 4
M 4	x	12	S 1000	5,50 A 4
M 4	x	12	K 200	6,50 A 4
M 4	x	16	S 1000	6,25 A 4
M 4	x	16	K 200	7,25 A 4
M 4	x	20	S 1000	7,15 A 4
M 4	x	20	K 200	8,15 A 4
M 4	x	25	K 200	9,20 A 4
M 4	x	30	K 100	11,65 A 4
M 4	x	35	K 100	17,45 A 4
M 4	x	40	K 100	19,65 A 4
M 4	x	45	K 100	25,65 A 4
M 4	x	50	K 100	23,60 A 4
M 5	x	8	S 500	11,50 A 4
M 5	x	8	K 200	13,55 A 4
M 5	x	10	S 500	9,30 A 4
M 5	x	10	K 200	10,30 A 4
M 5	x	12	S 500	8,85 A 4
M 5	x	12	K 200	9,85 A 4
M 5	x	16	S 500	9,80 A 4
M 5	x	16	K 200	10,80 A 4
M 5	x	20	S 500	11,20 A 4
M 5	x	20	K 200	12,20 A 4
M 5	x	25	S 500	12,60 A 4
M 5	x	25	K 100	14,65 A 4
M 5	x	30	S 500	15,10 A 4
M 5	x	30	K 100	17,15 A 4
M 5	x	40	K 100	23,25 A 4
M 5	x	50	K 100	48,35 A 4
M 6	x	8	K 100	19,85 A 4
M 6	x	10	S 200	12,60 A 4
M 6	x	10	K 100	14,65 A 4
M 6	x	12	S 200	11,40 A 4
M 6	x	12	K 100	13,45 A 4
M 6	x	16	S 200	12,50 A 4
M 6	x	16	K 100	14,55 A 4
M 6	x	20	S 200	14,10 A 4
M 6	x	20	K 100	16,15 A 4
M 6	x	25	S 200	15,50 A 4
M 6	x	25	K 100	17,55 A 4
M 6	x	30	S 200	19,60 A 4
M 6	x	30	K 100	21,65 A 4
M 6	x	35	K 50	22,85 A 4
M 6	x	40	K 50	24,90 A 4
M 6	x	50	K 50	55,20 A 4
M 8	x	10	K 50	46,40 A 4
M 8	x	12	K 50	44,50 A 4
M 8	x	16	K 50	44,50 A 4
M 8	x	20	K 50	44,50 A 4
M 8	x	25	K 50	48,80 A 4

~DIN	00093.920	RAZ 40
93	A 2	



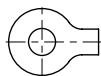
Tap washers with a long tap

Dimensions → TI-88

Steel → S. 64

4,3	S	50	63,00 A 2
5,3	S	50	49,00 A 2
6,4	S	50	57,00 A 2
8,4	S	25	75,00 A 2
10,5	S	25	95,00 A 2
13	S	25	118,00 A 2
17	S	10	172,00 A 2
21	S	10	207,00 A 2
25	S	10	265,00 A 2
28	S	1	375,00 A 2
31	S	1	475,00 A 2
37	S	1	780,00 A 2

~DIN	00093.940	RAZ 40
93	A 4	



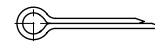
Tap washers with a long tap

Dimensions → TI-88

Steel → S. 64

5,3	S	50	67,00 A 4
6,4	S	50	77,00 A 4
8,4	S	25	101,00 A 4
10,5	S	25	130,00 A 4
13	S	25	164,00 A 4
17	S	10	255,00 A 4
21	S	10	295,00 A 4
25	S	10	370,00 A 4
28	S	1	460,00 A 4
31	S	1	660,00 A 4
37	S	1	1010,00 A 4
43	S	1	1170,00 A 4

DIN	00094.300	RAZ 40
94	1.4300/A 2	



Split pins

Dimensions → TI-120 Standard conversion → TI-10

Steel → S. 65

Brass, copper → S. 566

DIN 94 → replaced by ISO 1234

Nominal Ø (= drilling Ø) x length

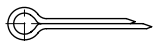
1	x	8	S 1000	3,60 A 2
1	x	10	S 1000	3,60 A 2
1	x	16	S 1000	3,60 A 2
1	x	20	S 1000	3,75 A 2
1	x	25	S 1000	4,40 A 2
1	x	32	S 1000	6,00 A 2
1,6	x	8	S 1000	4,25 A 2
1,6	x	10	S 1000	4,25 A 2
1,6	x	12	S 1000	4,25 A 2
1,6	x	16	S 1000	4,25 A 2
1,6	x	20	S 1000	4,45 A 2
1,6	x	25	S 1000	5,20 A 2
1,6	x	32	S 1000	6,00 A 2
2	x	10	S 1000	5,80 A 2
2	x	12	S 1000	5,80 A 2
2	x	14	S 1000	5,80 A 2
2	x	16	S 1000	5,80 A 2
2	x	20	S 1000	6,20 A 2
2	x	25	S 1000	7,20 A 2
2	x	32	S 1000	8,60 A 2
2	x	40	S 1000	10,00 A 2
2,5	x	12	S 500	9,70 A 2
2,5	x	16	S 500	9,70 A 2
2,5	x	20	S 500	10,50 A 2
2,5	x	25	S 500	12,30 A 2
2,5	x	32	S 500	14,80 A 2
2,5	x	36	S 500	16,30 A 2
2,5	x	40	S 500	17,80 A 2
2,5	x	45	S 500	19,60 A 2
2,5	x	50	S 500	21,40 A 2
3,2	x	16	S 500	13,60 A 2
3,2	x	20	S 500	14,60 A 2
3,2	x	25	S 500	16,90 A 2
3,2	x	32	S 500	20,30 A 2
3,2	x	36	S 500	22,20 A 2
3,2	x	40	S 500	24,20 A 2
3,2	x	45	S 500	27,00 A 2
3,2	x	50	S 500	29,00 A 2
4	x	20	S 500	23,00 A 2
4	x	25	S 500	27,00 A 2
4	x	28	S 500	28,00 A 2
4	x	32	S 500	32,50 A 2
4	x	36	S 500	35,50 A 2
4	x	40	S 500	38,50 A 2
4	x	45	S 500	42,00 A 2
4	x	50	S 500	46,00 A 2
4	x	63	S 500	60,00 A 2
5	x	25	S 250	39,50 A 2
5	x	28	S 250	40,00 A 2
5	x	32	S 250	47,50 A 2
5	x	36	S 250	52,00 A 2
5	x	40	S 250	56,00 A 2
5	x	45	S 250	62,00 A 2
5	x	50	S 250	67,00 A 2
5	x	56	S 250	74,00 A 2
5	x	63	S 250	82,00 A 2
5	x	71	S 250	91,00 A 2



DIN 95

5	x	80	S	250	95,00 A2
6,3	x	32	S	250	68,00 A2
6,3	x	36	S	250	74,00 A2
6,3	x	40	S	250	80,00 A2
6,3	x	45	S	250	95,00 A2
6,3	x	50	S	250	95,00 A2
6,3	x	56	S	250	105,00 A2
6,3	x	63	S	250	116,00 A2
6,3	x	71	S	250	128,00 A2
6,3	x	80	S	250	142,00 A2
8	x	36	S	100	148,00 A2
8	x	45	S	100	162,00 A2
8	x	50	S	100	175,00 A2
8	x	56	S	100	191,00 A2
8	x	63	S	100	210,00 A2
8	x	71	S	100	231,00 A2
8	x	80	S	100	255,00 A2
10	x	63	S	50	310,00 A2
10	x	71	S	50	370,00 A2
10	x	80	S	50	405,00 A2
10	x	100	S	25	490,00 A2

DIN	00094.940	RAZ 40
94	A 4	



Split pins

Dimensions → TI-120 Corrosion protection → TI-217

Steel → S. 65

Brass, copper → S. 566

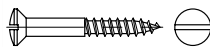
DIN 94 → replaced by ISO 1234

Nominal Ø (= drilling Ø) x length

1	x	16	K	100	6,40 A4
1	x	20	K	100	7,40 A4
1,6	x	10	K	100	6,60 A4
1,6	x	12	K	100	7,10 A4
1,6	x	16	K	100	9,00 A4
1,6	x	20	K	100	11,30 A4
1,6	x	25	K	100	12,90 A4
1,6	x	32	K	100	14,70 A4
2	x	10	K	100	9,20 A4
2	x	16	K	100	11,00 A4
2	x	20	K	100	13,00 A4
2	x	25	K	100	15,10 A4
2	x	32	K	100	18,00 A4
2	x	40	K	100	22,10 A4
2,5	x	20	K	100	20,20 A4
2,5	x	25	K	100	25,50 A4
2,5	x	32	K	100	28,50 A4
3,2	x	16	K	100	21,90 A4
3,2	x	20	K	100	26,00 A4
3,2	x	25	K	100	29,50 A4
3,2	x	32	K	100	33,00 A4
3,2	x	36	K	100	37,00 A4
3,2	x	40	K	100	41,00 A4
3,2	x	45	K	100	45,00 A4
3,2	x	50	K	100	51,00 A4
3,2	x	63	K	100	61,00 A4
4	x	20	K	100	41,00 A4
4	x	25	K	100	47,00 A4
4	x	32	K	100	56,00 A4
4	x	40	K	100	68,00 A4
4	x	50	K	100	80,00 A4
4	x	63	K	100	89,48 A4
5	x	32	K	50	88,00 A4
5	x	36	K	50	97,00 A4
5	x	40	K	50	106,00 A4

5	x	50	K	50	124,00 A4
5	x	63	K	50	141,00 A4
6,3	x	36	K	50	137,00 A4
6,3	x	40	K	50	150,00 A4
6,3	x	50	K	50	175,00 A4
6,3	x	63	K	50	201,00 A4
6,3	x	80	K	25	227,00 A4
8	x	40	K	25	305,00 A4
8	x	45	K	25	320,00 A4
8	x	50	K	25	335,00 A4
8	x	56	S	25	350,00 A4
8	x	80	K	25	435,00 A4
8	x	100	K	25	475,00 A4
8	x	140	K	25	515,00 A4
10	x	71	K	25	400,00 A4
10	x	80	K	25	410,00 A4
10	x	90	K	25	415,00 A4
10	x	100	K	25	420,00 A4
10	x	112	K	25	430,00 A4
10	x	125	K	25	435,00 A4
13	x	71	K	25	600,00 A4
13	x	100	K	25	620,00 A4
13	x	125	K	25	650,00 A4
13	x	140	K	25	680,00 A4
13	x	160	K	25	700,00 A4
13	x	180	K	25	720,00 A4
13	x	200	K	25	750,00 A4

DIN	00095.920	RAZ 50
95	A 2	



Slotted raised countersunk head wood screws

Dimensions → TI-51

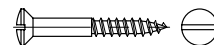
Steel → S. 66

Brass → S. 567

2,5	x	10	S	200	7,80 A2
2,5	x	12	S	200	8,20 A2
2,5	x	16	S	200	8,65 A2
2,5	x	20	S	200	9,15 A2
2,5	x	25	S	200	10,15 A2
3	x	10	S	200	8,05 A2
3	x	12	S	200	8,20 A2
3	x	16	S	200	8,65 A2
3	x	20	S	200	9,15 A2
3	x	25	S	200	10,15 A2
3	x	30	S	200	12,25 A2
3	x	35	S	200	12,90 A2
3	x	40	S	200	14,60 A2
3,5	x	12	S	200	9,10 A2
3,5	x	16	S	200	9,55 A2
3,5	x	20	S	200	10,40 A2
3,5	x	25	S	200	13,20 A2
3,5	x	30	S	200	13,75 A2
3,5	x	35	S	200	15,15 A2
3,5	x	40	S	200	17,10 A2
4	x	10	S	200	12,00 A2
4	x	12	S	200	10,70 A2
4	x	16	S	200	11,25 A2
4	x	20	S	200	12,10 A2
4	x	25	S	200	13,20 A2
4	x	30	S	200	15,15 A2
4	x	35	S	200	17,15 A2
4	x	40	S	200	18,70 A2
4	x	45	S	200	22,15 A2

4	x	50	S	200	24,85 A2
4	x	60	S	200	28,50 A2
4	x	70	S	500	32,00 A2
4,5	x	20	S	200	16,90 A2
4,5	x	25	S	200	16,60 A2
4,5	x	30	S	200	20,20 A2
4,5	x	35	S	200	21,75 A2
4,5	x	40	S	200	23,80 A2
4,5	x	45	S	200	27,10 A2
4,5	x	50	S	200	28,65 A2
4,5	x	60	S	200	31,50 A2
5	x	20	S	200	19,25 A2
5	x	25	S	200	19,75 A2
5	x	30	S	200	21,25 A2
5	x	35	S	200	23,85 A2
5	x	40	S	200	26,10 A2
5	x	45	S	200	30,15 A2
5	x	50	S	200	32,90 A2
5	x	60	S	200	40,45 A2
5	x	70	S	200	50,00 A2
5	x	80	S	200	91,55 A2
5	x	90	S	200	101,00 A2
5	x	100	S	200	112,00 A2
6	x	20	S	200	32,50 A2
6	x	25	S	200	28,00 A2
6	x	30	S	200	30,15 A2
6	x	35	S	200	34,50 A2
6	x	40	S	200	37,70 A2
6	x	45	S	200	42,15 A2
6	x	50	S	200	46,35 A2
6	x	60	S	100	55,75 A2
6	x	70	S	100	70,05 A2
6	x	80	S	100	91,55 A2
6	x	90	S	100	101,00 A2
6	x	100	S	100	112,00 A2
6	x	120	S	100	125,00 A2
8	x	50	S	100	86,00 A2
8	x	60	S	100	101,00 A2
8	x	70	S	100	116,00 A2
8	x	80	S	100	133,00 A2
8	x	100	S	100	167,00 A2

DIN	00095.940	RAZ 50
95	A 4	



Slotted raised countersunk head wood screws

Dimensions → TI-51

Steel → S. 66

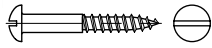
Brass → S. 567

4	x	30	S	200	22,90 A4
4	x	35	S	200	26,00 A4
4	x	40	S	200	28,00 A4
4	x	50	S	200	38,00 A4
5	x	30	S	200	32,00 A4
5	x	40	S	200	39,50 A4
5	x	50	S	200	50,00 A4
5	x	60	S	200	62,00 A4
6	x	50	S	200	70,00 A4
6	x	60	S	100	85,00 A4
6	x	70	S	100	107,00 A4



DIN 96

DIN	00096.920	RAZ 50
96	A 2	



Slotted round head wood screws

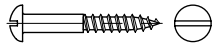
Dimensions → TI-51

Steel → S. 66

Brass → S. 568

2,5	x	10	S	200	7,80 A2
2,5	x	12	S	200	8,20 A2
2,5	x	16	S	200	8,65 A2
2,5	x	20	S	200	9,15 A2
2,5	x	25	S	200	10,15 A2
3	x	10	S	200	8,05 A2
3	x	12	S	200	8,20 A2
3	x	16	S	200	8,65 A2
3	x	20	S	200	9,15 A2
3	x	25	S	200	10,15 A2
3	x	30	S	200	12,25 A2
3	x	35	S	200	12,90 A2
3	x	40	S	200	14,60 A2
3,5	x	16	S	200	9,55 A2
3,5	x	20	S	200	10,40 A2
3,5	x	25	S	200	13,20 A2
3,5	x	30	S	200	13,75 A2
3,5	x	35	S	200	15,15 A2
3,5	x	40	S	200	17,10 A2
4	x	12	S	200	10,70 A2
4	x	16	S	200	11,25 A2
4	x	20	S	200	12,10 A2
4	x	25	S	200	13,20 A2
4	x	30	S	200	15,15 A2
4	x	35	S	200	17,15 A2
4	x	40	S	200	18,70 A2
4	x	45	S	200	22,15 A2
4	x	50	S	200	24,85 A2
4	x	60	S	200	34,00 A2
4,5	x	20	S	200	16,90 A2
4,5	x	25	S	200	16,60 A2
4,5	x	30	S	200	20,20 A2
4,5	x	35	S	200	21,75 A2
4,5	x	40	S	200	23,80 A2
4,5	x	45	S	200	27,10 A2
4,5	x	50	S	200	28,65 A2
4,5	x	60	S	200	31,50 A2
5	x	20	S	200	19,25 A2
5	x	25	S	200	19,75 A2
5	x	30	S	200	21,25 A2
5	x	35	S	200	23,85 A2
5	x	40	S	200	26,10 A2
5	x	45	S	200	30,15 A2
5	x	50	S	200	32,90 A2
5	x	60	S	200	40,45 A2
5	x	70	S	200	50,00 A2
5	x	80	S	200	91,55 A2
5	x	100	S	200	112,00 A2
6	x	25	S	200	28,00 A2
6	x	30	S	200	30,15 A2
6	x	35	S	200	34,60 A2
6	x	40	S	200	37,70 A2
6	x	50	S	200	46,35 A2
6	x	60	S	100	55,75 A2
6	x	70	S	100	70,05 A2
6	x	80	S	100	91,55 A2
6	x	90	S	100	101,00 A2
6	x	100	S	100	112,00 A2

DIN	00096.940	RAZ 50
96	A 4	



Slotted round head wood screws

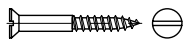
Dimensions → TI-51

Steel → S. 66

Brass → S. 568

4	x	20	S	200	17,40 A4
4	x	25	S	200	19,60 A4
4	x	30	S	200	22,30 A4
4	x	35	S	200	25,00 A4
4	x	40	S	200	27,50 A4
4	x	50	S	200	37,00 A4
5	x	20	S	200	28,50 A4
5	x	25	S	200	29,50 A4
5	x	30	S	200	31,00 A4
5	x	40	S	200	38,50 A4
5	x	50	S	200	48,50 A4
5	x	60	S	200	60,00 A4
5	x	70	S	200	74,00 A4
6	x	30	S	200	44,50 A4
6	x	40	S	200	56,00 A4
6	x	50	S	200	69,00 A4
6	x	60	S	200	83,00 A4
6	x	70	S	100	104,00 A4
6	x	100	S	100	145,00 A4

DIN	00097.920	RAZ 50
97	A 2	



Slotted countersunk head wood screws

Dimensions → TI-51

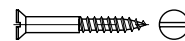
Steel → S. 66

Brass → S. 569

2,5	x	10	S	200	7,80 A2
2,5	x	12	S	200	8,20 A2
2,5	x	16	S	200	8,65 A2
2,5	x	20	S	200	9,15 A2
2,5	x	25	S	200	10,15 A2
3	x	10	S	200	8,05 A2
3	x	12	S	200	8,20 A2
3	x	16	S	200	8,65 A2
3	x	20	S	200	9,15 A2
3	x	25	S	200	10,15 A2
3	x	30	S	200	12,25 A2
3	x	35	S	200	12,90 A2
3	x	40	S	200	14,60 A2
3,5	x	12	S	200	9,10 A2
3,5	x	16	S	200	9,55 A2
3,5	x	20	S	200	10,40 A2
3,5	x	25	S	200	13,20 A2
3,5	x	30	S	200	13,75 A2
3,5	x	35	S	200	15,15 A2
3,5	x	40	S	200	17,10 A2
4	x	12	S	200	10,70 A2
4	x	16	S	200	11,25 A2

4	x	20	S	200	12,10 A2
4	x	25	S	200	13,20 A2
4	x	30	S	200	15,15 A2
4	x	35	S	200	17,15 A2
4	x	40	S	200	18,70 A2
4	x	45	S	200	22,15 A2
4	x	50	S	200	24,85 A2
4	x	60	S	200	28,50 A2
4	x	70	S	200	47,50 A2
4,5	x	20	S	200	16,90 A2
4,5	x	25	S	200	16,60 A2
4,5	x	30	S	200	20,20 A2
4,5	x	35	S	200	21,75 A2
4,5	x	40	S	200	23,80 A2
4,5	x	45	S	200	27,10 A2
4,5	x	50	S	200	28,65 A2
4,5	x	60	S	200	31,50 A2
5	x	20	S	200	19,25 A2
5	x	25	S	200	19,75 A2
5	x	30	S	200	21,25 A2
5	x	35	S	200	23,85 A2
5	x	40	S	200	26,10 A2
5	x	45	S	200	30,15 A2
5	x	50	S	200	32,90 A2
5	x	60	S	200	40,45 A2
5	x	70	S	200	50,00 A2
5	x	80	S	200	91,55 A2
5	x	100	S	200	112,00 A2
6	x	20	S	200	32,50 A2
6	x	25	S	200	28,00 A2
6	x	30	S	200	30,15 A2
6	x	35	S	200	34,50 A2
6	x	40	S	200	37,70 A2
6	x	45	S	200	42,15 A2
6	x	50	S	200	46,35 A2
6	x	60	S	100	55,75 A2
6	x	70	S	100	70,05 A2
6	x	80	S	100	91,55 A2
6	x	90	S	100	101,00 A2
6	x	100	S	100	112,00 A2
8	x	50	S	100	86,00 A2
8	x	60	S	100	101,00 A2
8	x	70	S	100	116,00 A2
8	x	80	S	100	133,00 A2
8	x	90	S	100	167,00 A2
8	x	100	S	100	167,00 A2

DIN	00097.940	RAZ 50
97	A 4	



Slotted countersunk head wood screws

Dimensions → TI-51

Steel → S. 66

Brass → S. 569

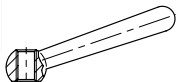
3	x	10	S	200	10,60 A4
3	x	16	S	200	11,90 A4
3	x	20	S	200	12,70 A4
3	x	25	S	200	14,00 A4
3	x	30	S	200	15,80 A4
3,5	x	20	S	200	14,30 A4
3,5	x	30	S	200	18,70 A4
3,5	x	40	S	200	23,50 A4
4	x	16	S	200	15,40 A4
4	x	20	S	200	16,10 A4
4	x	25	S	200	18,30 A4
4	x	30	S	200	20,70 A4



DIN 125-1

4	x	35	S	200	23,30 A4
4	x	40	S	200	25,50 A4
4	x	50	S	200	34,50 A4
4	x	60	S	200	50,00 A4
4,5	x	25	S	200	23,20 A4
4,5	x	30	S	200	26,00 A4
4,5	x	40	S	200	32,50 A4
4,5	x	50	S	200	38,50 A4
5	x	20	S	200	26,50 A4
5	x	25	S	200	27,50 A4
5	x	30	S	200	29,00 A4
5	x	35	S	200	33,00 A4
5	x	40	S	200	36,00 A4
5	x	50	S	200	45,50 A4
5	x	60	S	200	56,00 A4
6	x	25	S	200	39,00 A4
6	x	35	S	200	47,50 A4
6	x	40	S	200	52,00 A4
6	x	50	S	200	64,00 A4
6	x	60	S	100	77,00 A4
6	x	70	S	100	97,00 A4
6	x	80	S	100	110,00 A4
8	x	40	S	100	108,00 A4
8	x	50	S	100	125,00 A4
8	x	60	S	100	145,00 A4
8	x	70	S	100	168,00 A4
8	x	80	S	100	192,00 A4
8	x	100	S	100	241,00 A4

DIN	00099.927	RAZ 80
99	A 2	type N



Tapered handles with handle bracket via thread, N = tilted griffith

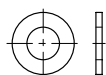
Dimensions → TI-123

Steel → S. 67

Length / internal thread M

N 80	M 10	S	1	3300,00 A2
N 100	M 12	S	1	4300,00 A2
N 125	M 16	S	1	6400,00 A2
N 160	M 20	S	1	7200,00 A2

DIN	00125.921	RAZ 90
125-1	A 2 140 HV	type A



Plain washers, A = without chamfer

Dimensions → TI-84

Steel → S. 67

Brass, copper, plastic, aluminium → S. 569

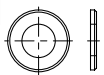
DIN 125-1 type A → replaced by ISO 7089

Inside Ø x outside Ø x thickness

1,7	x	4	x	0,3	S	1000	12,00 A2
2,2	x	5	x	0,3	S	1000	2,25 A2
2,2	x	5	x	0,3	K	200	4,00 A2

2,5	x	6	x	0,5	S	1000	2,25 A2
2,5	x	6	x	0,5	K	200	4,00 A2
2,7	x	6	x	0,5	S	1000	2,25 A2
2,7	x	6	x	0,5	K	200	4,00 A2
2,8	x	7	x	0,5	S	1000	2,25 A2
2,8	x	7	x	0,5	K	200	4,00 A2
3,2	x	7	x	0,5	S	1000	0,99 A2
3,2	x	7	x	0,5	K	200	2,25 A2
3,7	x	8	x	0,5	S	1000	1,40 A2
3,7	x	8	x	0,5	K	200	2,80 A2
4,3	x	9	x	0,8	S	1000	1,15 A2
4,3	x	9	x	0,8	K	200	2,35 A2
5,3	x	10	x	1	S	1000	1,40 A2
5,3	x	10	x	1	K	100	3,60 A2
6,4	x	12	x	1,6	S	1000	2,60 A2
6,4	x	12	x	1,6	K	100	5,10 A2
7,4	x	14	x	1,6	S	1000	5,70 A2
8,4	x	16	x	1,6	S	1000	4,30 A2
8,4	x	16	x	1,6	K	100	7,60 A2
10,5	x	20	x	2	S	1000	7,80 A2
10,5	x	20	x	2	K	100	11,90 A2
13	x	24	x	2,5	S	500	13,20 A2
13	x	24	x	2,5	K	100	17,80 A2
15	x	28	x	2,5	S	500	26,50 A2
15	x	28	x	2,5	K	50	35,00 A2
17	x	30	x	3	S	500	26,50 A2
17	x	30	x	3	K	50	35,00 A2
19	x	34	x	3	S	200	36,00 A2
19	x	34	x	3	K	25	53,00 A2
21	x	37	x	3	S	200	36,00 A2
21	x	37	x	3	K	25	53,00 A2
23	x	39	x	3	S	200	80,00 A2
23	x	39	x	3	K	25	97,00 A2
25	x	44	x	4	S	200	80,00 A2
25	x	44	x	4	K	25	97,00 A2
28	x	50	x	4	S	100	162,00 A2
28	x	50	x	4	K	10	204,00 A2
31	x	56	x	4	S	100	220,00 A2
31	x	56	x	4	K	10	265,00 A2
34	x	60	x	5	S	100	231,00 A2
34	x	60	x	5	K	10	305,00 A2
37	x	66	x	5	S	100	290,00 A2
37	x	66	x	5	K	10	315,00 A2
40	x	72	x	6	S	10	340,00 A2
43	x	78	x	7	S	10	880,00 A2
46	x	85	x	7	S	10	1400,00 A2
50	x	92	x	8	S	1	3900,00 A2
54	x	98	x	8	S	1	5200,00 A2
58	x	105	x	9	S	1	9700,00 A2

DIN	00125.922	RAZ 90
125-1	A 2 140 HV	type B



Plain washers, B = with chamfer

Dimensions → TI-84

Steel → S. 69

Brass → S. 570

DIN 125-1 type B → replaced by ISO 7090

Inside Ø x outside Ø x thickness

4,3	x	9	x	0,8	S	1000	27,00 A2
5,3	x	10	x	1	S	1000	8,40 A2
6,4	x	12	x	1,6	S	1000	9,70 A2
8,4	x	16	x	1,6	S	500	12,70 A2
10,5	x	20	x	2	S	250	20,60 A2

13	x	24	x	2,5	S	250	32,00 A2
17	x	30	x	3	S	100	61,00 A2
21	x	37	x	3	S	50	93,00 A2

DIN	00125.941	RAZ 90
125-1	A 4 140 HV	type A



Plain washers, A = without chamfer

Dimensions → TI-84

Steel → S. 67

Brass, copper, plastic, aluminium → S. 569

DIN 125-1 type A → replaced by ISO 7089

Inside Ø x outside Ø x thickness

2,2	x	5	x	0,3	S	1000	5,88 A4
2,5	x	6	x	0,5	S	1000	5,88 A4
2,7	x	6	x	0,5	S	1000	4,80 A4
3,2	x	7	x	0,5	S	1000	1,15 A4
3,2	x	7	x	0,5	K	200	2,35 A4
4,3	x	9	x	0,8	S	1000	1,30 A4
4,3	x	9	x	0,8	K	200	2,50 A4
5,3	x	10	x	1	S	1000	1,70 A4
5,3	x	10	x	1	K	100	3,95 A4
6,4	x	12	x	1,6	S	1000	4,55 A4
6,4	x	12	x	1,6	K	100	7,60 A4
8,4	x	16	x	1,6	S	1000	6,50 A4
8,4	x	16	x	1,6	K	100	9,40 A4
10,5	x	20	x	2	S	1000	13,80 A4
10,5	x	20	x	2	K	100	18,00 A4
13	x	24	x	2,5	S	500	18,60 A4
13	x	24	x	2,5	K	100	23,20 A4
15	x	28	x	2,5	S	500	35,50 A4
15	x	28	x	2,5	K	50	44,00 A4
17	x	30	x	3	S	500	35,50 A4
17	x	30	x	3	K	50	44,00 A4
19	x	34	x	3	S	200	51,00 A4
19	x	34	x	3	K	25	68,00 A4
21	x	37	x	3	S	200	51,00 A4
21	x	37	x	3	K	25	68,00 A4
23	x	39	x	3	K	25	122,00 A4
25	x	44	x	4	S	200	105,00 A4
25	x	44	x	4	K	25	122,00 A4
28	x	50	x	4	S	100	218,00 A4
28	x	50	x	4	K	10	260,00 A4
31	x	56	x	4	S	100	290,00 A4
31	x	56	x	4	K	10	330,00 A4
34	x	60	x	5	S	10	385,00 A4
37	x	66	x	5	S	10	420,00 A4
40	x	72	x	6	S	10	820,00 A4
43	x	78	x	7	S	10	840,00 A4

DIN 125-1

DIN	00125.942	RAZ 90
125-1	A 4 140 HV	type B



**Plain washers,
B = with chamfer**

Dimensions → **TI-84**

Steel → **S. 69**

Brass → **S. 570**

DIN 125-1 type B → replaced by ISO 7090

Inside Ø x outside Ø x thickness

4,3			S 1000	28,00 A4
5,3	x 10	x 1	S 1000	11,10 A4
6,4	x 12	x 1,6	S 1000	12,90 A4
8,4	x 16	x 1,6	S 500	18,40 A4
10,5	x 20	x 2	S 250	27,00 A4
13	x 24	x 2,5	S 250	36,00 A4
17	x 30	x 3	S 100	68,00 A4
19	x 34	x 3	S 50	80,00 A4
21	x 37	x 3	S 50	102,00 A4
25	x 44	x 4	S 25	225,00 A4
28	x 50	x 4	S 25	230,00 A4
31	x 56	x 4	S 25	285,00 A4
34	x 60	x 5	S 25	820,00 A4
37	x 66	x 5	S 10	2200,00 A4
43	x 78	x 7	S 10	2950,00 A4
46	x 85	x 7	S 10	4320,00 A4
50	x 92	x 8	S 10	4900,00 A4
54	x 98	x 8	S 1	5100,00 A4
58	x 105	x 9	S 1	5900,00 A4

DIN	00125.951	RAZ 91
125-1	1.4571 (A 5)	type A



**Plain washer,
A = without chamfer**

Dimensions → **TI-84**

Steel → **S. 67**

Brass, copper, plastic, aluminium → **S. 569**

DIN 125-1 type A → replaced by ISO 7089

Inside Ø x outside Ø x thickness

6,4	x 12	x 1,6	S 100	45,00 A5
8,4	x 16	x 1,6	S 100	49,50 A5
10,5	x 20	x 2	S 100	95,00 A5
13	x 24	x 2,5	S 50	107,00 A5
17	x 30	x 3	S 50	155,00 A5
21	x 37	x 3	S 25	230,00 A5
25	x 44	x 4	S 25	880,00 A5
31	x 56	x 4	S 10	1050,00 A5

~DIN	00127.961	RAZ 110
127	1.4310	type A



**Spring lock washers,
A = bent end**

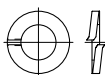
Caution! Reduced spring load.

Dimensions → **TI-88**

Spring steel → **S. 70**

A 3	S 1000	1,50
A 3	K 100	2,75
A 4	S 1000	2,05
A 4	K 100	3,55
A 5	S 1000	2,55
A 5	K 100	4,30
A 6	S 1000	5,10
A 6	K 100	8,10
A 8	S 1000	8,80
A 8	K 100	13,70
A 10	S 1000	13,40
A 10	K 100	20,60
A 12	S 500	19,30
A 12	K 100	29,50
A 16	S 100	44,00
A 20	S 100	75,00

~DIN	00127.941	RAZ 110
127	A 4	type A



**Spring lock washers,
A = bent end**

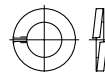
Caution! Reduced spring load.

Dimensions → **TI-88**

Spring steel → **S. 70**

A 3	S 1000	1,65 A4
A 3	K 100	3,10 A4
A 4	S 1000	2,15 A4
A 4	K 100	3,85 A4
A 5	S 1000	3,10 A4
A 5	K 100	5,10 A4
A 6	S 1000	5,90 A4
A 6	K 100	9,20 A4
A 8	S 1000	10,20 A4
A 8	K 100	15,80 A4
A 10	S 1000	15,70 A4
A 10	K 100	24,10 A4
A 12	S 500	22,00 A4
A 12	K 100	33,50 A4
A 16	S 100	54,00 A4
A 20	S 100	86,00 A4

~DIN	00127.962	RAZ 110
127	1.4310	type B



**Spring lock washers,
B = flat end**

Caution! Reduced spring load.

Dimensions → **TI-88**

Spring steel → **S. 71**

Bronze → **S. 571**

B 2	S 1000	1,80
B 2	K 100	3,60
B 2,3	S 1000	1,80
B 2,5	S 1000	1,80
B 2,5	K 100	3,60
B 2,6	S 1000	1,80
B 3	S 1000	0,92
B 3	K 100	2,35
B 3,5	S 1000	1,40
B 4	S 1000	0,99
B 4	K 100	2,55
B 5	S 1000	1,30
B 5	K 100	2,80
B 6	S 1000	2,45
B 6	K 100	4,05
B 8	S 1000	4,15
B 8	K 100	6,50
B 10	S 1000	7,40
B 10	K 100	10,20
B 12	S 500	11,40
B 12	K 100	14,50
B 14	K 50	27,00
B 16	S 100	23,70
B 16	K 50	38,50
B 18	K 50	35,50
B 20	S 100	32,50
B 20	K 25	42,50
B 22	K 25	85,00
B 24	K 25	85,00
B 27	K 10	155,00
B 30	K 10	290,00
B 33	K 10	360,00
B 36	K 10	480,00

~DIN	00127.942	RAZ 110
127	A 4	type B



**Spring lock washers,
B = flat end**

Caution! Reduced spring load.

Dimensions → **TI-88**

Spring steel → **S. 71**

Bronze → **S. 571**

B 2	S 1000	1,95 A4
B 2	K 100	3,80 A4
B 2,5	S 1000	1,95 A4



B 2,5	K 100	3,80 A4
B 3	S 1000	1,07 A4
B 3	K 100	2,55 A4
B 3,5	S 1000	1,55 A4
B 4	S 1000	1,22 A4
B 4	K 100	2,70 A4
B 5	S 1000	1,65 A4
B 5	K 100	3,15 A4
B 6	S 1000	3,30 A4
B 6	K 100	4,85 A4
B 8	S 1000	5,90 A4
B 8	K 100	8,20 A4
B 10	S 1000	12,20 A4
B 10	K 100	15,50 A4
B 12	S 500	17,40 A4
B 12	K 100	20,60 A4
B 14	K 50	36,50 A4
B 16	S 100	32,50 A4
B 16	K 50	46,50 A4
B 18	K 50	53,00 A4
B 20	K 25	56,00 A4
B 22	K 25	106,00 A4
B 24	K 25	106,00 A4
B 27	K 10	227,00 A4
B 30	K 10	385,00 A4

~DIN	00128.961	RAZ 100
128	1.4310	type A



Spring lock washers, A = curved

Caution! Reduced spring load.

Dimensions → TI-89

Spring steel → S. 72

A 3	S 1000	3,05
A 3	K 100	4,50
A 4	S 1000	3,50
A 4	K 100	4,90
A 5	S 1000	4,90
A 5	K 100	6,80
A 6	S 1000	7,70
A 6	K 100	8,80
A 8	S 1000	12,50
A 8	K 100	13,60
A 10	S 1000	19,20
A 10	K 100	20,10
A 12	S 500	27,00
A 12	K 100	28,00
A 16	S 250	91,00
A 16	K 50	93,00
A 18	K 25	100,00
A 20	K 25	151,00

~DIN	00128.962	RAZ 100
128	1.4310	type B



Spring lock washers, B = waved

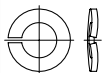
Caution! Reduced spring load.

Dimensions → TI-89

Spring steel → S. 73

B 4	S 1000	6,40
B 5	S 1000	6,80
B 6	S 1000	9,60
B 8	S 1000	14,60
B 10	S 1000	23,50
B 12	S 500	32,00
B 14	S 500	21,00
B 16	S 500	60,00

~DIN	00128.941	RAZ 100
128	A 4	type A



Spring lock washers, A = curved

Caution! Reduced spring load.

Dimensions → TI-89

Spring steel → S. 72

A 2,2	S 1000	9,50 A4
A 2,5	S 1000	9,50 A4
A 3	S 1000	10,20 A4
A 4	S 1000	11,60 A4
A 5	S 1000	12,60 A4
A 6	S 1000	13,50 A4
A 6	K 100	14,40 A4
A 8	S 1000	19,70 A4
A 8	K 100	20,80 A4
A 10	S 1000	32,50 A4
A 10	K 100	33,50 A4
A 12	S 500	43,50 A4
A 12	K 100	45,00 A4
A 16	S 250	153,00 A4
A 16	K 50	154,00 A4
A 20	S 100	176,00 A4
A 20	K 50	177,00 A4
A 24	S 25	180,00 A4
A 27	S 10	185,00 A4
A 30	S 10	250,00 A4

~DIN	00128.942	RAZ 100
128	A 4	type B



Spring lock washers, B = waved

Caution! Reduced spring load.

Dimensions → TI-89

Spring steel → S. 73

B 3	S 1000	5,05 A4
B 5	S 1000	6,90 A4
B 6	S 1000	9,70 A4
B 8	S 1000	14,50 A4
B 10	S 500	23,00 A4
B 12	S 500	30,00 A4
B 16	S 250	94,00 A4
B 20	S 100	154,00 A4

~DIN	00137.961	RAZ 100
137	1.4310	type A



Spring washers, A = curved

Caution! Reduced spring load.

Dimensions → TI-89

Spring steel → S. 73

A 2	S 1000	2,70
A 2	K 100	4,30
A 2,3	S 1000	2,90
A 2,6	S 1000	1,80
A 2,6	K 100	3,70
A 3	S 1000	2,35
A 3	K 100	4,50
A 3,5	S 1000	4,65
A 3,5	K 100	7,40
A 4	S 1000	3,60
A 5	S 1000	5,10
A 5	K 100	8,60
A 6	S 1000	5,60
A 6	K 100	9,00
A 8	S 1000	7,90
A 8	K 100	12,90
A 10	S 1000	17,20
A 10	K 100	22,10



~DIN 137

~DIN	00137.941	RAZ 100
137	A 4	type A



**Spring washers,
A = curved**

Caution! Reduced spring load.

Dimensions → **TI-89**

Spring steel → **S. 73**

A 4	S 1000	9,00 A4
A 5	S 1000	13,10 A4
A 6	S 1000	16,10 A4
A 8	S 1000	23,00 A4
A 10	S 1000	51,00 A4

~DIN	00137.962	RAZ 100
137	1.4310	type B



**Spring washers,
B = waved**

Caution! Reduced spring load.

Dimensions → **TI-89**

Spring steel → **S. 73**

B 3	S 1000	5,10
B 3	K 100	7,00
B 4	S 1000	2,95
B 4	K 100	4,85
B 5	S 1000	3,95
B 5	K 100	6,10
B 6	S 1000	4,65
B 6	K 100	7,00
B 8	S 1000	10,00
B 8	K 100	13,80
B 10	S 1000	22,30
B 10	K 100	29,50
B 12	S 500	35,50
B 12	K 50	37,50
B 16	S 250	76,00
B 16	K 25	77,00
B 20	S 25	150,00
B 24	S 100	285,00
B 30	S 100	640,00

~DIN	00137.942	RAZ 100
137	A 4	type B



**Spring washers,
B = waved**

Caution! Reduced spring load.

Dimensions → **TI-89**

Spring steel → **S. 73**

B 3	S 1000	8,00 A4
B 4	S 1000	12,00 A4
B 5	S 1000	13,10 A4
B 6	S 1000	16,10 A4
B 8	S 1000	23,00 A4
B 10	S 1000	51,00 A4
B 12	S 500	78,00 A4
B 14	S 250	151,00 A4
B 16	S 250	164,00 A4
B 20	S 25	320,00 A4

DIN	00315.920	RAZ 130
315	A 2	



**Wing nuts,
product grade C (g)**

Dimensions → **TI-70**

Malleable cast iron → **S. 75**

Brass → **S. 571**

Small type → article 88215

M 4	S 50	360,00 A2
M 5	S 50	370,00 A2
M 6	S 50	375,00 A2
M 8	S 25	390,00 A2
M 10	S 25	450,00 A2
M 12	S 10	680,00 A2
M 16	S 10	910,00 A2
M 20	S 10	1300,00 A2

DIN	00315.940	RAZ 130
315	A 4	



**Wing nuts,
product grade C (g)**

Dimensions → **TI-70**

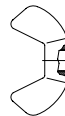
Malleable cast iron → **S. 75**

Brass → **S. 571**

Small type → article 88215

M 5	S 10	390,00 A4
M 6	S 10	415,00 A4
M 8	S 1	490,00 A4
M 10	S 1	610,00 A4
M 12	S 1	880,00 A4
M 16	S 1	1170,00 A4

~DIN	88215.920	RAZ 878
315	A 2	article 88215



**Wing nuts,
small "American" type,
product grade C (g)**

Dimensions → **TI-70**

Steel → **S. 75**

M 4	S 100	38,00 A2
M 5	S 100	44,50 A2
M 6	S 100	63,00 A2
M 8	S 100	75,00 A2
M 10	S 100	116,00 A2
M 12	S 50	270,00 A2

~DIN	88215.940	RAZ 878
315	A 4	article 88215



**Wing nuts,
small "American" type,
product grade C (g)**

Dimensions → **TI-70**

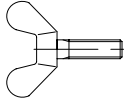
Steel → **S. 75**

M 4	S 100	50,00 A4
M 5	S 50	51,00 A4
M 6	S 50	69,00 A4



M 8	S	25	92,00 A 4
M 10	S	25	150,00 A 4
M 12	S	10	350,00 A 4

~DIN	00316.920	RAZ 130
316	A 2	



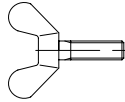
Wing screws, small "American" type, product grade C (g)

Dimensions → TI-29

Steel → S. 75
Brass → S. 571

M 4	x	10	S	100	135,00 A 2
M 4	x	20	S	50	142,00 A 2
M 4	x	30	S	100	146,00 A 2
M 5	x	10	S	100	128,00 A 2
M 5	x	16	S	50	134,00 A 2
M 5	x	20	S	50	139,00 A 2
M 5	x	25	S	50	143,00 A 2
M 5	x	30	S	50	147,00 A 2
M 6	x	10	S	25	188,00 A 2
M 6	x	12	S	25	191,00 A 2
M 6	x	16	S	25	191,00 A 2
M 6	x	20	S	25	194,00 A 2
M 6	x	25	S	25	200,00 A 2
M 6	x	30	S	25	206,00 A 2
M 6	x	40	S	100	216,00 A 2
M 6	x	50	S	100	243,00 A 2
M 8	x	10	S	100	275,00 A 2
M 8	x	16	S	25	285,00 A 2
M 8	x	20	S	10	300,00 A 2
M 8	x	25	S	10	300,00 A 2
M 8	x	30	S	10	315,00 A 2
M 8	x	35	S	100	305,00 A 2
M 8	x	40	S	10	335,00 A 2
M 8	x	45	S	50	325,00 A 2
M 8	x	50	S	50	345,00 A 2
M 8	x	60	S	50	395,00 A 2
M 10	x	16	S	50	370,00 A 2
M 10	x	20	S	10	390,00 A 2
M 10	x	25	S	10	395,00 A 2
M 10	x	30	S	10	410,00 A 2
M 10	x	40	S	10	430,00 A 2
M 10	x	50	S	20	475,00 A 2
M 10	x	60	S	20	520,00 A 2

~DIN	00316.940	RAZ 130
316	A 4	



Wing screws, small "American" type, product grade C (g)

Dimensions → TI-29

Steel → S. 75
Brass → S. 571

M 6	x	16	S	100	239,00 A 4
M 6	x	20	S	100	247,00 A 4
M 6	x	25	S	100	255,00 A 4
M 6	x	30	S	100	265,00 A 4
M 8	x	16	S	100	360,00 A 4
M 8	x	20	S	100	360,00 A 4
M 8	x	25	S	100	375,00 A 4
M 8	x	30	S	100	390,00 A 4
M 10	x	25	S	50	510,00 A 4
M 10	x	30	S	50	530,00 A 4
M 12	x	30	S	25	1100,00 A 4
M 12	x	35	S	25	1130,00 A 4

DIN	00404.910	RAZ 131
404	A 1	



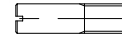
Slotted capstan screws

Dimensions → TI-29

Steel → S. 76

M 3	x	6	S	100	160,00 A 1
M 3	x	8	S	100	165,00 A 1
M 3	x	10	S	100	169,00 A 1
M 4	x	10	S	100	196,00 A 1
M 4	x	16	S	100	202,00 A 1
M 4	x	20	S	100	205,00 A 1
M 4	x	25	S	100	208,00 A 1
M 4	x	30	S	100	210,00 A 1
M 5	x	10	S	100	275,00 A 1
M 5	x	12	S	100	285,00 A 1
M 5	x	16	S	100	290,00 A 1
M 5	x	30	S	100	295,00 A 1

DIN	00427.910	RAZ 140
427	A 1	



Slotted headless screws, with chamfered end

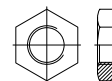
Dimensions → TI-19

Steel → S. 76

DIN 427 → replaced by ISO 2342 (compatible)

M 3	x	6	S	100	47,00 A 1
M 3	x	8	S	100	52,00 A 1
M 4	x	8	S	100	55,00 A 1
M 4	x	10	S	100	58,00 A 1
M 4	x	12	S	100	62,00 A 1
M 4	x	16	S	100	67,00 A 1
M 4	x	20	S	100	72,00 A 1
M 5	x	10	S	100	62,00 A 1
M 5	x	12	S	100	64,00 A 1
M 5	x	16	S	100	85,00 A 1
M 5	x	20	S	100	106,00 A 1
M 6	x	12	S	100	136,00 A 1
M 6	x	16	S	100	139,00 A 1
M 6	x	20	S	100	142,00 A 1
M 6	x	30	S	100	148,00 A 1
M 8	x	16	S	100	188,00 A 1
M 8	x	20	S	100	198,00 A 1
M 10	x	20	S	100	260,00 A 1
M 10	x	25	S	100	285,00 A 1
M 10	x	30	S	100	300,00 A 1
M 10	x	50	S	100	345,00 A 1

DIN	00431.942	RAZ 140
431	A 4	type B



Pipe nuts with inch pipe thread G, B = thread one-sided countersunk

Dimensions → TI-59

Steel → S. 77

Brass → S. 572

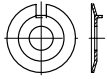
Nominal size – wrench sizes

BG 1/8 SW19	S	25	102,00 A 4
BG 1/4 SW22	S	25	157,00 A 4
BG 3/8	S	25	198,00 A 4
BG 1/2 SW32	S	10	290,00 A 4
BG 3/4	S	10	430,00 A 4
BG 1	S	1	810,00 A 4
BG 1 1/4	S	1	2160,00 A 4
BG 1 1/2	S	1	2850,00 A 4



~DIN 432

~DIN	00432.920	RAZ 140
432	A 2	

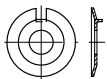


Washers with external tap

Dimensions → **TI-90**
Steel → **S. 77**

5,3	S	50	94,00 A 2
6,4	S	50	98,00 A 2
10,5	S	50	148,00 A 2
13	S	100	188,00 A 2
17	S	50	245,00 A 2
21	S	25	305,00 A 2

~DIN	00432.940	RAZ 140
432	A 4	



Washers with external tap

Dimensions → **TI-90**
Steel → **S. 77**

4,3	S	25	102,00 A 4
5,3	S	25	106,00 A 4
6,4	S	25	164,00 A 4
8,4	S	25	125,00 A 4
10,5	S	25	162,00 A 4
13	S	25	205,00 A 4
15	S	25	231,00 A 4
17	S	25	290,00 A 4
19	S	10	325,00 A 4
21	S	10	355,00 A 4
25	S	10	465,00 A 4
31	S	1	810,00 A 4
37	S	1	1200,00 A 4

DIN	00433.920	RAZ 140
433-1	A 2	



Washers

Primarily for cheese head screws

Dimensions → **TI-84**
Steel → **S. 78**
Brass → **S. 572**

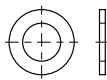
DIN 433 → replaced by ISO 7092

Inside Ø x outside Ø x thickness

2,2	x	4,5	x	0,3	S	2000	3,40 A 2
2,2	x	4,5	x	0,3	K	200	5,60 A 2
2,5	x	5	x	0,5	S	2000	2,85 A 2

2,7	x	5	x	0,5	S	2000	2,25 A 2
3,2	x	6	x	0,5	S	2000	1,10 A 2
3,2	x	6	x	0,5	K	200	2,35 A 2
4,3	x	8	x	0,5	S	2000	1,24 A 2
4,3	x	8	x	0,5	K	200	2,35 A 2
5,3	x	9	x	1	S	2000	1,75 A 2
5,3	x	9	x	1	K	200	3,25 A 2
6,4	x	11	x	1,6	S	1000	2,60 A 2
6,4	x	11	x	1,6	K	100	4,40 A 2
8,4	x	15	x	1,6	S	1000	5,20 A 2
8,4	x	15	x	1,6	K	100	8,30 A 2
10,5	x	18	x	1,6	S	1000	6,40 A 2
10,5	x	18	x	1,6	K	100	9,70 A 2
13	x	20	x	2	S	100	10,60 A 2
15	x	24	x	2,5	S	100	16,60 A 2
17	x	28	x	2,5	S	50	21,20 A 2

DIN	00433.940	RAZ 140
433-1	A 4	



Washers

Primarily for cheese head screws

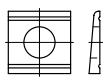
Dimensions → **TI-84**
Steel → **S. 78**
Brass → **S. 572**

DIN 433 → replaced by ISO 7092

Inside Ø x outside Ø x thickness

3,2	x	6	x	0,5	S	2000	1,55 A 4
3,2	x	6	x	0,5	K	200	2,80 A 4
4,3	x	8	x	0,5	S	2000	2,05 A 4
4,3	x	8	x	0,5	K	200	3,65 A 4
5,3	x	9	x	1	S	2000	2,50 A 4
5,3	x	9	x	1	K	200	4,15 A 4
6,4	x	11	x	1,6	S	1000	3,85 A 4
6,4	x	11	x	1,6	K	100	6,90 A 4
8,4	x	15	x	1,6	S	1000	7,00 A 4
8,4	x	15	x	1,6	K	100	10,30 A 4
10,5	x	18	x	1,6	S	1000	9,50 A 4
10,5	x	18	x	1,6	K	100	13,70 A 4
13	x	20	x	2	S	100	17,20 A 4
17	x	28	x	2,5	S	50	30,50 A 4
21	x	34	x	3	S	25	44,50 A 4
25	x	39	x	4	S	25	178,00 A 4

DIN	00434.920	RAZ 150
434	A 2	



Square taper washers for U beams, taper 8 %

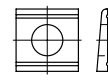
Dimensions → **TI-86**
Steel → **S. 78**

Inside Ø

9	x	30	x	3	S	100	233,00 A 2
11	x	30	x	3	S	50	233,00 A 2
13,5	x	30	x	3	S	50	390,00 A 2

17,5	S	25	455,00 A 2
22	S	10	680,00 A 2
26	S	10	1020,00 A 2

DIN	00434.940	RAZ 150
434	A 4	



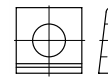
Square taper washers for U beams, taper 8 %

Dimensions → **TI-86**
Steel → **S. 78**

Inside Ø

9	S	50	320,00 A 4
11	S	50	320,00 A 4
13,5	S	50	430,00 A 4
17,5	S	25	510,00 A 4
22	S	10	820,00 A 4
26	S	10	1220,00 A 4

DIN	00435.920	RAZ 150
435	A 2	



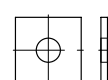
Square taper washers for double-T beams, taper 14 %

Dimensions → **TI-86**
Steel → **S. 78**

Inside Ø

9	S	50	610,00 A 2
11	S	50	650,00 A 2
13,5	S	50	680,00 A 2
17,5	S	25	740,00 A 2
22	S	10	980,00 A 2

DIN	00436.920	RAZ 160
436	A 2	



Square washers

Especially for wood constructions

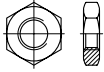
Dimensions → **TI-86**
Steel → **S. 79**

Inside Ø x outside dimension x thickness ÜH products

11	x	30	x	3	S	100	28,50 A 2
13,5	x	40	x	4	S	100	62,00 A 2
17,5	x	50	x	5	S	50	118,00 A 2
22	x	60	x	5	S	50	197,00 A 2
26	x	80	x	6	S	50	510,00 A 2
30	x	90	x	6	S	25	610,00 A 2



DIN	00439.922	RAZ 170
439	A 2	type B



Hexagon thin nuts, B = with chamfers

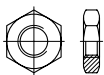
Dimensions → **TI-62** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

Steel → **S. 79**
 Brass → **S. 572**

DIN 439 → replaced by ISO 4035

BM 2	S	100	20,00 A 2
BM 2,5	S	100	17,40 A 2
BM 3	S	1000	12,80 A 2
BM 3	K	100	14,90 A 2
BM 4	S	1000	12,30 A 2
BM 4	K	100	14,40 A 2
BM 5	S	1000	12,30 A 2
BM 5	K	100	14,40 A 2
BM 6	S	1000	17,70 A 2
BM 6	K	100	19,70 A 2
BM 8	S	1000	32,50 A 2
BM 8	K	100	35,00 A 2
BM 10	S	500	65,00 A 2
BM 10	K	50	69,00 A 2
BM 12	S	250	73,00 A 2
BM 12	K	50	77,00 A 2
BM 14	S	25	208,00 A 2
BM 16	S	100	255,00 A 2
BM 16	K	25	260,00 A 2
BM 18	S	10	365,00 A 2
BM 20	S	10	465,00 A 2
BM 22	S	10	590,00 A 2
BM 24	S	10	790,00 A 2
BM 27	S	10	1070,00 A 2
BM 30	S	10	1490,00 A 2
BM 36	S	1	2650,00 A 2

DIN	00439.942	RAZ 170
439	A 4	type B



Hexagon thin nuts, B = with chamfers

Dimensions → **TI-62** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

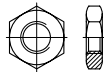
Steel → **S. 79**
 Brass → **S. 572**

DIN 439 → replaced by ISO 4035

BM 2	S	100	30,00 A 4
BM 2,5	S	100	30,00 A 4
BM 3	S	100	17,40 A 4
BM 4	S	100	16,90 A 4
BM 5	S	100	19,50 A 4
BM 6	S	100	22,50 A 4
BM 8	S	100	42,00 A 4
BM 10	S	50	79,00 A 4

BM 12	S	50	169,00 A 4
BM 14	S	25	249,00 A 4
BM 16	S	25	320,00 A 4
BM 18	S	10	440,00 A 4
BM 20	S	10	580,00 A 4
BM 24	S	10	970,00 A 4
BM 27	S	10	1340,00 A 4
BM 30	S	10	1860,00 A 4
BM 36	S	1	3350,00 A 4
BM 42	S	1	5300,00 A 4

DIN	00439.927	RAZ 170
439	A 2	type B - fine



Hexagon thin nuts, with metric fine pitch thread B = with chamfers

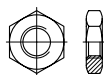
Dimensions → **TI-62** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

Steel → **S. 80**

DIN 439 fine thread → replaced by ISO 8676

BM 8 x 1	S	100	68,00 A 2
BM 10 x 1	S	50	122,00 A 2
BM 10 x 1,25	S	50	122,00 A 2
BM 12 x 1,25	S	50	161,00 A 2
BM 12 x 1,5	S	50	161,00 A 2
BM 14 x 1,5	S	25	237,00 A 2
BM 16 x 1,5	S	25	295,00 A 2
BM 18 x 1	S	10	300,00 A 2
BM 18 x 1,5	S	10	415,00 A 2
BM 20 x 1,5	S	10	530,00 A 2
BM 24 x 1,5	S	10	900,00 A 2
BM 30 x 1,5	S	10	1690,00 A 2
BM 30 x 2	S	10	1690,00 A 2
BM 36 x 1,5	S	1	3050,00 A 2

DIN	00439.947	RAZ 170
439	A 4	type B - fine



Hexagon thin nuts, with metric fine pitch thread B = with chamfers

Dimensions → **TI-62** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

Steel → **S. 80**

DIN 439 fine thread → replaced by ISO 8676

BM 10 x 1	S	50	146,00 A 4
BM 10 x 1,25	S	50	146,00 A 4
BM 12 x 1,25	S	50	192,00 A 4
BM 12 x 1,5	S	50	192,00 A 4
BM 16 x 1,5	S	25	365,00 A 4
BM 18 x 1,5	S	10	495,00 A 4
BM 20 x 1,5	S	10	650,00 A 4

BM 22 x 1,5	S	10	940,00 A 4
BM 24 x 1,5	S	10	1100,00 A 4
BM 24 x 2	S	10	1100,00 A 4
BM 30 x 1,5	S	10	2120,00 A 4
BM 30 x 2	S	10	2120,00 A 4
BM 33 x 2	S	1	2750,00 A 4
BM 36 x 3	S	1	3380,00 A 4

DIN	00440.928	RAZ 170
440	A 2	type R



Washers, R = with round hole

Especially for wood constructions

Dimensions → **TI-84**

Steel → **S. 81**

DIN 440 type R → replaced by ISO 7094

Inside Ø x outside Ø x thickness

R 5,5 x 18 x 2	S	100	8,00 A 2
R 6,6 x 22 x 2	S	100	11,00 A 2
R 9 x 28 x 3	S	100	26,00 A 2
R 11 x 34 x 3	S	50	38,00 A 2
R 13,5 x 44 x 4	S	50	84,00 A 2
R 17,5 x 56 x 5	S	50	160,00 A 2
R 22 x 72 x 6	S	50	335,00 A 2

DIN	00440.948	RAZ 170
440	A 4	type R



Washers, R = with round hole

Especially for wood constructions

Dimensions → **TI-84**

Steel → **S. 81**

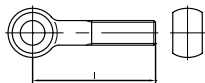
DIN 440 type R → replaced by ISO 7094

Inside Ø x outside Ø x thickness

R 5,5 x 18 x 2	S	100	30,50 A 4
R 6,6 x 22 x 2	S	100	42,00 A 4
R 9 x 28 x 3	S	100	93,00 A 4
R 11 x 34 x 3	S	50	144,00 A 4
R 13,5 x 44 x 4	S	50	226,00 A 4
R 17,5 x 56 x 5	S	50	720,00 A 4
R 22 x 72 x 6	S	50	1060,00 A 4

DIN 444

DIN	00444.922	RAZ 180
444	A 2	type B



Eye bolts, B = product grade B (mg)

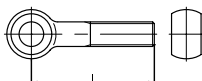
Dimensions → **TI-30** Mech. properties → **TI-224**
 Steel → **S. 82**
 Brass → **S. 572**

Thread M x length l

BM 5	x	40	S	10	300,00 A 2
BM 6	x	30	S	10	310,00 A 2
BM 6	x	35	S	10	340,00 A 2
BM 6	x	40	S	10	340,00 A 2
BM 6	x	45	S	10	380,00 A 2
BM 6	x	50	S	10	380,00 A 2
BM 6	x	55	S	10	410,00 A 2
BM 6	x	60	S	10	410,00 A 2
BM 8	x	30	S	10	400,00 A 2
BM 8	x	35	S	10	430,00 A 2
BM 8	x	40	S	10	430,00 A 2
BM 8	x	45	S	10	435,00 A 2
BM 8	x	50	S	10	435,00 A 2
BM 8	x	55	S	10	470,00 A 2
BM 8	x	60	S	10	470,00 A 2
BM 8	x	70	S	10	510,00 A 2
BM 8	x	75	S	10	540,00 A 2
BM 8	x	80	S	10	540,00 A 2
BM 8	x	90	S	10	570,00 A 2
BM 8	x	100	S	10	600,00 A 2
BM 10	x	40	S	10	570,00 A 2
BM 10	x	45	S	10	580,00 A 2
BM 10	x	50	S	10	580,00 A 2
BM 10	x	55	S	10	590,00 A 2
BM 10	x	60	S	10	590,00 A 2
BM 10	x	65	S	10	600,00 A 2
BM 10	x	70	S	10	600,00 A 2
BM 10	x	75	S	10	630,00 A 2
BM 10	x	80	S	10	630,00 A 2
BM 10	x	90	S	10	700,00 A 2
BM 10	x	100	S	10	720,00 A 2
BM 10	x	110	S	10	740,00 A 2
BM 10	x	120	S	10	770,00 A 2
BM 12	x	50	S	10	760,00 A 2
BM 12	x	55	S	10	780,00 A 2
BM 12	x	60	S	10	780,00 A 2
BM 12	x	65	S	10	790,00 A 2
BM 12	x	70	S	10	790,00 A 2
BM 12	x	75	S	10	800,00 A 2
BM 12	x	80	S	10	800,00 A 2
BM 12	x	90	S	10	820,00 A 2
BM 12	x	100	S	10	850,00 A 2
BM 12	x	110	S	10	870,00 A 2
BM 12	x	120	S	10	890,00 A 2
BM 12	x	130	S	10	965,00 A 2
BM 12	x	140	S	10	940,00 A 2
BM 12	x	150	S	10	960,00 A 2
BM 16	x	60	S	1	1140,00 A 2
BM 16	x	65	S	1	1180,00 A 2
BM 16	x	70	S	1	1180,00 A 2
BM 16	x	75	S	1	1200,00 A 2
BM 16	x	80	S	1	1200,00 A 2
BM 16	x	90	S	1	1230,00 A 2
BM 16	x	100	S	1	1260,00 A 2
BM 16	x	110	S	1	1280,00 A 2
BM 16	x	120	S	1	1310,00 A 2
BM 16	x	130	S	1	1330,00 A 2

BM 16	x	140	S	1	1360,00 A 2
BM 16	x	150	S	1	1380,00 A 2
BM 16	x	160	S	1	1410,00 A 2
BM 20	x	70	S	1	1790,00 A 2
BM 20	x	80	S	1	1790,00 A 2
BM 20	x	90	S	1	1790,00 A 2
BM 20	x	100	S	1	1870,00 A 2
BM 20	x	110	S	1	1910,00 A 2
BM 20	x	120	S	1	1960,00 A 2
BM 20	x	130	S	1	1970,00 A 2
BM 20	x	140	S	1	2010,00 A 2
BM 20	x	150	S	1	2060,00 A 2
BM 20	x	160	S	1	2100,00 A 2
BM 24	x	80	S	1	2320,00 A 2
BM 24	x	90	S	1	2320,00 A 2
BM 24	x	100	S	1	2490,00 A 2
BM 24	x	120	S	1	2650,00 A 2
BM 24	x	130	S	1	2750,00 A 2
BM 24	x	140	S	1	2800,00 A 2
BM 24	x	150	S	1	2900,00 A 2
BM 24	x	160	S	1	3000,00 A 2

DIN	00444.942	RAZ 180
444	A 4	type B



Eye bolts, B = product grade B (mg)

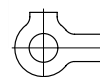
Dimensions → **TI-30** Mech. properties → **TI-224**
 Steel → **S. 82**
 Brass → **S. 572**

Thread M x length l

BM 6	x	30	S	10	355,00 A 4
BM 6	x	35	S	10	390,00 A 4
BM 6	x	40	S	10	390,00 A 4
BM 6	x	45	S	10	435,00 A 4
BM 6	x	50	S	10	435,00 A 4
BM 6	x	60	S	10	470,00 A 4
BM 8	x	30	S	10	460,00 A 4
BM 8	x	35	S	10	495,00 A 4
BM 8	x	40	S	10	495,00 A 4
BM 8	x	45	S	10	510,00 A 4
BM 8	x	50	S	10	510,00 A 4
BM 8	x	55	S	10	540,00 A 4
BM 8	x	60	S	10	540,00 A 4
BM 8	x	70	S	10	580,00 A 4
BM 8	x	75	S	10	610,00 A 4
BM 8	x	80	S	10	610,00 A 4
BM 8	x	90	S	10	650,00 A 4
BM 8	x	100	S	10	680,00 A 4
BM 10	x	40	S	10	650,00 A 4
BM 10	x	45	S	10	660,00 A 4
BM 10	x	50	S	10	660,00 A 4
BM 10	x	55	S	10	670,00 A 4
BM 10	x	60	S	10	670,00 A 4
BM 10	x	65	S	10	680,00 A 4
BM 10	x	70	S	10	680,00 A 4
BM 10	x	75	S	10	720,00 A 4
BM 10	x	80	S	10	720,00 A 4
BM 10	x	90	S	10	800,00 A 4
BM 10	x	100	S	10	840,00 A 4
BM 10	x	110	S	10	860,00 A 4
BM 10	x	120	S	10	880,00 A 4
BM 12	x	50	S	10	880,00 A 4
BM 12	x	55	S	10	890,00 A 4
BM 12	x	60	S	10	890,00 A 4
BM 12	x	65	S	10	910,00 A 4

BM 12	x	70	S	10	910,00 A 4
BM 12	x	80	S	10	920,00 A 4
BM 12	x	90	S	10	940,00 A 4
BM 12	x	100	S	10	980,00 A 4
BM 12	x	110	S	10	1000,00 A 4
BM 12	x	120	S	10	1020,00 A 4
BM 12	x	130	S	10	1040,00 A 4
BM 12	x	140	S	10	1070,00 A 4
BM 12	x	150	S	10	1100,00 A 4
BM 16	x	60	S	1	1310,00 A 4
BM 16	x	70	S	1	1350,00 A 4
BM 16	x	80	S	1	1390,00 A 4
BM 16	x	90	S	1	1410,00 A 4
BM 16	x	100	S	1	1440,00 A 4
BM 16	x	110	S	1	1470,00 A 4
BM 16	x	120	S	1	1500,00 A 4
BM 16	x	130	S	1	1530,00 A 4
BM 16	x	140	S	1	1560,00 A 4
BM 16	x	150	S	1	1590,00 A 4
BM 16	x	160	S	1	1620,00 A 4
BM 20	x	70	S	1	2040,00 A 4
BM 20	x	80	S	1	2040,00 A 4
BM 20	x	90	S	1	2040,00 A 4
BM 20	x	100	S	1	2150,00 A 4
BM 20	x	110	S	1	2200,00 A 4
BM 20	x	120	S	1	2250,00 A 4
BM 20	x	130	S	1	2270,00 A 4
BM 20	x	140	S	1	2310,00 A 4
BM 20	x	150	S	1	2360,00 A 4
BM 20	x	160	S	1	2410,00 A 4
BM 24	x	80	S	1	2750,00 A 4
BM 24	x	90	S	1	2800,00 A 4
BM 24	x	100	S	1	2900,00 A 4
BM 24	x	110	S	1	2950,00 A 4
BM 24	x	120	S	1	3050,00 A 4
BM 24	x	130	S	1	3150,00 A 4
BM 24	x	150	S	1	3350,00 A 4
BM 24	x	160	S	1	3450,00 A 4

~DIN	00463.940	RAZ 180
463	A 4	



Washers with 2 taps

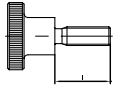
Dimensions → **TI-91**

Steel → **S. 83**
 Brass → **S. 573**

4,3	S	25	166,00 A 4
5,3	S	25	166,00 A 4
6,4	S	25	134,00 A 4
8,4	S	25	159,00 A 4
10,5	S	25	189,00 A 4
13	S	25	245,00 A 4
17	S	25	360,00 A 4
21	S	10	430,00 A 4
23	S	10	560,00 A 4
25	S	10	710,00 A 4
31	S	1	1280,00 A 4



DIN	00464.910	RAZ 190
464	A 1/A 2	



Knurled thumb screws, high type

Dimensions → TI-30

Steel → S. 84
Brass → S. 573

Thread M x length l

M 3	x	6	S	25	250,00 A 1/A 2
M 3	x	8	S	25	250,00 A 1/A 2
M 3	x	10	S	25	275,00 A 1/A 2
M 3	x	12	S	25	290,00 A 1/A 2
M 3	x	16	S	25	300,00 A 1/A 2
M 4	x	8	S	25	250,00 A 1/A 2
M 4	x	10	S	25	275,00 A 1/A 2
M 4	x	12	S	25	305,00 A 1/A 2
M 4	x	16	S	25	310,00 A 1/A 2
M 4	x	20	S	25	335,00 A 1/A 2
M 5	x	8	S	25	330,00 A 1/A 2
M 5	x	10	S	25	345,00 A 1/A 2
M 5	x	12	S	25	360,00 A 1/A 2
M 5	x	16	S	25	425,00 A 1/A 2
M 5	x	20	S	25	550,00 A 1/A 2
M 5	x	25	S	25	660,00 A 1/A 2
M 5	x	30	S	25	750,00 A 1/A 2
M 6	x	10	S	10	480,00 A 1/A 2
M 6	x	12	S	10	500,00 A 1/A 2
M 6	x	16	S	10	510,00 A 1/A 2
M 6	x	20	S	10	580,00 A 1/A 2
M 6	x	25	S	10	650,00 A 1/A 2
M 6	x	30	S	10	760,00 A 1/A 2
M 6	x	40	S	10	960,00 A 1/A 2
M 8	x	16	S	10	1100,00 A 1/A 2
M 8	x	20	S	10	1250,00 A 1/A 2
M 8	x	25	S	10	1400,00 A 1/A 2
M 8	x	30	S	10	1500,00 A 1/A 2

DIN	00466.910	RAZ 190
466	A 1/A 2	



Knurled nuts, high type

Dimensions → TI-70

Steel → S. 84
Brass → S. 573

M 3	S	25	80,00 A 1/A 2
M 4	S	25	144,00 A 1/A 2
M 5	S	25	243,00 A 1/A 2
M 6	S	25	400,00 A 1/A 2
M 8	S	10	700,00 A 1/A 2
M 10	S	10	1800,00 A 1/A 2

DIN	00467.910	RAZ 190
467	A 1/A 2	



Knurled nuts, low type

Dimensions → TI-70

Steel → S. 85
Brass → S. 573

M 3	S	25	114,00 A 1/A 2
M 4	S	25	114,00 A 1/A 2
M 5	S	25	142,00 A 1/A 2
M 6	S	25	222,00 A 1/A 2
M 8	S	10	375,00 A 1/A 2
M 10	S	10	750,00 A 1/A 2

~DIN	00471.300	RAZ 200
471	1.4122	normal



Retaining rings for shafts, normal type

Caution!
Reduced spring load and modified mechanical properties compared to spring steel.

Dimensions → TI-91

Nominal size = for shafts \varnothing x thickness

3	x	0,4	S	100	10,50
4	x	0,4	S	100	10,50
5	x	0,6	S	100	11,70
6	x	0,7	S	100	15,30
7	x	0,8	S	100	15,80
8	x	0,8	S	100	16,90
9	x	1	S	100	36,50
10	x	1	S	100	36,50
12	x	1	S	100	41,00
14	x	1	S	100	56,00
15	x	1	S	100	84,00
16	x	1	S	100	81,00
17	x	1	S	100	83,00
18	x	1,2	S	50	92,00
19	x	1,2	S	50	109,00
20	x	1,2	S	50	95,00
22	x	1,2	S	50	117,00
24	x	1,2	S	50	139,00
25	x	1,2	S	50	142,00
26	x	1,2	S	25	270,00
28	x	1,5	S	25	265,00
29	x	1,5	S	25	270,00
30	x	1,5	S	25	270,00
32	x	1,5	S	25	390,00
34	x	1,5	S	25	405,00
35	x	1,5	S	25	310,00
38	x	1,75	S	25	760,00
40	x	1,75	S	25	600,00
42	x	1,75	S	25	740,00
45	x	1,75	S	10	760,00
47	x	1,75	S	10	790,00
48	x	1,75	S	10	790,00

50	x	2	S	1	780,00
52	x	2	S	1	820,00
55	x	2	S	1	890,00
56	x	2	S	1	900,00
58	x	2	S	1	910,00
60	x	2	S	1	1090,00
65	x	2,5	S	1	1130,00
68	x	2,5	S	1	1150,00
70	x	2,5	S	1	1230,00
75	x	2,5	S	1	1285,00
80	x	2,5	S	1	3450,00
90	x	3	S	1	3500,00
95	x	3	S	1	3550,00
100	x	3	S	1	4100,00

~DIN	00472.300	RAZ 200
472	1.4122/1.4310	normal



Retaining rings for bores, normal type

\varnothing F 100 → 1.4122,
 \varnothing > 100 → 1.4310

Caution!
Reduced spring load and modified mechanical properties compared to spring steel.

Dimensions → TI-95

Nominal size = for drillings \varnothing x thickness

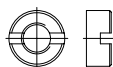
8	x	0,8	S	100	22,70
9	x	0,8	S	100	31,50
10	x	1	S	100	31,50
12	x	1	S	100	40,00
13	x	1	S	100	45,00
14	x	1	S	100	49,50
15	x	1	S	100	60,00
16	x	1	S	100	49,50
17	x	1	S	100	58,00
19	x	1	S	50	93,00
20	x	1	S	50	93,00
21	x	1	S	50	100,00
22	x	1	S	50	106,00
24	x	1,2	S	50	104,00
25	x	1,2	S	50	112,00
26	x	1,2	S	50	156,00
28	x	1,2	S	50	150,00
30	x	1,2	S	25	148,00
32	x	1,2	S	25	157,00
35	x	1,5	S	25	232,00
36	x	1,5	S	25	360,00
37	x	1,5	S	25	415,00
38	x	1,5	S	25	370,00
40	x	1,75	S	25	380,00
42	x	1,75	S	25	465,00
45	x	1,75	S	10	495,00
47	x	1,75	S	10	600,00
48	x	1,75	S	10	610,00
50	x	2	S	1	630,00
52	x	2	S	1	640,00
54	x	2	S	1	690,00
55	x	2	S	1	690,00
56	x	2	S	1	850,00
60	x	2	S	1	900,00
62	x	2	S	1	930,00
65	x	2,5	S	1	960,00
68	x	2,5	S	1	1610,00
70	x	2,5	S	1	1720,00
72	x	2,5	S	1	1930,00

~DIN 472

75	x	2,5	S	1	1960,00
80	x	2,5	S	1	3100,00
82	x	2,5	S	1	3500,00
85	x	3	S	1	3323,40
90	x	3	S	1	3750,00
95	x	3	S	1	3840,00
100	x	3	S	1	3650,00
120	x	4	S	1	3850,00
130	x	4	S	1	4020,00
140	x	4	S	1	4210,00
165	x	4	S	1	4400,00

DIN	00546.940	RAZ 230
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546 A 4



Slotted round nuts

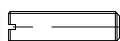
Dimensions → TI-70 Mech. properties → TI-224

Steel → S. 88
Brass → S. 573

M 3		S	100	77,00 A 4
M 4		S	100	88,00 A 4
M 5		S	100	91,00 A 4
M 6		S	100	107,00 A 4
M 8		S	50	144,00 A 4

DIN	00551.910	RAZ 230
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551 A 1



Slotted grub screws with flat point

Dimensions → TI-19

Steel → S. 89
Brass, plastic → S. 573

DIN 551 → replaced by ISO 4766 (compatible)

M 3	x	3	S	50	15,00 A 1
M 3	x	4	S	50	15,20 A 1
M 3	x	5	S	50	16,00 A 1
M 3	x	6	S	50	17,10 A 1
M 3	x	8	S	50	18,00 A 1
M 3	x	10	S	50	18,80 A 1
M 4	x	4	S	50	16,60 A 1
M 4	x	5	S	50	16,60 A 1
M 4	x	6	S	50	17,40 A 1
M 4	x	8	S	50	18,50 A 1
M 4	x	10	S	50	19,50 A 1
M 4	x	12	S	50	20,50 A 1
M 4	x	16	S	50	21,70 A 1
M 5	x	5	S	50	18,00 A 1
M 5	x	6	S	50	19,00 A 1
M 5	x	8	S	50	20,30 A 1
M 5	x	10	S	50	21,40 A 1
M 5	x	12	S	50	22,70 A 1
M 5	x	16	S	50	24,90 A 1
M 5	x	20	S	25	32,50 A 1

M 5	x	25	S	25	38,00 A 1
M 6	x	6	S	25	22,80 A 1
M 6	x	8	S	25	23,80 A 1
M 6	x	10	S	25	25,50 A 1
M 6	x	12	S	25	27,50 A 1
M 6	x	16	S	25	29,00 A 1
M 6	x	20	S	25	33,00 A 1
M 6	x	25	S	25	38,00 A 1
M 6	x	30	S	25	44,50 A 1
M 6	x	40	S	25	51,00 A 1
M 8	x	8	S	50	30,00 A 1
M 8	x	10	S	25	36,50 A 1
M 8	x	12	S	25	40,00 A 1
M 8	x	16	S	25	44,50 A 1
M 8	x	20	S	25	53,00 A 1
M 8	x	25	S	25	63,00 A 1
M 8	x	30	S	25	69,00 A 1
M 8	x	35	S	25	73,00 A 1
M 8	x	40	S	25	79,00 A 1
M 10	x	10	S	10	64,00 A 1
M 10	x	12	S	10	64,00 A 1
M 10	x	16	S	10	68,00 A 1
M 10	x	20	S	10	84,00 A 1
M 10	x	25	S	10	95,00 A 1
M 10	x	30	S	10	101,00 A 1
M 10	x	35	S	10	108,00 A 1
M 10	x	40	S	10	114,00 A 1

DIN	00551.940	RAZ 230
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551 A 4



Slotted grub screws with flat point

Dimensions → TI-19

Steel → S. 89
Brass, plastic → S. 573

DIN 551 → replaced by ISO 4766 (compatible)

M 3	x	4	S	50	59,00 A 4
M 3	x	6	S	50	67,00 A 4
M 3	x	8	S	50	70,00 A 4
M 3	x	10	S	50	74,00 A 4
M 4	x	5	S	50	41,50 A 4
M 4	x	6	S	50	43,50 A 4
M 4	x	10	S	50	49,00 A 4
M 4	x	16	S	50	55,00 A 4
M 4	x	20	S	50	64,00 A 4
M 4	x	25	S	50	77,00 A 4
M 4	x	30	S	50	88,00 A 4
M 5	x	5	S	50	166,00 A 4
M 5	x	6	S	50	47,50 A 4
M 5	x	8	S	50	51,00 A 4
M 5	x	10	S	50	54,00 A 4
M 5	x	12	S	25	62,00 A 4
M 5	x	16	S	25	67,00 A 4
M 5	x	20	S	25	80,00 A 4
M 6	x	5	S	25	52,00 A 4
M 6	x	6	S	25	56,00 A 4
M 6	x	8	S	25	58,00 A 4
M 6	x	10	S	25	62,00 A 4
M 6	x	12	S	25	67,00 A 4
M 6	x	16	S	25	71,00 A 4
M 6	x	20	S	25	82,00 A 4
M 6	x	25	S	25	95,00 A 4
M 6	x	30	S	25	111,00 A 4

M 8	x	6	S	25	80,00 A 4
M 8	x	8	S	25	80,00 A 4
M 8	x	10	S	25	91,00 A 4
M 8	x	12	S	25	100,00 A 4
M 8	x	16	S	25	111,00 A 4
M 8	x	20	S	25	132,00 A 4
M 8	x	30	S	25	174,00 A 4
M 8	x	40	S	25	200,00 A 4

DIN	00553.910	RAZ 230
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553 A 1



Slotted grub screws with cone point

Dimensions → TI-19

Steel → S. 90
Brass → S. 574

DIN 553 → replaced by ISO 7434 (compatible)

M 2	x	3	S	50	15,10 A 1
M 2	x	4	S	50	15,90 A 1
M 2,5	x	5	S	50	16,50 A 1
M 2,5	x	6	S	50	17,00 A 1
M 2,5	x	8	S	50	17,40 A 1
M 3	x	4	S	50	15,70 A 1
M 3	x	5	S	50	16,50 A 1
M 3	x	6	S	50	17,70 A 1
M 3	x	8	S	50	18,60 A 1
M 4	x	5	S	50	17,20 A 1
M 4	x	6	S	50	18,00 A 1
M 4	x	8	S	50	19,10 A 1
M 4	x	10	S	50	20,20 A 1
M 4	x	12	S	50	21,20 A 1
M 4	x	16	S	50	22,40 A 1
M 5	x	5	S	50	18,60 A 1
M 5	x	6	S	50	19,60 A 1
M 5	x	8	S	50	21,00 A 1
M 5	x	10	S	50	22,10 A 1
M 5	x	12	S	50	23,50 A 1
M 5	x	16	S	50	26,00 A 1
M 6	x	6	S	25	23,60 A 1
M 6	x	8	S	25	24,50 A 1
M 6	x	10	S	25	26,50 A 1
M 6	x	12	S	25	28,00 A 1
M 6	x	16	S	25	30,00 A 1
M 6	x	20	S	25	34,00 A 1
M 6	x	25	S	25	39,50 A 1

DIN	00553.940	RAZ 230
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553 A 4



Slotted grub screws with cone point

Dimensions → TI-19

Steel → S. 90
Brass → S. 574

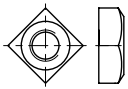
DIN 553 → replaced by ISO 7434 (compatible)

M 4	x	6	S	50	46,50 A 4
M 4	x	8	S	50	49,50 A 4
M 4	x	10	S	50	53,00 A 4



M 5	x	5	S	50	48,00 A 4
M 5	x	6	S	50	51,00 A 4
M 5	x	8	S	50	55,00 A 4
M 5	x	10	S	50	58,00 A 4
M 5	x	16	S	25	72,00 A 4
M 6	x	6	S	25	60,00 A 4
M 6	x	8	S	25	62,00 A 4
M 6	x	10	S	25	67,00 A 4
M 6	x	12	S	25	72,00 A 4
M 6	x	16	S	25	76,00 A 4
M 8	x	12	S	25	108,00 A 4
M 8	x	16	S	25	119,00 A 4
M 8	x	20	S	25	142,00 A 4
M 8	x	25	S	25	169,00 A 4

DIN	00557.920	RAZ 245
557	A 2	



Square nuts

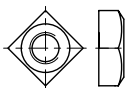
Dimensions → TI-81

Steel → S. 91

SW = wrench size

M 5	S	100	40,00 A 2
M 6	S	100	55,00 A 2
M 8	S	100	70,00 A 2
M 10 SW 17	S	100	175,00 A 2
M 12 SW 19	S	50	260,00 A 2
M 16	S	25	550,00 A 2

DIN	00557.940	RAZ 245
557	A 4	



Square nuts

Dimensions → TI-81

Steel → S. 91

SW = wrench size

M 5	S	100	50,00 A 4
M 6	S	100	62,00 A 4
M 8	S	100	83,00 A 4
M 10 SW 17	S	100	242,00 A 4
M 12 SW 19	S	50	405,00 A 4
M 16	S	25	760,00 A 4

DIN	00562.940	RAZ 260
562	A 4	



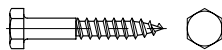
Square thin nuts product grade B

Dimensions → TI-82 Mech. properties → TI-224

Steel → S. 92

M 3	S	100	47,50 A 4
M 4	S	100	49,50 A 4
M 5	S	100	73,00 A 4
M 6	S	100	116,00 A 4
M 8	S	50	146,00 A 4

DIN	00571.920	RAZ 270
571	A 2	



Hexagon head wood screws

Dimensions → TI-51

Steel → S. 93

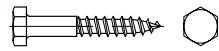
5	x	25	S	100	19,95 A 2
5	x	30	S	100	23,80 A 2
5	x	35	S	100	26,60 A 2
5	x	40	S	100	29,65 A 2
5	x	45	S	100	31,20 A 2
5	x	50	S	50	32,75 A 2
5	x	60	S	50	65,95 A 2
5	x	70	S	50	77,20 A 2
6	x	20	S	25	55,25 A 2
6	x	25	S	25	29,15 A 2
6	x	30	S	200	25,60 A 2
6	x	30	K	25	30,70 A 2
6	x	35	S	25	32,25 A 2
6	x	40	S	200	29,15 A 2
6	x	40	K	25	33,75 A 2
6	x	45	S	25	36,85 A 2
6	x	50	S	200	33,75 A 2
6	x	50	K	25	38,85 A 2
6	x	60	S	100	38,85 A 2
6	x	60	K	25	44,00 A 2
6	x	70	S	100	46,05 A 2
6	x	70	K	25	51,15 A 2
6	x	80	S	100	52,15 A 2
6	x	80	K	25	56,75 A 2
6	x	90	S	25	65,45 A 2
6	x	100	S	25	75,70 A 2
6	x	110	S	25	92,55 A 2
6	x	120	S	25	109,00 A 2
6	x	130	S	25	119,00 A 2
8	x	25	S	25	47,55 A 2
8	x	30	S	25	56,75 A 2
8	x	35	S	25	56,75 A 2
8	x	40	S	100	51,65 A 2
8	x	40	K	10	63,95 A 2
8	x	45	S	10	66,50 A 2
8	x	50	S	100	58,30 A 2

8	x	50	K	10	70,55 A 2
8	x	55	S	100	62,30 A 2
8	x	55	K	10	74,30 A 2
8	x	60	S	100	67,50 A 2
8	x	60	K	10	79,80 A 2
8	x	70	S	100	79,25 A 2
8	x	70	K	10	91,55 A 2
8	x	80	S	100	90,00 A 2
8	x	80	K	10	103,00 A 2
8	x	90	S	10	115,00 A 2
8	x	100	S	100	116,00 A 2
8	x	100	K	10	128,00 A 2
8	x	110	S	10	146,00 A 2
8	x	120	S	10	173,00 A 2
8	x	130	S	1	195,00 A 2
8	x	140	S	10	210,00 A 2
8	x	150	S	10	225,00 A 2
8	x	160	S	10	241,00 A 2
8	x	180	S	10	271,00 A 2
10	x	40	S	10	125,00 A 2
10	x	50	S	100	117,00 A 2
10	x	50	K	10	131,00 A 2
10	x	60	S	100	136,00 A 2
10	x	60	K	10	146,00 A 2
10	x	70	S	100	151,00 A 2
10	x	70	K	10	164,00 A 2
10	x	80	S	100	169,00 A 2
10	x	80	K	10	182,00 A 2
10	x	90	S	10	202,00 A 2
10	x	100	S	100	225,00 A 2
10	x	100	K	10	238,00 A 2
10	x	110	S	10	246,00 A 2
10	x	120	S	10	266,00 A 2
10	x	130	S	10	282,00 A 2
10	x	140	S	1	297,00 A 2
10	x	150	S	10	323,00 A 2
10	x	160	S	1	343,00 A 2
10	x	180	S	10	389,00 A 2
10	x	200	S	1	471,00 A 2
12	x	50	S	10	430,00 A 2
12	x	60	S	10	333,00 A 2
12	x	70	S	10	338,00 A 2
12	x	80	S	10	364,00 A 2
12	x	90	S	10	410,00 A 2
12	x	100	S	10	456,00 A 2
12	x	110	S	10	502,00 A 2
12	x	120	S	10	548,00 A 2
12	x	130	S	10	594,00 A 2
12	x	140	S	10	640,00 A 2
12	x	150	S	10	686,00 A 2
12	x	160	S	10	727,00 A 2
12	x	180	S	10	819,00 A 2
12	x	200	S	10	911,00 A 2
16	x	70	S	10	568,00 A 2
16	x	80	S	10	650,00 A 2
16	x	90	S	10	732,00 A 2
16	x	100	S	10	813,00 A 2
16	x	110	S	10	895,00 A 2
16	x	120	S	10	977,00 A 2
16	x	130	S	10	1059,00 A 2
16	x	140	S	10	1136,00 A 2
16	x	150	S	10	1217,00 A 2
16	x	160	S	10	1304,00 A 2
16	x	180	S	10	1483,00 A 2
16	x	200	S	10	1637,00 A 2

DIN 571

DIN	00571.940	RAZ 270
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571 A 4



Hexagon head wood screws

Dimensions → TI-51

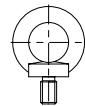
Steel → S. 93

5	x	25	S	200	33,50 A 4
5	x	30	S	200	40,00 A 4
5	x	35	S	200	47,00 A 4
5	x	40	S	200	54,00 A 4
5	x	45	S	200	60,00 A 4
5	x	50	S	200	67,00 A 4
5	x	60	S	200	80,00 A 4
5	x	70	S	200	94,00 A 4
6	x	25	S	200	40,00 A 4
6	x	30	S	200	42,00 A 4
6	x	35	S	200	43,00 A 4
6	x	40	S	200	43,00 A 4
6	x	45	S	200	49,00 A 4
6	x	50	S	200	54,00 A 4
6	x	60	S	200	64,00 A 4
6	x	70	S	200	75,00 A 4
6	x	80	S	200	86,00 A 4
6	x	90	S	100	97,00 A 4
6	x	100	S	100	107,00 A 4
6	x	110	S	100	118,00 A 4
6	x	120	S	100	128,00 A 4
6	x	130	S	100	141,00 A 4
8	x	25	S	100	64,00 A 4
8	x	30	S	100	77,00 A 4
8	x	35	S	100	78,00 A 4
8	x	40	S	100	79,00 A 4
8	x	45	S	100	86,00 A 4
8	x	50	S	100	89,00 A 4
8	x	60	S	100	100,00 A 4
8	x	70	S	100	116,00 A 4
8	x	80	S	100	138,00 A 4
8	x	90	S	100	182,00 A 4
8	x	100	S	100	225,00 A 4
8	x	110	S	100	255,00 A 4
8	x	120	S	100	275,00 A 4
8	x	130	S	100	295,00 A 4
8	x	140	S	100	320,00 A 4
8	x	150	S	100	340,00 A 4
8	x	160	S	100	365,00 A 4
8	x	180	S	100	410,00 A 4
10	x	40	S	100	164,00 A 4
10	x	50	S	100	205,00 A 4
10	x	60	S	100	208,00 A 4
10	x	70	S	100	231,00 A 4
10	x	80	S	100	246,00 A 4
10	x	90	S	100	290,00 A 4
10	x	100	S	100	330,00 A 4
10	x	120	S	50	435,00 A 4
10	x	130	S	50	475,00 A 4
10	x	140	S	50	520,00 A 4
10	x	150	S	50	560,00 A 4
10	x	160	S	50	590,00 A 4
10	x	180	S	50	990,00 A 4
12	x	50	S	50	350,00 A 4
12	x	60	S	50	370,00 A 4
12	x	70	S	50	425,00 A 4
12	x	80	S	50	440,00 A 4
12	x	90	S	50	495,00 A 4
12	x	100	S	50	560,00 A 4

12	x	110	S	50	600,00 A 4
12	x	120	S	25	640,00 A 4
12	x	130	S	50	740,00 A 4
12	x	140	S	25	800,00 A 4
12	x	150	S	25	880,00 A 4
12	x	160	S	25	1480,00 A 4
12	x	180	S	25	2650,00 A 4
12	x	200	S	25	3700,00 A 4
16	x	70	S	10	770,00 A 4
16	x	80	S	10	880,00 A 4
16	x	90	S	10	1000,00 A 4
16	x	100	S	10	1100,00 A 4
16	x	110	S	10	1230,00 A 4
16	x	120	S	10	1330,00 A 4
16	x	130	S	10	1440,00 A 4
16	x	140	S	10	1540,00 A 4
16	x	150	S	10	1670,00 A 4
16	x	160	S	10	1770,00 A 4
16	x	180	S	10	2020,00 A 4
16	x	200	S	10	2230,00 A 4

DIN	00580.920	RAZ 280
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580 A 2



Lifting eye bolts

Caution! See user information.
→ attachment B DIN 580-2003 or TI

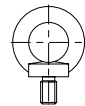
Dimensions → TI-32 Product information → TI-148

Steel → S. 94

M 6 - small	S	1	1080,00 A 2
M 6	S	1	1080,00 A 2
M 8	S	1	970,00 A 2
M 10	S	1	1450,00 A 2
M 12	S	1	2420,00 A 2
M 16	S	1	4150,00 A 2
M 20	S	1	5600,00 A 2
M 24	S	1	8500,00 A 2
M 30	S	1	14500,00 A 2

DIN	00580.940	RAZ 280
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580 A 4



Lifting eye bolts

Caution! See user information.
→ attachment B DIN 580-2003 or TI

Dimensions → TI-32 Product information → TI-148

Steel → S. 94

M 6	S	1	1230,00 A 4
M 8	S	1	1230,00 A 4
M 10	S	1	1650,00 A 4
M 12	S	1	2800,00 A 4
M 16	S	1	4600,00 A 4
M 20	S	1	6300,00 A 4

M 24	S	1	9700,00 A 4
M 30	S	1	14500,00 A 4

DIN	00582.920	RAZ 280
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582 A 2



Lifting eye nuts

Caution! See user information.
→ attachment B DIN 582-2003 or TI

Dimensions → TI-75 Product information → TI-148

Steel → S. 95

M 6	S	1	1030,00 A 2
M 8	S	1	990,00 A 2
M 10	S	1	1420,00 A 2
M 12	S	1	2230,00 A 2
M 16	S	1	3400,00 A 2
M 20	S	1	6100,00 A 2
M 24	S	1	7000,00 A 2
M 30	S	1	13400,00 A 2

DIN	00582.940	RAZ 280
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582 A 4



Lifting eye nuts

Caution! See user information.
→ attachment B DIN 582-2003 or TI

Dimensions → TI-75 Product information → TI-148

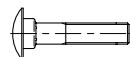
Steel → S. 95

M 8	S	1	1240,00 A 4
M 10	S	1	1670,00 A 4
M 12	S	1	2700,00 A 4
M 16	S	1	4400,00 A 4
M 20	S	1	6900,00 A 4
M 24	S	1	7700,00 A 4
M 30	S	1	13400,00 A 4



DIN 603

DIN	00603.924	RAZ 300
603	A 2	



Cup head square neck bolts

Full or partial thread depending on manufacturer

Dimensions → **TI-32** Mech. properties → **TI-224**

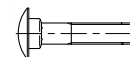
Steel → **S. 99**

Brass → **S. 574**

M 5	x	16	S	100	38,85 A2
M 5	x	20	S	100	40,40 A2
M 5	x	25	S	100	42,95 A2
M 5	x	30	S	100	45,50 A2
M 5	x	35	S	100	47,55 A2
M 5	x	40	S	100	49,10 A2
M 5	x	45	S	100	66,50 A2
M 5	x	50	S	100	69,55 A2
M 5	x	55	S	100	101,00 A2
M 5	x	60	S	100	81,80 A2
M 5	x	65	S	100	133,00 A2
M 5	x	70	S	100	123,00 A2
M 5	x	80	S	100	146,00 A2
M 6	x	12	S	100	41,45 A2
M 6	x	16	S	100	42,95 A2
M 6	x	20	S	100	45,00 A2
M 6	x	25	S	100	47,55 A2
M 6	x	30	S	100	49,60 A2
M 6	x	35	S	100	55,25 A2
M 6	x	40	S	100	60,85 A2
M 6	x	45	S	100	61,90 A2
M 6	x	50	S	100	64,45 A2
M 6	x	55	S	100	73,15 A2
M 6	x	60	S	100	73,15 A2
M 6	x	65	S	100	84,90 A2
M 6	x	70	S	100	106,00 A2
M 6	x	75	S	100	121,00 A2
M 6	x	80	S	100	128,00 A2
M 6	x	90	S	100	149,00 A2
M 6	x	100	S	100	172,00 A2
M 6	x	110	S	100	187,00 A2
M 6	x	120	S	100	248,00 A2
M 8	x	16	S	100	79,80 A2
M 8	x	20	S	100	83,85 A2
M 8	x	25	S	100	86,40 A2
M 8	x	30	S	100	90,00 A2
M 8	x	35	S	100	92,55 A2
M 8	x	40	S	100	95,65 A2
M 8	x	45	S	100	104,00 A2
M 8	x	50	S	100	110,00 A2
M 8	x	55	S	100	146,00 A2
M 8	x	60	S	100	125,00 A2
M 8	x	65	S	100	169,00 A2
M 8	x	70	S	100	146,00 A2
M 8	x	75	S	100	167,00 A2
M 8	x	80	S	100	195,00 A2
M 8	x	90	S	100	185,00 A2
M 8	x	100	S	100	225,00 A2
M 8	x	110	S	100	241,00 A2
M 8	x	120	S	100	266,00 A2
M 8	x	130	S	100	486,00 A2
M 8	x	140	S	50	537,00 A2
M 8	x	150	S	50	594,00 A2
M 8	x	160	S	50	967,00 A2
M 8	x	180	S	50	1064,00 A2
M 8	x	200	S	50	1207,00 A2

M 10	x	20	S	100	220,00 A2
M 10	x	25	S	100	233,00 A2
M 10	x	30	S	100	243,00 A2
M 10	x	35	S	100	256,00 A2
M 10	x	40	S	100	271,00 A2
M 10	x	45	S	100	282,00 A2
M 10	x	50	S	100	292,00 A2
M 10	x	55	S	100	302,00 A2
M 10	x	60	S	100	317,00 A2
M 10	x	65	S	100	410,00 A2
M 10	x	70	S	100	348,00 A2
M 10	x	75	S	100	364,00 A2
M 10	x	80	S	100	374,00 A2
M 10	x	90	S	100	399,00 A2
M 10	x	100	S	100	430,00 A2
M 10	x	110	S	50	634,00 A2
M 10	x	120	S	50	640,00 A2
M 10	x	130	S	50	810,00 A2
M 10	x	140	S	50	916,00 A2
M 10	x	150	S	50	987,00 A2
M 12	x	25	S	100	446,00 A2
M 12	x	30	S	100	466,00 A2
M 12	x	35	S	100	486,00 A2
M 12	x	40	S	100	512,00 A2
M 12	x	45	S	100	542,00 A2
M 12	x	50	S	100	563,00 A2
M 12	x	55	S	100	594,00 A2
M 12	x	60	S	100	609,00 A2
M 12	x	65	S	50	624,00 A2
M 12	x	70	S	50	655,00 A2
M 12	x	75	S	50	686,00 A2
M 12	x	80	S	50	706,00 A2
M 12	x	90	S	50	757,00 A2
M 12	x	100	S	50	803,00 A2
M 12	x	110	S	50	849,00 A2
M 12	x	120	S	50	900,00 A2
M 12	x	130	S	50	951,00 A2
M 12	x	140	S	50	1003,00 A2
M 12	x	150	S	25	1105,00 A2
M 12	x	160	S	25	1222,00 A2
M 12	x	180	S	25	1483,00 A2
M 12	x	200	S	25	1611,00 A2
M 16	x	40	S	50	798,00 A2
M 16	x	45	S	50	834,00 A2
M 16	x	50	S	50	875,00 A2
M 16	x	55	S	50	926,00 A2
M 16	x	60	S	50	951,00 A2
M 16	x	65	S	25	1003,00 A2
M 16	x	70	S	25	1054,00 A2
M 16	x	75	S	25	1079,00 A2
M 16	x	80	S	25	1105,00 A2
M 16	x	90	S	25	1171,00 A2
M 16	x	100	S	25	1263,00 A2
M 16	x	110	S	25	1330,00 A2
M 16	x	120	S	25	1432,00 A2
M 16	x	130	S	1	2071,00 A2
M 16	x	140	S	1	2225,00 A2
M 16	x	150	S	1	2327,00 A2

DIN	00603.944	RAZ 300
603	A 4	



Cup head square neck bolts

Full or partial thread depending on manufacturer

Dimensions → **TI-32** Mech. properties → **TI-224**

Steel → **S. 99**

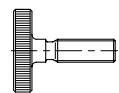
Brass → **S. 574**

M 6	x	16	S	25	104,00 A4
M 6	x	20	S	25	114,00 A4
M 6	x	25	S	25	131,00 A4
M 6	x	30	S	25	136,00 A4
M 6	x	35	S	25	139,00 A4
M 6	x	40	S	25	141,00 A4
M 6	x	45	S	25	141,00 A4
M 6	x	50	S	25	144,00 A4
M 6	x	55	S	25	151,00 A4
M 6	x	60	S	25	159,00 A4
M 6	x	65	S	10	200,00 A4
M 6	x	70	S	10	200,00 A4
M 6	x	75	S	10	223,00 A4
M 6	x	80	S	10	233,00 A4
M 6	x	90	S	10	266,00 A4
M 6	x	100	S	10	343,00 A4
M 8	x	16	S	25	179,00 A4
M 8	x	20	S	25	187,00 A4
M 8	x	25	S	25	200,00 A4
M 8	x	30	S	25	210,00 A4
M 8	x	35	S	25	228,00 A4
M 8	x	40	S	25	228,00 A4
M 8	x	45	S	10	236,00 A4
M 8	x	50	S	10	246,00 A4
M 8	x	55	S	10	266,00 A4
M 8	x	60	S	10	271,00 A4
M 8	x	65	S	10	302,00 A4
M 8	x	70	S	10	312,00 A4
M 8	x	75	S	10	410,00 A4
M 8	x	80	S	10	328,00 A4
M 8	x	90	S	10	364,00 A4
M 8	x	100	S	10	404,00 A4
M 8	x	110	S	10	456,00 A4
M 8	x	120	S	10	481,00 A4
M 8	x	130	S	10	793,00 A4
M 8	x	140	S	10	859,00 A4
M 8	x	150	S	10	905,00 A4
M 10	x	20	S	10	297,00 A4
M 10	x	25	S	10	297,00 A4
M 10	x	30	S	10	317,00 A4
M 10	x	35	S	10	343,00 A4
M 10	x	40	S	10	389,00 A4
M 10	x	45	S	10	425,00 A4
M 10	x	50	S	10	445,00 A4
M 10	x	55	S	10	456,00 A4
M 10	x	60	S	10	466,00 A4
M 10	x	65	S	10	507,00 A4
M 10	x	70	S	10	537,00 A4
M 10	x	75	S	1	706,00 A4
M 10	x	80	S	1	568,00 A4
M 10	x	90	S	1	614,00 A4
M 10	x	100	S	1	629,00 A4
M 10	x	110	S	1	737,00 A4
M 10	x	120	S	1	793,00 A4
M 10	x	130	S	1	854,00 A4
M 10	x	140	S	1	905,00 A4

DIN 603

M 10	x	150	S	1	967,00 A 4
M 12	x	25	S	1	640,00 A 4
M 12	x	30	S	1	640,00 A 4
M 12	x	35	S	1	711,00 A 4
M 12	x	40	S	1	747,00 A 4
M 12	x	45	S	1	778,00 A 4
M 12	x	50	S	1	808,00 A 4
M 12	x	55	S	1	829,00 A 4
M 12	x	60	S	1	839,00 A 4
M 12	x	65	S	1	865,00 A 4
M 12	x	70	S	1	875,00 A 4
M 12	x	75	S	1	885,00 A 4
M 12	x	80	S	1	905,00 A 4
M 12	x	90	S	1	972,00 A 4
M 12	x	100	S	1	1156,00 A 4
M 12	x	110	S	1	1192,00 A 4
M 12	x	120	S	1	1228,00 A 4
M 12	x	130	S	1	1304,00 A 4
M 12	x	140	S	1	1355,00 A 4
M 12	x	150	S	1	1534,00 A 4
M 12	x	160	S	1	1611,00 A 4
M 16	x	50	S	1	1156,00 A 4
M 16	x	55	S	1	1202,00 A 4
M 16	x	60	S	1	1253,00 A 4
M 16	x	65	S	1	1355,00 A 4
M 16	x	70	S	1	1381,00 A 4
M 16	x	75	S	1	1432,00 A 4
M 16	x	80	S	1	1483,00 A 4
M 16	x	90	S	1	1560,00 A 4
M 16	x	100	S	1	1688,00 A 4
M 16	x	110	S	1	2225,00 A 4
M 16	x	120	S	1	2327,00 A 4
M 16	x	130	S	1	2429,00 A 4
M 16	x	140	S	1	2531,00 A 4
M 16	x	150	S	1	2557,00 A 4

DIN	00653.910	RAZ 320
653	A 1	



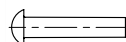
Knurled thumb screws, low type

Dimensions → TI-33
Steel → S. 104

M 3	x	10	S	10	260,00 A 1
M 3	x	12	S	10	275,00 A 1
M 3	x	16	S	10	290,00 A 1
M 4	x	8	S	10	260,00 A 1
M 4	x	10	S	10	290,00 A 1
M 4	x	12	S	10	305,00 A 1
M 4	x	16	S	10	330,00 A 1
M 4	x	20	S	10	360,00 A 1
M 5	x	10	S	10	350,00 A 1
M 5	x	12	S	10	370,00 A 1
M 5	x	16	S	10	425,00 A 1
M 5	x	20	S	10	550,00 A 1
M 5	x	25	S	10	650,00 A 1
M 5	x	30	S	10	750,00 A 1
M 5	x	40	S	10	1000,00 A 1
M 5	x	50	S	10	1200,00 A 1
M 6	x	12	S	10	490,00 A 1
M 6	x	16	S	10	510,00 A 1
M 6	x	20	S	10	570,00 A 1
M 6	x	25	S	10	650,00 A 1
M 6	x	30	S	10	760,00 A 1
M 6	x	35	S	10	875,00 A 1
M 6	x	40	S	10	960,00 A 1

M 8	x	10	S	10	850,00 A 1
M 8	x	16	S	10	1000,00 A 1
M 8	x	20	S	10	1200,00 A 1
M 8	x	25	S	10	1350,00 A 1
M 8	x	30	S	10	1500,00 A 1
M 8	x	35	S	10	1700,00 A 1

DIN	00660.920	RAZ 330
660	A 2	

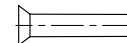


Round head rivets

Dimensions → TI-131
Steel → S. 105
Brass, copper, aluminium → S. 574

2	x	4	S	200	7,90 A 2
2	x	5	S	200	7,90 A 2
2	x	6	S	200	7,90 A 2
2	x	8	S	200	8,50 A 2
2	x	20	S	200	10,50 A 2
3	x	4	S	200	9,70 A 2
3	x	5	S	200	9,70 A 2
3	x	6	S	200	9,70 A 2
3	x	8	S	200	10,20 A 2
3	x	10	S	200	11,30 A 2
3	x	12	S	200	12,00 A 2
3	x	16	S	200	13,50 A 2
3	x	20	S	200	15,70 A 2
3	x	25	S	200	17,80 A 2
4	x	5	S	100	15,90 A 2
4	x	6	S	100	15,90 A 2
4	x	8	S	100	17,10 A 2
4	x	10	S	100	18,80 A 2
4	x	12	S	100	20,70 A 2
4	x	16	S	100	23,30 A 2
4	x	20	S	100	26,50 A 2
4	x	25	S	100	29,50 A 2
5	x	8	S	100	24,20 A 2
5	x	10	S	100	27,50 A 2
5	x	12	S	100	30,00 A 2
5	x	16	S	100	34,00 A 2
5	x	20	S	100	41,00 A 2
5	x	25	S	100	47,50 A 2
6	x	12	S	100	43,00 A 2
6	x	16	S	100	49,00 A 2
6	x	20	S	100	60,00 A 2
6	x	25	S	100	66,00 A 2
6	x	30	S	100	72,00 A 2
8	x	16	S	50	81,00 A 2
8	x	20	S	50	91,00 A 2
8	x	25	S	50	100,00 A 2
8	x	30	S	50	108,00 A 2

DIN	00661.920	RAZ 330
661	A 2	

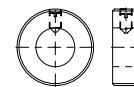


Countersunk head rivets

Dimensions → TI-131
Steel → S. 105
Brass, copper, aluminium → S. 575

2	x	5	S	200	7,60 A 2
2	x	6	S	200	7,60 A 2
3	x	6	S	200	9,20 A 2
3	x	8	S	200	9,80 A 2
3	x	10	S	200	10,80 A 2
3	x	12	S	200	11,40 A 2
3	x	16	S	200	12,80 A 2
3	x	20	S	200	15,00 A 2
4	x	6	S	100	15,10 A 2
4	x	8	S	100	16,30 A 2
4	x	10	S	100	17,90 A 2
4	x	12	S	100	19,70 A 2
4	x	16	S	100	22,20 A 2
4	x	20	S	100	25,50 A 2
5	x	8	S	100	23,00 A 2
5	x	10	S	100	26,00 A 2
5	x	12	S	100	28,50 A 2
5	x	16	S	100	32,50 A 2
5	x	20	S	100	39,00 A 2
5	x	25	S	100	45,50 A 2
6	x	12	S	100	41,00 A 2
6	x	16	S	100	46,50 A 2
6	x	30	S	100	69,00 A 2
8	x	20	S	50	86,00 A 2
8	x	25	S	50	95,00 A 2

DIN	00705.911	RAZ 340
705	A 1	type A



Adjusting rings, light range, A = with grub screw

Until Ø 75 with grub screw DIN 553/ISO 7434,
from Ø 75 with set screw DIN 914/ISO 4027

Dimensions → TI-110
Steel → S. 106

Inside / nominal Ø x outside Ø x width

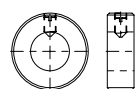
A 6	x	12	x	8	S	10	161,00 A 1
A 8	x	16	x	8	S	10	171,00 A 1
A 9	x	18	x	10	S	10	210,00 A 1
A 10	x	20	x	10	S	10	229,00 A 1
A 12	x	22	x	12	S	10	285,00 A 1
A 13	x	22	x	12	S	10	285,00 A 1
A 14	x	25	x	12	S	10	325,00 A 1
A 15	x	25	x	12	S	10	325,00 A 1
A 16	x	28	x	12	S	10	400,00 A 1
A 18	x	32	x	14	S	10	520,00 A 1
A 20	x	32	x	14	S	10	520,00 A 1
A 22	x	36	x	14	S	1	650,00 A 1
A 25	x	40	x	16	S	1	740,00 A 1



DIN 908

A 26	x	40	x	16	S	1	740,00 A1
A 28	x	45	x	16	S	1	880,00 A1
A 30	x	45	x	16	S	1	880,00 A1
A 32	x	50	x	16	S	1	1210,00 A1
A 35	x	56	x	16	S	1	1360,00 A1
A 40	x	63	x	18	S	1	1970,00 A1
A 45	x	70	x	18	S	1	2600,00 A1
A 50	x	80	x	18	S	1	3450,00 A1
A 60	x	90	x	20	S	1	6600,00 A1
A 65	x	100	x	20	S	1	9000,00 A1
A 70	x	100	x	20	S	1	9900,00 A1
A 80	x	110	x	22	S	1	13500,00 A1
A120	x	160	x	25	S	1	35000,00 A1

DIN	00705.951	RAZ 340
705	1.4571 (A 5)	type A



Adjusting rings, light range, A = with grub screw

Grub screw DIN 553/ISO 7434

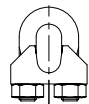
Dimensions → TI-110

Steel → S. 106

Inside / nominal Ø x outside Ø x width

A 8	x	16	x	8	S	10	330,00 A5
A 10	x	20	x	10	S	10	445,00 A5
A 12	x	22	x	12	S	10	550,00 A5
A 14	x	25	x	12	S	10	620,00 A5
A 15	x	25	x	12	S	10	620,00 A5
A 16	x	28	x	12	S	10	770,00 A5
A 20	x	32	x	14	S	10	990,00 A5
A 25	x	40	x	16	S	5	1420,00 A5
A 30	x	45	x	16	S	5	1680,00 A5
A 35	x	56	x	16	S	5	2600,00 A5
A 40	x	63	x	18	S	1	3800,00 A5
A 50	x	80	x	18	S	1	6700,00 A5
A 60	x	90	x	20	S	1	10000,00 A5

~DIN	00741.920	RAZ 341
741	A 2	



Clips for free ends of wire ropes

Thimbles → DIN 6899

Dimensions → TI-130

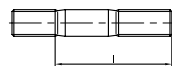
Safety wire rope grips

→ DIN 1142/EN 13411-5 on request

For rope Ø max./thread Ø

3 MM / M 4	S	50	255,00 A2
5 MM / M 5	S	50	365,00 A2
6 MM / M 5	S	50	440,00 A2
8 MM / M 6	S	25	510,00 A2

DIN	00835.940	RAZ 340
835	A 4	



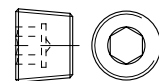
Studs, metal end R 2 d

Dimensions → TI-18 Mech. properties → TI-224

Steel → S. 107

M 6	x	16	S	25	144,00 A4
M 6	x	20	S	25	149,00 A4
M 6	x	25	S	25	154,00 A4
M 8	x	30	S	10	152,00 A4
M 8	x	35	S	10	195,00 A4
M 8	x	40	S	10	200,00 A4
M 10	x	30	S	10	246,00 A4
M 10	x	35	S	10	260,00 A4
M 10	x	40	S	10	270,00 A4
M 12	x	25	S	10	295,00 A4
M 12	x	30	S	10	305,00 A4
M 12	x	35	S	10	325,00 A4
M 12	x	40	S	10	340,00 A4
M 12	x	45	S	10	355,00 A4
M 12	x	50	S	10	370,00 A4
M 12	x	60	S	10	400,00 A4
M 16	x	40	S	10	510,00 A4
M 16	x	50	S	10	560,00 A4

DIN	00906.940	RAZ 350
906	A 4	taper fine



Hexagon socket pipe plugs with tapered fine pitch thread

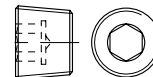
Dimensions → TI-22

Steel → S. 107

Brass → S. 576

M 8	x	1	S	100	187,00 A4
M 10	x	1	S	100	208,00 A4
M 12	x	1,5	S	100	237,00 A4
M 14	x	1,5	S	100	295,00 A4
M 16	x	1,5	S	100	415,00 A4
M 18	x	1,5	S	100	470,00 A4
M 20	x	1,5	S	100	520,00 A4
M 22	x	1,5	S	50	580,00 A4

DIN	00906.944	RAZ 350
906	A 4	taper pipe R



Hexagon socket pipe plugs, R = with tapered pipe thread

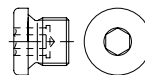
Dimensions → TI-22

Steel → S. 108

Brass → S. 577

R 1/8	S	50	154,00 A4
R 1/4	S	50	305,00 A4
R 3/8	S	100	440,00 A4
R 1/2	S	100	485,00 A4
R 3/4	S	25	3445,00 A4
R 1	S	1	5915,00 A4

DIN	00908.940	RAZ 350
908	A 4	cyl. fine



Hexagon socket screw plugs with cylindrical fine pitch thread

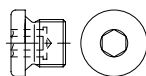
Dimensions → TI-22

Steel → S. 108

M 8	x	1	S	100	850,00 A4
M 10	x	1	S	100	305,00 A4
M 12	x	1,5	S	100	510,00 A4
M 14	x	1,5	S	100	670,00 A4
M 16	x	1,5	S	100	720,00 A4
M 18	x	1,5	S	100	860,00 A4
M 20	x	1,5	S	100	990,00 A4
M 22	x	1,5	S	50	1170,00 A4
M 24	x	1,5	S	50	1350,00 A4
M 30	x	1,5	S	50	1690,00 A4
M 30	x	2	S	50	1790,00 A4

DIN 908

DIN	00908.944	RAZ 350
908	A 4	cyl. pipe G



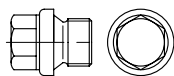
Hexagon socket screw plugs,
G = with cylindrical pipe thread

Dimensions → TI-22

Steel → S. 108
Brass → S. 577

G 1/8 A	S	1	221,00 A4
G 1/4 A	S	1	420,00 A4
G 3/8 A	S	1	490,00 A4
G 1/2 A	S	1	610,00 A4
G 3/4 A	S	1	1170,00 A4
G 1 A	S	1	1580,00 A4
G 1 1/4 A	S	1	4550,00 A4
G 1 1/2 A	S	1	5800,00 A4
G 2 A	S	1	8000,00 A4

DIN	00910.940	RAZ 350
910	A 4	cyl. fine



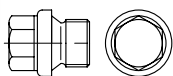
Hexagon head screw plugs,
heavy type,
with cylindrical fine pitch thread

Dimensions → TI-23

Steel → S. 109
Brass → S. 577

M 10 x 1	S	10	430,00 A4
M 12 x 1,5	S	10	620,00 A4
M 14 x 1,5	S	10	620,00 A4
M 16 x 1,5	S	1	650,00 A4
M 18 x 1,5	S	1	910,00 A4
M 20 x 1,5	S	1	1040,00 A4
M 22 x 1,5	S	1	1140,00 A4
M 24 x 1,5	S	1	1610,00 A4
M 30 x 1,5	S	1	6800,00 A4
M 42 x 1,5	S	1	12500,00 A4

DIN	00910.944	RAZ 350
910	A 4	cyl. pipe G



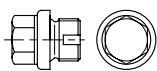
Hexagon head screw plugs,
heavy type,
G = cylindrical pipe thread

Dimensions → TI-23

Steel → S. 109
Brass → S. 577

G 1/8 A	S	10	315,00 A4
G 1/4 A	S	10	335,00 A4
G 3/8 A	S	10	425,00 A4
G 1/2 A	S	1	840,00 A4
G 5/8 A	S	1	1970,00 A4
G 3/4 A	S	1	1260,00 A4
G 1 A	S	1	1970,00 A4
G 1 1/4 A	S	1	5700,00 A4
G 1 1/2 A	S	1	6300,00 A4
G 2 A	S	1	9800,00 A4

~DIN	00910.954	RAZ 350
910	1.4571 (A 5)	cyl. pipe EG

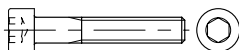


Hexagon head screw plugs,
heavy type,
E = with ventilation,
G = cylindrical pipe thread
(~ DIN 5586 type A)

Dimensions → TI-23 Mech. properties → TI-224

EG 1/4 A	S	10	1350,00 A5
EG 3/8 A	S	10	1330,00 A5
EG 1/2 A	S	1	1670,00 A5
EG 3/4 A	S	1	2180,00 A5
EG 1 A	S	1	3200,00 A5

DIN	00912.920	RAZ 360
912	A 2 - 70	



Hexagon socket head cap screws

Dimensions → TI-12 Tightening torque → TI-235
Mech. properties → TI-224 Standard conversion → TI-6

Steel → S. 110

DIN 912 → replaced by ISO 4762

*Prop. class for dimensions different depending on production

M 1,6 x 4	S	100	85,80 A2
M 1,6 x 5	S	100	92,00 A2
M 1,6 x 6	S	100	98,10 A2

M 1,6 x 8	S	100	106,00 A2
M 2 x 3	S	100	42,40 A2
M 2 x 4	S	100	26,50 A2
M 2 x 5	S	100	26,50 A2
M 2 x 6	S	100	26,50 A2
M 2 x 8	S	100	26,50 A2
M 2 x 10	S	100	27,60 A2
M 2 x 12	S	100	29,10 A2
M 2 x 16	S	100	33,20 A2
M 2 x 20	S	100	39,80 A2
M 2,5 x 4	S	100	26,50 A2
M 2,5 x 5	S	100	26,50 A2
M 2,5 x 6	S	100	26,50 A2
M 2,5 x 8	S	100	26,50 A2
M 2,5 x 10	S	100	27,60 A2
M 2,5 x 12	S	100	29,10 A2
M 2,5 x 14	S	100	41,40 A2
M 2,5 x 16	S	100	33,20 A2
M 2,5 x 20	S	100	39,80 A2
M 2,5 x 25	S	100	53,10 A2
M 3 x 4	S	100	19,90 A2
M 3 x 5	S	100	16,30 A2
M 3 x 6	S	100	12,20 A2
M 3 x 8	S	100	10,70 A2
M 3 x 10	S	100	9,20 A2
M 3 x 12	S	100	9,20 A2
M 3 x 14	S	100	7,75 A2
M 3 x 16	S	100	6,15 A2
M 3 x 18	S	100	8,40 A2
M 3 x 20	S	100	6,70 A2
M 3 x 22	S	100	8,75 A2
M 3 x 25	S	100	7,05 A2
M 3 x 30	S	100	9,10 A2
M 3 x 35	S	100	10,70 A2
M 3 x 40	S	100	11,70 A2
M 3 x 45	S	100	20,90 A2
M 3 x 50	S	100	20,90 A2
M 4 x 5	S	100	19,40 A2
M 4 x 6	S	200	13,20 A2
M 4 x 8	S	500	10,70 A2
M 4 x 8	K	200	11,95 A2
M 4 x 10	S	500	9,95 A2
M 4 x 10	K	200	12,00 A2
M 4 x 12	S	500	9,95 A2
M 4 x 12	K	200	12,00 A2
M 4 x 14	S	500	7,75 A2
M 4 x 14	K	200	9,00 A2
M 4 x 16	S	500	6,15 A2
M 4 x 16	K	200	8,20 A2
M 4 x 18	S	500	8,40 A2
M 4 x 18	K	200	9,65 A2
M 4 x 20	S	500	6,70 A2
M 4 x 20	K	200	8,80 A2
M 4 x 22	S	500	8,75 A2
M 4 x 22	K	200	10,00 A2
M 4 x 25	S	500	7,05 A2
M 4 x 25	K	200	8,30 A2
M 4 x 30	S	500	9,10 A2
M 4 x 30	K	200	10,35 A2
M 4 x 35	S	500	9,40 A2
M 4 x 35	K	200	10,65 A2
M 4 x 40	S	500	10,50 A2
M 4 x 40	K	200	11,75 A2
M 4 x 45	S	200	20,90 A2
M 4 x 50	S	200	20,90 A2
M 4 x 55	S	200	124,00 A2
M 4 x 60	S	200	136,00 A2
M 4 x 70	S	200	177,00 A2
M 4 x 80	S	200	450,00 A2
M 5 x 6*	S	100	23,50 A2
M 5 x 8*	S	100	10,70 A2
M 5 x 10	S	500	9,95 A2
M 5 x 10	K	100	12,00 A2
M 5 x 12	S	500	9,95 A2
M 5 x 12	K	100	12,00 A2



DIN 912

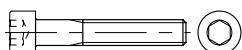
M 5	x	14	S	500	8,85 A2	M 8	x	10*	S	100	24,00 A2	M 12	x	80	S	100	100,00 A2
M 5	x	14	K	100	11,35 A2	M 8	x	12	S	200	22,40 A2	M 12	x	85	S	100	317,00 A2
M 5	x	16	S	500	6,95 A2	M 8	x	14	S	200	27,00 A2	M 12	x	90	S	100	125,00 A2
M 5	x	16	K	100	9,00 A2	M 8	x	16	S	200	19,40 A2	M 12	x	100	S	100	144,00 A2
M 5	x	18	S	500	8,70 A2	M 8	x	16	K	100	21,50 A2	M 12	x	110	S	10	214,00 A2
M 5	x	18	K	100	11,20 A2	M 8	x	18	S	200	22,40 A2	M 12	x	120	S	10	235,00 A2
M 5	x	20	S	500	7,15 A2	M 8	x	20	S	200	16,60 A2	M 12	x	130	S	10	276,00 A2
M 5	x	20	K	100	9,20 A2	M 8	x	20	K	100	18,70 A2	M 12	x	140	S	1	332,00 A2
M 5	x	22	S	500	9,80 A2	M 8	x	22	S	200	19,90 A2	M 12	x	150	S	1	373,00 A2
M 5	x	22	K	100	12,30 A2	M 8	x	25	S	200	15,50 A2	M 12	x	160	S	1	1073,00 A2
M 5	x	25	S	500	7,75 A2	M 8	x	25	K	100	17,60 A2	M 12	x	170*	S	1	1175,00 A2
M 5	x	25	K	100	9,80 A2	M 8	x	30	S	200	17,30 A2	M 12	x	180*	S	1	1431,00 A2
M 5	x	30	S	500	9,10 A2	M 8	x	30	K	100	19,40 A2	M 14	x	20	S	50	460,00 A2
M 5	x	30	K	100	11,20 A2	M 8	x	35	S	200	18,90 A2	M 14	x	25	S	50	327,00 A2
M 5	x	35	S	500	10,10 A2	M 8	x	35	K	100	21,00 A2	M 14	x	30	S	50	243,00 A2
M 5	x	35	K	100	12,60 A2	M 8	x	40	S	200	20,70 A2	M 14	x	35	S	50	243,00 A2
M 5	x	40	S	500	11,00 A2	M 8	x	40	K	100	22,80 A2	M 14	x	40	S	50	243,00 A2
M 5	x	40	K	100	13,50 A2	M 8	x	45	S	200	23,50 A2	M 14	x	45	S	50	255,00 A2
M 5	x	45	S	100	14,70 A2	M 8	x	50	S	200	25,50 A2	M 14	x	50	S	50	279,00 A2
M 5	x	50	S	100	16,30 A2	M 8	x	55	S	200	34,50 A2	M 14	x	55	S	50	325,00 A2
M 5	x	55	S	100	23,50 A2	M 8	x	60	S	200	35,50 A2	M 14	x	60	S	50	337,00 A2
M 5	x	60	S	100	30,60 A2	M 8	x	65	S	200	72,00 A2	M 14	x	65	S	50	472,00 A2
M 5	x	65*	S	100	43,90 A2	M 8	x	70	S	200	54,70 A2	M 14	x	70	S	50	472,00 A2
M 5	x	70*	S	100	35,20 A2	M 8	x	75	S	200	107,00 A2	M 14	x	80	S	50	485,00 A2
M 5	x	75*	S	100	94,10 A2	M 8	x	80	S	200	71,00 A2	M 14	x	90	S	1	547,00 A2
M 5	x	80*	S	100	72,00 A2	M 8	x	85	S	100	135,00 A2	M 14	x	100	S	1	644,00 A2
M 5	x	90*	S	100	246,00 A2	M 8	x	90	S	200	78,20 A2	M 14	x	110	S	1	1018,00 A2
M 5	x	100*	S	100	363,00 A2	M 8	x	100	S	200	87,40 A2	M 14	x	120	S	1	1150,00 A2
M 6	x	6*	S	100	24,50 A2	M 8	x	110	S	50	117,00 A2	M 14	x	130	S	1	1334,00 A2
M 6	x	8*	S	100	13,80 A2	M 8	x	120	S	50	138,00 A2	M 14	x	140	S	1	1518,00 A2
M 6	x	10	S	500	12,20 A2	M 8	x	130	S	50	153,00 A2	M 14	x	150	S	1	1702,00 A2
M 6	x	10	K	100	14,30 A2	M 8	x	140	S	50	168,00 A2	M 16	x	20*	S	50	291,00 A2
M 6	x	12	S	500	12,20 A2	M 8	x	150	S	50	184,00 A2	M 16	x	25*	S	25	181,00 A2
M 6	x	12	K	100	14,30 A2	M 8	x	160*	S	50	485,00 A2	M 16	x	30	S	25	135,00 A2
M 6	x	14	S	500	12,30 A2	M 8	x	170*	S	50	639,00 A2	M 16	x	35	S	25	135,00 A2
M 6	x	14	K	100	14,80 A2	M 8	x	180*	S	50	894,00 A2	M 16	x	40	S	25	135,00 A2
M 6	x	16	S	500	8,60 A2	M 10	x	12*	S	100	65,40 A2	M 16	x	45	S	25	142,00 A2
M 6	x	16	K	100	10,70 A2	M 10	x	16	S	100	36,80 A2	M 16	x	50	S	25	155,00 A2
M 6	x	18	S	500	11,70 A2	M 10	x	18	S	100	43,90 A2	M 16	x	55	S	25	180,00 A2
M 6	x	18	K	100	14,20 A2	M 10	x	20	S	100	28,80 A2	M 16	x	60	S	25	187,00 A2
M 6	x	20	S	500	9,55 A2	M 10	x	25	S	100	26,30 A2	M 16	x	65	S	25	262,00 A2
M 6	x	20	K	100	11,60 A2	M 10	x	30	S	100	27,80 A2	M 16	x	70	S	25	262,00 A2
M 6	x	22	S	100	12,20 A2	M 10	x	35	S	100	28,60 A2	M 16	x	75	S	25	388,00 A2
M 6	x	25	S	500	10,30 A2	M 10	x	40	S	100	31,10 A2	M 16	x	80	S	25	269,00 A2
M 6	x	25	K	100	12,40 A2	M 10	x	45	S	100	37,30 A2	M 16	x	90	S	25	304,00 A2
M 6	x	30	S	500	11,10 A2	M 10	x	50	S	100	39,30 A2	M 16	x	100	S	25	359,00 A2
M 6	x	30	K	100	13,20 A2	M 10	x	55	S	100	51,60 A2	M 16	x	110	S	25	566,00 A2
M 6	x	35	S	500	12,60 A2	M 10	x	60	S	100	55,20 A2	M 16	x	120	S	25	639,00 A2
M 6	x	35	K	100	14,70 A2	M 10	x	65	S	100	81,80 A2	M 16	x	130	S	25	741,00 A2
M 6	x	40	S	500	13,70 A2	M 10	x	70	S	100	65,40 A2	M 16	x	140	S	1	843,00 A2
M 6	x	40	K	100	15,80 A2	M 10	x	75	S	100	120,00 A2	M 16	x	150	S	1	945,00 A2
M 6	x	45	S	500	18,40 A2	M 10	x	80	S	100	80,20 A2	M 16	x	160	S	1	1942,00 A2
M 6	x	45	K	100	20,90 A2	M 10	x	90	S	100	91,00 A2	M 16	x	170*	S	1	2096,00 A2
M 6	x	50	S	500	21,90 A2	M 10	x	100	S	100	111,00 A2	M 16	x	180*	S	1	2249,00 A2
M 6	x	50	K	100	24,40 A2	M 10	x	110	S	50	153,00 A2	M 16	x	190*	S	1	2403,00 A2
M 6	x	55	S	500	26,30 A2	M 10	x	120	S	50	168,00 A2	M 16	x	200*	S	1	2709,00 A2
M 6	x	55	K	100	28,80 A2	M 10	x	130	S	50	204,00 A2	M 20	x	30	S	10	480,00 A2
M 6	x	60	S	500	28,60 A2	M 10	x	140	S	50	245,00 A2	M 20	x	35	S	25	480,00 A2
M 6	x	60	K	100	31,10 A2	M 10	x	150	S	50	276,00 A2	M 20	x	40	S	25	311,00 A2
M 6	x	65	S	500	46,50 A2	M 10	x	160*	S	50	818,00 A2	M 20	x	45	S	25	311,00 A2
M 6	x	65	K	100	49,00 A2	M 10	x	170*	S	50	920,00 A2	M 20	x	50	S	25	311,00 A2
M 6	x	70	S	500	37,30 A2	M 10	x	180*	S	50	1175,00 A2	M 20	x	55	S	25	343,00 A2
M 6	x	70	K	100	39,80 A2	M 12	x	16*	S	100	93,50 A2	M 20	x	60	S	25	352,00 A2
M 6	x	75	S	100	64,40 A2	M 12	x	20	S	100	46,00 A2	M 20	x	65	S	25	488,00 A2
M 6	x	80	S	100	51,10 A2	M 12	x	25	S	100	43,40 A2	M 20	x	70	S	25	399,00 A2
M 6	x	85	S	100	333,00 A2	M 12	x	30	S	100	40,30 A2	M 20	x	75	S	25	560,00 A2
M 6	x	90	S	100	86,90 A2	M 12	x	35	S	100	42,90 A2	M 20	x	80	S	1	455,00 A2
M 6	x	95	S	100	369,00 A2	M 12	x	40	S	100	46,50 A2	M 20	x	90	S	1	614,00 A2
M 6	x	100	S	100	97,10 A2	M 12	x	45	S	100	51,60 A2	M 20	x	100	S	1	711,00 A2
M 6	x	110	S	100	107,00 A2	M 12	x	50	S	100	55,70 A2	M 20	x	110	S	1	1095,00 A2
M 6	x	120	S	100	127,00 A2	M 12	x	55	S	100	73,10 A2	M 20	x	120	S	1	1248,00 A2
M 6	x	130*	S	50	138,00 A2	M 12	x	60	S	100	75,60 A2	M 20	x	130	S	1	1559,00 A2
M 6	x	140*	S	50	158,00 A2	M 12	x	65	S	100	120,00 A2	M 20	x	140	S	1	1758,00 A2
M 6	x	150*	S	50	178,00 A2	M 12	x	70	S	100	96,10 A2	M 20	x	150	S	1	1994,00 A2
M 8	x	8*	S	100	102,00 A2	M 12	x	75	S	100	184,00 A2	M 20	x	160*	S	1	2965,00 A2



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M 20	x	170*	S	1	3170,00 A2
M 20	x	180*	S	1	3425,00 A2
M 20	x	190*	S	1	3681,00 A2
M 20	x	200*	S	1	3936,00 A2
M 24	x	40*	S	1	1406,00 A2
M 24	x	45*	S	1	1406,00 A2
M 24	x	50*	S	1	1098,00 A2
M 24	x	55*	S	1	1585,00 A2
M 24	x	60*	S	1	1149,00 A2
M 24	x	65*	S	1	1641,00 A2
M 24	x	70*	S	1	1171,00 A2
M 24	x	75*	S	1	1712,00 A2
M 24	x	80*	S	1	1262,00 A2
M 24	x	90*	S	1	1416,00 A2
M 24	x	100*	S	1	1518,00 A2
M 24	x	110*	S	1	1825,00 A2
M 24	x	120*	S	1	1994,00 A2
M 24	x	130*	S	1	2147,00 A2
M 24	x	140*	S	1	2300,00 A2
M 24	x	150*	S	1	2454,00 A2
M 24	x	160*	S	1	3834,00 A2
M 24	x	170*	S	1	4141,00 A2
M 24	x	180*	S	1	4397,00 A2
M 24	x	200*	S	1	4908,00 A2
M 30	x	50*	S	1	2965,00 A2
M 30	x	60*	S	1	3016,00 A2
M 30	x	70*	S	1	3221,00 A2
M 30	x	80*	S	1	3374,00 A2
M 30	x	90*	S	1	3579,00 A2
M 30	x	100*	S	1	3732,00 A2
M 30	x	110*	S	1	3936,00 A2
M 30	x	120*	S	1	4090,00 A2
M 30	x	130*	S	1	4294,00 A2
M 30	x	140*	S	1	4448,00 A2
M 30	x	150*	S	1	4652,00 A2

DIN	00912.940	RAZ 360
912	A 4 - 70	



Hexagon socket head cap screws

Dimensions → **TI-12** Tightening torque → **TI-235**
 Mech. properties → **TI-224** Standard conversion → **TI-6**

Steel → **S. 110**

DIN 912 → replaced by ISO 4762

*Prop. class for dimensions different depending on production

M 2	x	3	S	100	55,20 A4
M 2	x	4	S	100	30,60 A4
M 2	x	5	S	100	30,60 A4
M 2	x	6	S	100	30,60 A4
M 2	x	8	S	100	30,60 A4
M 2	x	10	S	100	32,20 A4
M 2	x	12	S	100	33,70 A4
M 2	x	16	S	100	38,30 A4
M 2,5	x	4	S	100	30,60 A4
M 2,5	x	5	S	100	30,60 A4
M 2,5	x	6	S	100	30,60 A4
M 2,5	x	8	S	100	30,60 A4
M 2,5	x	10	S	100	32,20 A4
M 2,5	x	12	S	100	33,70 A4
M 2,5	x	14	S	100	47,00 A4
M 2,5	x	16	S	100	38,30 A4
M 2,5	x	20	S	100	47,50 A4
M 3	x	4	S	100	24,50 A4
M 3	x	5	S	100	23,50 A4
M 3	x	6	S	100	17,80 A4
M 3	x	8	S	100	14,80 A4

M 3	x	10	S	100	12,70 A4
M 3	x	12	S	100	12,70 A4
M 3	x	14	S	100	12,70 A4
M 3	x	16	S	100	8,70 A4
M 3	x	18	S	100	11,20 A4
M 3	x	20	S	100	9,20 A4
M 3	x	22	S	100	11,80 A4
M 3	x	25	S	100	9,80 A4
M 3	x	30	S	100	11,40 A4
M 3	x	35	S	100	15,30 A4
M 3	x	40	S	100	16,80 A4
M 3	x	45	S	100	29,60 A4
M 3	x	50	S	100	29,60 A4
M 4	x	5	S	100	31,10 A4
M 4	x	6	S	200	18,40 A4
M 4	x	8	S	500	14,80 A4
M 4	x	8	K	200	16,05 A4
M 4	x	10	S	500	13,60 A4
M 4	x	10	K	200	14,85 A4
M 4	x	12	S	500	13,60 A4
M 4	x	12	K	200	14,85 A4
M 4	x	14	S	500	13,60 A4
M 4	x	14	K	200	14,85 A4
M 4	x	16	S	500	8,70 A4
M 4	x	16	K	200	9,95 A4
M 4	x	18	S	500	11,20 A4
M 4	x	18	K	200	12,45 A4
M 4	x	20	S	500	9,20 A4
M 4	x	20	K	200	10,45 A4
M 4	x	22	S	500	11,80 A4
M 4	x	25	S	500	9,80 A4
M 4	x	25	K	200	11,05 A4
M 4	x	30	S	500	11,40 A4
M 4	x	30	K	200	12,65 A4
M 4	x	35	S	500	15,20 A4
M 4	x	35	K	200	16,45 A4
M 4	x	40	S	500	18,20 A4
M 4	x	40	K	200	19,45 A4
M 4	x	45	S	200	29,60 A4
M 4	x	50	S	200	29,60 A4
M 4	x	55	S	200	111,00 A4
M 4	x	60	S	200	146,00 A4
M 4	x	70	S	200	187,00 A4
M 5	x	6*	S	100	30,60 A4
M 5	x	8*	S	100	17,60 A4
M 5	x	10	S	500	13,60 A4
M 5	x	10	K	100	16,10 A4
M 5	x	12	S	500	13,60 A4
M 5	x	12	K	100	16,10 A4
M 5	x	14	S	500	13,60 A4
M 5	x	14	K	100	16,10 A4
M 5	x	16	S	500	9,55 A4
M 5	x	16	K	100	12,05 A4
M 5	x	18	S	500	13,20 A4
M 5	x	18	K	100	15,70 A4
M 5	x	20	S	500	10,40 A4
M 5	x	20	K	100	12,90 A4
M 5	x	22	S	500	13,60 A4
M 5	x	22	K	100	16,10 A4
M 5	x	25	S	500	10,60 A4
M 5	x	25	K	100	13,10 A4
M 5	x	30	S	500	12,70 A4
M 5	x	30	K	100	15,20 A4
M 5	x	35	S	500	15,80 A4
M 5	x	35	K	100	18,30 A4
M 5	x	40	S	500	17,30 A4
M 5	x	40	K	100	19,80 A4
M 5	x	45	S	100	18,90 A4
M 5	x	50	S	100	21,40 A4
M 5	x	55	S	100	29,60 A4
M 5	x	60	S	100	37,80 A4
M 5	x	70*	S	100	44,90 A4
M 5	x	80*	S	100	101,00 A4
M 5	x	90*	S	100	276,00 A4
M 5	x	100*	S	100	483,00 A4

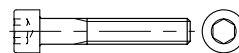
M 6	x	8*	S	100	17,60 A4
M 6	x	10	S	500	15,80 A4
M 6	x	10	K	100	18,30 A4
M 6	x	12	S	500	16,10 A4
M 6	x	12	K	100	18,60 A4
M 6	x	14	S	500	17,60 A4
M 6	x	14	K	100	20,10 A4
M 6	x	16	S	500	11,90 A4
M 6	x	16	K	100	14,40 A4
M 6	x	18	S	500	16,00 A4
M 6	x	18	K	100	18,50 A4
M 6	x	20	S	500	12,80 A4
M 6	x	20	K	100	15,30 A4
M 6	x	22	S	500	17,20 A4
M 6	x	22	K	100	19,70 A4
M 6	x	25	S	500	14,10 A4
M 6	x	25	K	100	16,60 A4
M 6	x	30	S	500	15,10 A4
M 6	x	30	K	100	17,60 A4
M 6	x	35	S	500	15,90 A4
M 6	x	35	K	100	18,40 A4
M 6	x	40	S	500	18,30 A4
M 6	x	40	K	100	20,80 A4
M 6	x	45	S	500	24,10 A4
M 6	x	45	K	100	26,60 A4
M 6	x	50	S	500	27,60 A4
M 6	x	50	K	100	30,10 A4
M 6	x	55	S	500	34,20 A4
M 6	x	60	S	500	35,70 A4
M 6	x	60	K	100	38,20 A4
M 6	x	65	S	500	61,30 A4
M 6	x	65	K	100	63,80 A4
M 6	x	70	S	500	41,40 A4
M 6	x	70	K	100	43,90 A4
M 6	x	75	S	100	74,60 A4
M 6	x	80	S	100	64,90 A4
M 6	x	90	S	100	132,00 A4
M 6	x	100	S	100	148,00 A4
M 6	x	110	S	100	161,00 A4
M 6	x	120	S	100	191,00 A4
M 6	x	130*	S	100	219,00 A4
M 6	x	140*	S	100	250,00 A4
M 6	x	150*	S	100	281,00 A4
M 8	x	10*	S	100	29,10 A4
M 8	x	12	S	200	27,30 A4
M 8	x	14	S	200	31,90 A4
M 8	x	16	S	200	23,70 A4
M 8	x	18	S	200	26,80 A4
M 8	x	20	S	200	18,40 A4
M 8	x	22	S	200	25,00 A4
M 8	x	25	S	200	19,90 A4
M 8	x	30	S	200	20,90 A4
M 8	x	35	S	200	23,00 A4
M 8	x	40	S	200	29,10 A4
M 8	x	45	S	200	34,20 A4
M 8	x	50	S	200	38,80 A4
M 8	x	55	S	200	43,90 A4
M 8	x	60	S	200	46,00 A4
M 8	x	65	S	200	89,90 A4
M 8	x	70	S	200	72,00 A4
M 8	x	75	S	200	138,00 A4
M 8	x	80	S	200	89,90 A4
M 8	x	90	S	200	102,00 A4
M 8	x	100	S	200	115,00 A4
M 8	x	110	S	50	184,00 A4
M 8	x	120	S	50	214,00 A4
M 8	x	130	S	50	235,00 A4
M 8	x	140	S	50	265,00 A4
M 8	x	150	S	50	296,00 A4
M 8	x	160*	S	50	728,00 A4
M 8	x	170*	S	50	920,00 A4
M 8	x	180*	S	50	1227,00 A4
M 10	x	10*	S	100	225,00 A4
M 10	x	12*	S	100	72,00 A4
M 10	x	16	S	100	43,40 A4



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M 10	x	18	S	100	57,20 A4	M 16	x	60	S	25	290,00 A4	M 24	x	160*	S	1	4141,00 A4
M 10	x	20	S	100	34,70 A4	M 16	x	65	S	25	378,00 A4	M 24	x	180*	S	1	4550,00 A4
M 10	x	25	S	100	33,20 A4	M 16	x	70	S	25	317,00 A4	M 24	x	190*	S	1	4806,00 A4
M 10	x	30	S	100	34,70 A4	M 16	x	75	S	1	613,00 A4	M 24	x	200*	S	1	5010,00 A4
M 10	x	35	S	100	37,30 A4	M 16	x	80	S	25	436,00 A4	M 24	x	210*	S	1	7900,00 A4
M 10	x	40	S	100	39,80 A4	M 16	x	90	S	25	494,00 A4	M 24	x	220*	S	1	8700,00 A4
M 10	x	45	S	100	47,50 A4	M 16	x	100	S	25	560,00 A4	M 24	x	230*	S	1	9800,00 A4
M 10	x	50	S	100	53,60 A4	M 16	x	110	S	1	869,00 A4	M 24	x	240*	S	1	11300,00 A4
M 10	x	55	S	100	63,40 A4	M 16	x	120	S	1	1022,00 A4	M 30	x	50*	S	1	3374,00 A4
M 10	x	60	S	100	68,50 A4	M 16	x	130	S	1	1175,00 A4	M 30	x	60*	S	1	3425,00 A4
M 10	x	65	S	100	98,60 A4	M 16	x	140	S	1	1329,00 A4	M 30	x	70*	S	1	3681,00 A4
M 10	x	70	S	100	79,20 A4	M 16	x	150	S	1	1533,00 A4	M 30	x	80*	S	1	3885,00 A4
M 10	x	75	S	100	139,00 A4	M 16	x	160	S	1	2198,00 A4	M 30	x	90*	S	1	4090,00 A4
M 10	x	80	S	100	93,50 A4	M 16	x	170*	S	1	2351,00 A4	M 30	x	100*	S	1	4294,00 A4
M 10	x	90	S	100	115,00 A4	M 16	x	180*	S	1	2505,00 A4	M 30	x	110*	S	1	4499,00 A4
M 10	x	100	S	100	141,00 A4	M 16	x	190*	S	1	2658,00 A4	M 30	x	120*	S	1	4703,00 A4
M 10	x	110	S	50	245,00 A4	M 16	x	200*	S	1	2863,00 A4	M 30	x	130*	S	1	4908,00 A4
M 10	x	120	S	50	265,00 A4	M 16	x	220*	S	1	4450,00 A4	M 30	x	140*	S	1	5112,00 A4
M 10	x	130	S	1	317,00 A4	M 16	x	240*	S	1	5250,00 A4	M 30	x	150*	S	1	5317,00 A4
M 10	x	140	S	1	383,00 A4	M 16	x	250*	S	1	5750,00 A4	M 30	x	160*	S	1	6800,00 A4
M 10	x	150	S	1	424,00 A4	M 16	x	260*	S	1	6400,00 A4	M 30	x	170*	S	1	8300,00 A4
M 10	x	160*	S	1	1145,00 A4	M 16	x	280*	S	1	7700,00 A4	M 30	x	180*	S	1	10200,00 A4
M 10	x	170*	S	1	1288,00 A4	M 16	x	300*	S	1	9250,00 A4	M 30	x	200*	S	1	13100,00 A4
M 10	x	180*	S	1	1636,00 A4	M 18	x	40*	S	1	935,00 A4						
M 12	x	16*	S	100	104,00 A4	M 18	x	45*	S	1	935,00 A4						
M 12	x	20	S	100	73,60 A4	M 18	x	50*	S	1	1058,00 A4						
M 12	x	25	S	100	70,50 A4	M 18	x	55*	S	1	1140,00 A4						
M 12	x	30	S	100	53,10 A4	M 18	x	60*	S	1	1232,00 A4						
M 12	x	35	S	100	57,20 A4	M 18	x	65*	S	1	1595,00 A4						
M 12	x	40	S	100	61,30 A4	M 18	x	70*	S	1	1339,00 A4						
M 12	x	45	S	100	69,50 A4	M 18	x	75*	S	1	2060,00 A4						
M 12	x	50	S	100	74,60 A4	M 18	x	80*	S	1	1717,00 A4						
M 12	x	55	S	100	93,50 A4	M 18	x	90*	S	1	1968,00 A4						
M 12	x	60	S	100	100,00 A4	M 18	x	100*	S	1	2208,00 A4						
M 12	x	65	S	100	133,00 A4	M 18	x	110*	S	1	3420,00 A4						
M 12	x	70	S	100	111,00 A4	M 18	x	120*	S	1	3844,00 A4						
M 12	x	75	S	100	199,00 A4	M 20	x	30	S	1	766,00 A4						
M 12	x	80	S	100	134,00 A4	M 20	x	35	S	1	766,00 A4						
M 12	x	90	S	100	156,00 A4	M 20	x	40	S	10	495,00 A4						
M 12	x	100	S	100	184,00 A4	M 20	x	45	S	10	536,00 A4						
M 12	x	110	S	10	332,00 A4	M 20	x	50	S	10	572,00 A4						
M 12	x	120	S	10	363,00 A4	M 20	x	55	S	1	608,00 A4						
M 12	x	130	S	10	434,00 A4	M 20	x	60	S	1	659,00 A4						
M 12	x	140	S	1	511,00 A4	M 20	x	65	S	1	1073,00 A4						
M 12	x	150	S	1	587,00 A4	M 20	x	70	S	1	710,00 A4						
M 12	x	160	S	1	1431,00 A4	M 20	x	75	S	1	1329,00 A4						
M 12	x	170*	S	1	1533,00 A4	M 20	x	80	S	1	920,00 A4						
M 12	x	180*	S	1	1661,00 A4	M 20	x	90	S	1	1073,00 A4						
M 14	x	20	S	50	541,00 A4	M 20	x	100	S	1	1227,00 A4						
M 14	x	25	S	50	403,00 A4	M 20	x	110	S	1	1789,00 A4						
M 14	x	30	S	50	353,00 A4	M 20	x	120	S	1	1942,00 A4						
M 14	x	35	S	50	353,00 A4	M 20	x	130	S	1	2403,00 A4						
M 14	x	40	S	50	353,00 A4	M 20	x	140	S	1	2709,00 A4						
M 14	x	45	S	50	386,00 A4	M 20	x	150	S	1	3067,00 A4						
M 14	x	50	S	50	407,00 A4	M 20	x	160*	S	1	3323,00 A4						
M 14	x	55	S	50	467,00 A4	M 20	x	170*	S	1	3476,00 A4						
M 14	x	60	S	50	522,00 A4	M 20	x	180*	S	1	3630,00 A4						
M 14	x	65	S	50	681,00 A4	M 20	x	190*	S	1	3834,00 A4						
M 14	x	70	S	1	570,00 A4	M 20	x	200*	S	1	4090,00 A4						
M 14	x	80	S	1	784,00 A4	M 24	x	40*	S	1	2045,00 A4						
M 14	x	90	S	1	889,00 A4	M 24	x	45*	S	1	2045,00 A4						
M 14	x	100	S	1	1007,00 A4	M 24	x	50*	S	1	1789,00 A4						
M 14	x	110	S	1	1564,00 A4	M 24	x	55*	S	1	2351,00 A4						
M 14	x	120	S	1	1840,00 A4	M 24	x	60*	S	1	1789,00 A4						
M 14	x	130	S	1	2116,00 A4	M 24	x	65*	S	1	2454,00 A4						
M 14	x	140	S	1	2392,00 A4	M 24	x	70*	S	1	1994,00 A4						
M 14	x	150	S	1	2760,00 A4	M 24	x	75*	S	1	2607,00 A4						
M 16	x	20*	S	50	331,00 A4	M 24	x	80*	S	1	2147,00 A4						
M 16	x	25*	S	25	224,00 A4	M 24	x	90*	S	1	2300,00 A4						
M 16	x	30	S	25	196,00 A4	M 24	x	100*	S	1	2556,00 A4						
M 16	x	35	S	25	196,00 A4	M 24	x	110*	S	1	2812,00 A4						
M 16	x	40	S	25	196,00 A4	M 24	x	120*	S	1	3067,00 A4						
M 16	x	45	S	25	214,00 A4	M 24	x	130*	S	1	3323,00 A4						
M 16	x	50	S	25	226,00 A4	M 24	x	140*	S	1	3579,00 A4						
M 16	x	55	S	25	259,00 A4	M 24	x	150*	S	1	3834,00 A4						

DIN	00912.948	RAZ 361
912	A 4 - 80	



Hexagon socket head cap screws

High strength (strongly cold worked)

Dimensions → **TI-12** Tightening torque → **TI-235**
 Mech. properties → **TI-224** Standard conversion → **TI-6**

Steel → **S. 110**

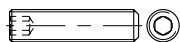
DIN 912 → replaced by ISO 4762

M 6	x	8	S	100	59,00 A4-80
M 6	x	10	S	100	59,00 A4-80
M 6	x	12	S	100	48,50 A4-80
M 6	x	14	S	100	60,00 A4-80
M 6	x	16	S	100	36,00 A4-80
M 6	x	20	S	100	39,50 A4-80
M 6	x	25	S	100	43,00 A4-80
M 6	x	30	S	100	46,50 A4-80
M 6	x	35	S	100	48,50 A4-80
M 6	x	40	S	100	56,00 A4-80
M 6	x	45	S	100	89,00 A4-80
M 6	x	50	S	100	83,00 A4-80
M 6	x	55	S	100	103,00 A4-80
M 6	x	60	S	100	108,00 A4-80
M 6	x	70	S	100	125,00 A4-80
M 8	x	10	S	100	99,00 A4-80
M 8	x	12	S	100	116,00 A4-80
M 8	x	16	S	100	72,00 A4-80
M 8	x	20	S	100	56,00 A4-80
M 8	x	25	S	100	60,00 A4-80
M 8	x	30	S	100	63,00 A4-80
M 8	x	35	S	100	70,00 A4-80
M 8	x	40	S	100	88,00 A4-80
M 8	x	45	S	100	103,00 A4-80
M 8	x	50	S	100	117,00 A4-80
M 8	x	55	S	100	132,00 A4-80
M 8	x	60	S	100	139,00 A4-80
M 8	x	70	S	100	217,00 A4-80
M 8	x	80	S	50	270,00 A4-80
M 8	x	90	S	50	310,00 A4-80
M 8	x	100	S	50	350,00 A4-80

DIN 912

M 10	x	16	S	100	131,00 A 4-80
M 10	x	20	S	100	132,00 A 4-80
M 10	x	25	S	100	100,00 A 4-80
M 10	x	30	S	100	105,00 A 4-80
M 10	x	35	S	100	114,00 A 4-80
M 10	x	40	S	100	120,00 A 4-80
M 10	x	45	S	100	143,00 A 4-80
M 10	x	50	S	100	162,00 A 4-80
M 10	x	55	S	50	191,00 A 4-80
M 10	x	60	S	50	206,00 A 4-80
M 10	x	70	S	50	238,00 A 4-80
M 10	x	80	S	50	285,00 A 4-80
M 10	x	90	S	50	350,00 A 4-80
M 10	x	100	S	50	430,00 A 4-80
M 12	x	20	S	100	221,00 A 4-80
M 12	x	25	S	100	212,00 A 4-80
M 12	x	30	S	100	160,00 A 4-80
M 12	x	35	S	50	172,00 A 4-80
M 12	x	40	S	50	185,00 A 4-80
M 12	x	45	S	50	209,00 A 4-80
M 12	x	50	S	50	224,00 A 4-80
M 12	x	55	S	50	285,00 A 4-80
M 12	x	60	S	50	305,00 A 4-80
M 12	x	70	S	50	335,00 A 4-80
M 12	x	80	S	50	410,00 A 4-80
M 12	x	90	S	50	480,00 A 4-80
M 12	x	100	S	50	560,00 A 4-80
M 16	x	20	S	50	1450,00 A 4-80
M 16	x	25	S	50	680,00 A 4-80
M 16	x	30	S	50	600,00 A 4-80
M 16	x	35	S	50	600,00 A 4-80
M 16	x	40	S	50	600,00 A 4-80
M 16	x	45	S	50	650,00 A 4-80
M 16	x	50	S	50	690,00 A 4-80
M 16	x	55	S	25	790,00 A 4-80
M 16	x	60	S	25	880,00 A 4-80
M 16	x	70	S	25	960,00 A 4-80
M 16	x	80	S	1	1320,00 A 4-80
M 16	x	90	S	1	1490,00 A 4-80
M 16	x	100	S	1	1690,00 A 4-80
M 20	x	30	S	1	2310,00 A 4-80
M 20	x	35	S	1	2030,00 A 4-80
M 20	x	40	S	1	1490,00 A 4-80
M 20	x	45	S	1	1620,00 A 4-80
M 20	x	50	S	1	1720,00 A 4-80
M 20	x	60	S	1	1980,00 A 4-80
M 20	x	70	S	1	2140,00 A 4-80
M 20	x	80	S	1	2800,00 A 4-80
M 20	x	90	S	1	3250,00 A 4-80
M 20	x	100	S	1	3700,00 A 4-80

DIN	00913.910	RAZ 370
913	A 1/A 2	



Hexagon socket set screws with flat point

Dimensions → TI-20 Standard conversion → TI-6

Steel → S. 128

DIN 913 → replaced by ISO 4026 (compatible)

M 2	x	2	S	50	85,00 A 1/A 2
M 2	x	3	S	50	59,00 A 1/A 2
M 2	x	4	S	50	60,00 A 1/A 2
M 2	x	5	S	50	60,00 A 1/A 2
M 2	x	6	S	50	60,00 A 1/A 2

M 2	x	8	S	50	61,00 A 1/A 2
M 2,5	x	3	S	50	46,50 A 1/A 2
M 2,5	x	4	S	50	45,00 A 1/A 2
M 2,5	x	5	S	50	45,00 A 1/A 2
M 2,5	x	6	S	50	45,00 A 1/A 2
M 3	x	2	S	50	45,60 A 1/A 2
M 3	x	3	S	50	22,80 A 1/A 2
M 3	x	4	S	50	24,80 A 1/A 2
M 3	x	5	S	50	24,50 A 1/A 2
M 3	x	6	S	50	26,50 A 1/A 2
M 3	x	8	S	50	27,50 A 1/A 2
M 3	x	10	S	50	28,50 A 1/A 2
M 3	x	12	S	50	31,50 A 1/A 2
M 3	x	16	S	50	23,40 A 1/A 2
M 3	x	20	S	50	30,50 A 1/A 2
M 3	x	25	S	50	52,00 A 1/A 2
M 4	x	4	S	50	17,40 A 1/A 2
M 4	x	5	S	50	17,40 A 1/A 2
M 4	x	6	S	50	17,70 A 1/A 2
M 4	x	8	S	50	18,20 A 1/A 2
M 4	x	10	S	50	19,30 A 1/A 2
M 4	x	12	S	50	20,50 A 1/A 2
M 4	x	16	S	50	22,30 A 1/A 2
M 4	x	20	S	25	24,00 A 1/A 2
M 4	x	25	S	25	41,00 A 1/A 2
M 4	x	30	S	25	45,00 A 1/A 2
M 5	x	4	S	50	19,00 A 1/A 2
M 5	x	5	S	50	19,30 A 1/A 2
M 5	x	6	S	50	19,70 A 1/A 2
M 5	x	8	S	50	20,20 A 1/A 2
M 5	x	10	S	50	20,70 A 1/A 2
M 5	x	12	S	50	21,70 A 1/A 2
M 5	x	16	S	50	24,00 A 1/A 2
M 5	x	20	S	25	28,50 A 1/A 2
M 5	x	25	S	25	31,50 A 1/A 2
M 5	x	30	S	25	55,00 A 1/A 2
M 5	x	35	S	25	78,50 A 1/A 2
M 5	x	40	S	25	80,00 A 1/A 2
M 5	x	45	S	25	85,00 A 1/A 2
M 6	x	5	S	25	22,40 A 1/A 2
M 6	x	6	S	25	22,40 A 1/A 2
M 6	x	8	S	25	23,40 A 1/A 2
M 6	x	10	S	25	23,90 A 1/A 2
M 6	x	12	S	25	25,00 A 1/A 2
M 6	x	16	S	25	28,50 A 1/A 2
M 6	x	20	S	25	32,50 A 1/A 2
M 6	x	25	S	25	37,00 A 1/A 2
M 6	x	30	S	25	43,00 A 1/A 2
M 6	x	35	S	25	53,00 A 1/A 2
M 6	x	40	S	25	58,00 A 1/A 2
M 6	x	45	S	25	134,00 A 1/A 2
M 6	x	50	S	25	156,00 A 1/A 2
M 6	x	60	S	25	178,00 A 1/A 2
M 8	x	6	S	25	48,00 A 1/A 2
M 8	x	8	S	25	32,50 A 1/A 2
M 8	x	10	S	25	32,50 A 1/A 2
M 8	x	12	S	25	35,50 A 1/A 2
M 8	x	16	S	25	39,00 A 1/A 2
M 8	x	20	S	25	46,00 A 1/A 2
M 8	x	25	S	25	53,00 A 1/A 2
M 8	x	30	S	25	61,00 A 1/A 2
M 8	x	35	S	25	74,00 A 1/A 2
M 8	x	40	S	25	86,00 A 1/A 2
M 8	x	45	S	25	94,00 A 1/A 2
M 8	x	50	S	10	118,00 A 1/A 2
M 8	x	60	S	10	212,00 A 1/A 2
M 8	x	70	S	10	270,00 A 1/A 2
M 8	x	80	S	10	328,00 A 1/A 2
M 8	x	100	S	10	388,00 A 1/A 2
M 10	x	10	S	25	48,00 A 1/A 2
M 10	x	12	S	25	49,00 A 1/A 2
M 10	x	16	S	25	52,00 A 1/A 2
M 10	x	18	S	25	60,00 A 1/A 2
M 10	x	20	S	25	63,00 A 1/A 2
M 10	x	25	S	25	75,00 A 1/A 2

M 10	x	30	S	10	87,00 A 1/A 2
M 10	x	35	S	10	106,00 A 1/A 2
M 10	x	40	S	10	112,00 A 1/A 2
M 10	x	45	S	10	119,00 A 1/A 2
M 10	x	50	S	10	130,00 A 1/A 2
M 10	x	60	S	10	181,00 A 1/A 2
M 10	x	70	S	10	232,00 A 1/A 2
M 10	x	80	S	10	283,00 A 1/A 2
M 10	x	100	S	10	345,00 A 1/A 2
M 12	x	10	S	10	100,00 A 1/A 2
M 12	x	12	S	10	101,00 A 1/A 2
M 12	x	16	S	10	101,00 A 1/A 2
M 12	x	20	S	10	115,00 A 1/A 2
M 12	x	25	S	10	126,00 A 1/A 2
M 12	x	30	S	10	137,00 A 1/A 2
M 12	x	35	S	10	148,00 A 1/A 2
M 12	x	40	S	10	164,00 A 1/A 2
M 12	x	45	S	10	186,00 A 1/A 2
M 12	x	50	S	10	202,00 A 1/A 2
M 12	x	60	S	10	295,00 A 1/A 2
M 12	x	70	S	10	547,00 A 1/A 2
M 12	x	80	S	10	566,00 A 1/A 2
M 12	x	90	S	10	635,00 A 1/A 2
M 16	x	16	S	10	221,00 A 1/A 2
M 16	x	20	S	10	321,00 A 1/A 2
M 16	x	25	S	10	596,00 A 1/A 2
M 16	x	30	S	10	348,00 A 1/A 2
M 16	x	40	S	10	564,00 A 1/A 2
M 16	x	50	S	10	964,00 A 1/A 2
M 16	x	60	S	10	1020,00 A 1/A 2
M 16	x	70	S	10	1200,00 A 1/A 2
M 16	x	80	S	10	1430,00 A 1/A 2
M 16	x	90	S	10	1545,00 A 1/A 2
M 16	x	100	S	10	1730,00 A 1/A 2
M 20	x	20	S	10	981,00 A 1/A 2
M 20	x	25	S	10	1020,00 A 1/A 2
M 20	x	30	S	10	1200,00 A 1/A 2
M 20	x	35	S	10	1510,00 A 1/A 2
M 20	x	40	S	10	1580,00 A 1/A 2
M 20	x	50	S	10	1660,00 A 1/A 2
M 20	x	60	S	10	2050,00 A 1/A 2
M 20	x	70	S	10	2150,00 A 1/A 2
M 20	x	80	S	10	2360,00 A 1/A 2
M 20	x	90	S	10	2600,00 A 1/A 2
M 20	x	100	S	10	2825,00 A 1/A 2

DIN	00913.940	RAZ 370
913	A 4	



Hexagon socket set screws with flat point

Dimensions → TI-20 Standard conversion → TI-6

Steel → S. 128

DIN 913 → replaced by ISO 4026 (compatible)

M 3	x	4	S	50	40,00 A 4
M 3	x	5	S	50	42,00 A 4
M 3	x	6	S	50	46,50 A 4
M 3	x	8	S	50	53,00 A 4
M 4	x	5	S	50	52,00 A 4
M 4	x	6	S	50	54,00 A 4
M 4	x	8	S	50	57,00 A 4
M 4	x	10	S	50	60,00 A 4
M 4	x	12	S	50	64,00 A 4
M 4	x	16	S	25	74,00 A 4



DIN 914

M 4	x	20	S 25	78,00 A 4
M 5	x	5	S 50	61,00 A 4
M 5	x	6	S 50	61,00 A 4
M 5	x	8	S 50	62,00 A 4
M 5	x	10	S 50	67,00 A 4
M 5	x	12	S 25	73,00 A 4
M 5	x	16	S 25	78,00 A 4
M 5	x	20	S 25	88,00 A 4
M 5	x	25	S 25	92,00 A 4
M 5	x	30	S 25	100,00 A 4
M 6	x	6	S 25	68,00 A 4
M 6	x	8	S 25	69,00 A 4
M 6	x	10	S 25	73,00 A 4
M 6	x	12	S 25	77,00 A 4
M 6	x	16	S 25	88,00 A 4
M 6	x	20	S 25	99,00 A 4
M 6	x	25	S 25	118,00 A 4
M 6	x	30	S 25	129,00 A 4
M 6	x	35	S 25	137,00 A 4
M 6	x	40	S 25	149,00 A 4
M 6	x	45	S 25	160,00 A 4
M 6	x	50	S 25	182,00 A 4
M 8	x	8	S 25	94,00 A 4
M 8	x	10	S 25	94,00 A 4
M 8	x	12	S 25	105,00 A 4
M 8	x	16	S 25	116,00 A 4
M 8	x	20	S 25	139,00 A 4
M 8	x	25	S 25	170,00 A 4
M 8	x	30	S 25	185,00 A 4
M 8	x	35	S 10	207,00 A 4
M 8	x	40	S 10	222,00 A 4
M 8	x	50	S 10	275,00 A 4
M 8	x	60	S 10	320,00 A 4
M 10	x	10	S 25	149,00 A 4
M 10	x	12	S 25	149,00 A 4
M 10	x	16	S 25	160,00 A 4
M 10	x	20	S 10	205,00 A 4
M 10	x	25	S 10	235,00 A 4
M 10	x	30	S 10	220,00 A 4
M 10	x	35	S 10	235,00 A 4
M 10	x	40	S 10	249,00 A 4
M 10	x	45	S 10	270,00 A 4
M 10	x	50	S 10	305,00 A 4
M 10	x	60	S 10	395,00 A 4
M 10	x	70	S 10	485,00 A 4
M 12	x	12	S 10	170,00 A 4
M 12	x	16	S 10	170,00 A 4
M 12	x	20	S 10	210,00 A 4
M 12	x	25	S 10	235,00 A 4
M 12	x	30	S 10	255,00 A 4
M 12	x	35	S 10	285,00 A 4
M 12	x	40	S 10	305,00 A 4
M 12	x	45	S 10	330,00 A 4
M 12	x	50	S 10	355,00 A 4
M 12	x	60	S 10	475,00 A 4
M 16	x	16	S 10	710,00 A 4
M 16	x	20	S 10	1150,00 A 4
M 16	x	25	S 10	355,00 A 4
M 16	x	30	S 10	415,00 A 4
M 16	x	35	S 10	460,00 A 4
M 16	x	40	S 10	480,00 A 4
M 16	x	50	S 10	1910,00 A 4
M 20	x	20	S 10	1850,00 A 4
M 20	x	25	S 10	2000,00 A 4
M 20	x	30	S 10	2150,00 A 4
M 20	x	35	S 10	2400,00 A 4
M 20	x	40	S 10	2750,00 A 4
M 20	x	50	S 10	3250,00 A 4
M 24	x	25	S 10	3075,00 A 4
M 24	x	30	S 10	3250,00 A 4
M 24	x	35	S 10	3600,00 A 4
M 24	x	40	S 10	3750,00 A 4
M 24	x	45	S 10	3900,00 A 4
M 24	x	50	S 10	4150,00 A 4

DIN	00914.910	RAZ 370
914 A 1/A 2		



Hexagon socket set screws with cone point

Dimensions → TI-20 Standard conversion → TI-6

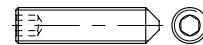
Steel → S. 131

DIN 914 → replaced by ISO 4027 (compatible)

M 2	x	2	S 50	75,00 A 1/A 2
M 2	x	3	S 50	57,00 A 1/A 2
M 2	x	4	S 50	57,00 A 1/A 2
M 2	x	5	S 50	58,00 A 1/A 2
M 2	x	6	S 50	58,00 A 1/A 2
M 2	x	8	S 50	58,00 A 1/A 2
M 2,5	x	4	S 50	43,50 A 1/A 2
M 2,5	x	5	S 50	44,00 A 1/A 2
M 2,5	x	6	S 50	44,00 A 1/A 2
M 3	x	3	S 50	29,00 A 1/A 2
M 3	x	4	S 50	24,00 A 1/A 2
M 3	x	5	S 50	23,70 A 1/A 2
M 3	x	6	S 50	25,50 A 1/A 2
M 3	x	8	S 50	26,50 A 1/A 2
M 3	x	10	S 50	28,00 A 1/A 2
M 3	x	12	S 50	31,00 A 1/A 2
M 3	x	16	S 50	34,00 A 1/A 2
M 4	x	4	S 50	24,20 A 1/A 2
M 4	x	5	S 50	22,40 A 1/A 2
M 4	x	6	S 50	22,80 A 1/A 2
M 4	x	8	S 50	23,10 A 1/A 2
M 4	x	10	S 50	24,80 A 1/A 2
M 4	x	12	S 50	26,50 A 1/A 2
M 4	x	16	S 50	29,00 A 1/A 2
M 4	x	20	S 25	34,50 A 1/A 2
M 4	x	25	S 25	53,00 A 1/A 2
M 4	x	30	S 25	58,00 A 1/A 2
M 5	x	5	S 50	30,00 A 1/A 2
M 5	x	6	S 50	28,00 A 1/A 2
M 5	x	8	S 50	28,50 A 1/A 2
M 5	x	10	S 50	29,50 A 1/A 2
M 5	x	12	S 50	31,00 A 1/A 2
M 5	x	16	S 50	34,00 A 1/A 2
M 5	x	20	S 25	40,50 A 1/A 2
M 5	x	25	S 25	44,50 A 1/A 2
M 5	x	30	S 25	78,00 A 1/A 2
M 6	x	6	S 25	31,00 A 1/A 2
M 6	x	8	S 25	30,50 A 1/A 2
M 6	x	10	S 25	31,00 A 1/A 2
M 6	x	12	S 25	32,50 A 1/A 2
M 6	x	16	S 25	37,00 A 1/A 2
M 6	x	20	S 25	42,00 A 1/A 2
M 6	x	25	S 25	47,00 A 1/A 2
M 6	x	30	S 25	55,00 A 1/A 2
M 6	x	35	S 25	67,00 A 1/A 2
M 6	x	40	S 25	75,00 A 1/A 2
M 6	x	45	S 25	172,00 A 1/A 2
M 6	x	50	S 25	201,00 A 1/A 2
M 8	x	8	S 25	45,00 A 1/A 2
M 8	x	10	S 25	41,50 A 1/A 2
M 8	x	12	S 25	45,50 A 1/A 2
M 8	x	16	S 25	50,00 A 1/A 2
M 8	x	20	S 25	59,00 A 1/A 2
M 8	x	25	S 25	68,00 A 1/A 2
M 8	x	30	S 25	78,00 A 1/A 2
M 8	x	35	S 25	95,00 A 1/A 2

M 8	x	40	S 25	110,00 A 1/A 2
M 8	x	45	S 25	120,00 A 1/A 2
M 8	x	50	S 10	151,00 A 1/A 2
M 8	x	60	S 10	275,00 A 1/A 2
M 10	x	10	S 25	67,00 A 1/A 2
M 10	x	12	S 25	63,00 A 1/A 2
M 10	x	16	S 25	67,00 A 1/A 2
M 10	x	20	S 25	81,00 A 1/A 2
M 10	x	25	S 10	107,00 A 1/A 2
M 10	x	30	S 10	112,00 A 1/A 2
M 10	x	35	S 10	136,00 A 1/A 2
M 10	x	40	S 10	143,00 A 1/A 2
M 10	x	50	S 10	167,00 A 1/A 2
M 10	x	60	S 10	232,00 A 1/A 2
M 12	x	16	S 10	109,00 A 1/A 2
M 12	x	20	S 10	124,00 A 1/A 2
M 12	x	25	S 10	136,00 A 1/A 2
M 12	x	30	S 10	147,00 A 1/A 2
M 12	x	35	S 10	159,00 A 1/A 2
M 12	x	40	S 10	177,00 A 1/A 2
M 12	x	50	S 10	218,00 A 1/A 2
M 12	x	60	S 10	285,00 A 1/A 2

DIN	00914.940	RAZ 370
914 A 4		



Hexagon socket set screws with cone point

Dimensions → TI-20 Standard conversion → TI-6

Steel → S. 131

DIN 914 → replaced by ISO 4027 (compatible)

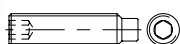
M 2,5	x	8	S 50	114,00 A 4
M 3	x	4	S 50	35,00 A 4
M 3	x	5	S 50	44,00 A 4
M 3	x	6	S 50	44,00 A 4
M 3	x	8	S 50	50,00 A 4
M 3	x	10	S 50	56,00 A 4
M 4	x	4	S 50	49,50 A 4
M 4	x	5	S 50	49,50 A 4
M 4	x	6	S 50	51,00 A 4
M 4	x	8	S 50	54,00 A 4
M 4	x	10	S 50	57,00 A 4
M 4	x	12	S 50	61,00 A 4
M 4	x	16	S 25	70,00 A 4
M 4	x	20	S 25	74,00 A 4
M 5	x	5	S 50	58,00 A 4
M 5	x	6	S 50	58,00 A 4
M 5	x	8	S 50	59,00 A 4
M 5	x	10	S 50	63,00 A 4
M 5	x	12	S 25	69,00 A 4
M 5	x	16	S 25	74,00 A 4
M 5	x	20	S 25	84,00 A 4
M 5	x	25	S 25	87,00 A 4
M 5	x	30	S 25	95,00 A 4
M 6	x	6	S 25	64,00 A 4
M 6	x	8	S 25	65,00 A 4
M 6	x	10	S 25	69,00 A 4
M 6	x	12	S 25	73,00 A 4
M 6	x	16	S 25	83,00 A 4
M 6	x	20	S 25	94,00 A 4
M 6	x	25	S 25	112,00 A 4
M 6	x	30	S 25	123,00 A 4
M 6	x	35	S 25	130,00 A 4
M 6	x	45	S 25	152,00 A 4

DIN 914

M 6	x	50	S	25	173,00 A4
M 8	x	8	S	25	90,00 A4
M 8	x	10	S	25	90,00 A4
M 8	x	12	S	25	100,00 A4
M 8	x	16	S	25	110,00 A4
M 8	x	20	S	25	132,00 A4
M 8	x	25	S	25	161,00 A4
M 8	x	30	S	25	175,00 A4
M 8	x	35	S	10	197,00 A4
M 8	x	40	S	10	211,00 A4
M 8	x	45	S	10	233,00 A4
M 8	x	50	S	10	265,00 A4
M 8	x	60	S	10	305,00 A4
M 10	x	10	S	25	141,00 A4
M 10	x	12	S	25	141,00 A4
M 10	x	16	S	25	152,00 A4
M 10	x	20	S	10	195,00 A4
M 10	x	25	S	10	223,00 A4
M 10	x	30	S	10	250,00 A4
M 10	x	35	S	10	270,00 A4
M 10	x	40	S	10	285,00 A4
M 10	x	45	S	10	310,00 A4
M 10	x	50	S	10	350,00 A4
M 10	x	60	S	10	450,00 A4
M 12	x	12	S	10	194,00 A4
M 12	x	16	S	10	194,00 A4
M 12	x	20	S	10	239,00 A4
M 12	x	25	S	10	270,00 A4
M 12	x	30	S	10	290,00 A4
M 12	x	35	S	10	325,00 A4
M 12	x	40	S	10	350,00 A4
M 12	x	45	S	10	375,00 A4
M 12	x	50	S	10	405,00 A4
M 12	x	60	S	10	540,00 A4
M 16	x	25	S	10	405,00 A4
M 16	x	30	S	10	475,00 A4
M 16	x	40	S	10	550,00 A4
M 16	x	50	S	10	560,00 A4
M 16	x	60	S	10	580,00 A4

DIN	00915.910	RAZ 370
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915 A 1/A 2



Hexagon socket set screws with full dog point

Dimensions → TI-20 Standard conversion → TI-6

Steel → S. 132

DIN 915 → replaced by ISO 4028 (compatible)

M 2	x	6	S	50	45,00 A1/A 2
M 2	x	10	S	50	58,00 A1/A 2
M 3	x	4	S	50	31,00 A1/A 2
M 3	x	5	S	50	31,00 A1/A 2
M 3	x	6	S	50	32,00 A1/A 2
M 3	x	8	S	50	37,00 A1/A 2
M 3	x	10	S	50	38,00 A1/A 2
M 3	x	12	S	50	41,00 A1/A 2
M 4	x	5	S	50	23,80 A1/A 2
M 4	x	6	S	50	24,20 A1/A 2
M 4	x	8	S	50	24,50 A1/A 2
M 4	x	10	S	50	26,50 A1/A 2
M 4	x	12	S	50	28,00 A1/A 2
M 4	x	16	S	50	30,50 A1/A 2
M 4	x	20	S	25	36,50 A1/A 2
M 4	x	25	S	25	56,00 A1/A 2

M 5	x	5	S	50	31,50 A1/A 2
M 5	x	6	S	50	30,00 A1/A 2
M 5	x	8	S	50	30,50 A1/A 2
M 5	x	10	S	50	31,50 A1/A 2
M 5	x	12	S	50	33,00 A1/A 2
M 5	x	16	S	50	36,00 A1/A 2
M 5	x	20	S	25	43,00 A1/A 2
M 5	x	25	S	25	47,00 A1/A 2
M 5	x	30	S	25	82,00 A1/A 2
M 5	x	35	S	25	85,00 A1/A 2
M 6	x	6	S	25	33,00 A1/A 2
M 6	x	8	S	25	32,00 A1/A 2
M 6	x	10	S	25	33,00 A1/A 2
M 6	x	12	S	25	34,50 A1/A 2
M 6	x	16	S	25	39,00 A1/A 2
M 6	x	20	S	25	44,50 A1/A 2
M 6	x	25	S	25	50,00 A1/A 2
M 6	x	30	S	25	59,00 A1/A 2
M 6	x	35	S	25	72,00 A1/A 2
M 6	x	40	S	25	80,00 A1/A 2
M 6	x	50	S	25	213,00 A1/A 2
M 8	x	8	S	25	47,50 A1/A 2
M 8	x	10	S	25	44,50 A1/A 2
M 8	x	12	S	25	48,50 A1/A 2
M 8	x	16	S	25	53,00 A1/A 2
M 8	x	20	S	25	63,00 A1/A 2
M 8	x	25	S	25	72,00 A1/A 2
M 8	x	30	S	25	83,00 A1/A 2
M 8	x	35	S	25	101,00 A1/A 2
M 8	x	40	S	25	117,00 A1/A 2
M 8	x	45	S	25	128,00 A1/A 2
M 8	x	60	S	10	290,00 A1/A 2
M 10	x	10	S	25	72,00 A1/A 2
M 10	x	12	S	25	67,00 A1/A 2
M 10	x	16	S	25	71,00 A1/A 2
M 10	x	20	S	25	86,00 A1/A 2
M 10	x	25	S	25	103,00 A1/A 2
M 10	x	30	S	10	119,00 A1/A 2
M 10	x	35	S	10	144,00 A1/A 2
M 10	x	40	S	10	152,00 A1/A 2
M 10	x	45	S	10	162,00 A1/A 2
M 10	x	50	S	10	178,00 A1/A 2
M 10	x	60	S	10	247,00 A1/A 2
M 12	x	16	S	10	115,00 A1/A 2
M 12	x	20	S	10	132,00 A1/A 2
M 12	x	25	S	10	144,00 A1/A 2
M 12	x	30	S	10	157,00 A1/A 2
M 12	x	40	S	10	188,00 A1/A 2
M 12	x	50	S	10	231,00 A1/A 2
M 12	x	60	S	10	305,00 A1/A 2

DIN	00915.940	RAZ 370
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915 A 4



Hexagon socket set screws with full dog point

Dimensions → TI-20 Standard conversion → TI-6

Steel → S. 132

DIN 915 → replaced by ISO 4028 (compatible)

M 4	x	6	S	50	48,50 A4
M 4	x	8	S	50	51,00 A4
M 4	x	10	S	50	55,00 A4
M 4	x	16	S	25	67,00 A4
M 4	x	20	S	25	71,00 A4

M 5	x	6	S	50	55,00 A4
M 5	x	8	S	50	56,00 A4
M 5	x	10	S	50	61,00 A4
M 5	x	12	S	25	66,00 A4
M 5	x	16	S	25	71,00 A4
M 5	x	20	S	25	80,00 A4
M 5	x	25	S	25	84,00 A4
M 6	x	6	S	25	62,00 A4
M 6	x	8	S	25	63,00 A4
M 6	x	10	S	25	66,00 A4
M 6	x	12	S	25	70,00 A4
M 6	x	16	S	25	80,00 A4
M 6	x	20	S	25	90,00 A4
M 6	x	30	S	25	117,00 A4
M 6	x	35	S	25	125,00 A4
M 6	x	40	S	25	135,00 A4
M 6	x	45	S	25	145,00 A4
M 6	x	50	S	25	165,00 A4
M 8	x	8	S	25	86,00 A4
M 8	x	10	S	25	86,00 A4
M 8	x	12	S	25	95,00 A4
M 8	x	16	S	25	105,00 A4
M 8	x	20	S	25	126,00 A4
M 8	x	25	S	25	154,00 A4
M 8	x	30	S	25	168,00 A4
M 8	x	40	S	10	201,00 A4
M 8	x	50	S	10	250,00 A4
M 10	x	10	S	25	162,00 A4
M 10	x	12	S	25	162,00 A4
M 10	x	16	S	25	145,00 A4
M 10	x	20	S	10	186,00 A4
M 10	x	25	S	10	213,00 A4
M 10	x	30	S	10	239,00 A4
M 10	x	40	S	10	275,00 A4
M 12	x	12	S	10	226,00 A4
M 12	x	16	S	10	185,00 A4
M 12	x	20	S	10	229,00 A4
M 12	x	25	S	10	260,00 A4
M 12	x	30	S	10	280,00 A4
M 12	x	35	S	10	310,00 A4
M 12	x	40	S	10	335,00 A4
M 12	x	50	S	10	390,00 A4
M 12	x	60	S	10	600,00 A4
M 16	x	25	S	10	390,00 A4
M 16	x	30	S	10	455,00 A4
M 16	x	35	S	10	500,00 A4
M 16	x	40	S	10	530,00 A4

DIN	00916.910	RAZ 370
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916 A 1/A 2



Hexagon socket set screws with cup point

Dimensions → TI-21 Standard conversion → TI-6

Steel → S. 133

DIN 916 → replaced by ISO 4029 (compatible)

M 2	x	2	S	50	74,00 A1/A 2
M 2	x	3	S	50	60,00 A1/A 2
M 2	x	4	S	50	61,00 A1/A 2
M 2	x	5	S	50	61,00 A1/A 2
M 2	x	6	S	50	61,00 A1/A 2
M 3	x	4	S	50	25,50 A1/A 2
M 3	x	5	S	50	24,90 A1/A 2
M 3	x	6	S	50	27,00 A1/A 2

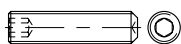


DIN 917

M 3	x	8	S	50	28,00 A1/A 2
M 3	x	10	S	50	29,00 A1/A 2
M 3	x	12	S	50	32,00 A1/A 2
M 3	x	16	S	50	63,00 A1/A 2
M 3	x	20	S	50	69,00 A1/A 2
M 4	x	3	S	50	17,70 A1/A 2
M 4	x	4	S	50	17,70 A1/A 2
M 4	x	5	S	50	17,70 A1/A 2
M 4	x	6	S	50	18,00 A1/A 2
M 4	x	8	S	50	18,50 A1/A 2
M 4	x	10	S	50	19,60 A1/A 2
M 4	x	12	S	50	20,80 A1/A 2
M 4	x	16	S	50	22,60 A1/A 2
M 4	x	20	S	25	27,00 A1/A 2
M 4	x	25	S	25	42,00 A1/A 2
M 4	x	30	S	25	46,00 A1/A 2
M 5	x	5	S	50	19,60 A1/A 2
M 5	x	6	S	50	20,00 A1/A 2
M 5	x	8	S	50	20,50 A1/A 2
M 5	x	10	S	50	21,10 A1/A 2
M 5	x	12	S	50	22,10 A1/A 2
M 5	x	16	S	50	24,30 A1/A 2
M 5	x	20	S	25	29,00 A1/A 2
M 5	x	25	S	25	32,00 A1/A 2
M 5	x	30	S	25	56,00 A1/A 2
M 6	x	6	S	25	22,80 A1/A 2
M 6	x	8	S	25	23,80 A1/A 2
M 6	x	10	S	25	24,20 A1/A 2
M 6	x	12	S	25	25,50 A1/A 2
M 6	x	16	S	25	29,00 A1/A 2
M 6	x	20	S	25	33,00 A1/A 2
M 6	x	25	S	25	37,50 A1/A 2
M 6	x	30	S	25	43,50 A1/A 2
M 6	x	35	S	25	53,00 A1/A 2
M 6	x	40	S	25	59,00 A1/A 2
M 6	x	45	S	25	136,00 A1/A 2
M 6	x	50	S	25	159,00 A1/A 2
M 6	x	60	S	25	182,00 A1/A 2
M 8	x	8	S	25	33,00 A1/A 2
M 8	x	10	S	25	33,00 A1/A 2
M 8	x	12	S	25	36,00 A1/A 2
M 8	x	16	S	25	39,50 A1/A 2
M 8	x	20	S	25	46,50 A1/A 2
M 8	x	25	S	25	54,00 A1/A 2
M 8	x	30	S	25	62,00 A1/A 2
M 8	x	35	S	25	75,00 A1/A 2
M 8	x	40	S	25	87,00 A1/A 2
M 8	x	45	S	25	95,00 A1/A 2
M 8	x	50	S	10	119,00 A1/A 2
M 8	x	60	S	10	215,00 A1/A 2
M 8	x	70	S	10	220,00 A1/A 2
M 10	x	10	S	25	49,00 A1/A 2
M 10	x	12	S	25	49,50 A1/A 2
M 10	x	16	S	25	53,00 A1/A 2
M 10	x	20	S	25	64,00 A1/A 2
M 10	x	25	S	25	76,00 A1/A 2
M 10	x	30	S	10	89,00 A1/A 2
M 10	x	35	S	10	107,00 A1/A 2
M 10	x	40	S	10	113,00 A1/A 2
M 10	x	45	S	10	121,00 A1/A 2
M 10	x	50	S	10	132,00 A1/A 2
M 10	x	60	S	10	184,00 A1/A 2
M 12	x	12	S	10	168,00 A1/A 2
M 12	x	16	S	10	102,00 A1/A 2
M 12	x	20	S	10	117,00 A1/A 2
M 12	x	25	S	10	128,00 A1/A 2
M 12	x	30	S	10	139,00 A1/A 2
M 12	x	35	S	10	150,00 A1/A 2
M 12	x	40	S	10	167,00 A1/A 2
M 12	x	50	S	10	205,00 A1/A 2
M 12	x	60	S	10	270,00 A1/A 2
M 16	x	16	S	10	437,50 A1/A 2
M 16	x	20	S	10	340,00 A1/A 2
M 16	x	25	S	10	410,00 A1/A 2
M 16	x	30	S	10	495,00 A1/A 2

M 16	x	40	S	10	630,00 A1/A 2
M 16	x	50	S	10	785,00 A1/A 2
M 16	x	60	S	10	950,00 A1/A 2
M 20	x	25	S	10	1500,00 A1/A 2
M 20	x	30	S	10	1600,00 A1/A 2
M 20	x	35	S	10	1700,00 A1/A 2
M 20	x	50	S	10	1800,00 A1/A 2

DIN	00916.940	RAZ 370
916	A 4	



Hexagon socket set screws with cup point

Dimensions → TI-21 Standard conversion → TI-6

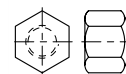
Steel → S. 133

DIN 916 → replaced by ISO 4029 (compatible)

M 2	x	2	S	50	136,00 A 4
M 2	x	4	S	50	146,00 A 4
M 2	x	5	S	50	155,00 A 4
M 2	x	6	S	50	159,00 A 4
M 3	x	5	S	50	59,00 A 4
M 3	x	6	S	50	68,00 A 4
M 3	x	8	S	50	80,00 A 4
M 3	x	10	S	50	96,00 A 4
M 3	x	12	S	50	105,00 A 4
M 3	x	16	S	50	113,00 A 4
M 3	x	20	S	50	127,00 A 4
M 4	x	5	S	50	49,00 A 4
M 4	x	6	S	50	51,00 A 4
M 4	x	8	S	50	53,00 A 4
M 4	x	10	S	50	57,00 A 4
M 4	x	12	S	50	61,00 A 4
M 4	x	16	S	25	69,00 A 4
M 4	x	20	S	25	74,00 A 4
M 5	x	5	S	50	57,00 A 4
M 5	x	6	S	50	57,00 A 4
M 5	x	8	S	50	59,00 A 4
M 5	x	10	S	50	63,00 A 4
M 5	x	12	S	25	69,00 A 4
M 5	x	16	S	25	74,00 A 4
M 5	x	20	S	25	83,00 A 4
M 5	x	25	S	25	87,00 A 4
M 5	x	30	S	25	94,00 A 4
M 6	x	6	S	25	64,00 A 4
M 6	x	8	S	25	65,00 A 4
M 6	x	10	S	25	69,00 A 4
M 6	x	12	S	25	73,00 A 4
M 6	x	16	S	25	83,00 A 4
M 6	x	20	S	25	93,00 A 4
M 6	x	25	S	25	111,00 A 4
M 6	x	30	S	25	122,00 A 4
M 6	x	35	S	25	129,00 A 4
M 6	x	40	S	25	140,00 A 4
M 6	x	50	S	25	171,00 A 4
M 8	x	8	S	25	89,00 A 4
M 8	x	10	S	25	89,00 A 4
M 8	x	12	S	25	99,00 A 4
M 8	x	16	S	25	109,00 A 4
M 8	x	20	S	25	130,00 A 4
M 8	x	25	S	25	160,00 A 4
M 8	x	30	S	25	174,00 A 4
M 8	x	35	S	10	195,00 A 4
M 8	x	40	S	10	209,00 A 4
M 8	x	50	S	10	260,00 A 4

M 8	x	60	S	10	305,00 A 4
M 10	x	8	S	25	208,00 A 4
M 10	x	10	S	25	140,00 A 4
M 10	x	12	S	25	140,00 A 4
M 10	x	16	S	25	151,00 A 4
M 10	x	20	S	10	193,00 A 4
M 10	x	25	S	10	221,00 A 4
M 10	x	30	S	10	248,00 A 4
M 10	x	35	S	10	265,00 A 4
M 10	x	40	S	10	285,00 A 4
M 10	x	50	S	10	345,00 A 4
M 10	x	60	S	10	445,00 A 4
M 12	x	16	S	10	192,00 A 4
M 12	x	20	S	10	237,00 A 4
M 12	x	25	S	10	265,00 A 4
M 12	x	30	S	10	290,00 A 4
M 12	x	35	S	10	325,00 A 4
M 12	x	40	S	10	345,00 A 4
M 12	x	50	S	10	400,00 A 4
M 12	x	60	S	10	540,00 A 4
M 16	x	16	S	10	480,00 A 4
M 16	x	20	S	10	525,00 A 4
M 16	x	25	S	10	450,00 A 4
M 16	x	30	S	10	470,00 A 4
M 16	x	35	S	10	520,00 A 4
M 16	x	40	S	10	540,00 A 4

DIN	00917.910	RAZ 380
917	A 1/A 2	



Hexagon cap nuts, low type

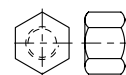
Dimensions → TI-61 Mech. properties → TI-224

Steel → S. 135

Brass → S. 577

M 4	S	50	28,50 A1/A 2
M 5	S	50	31,00 A1/A 2
M 6	S	500	34,50 A1/A 2
M 6	K	50	38,50 A1/A 2
M 8	S	250	58,00 A1/A 2
M 8	K	50	62,00 A1/A 2

DIN	00917.920	RAZ 380
917	A 2	



Hexagon cap nuts, low type

From M 12 with groove or appropriate screwing in depth t min.

Dimensions → TI-61 Mech. properties → TI-224

Steel → S. 135

Brass → S. 577

SW = wrench size

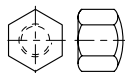
M 10 SW 17	S	250	93,00 A 2
M 10 SW 17	K	25	101,00 A 2
M 12 SW 19	S	200	164,00 A 2
M 12 SW 19	K	25	172,00 A 2
M 16	S	100	330,00 A 2



DIN 917

M 16	K	10	340,00 A 2
M 20	S	1	580,00 A 2
M 24	S	1	1220,00 A 2
M 30	S	1	2000,00 A 2

DIN	00917.940	RAZ 380
917	A 4	



Hexagon cap nuts, low type

From M 12 with groove or appropriate screwing in depth t min.

Dimensions → TI-61 Mech. properties → TI-224

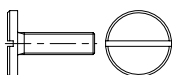
Steel → S. 135

Brass → S. 577

SW = wrench size

M 4	S	100	46,00 A 4
M 5	S	100	45,50 A 4
M 6	S	50	53,00 A 4
M 8	S	50	82,00 A 4
M 10 SW 17	S	25	159,00 A 4
M 12 SW 19	S	25	246,00 A 4
M 16	S	10	415,00 A 4
M 20	S	1	660,00 A 4

DIN	00921.910	RAZ 380
921	A 1	



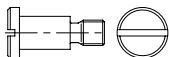
Slotted large cheese head screws

Dimensions → TI-38

Steel → S. 135

M 3	x	6	S	100	93,00 A 1
M 3	x	8	S	100	96,00 A 1
M 3	x	10	S	100	99,00 A 1
M 4	x	5	S	100	136,00 A 1
M 4	x	6	S	100	139,00 A 1
M 4	x	8	S	100	141,00 A 1
M 4	x	10	S	100	156,00 A 1
M 4	x	16	S	100	201,00 A 1
M 5	x	6	S	100	172,00 A 1
M 5	x	8	S	100	178,00 A 1
M 5	x	10	S	100	195,00 A 1
M 5	x	12	S	100	212,00 A 1
M 5	x	16	S	100	246,00 A 1
M 6	x	8	S	100	198,00 A 1
M 6	x	10	S	100	217,00 A 1
M 6	x	12	S	100	229,00 A 1
M 6	x	16	S	100	275,00 A 1
M 6	x	20	S	100	290,00 A 1
M 8	x	16	S	100	315,00 A 1
M 8	x	20	S	50	335,00 A 1

DIN	00923.910	RAZ 380
923	A 1	



Slotted cheese head shoulder screws

Turned finish = with undercut
pressed = without undercut

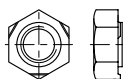
Dimensions → TI-38

Steel → S. 136

Thread Ø x shank length x thread length

M 3	x	3	x	4,5	S	100	173,00 A 1
M 3	x	4	x	4,5	S	100	177,00 A 1
M 3	x	5	x	4,5	S	100	182,00 A 1
M 3	x	6	x	4,5	S	100	186,00 A 1
M 3	x	10	x	4,5	S	100	190,00 A 1
M 4	x	2	x	6,0	S	100	187,00 A 1
M 4	x	4	x	6,0	S	100	189,00 A 1
M 4	x	5	x	6,0	S	100	193,00 A 1
M 4	x	6	x	6,0	S	100	197,00 A 1
M 4	x	10	x	6,0	S	100	205,00 A 1
M 4	x	12	x	6,0	S	100	209,00 A 1
M 4	x	16	x	6,0	S	100	215,00 A 1
M 5	x	2,5	x	7,0	S	100	205,00 A 1
M 5	x	3	x	7,0	S	100	210,00 A 1
M 5	x	4	x	7,0	S	100	214,00 A 1
M 5	x	5	x	7,0	S	100	218,00 A 1
M 5	x	6	x	7,0	S	100	226,00 A 1
M 5	x	8	x	7,0	S	100	234,00 A 1
M 5	x	10	x	7,0	S	100	242,00 A 1
M 5	x	12	x	7,0	S	100	250,00 A 1
M 5	x	16	x	7,0	S	100	258,00 A 1
M 6	x	3	x	9,0	S	100	255,00 A 1
M 6	x	4	x	9,0	S	100	258,00 A 1
M 6	x	5	x	9,0	S	100	260,00 A 1
M 6	x	6	x	9,0	S	100	260,00 A 1
M 6	x	8	x	9,0	S	100	270,00 A 1
M 6	x	10	x	9,0	S	100	290,00 A 1
M 6	x	12	x	9,0	S	100	310,00 A 1
M 6	x	16	x	9,0	S	100	330,00 A 1
M 6	x	20	x	9,0	S	100	350,00 A 1
M 6	x	25	x	9,0	S	100	149,43 A 1
M 8	x	6	x	11,0	S	100	270,00 A 1
M 8	x	8	x	11,0	S	100	285,00 A 1
M 8	x	10	x	11,0	S	100	305,00 A 1
M 8	x	12	x	11,0	S	100	335,00 A 1
M 8	x	16	x	11,0	S	100	370,00 A 1
M 8	x	20	x	11,0	S	100	405,00 A 1

DIN	00929.920	RAZ 390
929	A 2	



Hexagon weld nuts

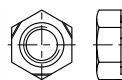
Dimensions → TI-69

Steel → S. 137

M 3	S	100	17,90 A 2
M 4	S	100	19,50 A 2
M 5	S	100	29,00 A 2

M 6	S	100	53,00 A 2
M 8	S	100	64,00 A 2
M 10	S	100	106,00 A 2
M 12	S	50	227,00 A 2
M 16	S	50	340,00 A 2

DIN	00929.940	RAZ 390
929	A 4	



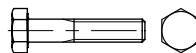
Hexagon weld nuts

Dimensions → TI-69

Steel → S. 137

M 3	S	100	30,00 A 4
M 4	S	100	34,00 A 4
M 5	S	100	40,00 A 4
M 6	S	100	60,00 A 4
M 8	S	100	80,00 A 4
M 10	S	100	130,00 A 4
M 12	S	50	250,00 A 4
M 16	S	25	380,00 A 4

DIN	00931.920	RAZ 401
931	A 2 - 70	



Hexagon head bolts with shank

Short dimensions in part thread up to head

Dimensions → TI-15 Tightening torque → TI-235

Mech. properties → TI-224 Standard conversion → TI-6

Steel → S. 137

Brass → S. 577

DIN 931 → replaced by ISO 4014

*Prop. class for dimensions different depending on production

M 5	x	30	S	100	8,20 A 2
M 5	x	35	S	100	9,90 A 2
M 5	x	40	S	100	10,40 A 2
M 5	x	45	S	100	12,20 A 2
M 5	x	50	S	100	14,20 A 2
M 5	x	55	S	100	27,60 A 2
M 5	x	60	S	100	27,60 A 2
M 5	x	65	S	200	60,30 A 2
M 5	x	70	S	100	61,80 A 2
M 5	x	80	S	100	208,00 A 2
M 5	x	90	S	100	278,00 A 2
M 5	x	100	S	100	350,00 A 2
M 6	x	30	S	200	7,90 A 2
M 6	x	35	S	100	8,85 A 2
M 6	x	40	S	100	10,20 A 2
M 6	x	45	S	100	11,90 A 2
M 6	x	50	S	100	14,20 A 2
M 6	x	55	S	100	20,90 A 2
M 6	x	60	S	100	23,70 A 2
M 6	x	65	S	100	29,60 A 2
M 6	x	70	S	100	32,20 A 2
M 6	x	75	S	100	46,40 A 2
M 6	x	80	S	100	38,80 A 2

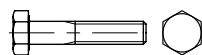


M 6	x	85	S	100	63,90A2	M 12	x	140	S	1	253,00A2	M 20	x	65	S	1	178,00A2
M 6	x	90	S	100	51,10A2	M 12	x	150	S	1	290,00A2	M 20	x	70	S	1	188,00A2
M 6	x	100	S	100	59,80A2	M 12	x	160	S	1	347,00A2	M 20	x	75	S	1	208,00A2
M 6	x	110	S	50	75,10A2	M 12	x	170	S	1	436,00A2	M 20	x	80	S	1	208,00A2
M 6	x	120	S	50	88,40A2	M 12	x	180	S	1	436,00A2	M 20	x	85	S	1	284,00A2
M 6	x	130	S	50	143,00A2	M 12	x	190	S	1	593,00A2	M 20	x	90	S	1	227,00A2
M 6	x	140	S	50	151,00A2	M 12	x	200	S	1	593,00A2	M 20	x	100	S	1	246,00A2
M 6	x	150	S	50	180,00A2	M 12	x	210	S	1	764,00A2	M 20	x	110	S	1	349,00A2
M 6	x	160*	S	50	194,00A2	M 12	x	220	S	1	834,00A2	M 20	x	120	S	1	382,00A2
M 6	x	170*	S	50	236,00A2	M 12	x	230	S	1	881,00A2	M 20	x	130	S	1	449,00A2
M 6	x	180*	S	50	239,00A2	M 12	x	240	S	1	929,00A2	M 20	x	140	S	1	493,00A2
M 8	x	35	S	100	14,80A2	M 12	x	250	S	1	976,00A2	M 20	x	150	S	1	535,00A2
M 8	x	40	S	100	17,30A2	M 12	x	260*	S	1	1078,00A2	M 20	x	160	S	1	687,00A2
M 8	x	45	S	100	18,40A2	M 12	x	280*	S	1	1170,00A2	M 20	x	170	S	1	747,00A2
M 8	x	50	S	100	19,60A2	M 12	x	300*	S	1	1252,00A2	M 20	x	180	S	1	790,00A2
M 8	x	55	S	100	21,90A2	M 12	x	320*	S	1	1500,00A2	M 20	x	190	S	1	893,00A2
M 8	x	60	S	100	22,40A2	M 14	x	50	S	50	103,00A2	M 20	x	200	S	1	893,00A2
M 8	x	65	S	100	31,10A2	M 14	x	55	S	50	103,00A2	M 20	x	210	S	1	1089,00A2
M 8	x	70	S	100	32,70A2	M 14	x	60	S	50	105,00A2	M 20	x	220	S	1	1089,00A2
M 8	x	75	S	100	63,40A2	M 14	x	65	S	50	114,00A2	M 20	x	230	S	1	1242,00A2
M 8	x	80	S	100	50,10A2	M 14	x	70	S	50	120,00A2	M 20	x	240	S	1	1242,00A2
M 8	x	85	S	100	76,60A2	M 14	x	80	S	50	133,00A2	M 20	x	250	S	1	1395,00A2
M 8	x	90	S	100	61,30A2	M 14	x	90	S	50	146,00A2	M 20	x	260*	S	1	1395,00A2
M 8	x	100	S	100	74,10A2	M 14	x	100	S	50	159,00A2	M 20	x	270*	S	1	1549,00A2
M 8	x	110	S	50	88,90A2	M 14	x	110	S	50	232,00A2	M 20	x	280*	S	1	1549,00A2
M 8	x	120	S	50	101,00A2	M 14	x	120	S	1	251,00A2	M 20	x	290*	S	1	1702,00A2
M 8	x	130	S	50	114,00A2	M 14	x	130	S	1	307,00A2	M 20	x	300*	S	1	1702,00A2
M 8	x	140	S	50	126,00A2	M 14	x	140	S	1	334,00A2	M 22	x	80	S	1	526,00A2
M 8	x	150	S	50	138,00A2	M 14	x	150	S	1	367,00A2	M 22	x	90	S	1	558,00A2
M 8	x	160	S	25	192,00A2	M 14	x	160	S	1	472,00A2	M 22	x	100	S	1	598,00A2
M 8	x	170	S	25	233,00A2	M 14	x	170*	S	1	524,00A2	M 22	x	110	S	1	678,00A2
M 8	x	180	S	25	233,00A2	M 14	x	180*	S	1	558,00A2	M 22	x	120	S	1	730,00A2
M 8	x	190	S	25	309,00A2	M 14	x	200*	S	1	644,00A2	M 22	x	130	S	1	816,00A2
M 8	x	200	S	25	309,00A2	M 16	x	55	S	50	103,00A2	M 22	x	140	S	1	885,00A2
M 8	x	220*	S	25	466,00A2	M 16	x	60	S	50	105,00A2	M 22	x	150	S	1	954,00A2
M 10	x	40	S	100	31,10A2	M 16	x	65	S	50	114,00A2	M 22	x	160	S	1	1125,00A2
M 10	x	45	S	100	32,20A2	M 16	x	70	S	25	120,00A2	M 22	x	180	S	1	1269,00A2
M 10	x	50	S	100	34,20A2	M 16	x	75	S	25	133,00A2	M 22	x	200	S	1	1417,00A2
M 10	x	55	S	100	36,80A2	M 16	x	80	S	25	133,00A2	M 24	x	75	S	1	414,00A2
M 10	x	60	S	100	39,30A2	M 16	x	85	S	25	182,00A2	M 24	x	80	S	1	334,00A2
M 10	x	65	S	100	44,90A2	M 16	x	90	S	25	146,00A2	M 24	x	85	S	1	443,00A2
M 10	x	70	S	100	46,00A2	M 16	x	95	S	25	210,00A2	M 24	x	90	S	1	354,00A2
M 10	x	75	S	50	82,30A2	M 16	x	100	S	25	159,00A2	M 24	x	95	S	1	476,00A2
M 10	x	80	S	50	56,20A2	M 16	x	110	S	25	232,00A2	M 24	x	100	S	1	380,00A2
M 10	x	85	S	50	107,00A2	M 16	x	120	S	25	251,00A2	M 24	x	110	S	1	423,00A2
M 10	x	90	S	50	86,40A2	M 16	x	130	S	1	307,00A2	M 24	x	120	S	1	459,00A2
M 10	x	100	S	50	109,00A2	M 16	x	140	S	1	334,00A2	M 24	x	130	S	1	579,00A2
M 10	x	110	S	50	134,00A2	M 16	x	150	S	1	367,00A2	M 24	x	140	S	1	626,00A2
M 10	x	120	S	50	165,00A2	M 16	x	160	S	1	472,00A2	M 24	x	150	S	1	662,00A2
M 10	x	130	S	50	202,00A2	M 16	x	170	S	1	524,00A2	M 24	x	160	S	1	984,00A2
M 10	x	140	S	50	234,00A2	M 16	x	180	S	1	558,00A2	M 24	x	170	S	1	1142,00A2
M 10	x	150	S	50	264,00A2	M 16	x	190	S	1	644,00A2	M 24	x	180	S	1	1142,00A2
M 10	x	160	S	50	309,00A2	M 16	x	200	S	1	644,00A2	M 24	x	190	S	1	1271,00A2
M 10	x	170	S	1	378,00A2	M 16	x	210	S	1	764,00A2	M 24	x	200	S	1	1271,00A2
M 10	x	180	S	1	382,00A2	M 16	x	220	S	1	764,00A2	M 24	x	210	S	1	1443,00A2
M 10	x	190	S	1	502,00A2	M 16	x	230	S	1	885,00A2	M 24	x	220	S	1	1443,00A2
M 10	x	200	S	1	502,00A2	M 16	x	240	S	1	885,00A2	M 24	x	230	S	1	1597,00A2
M 10	x	210	S	1	649,00A2	M 16	x	250	S	1	1055,00A2	M 24	x	240	S	1	1597,00A2
M 10	x	220	S	1	726,00A2	M 16	x	260*	S	1	1055,00A2	M 24	x	250	S	1	1840,00A2
M 12	x	40	S	50	42,10A2	M 16	x	270*	S	1	1185,00A2	M 24	x	260*	S	1	1840,00A2
M 12	x	45	S	50	44,90A2	M 16	x	280*	S	1	1185,00A2	M 24	x	280*	S	1	2009,00A2
M 12	x	50	S	50	48,50A2	M 16	x	290*	S	1	1316,00A2	M 24	x	290*	S	1	2178,00A2
M 12	x	55	S	50	52,10A2	M 16	x	300*	S	1	1316,00A2	M 24	x	300*	S	1	2178,00A2
M 12	x	60	S	50	55,70A2	M 18	x	65	S	1	267,00A2	M 27	x	90*	S	1	944,00A2
M 12	x	65	S	50	62,30A2	M 18	x	70	S	25	282,00A2	M 27	x	100*	S	1	1017,00A2
M 12	x	70	S	50	66,90A2	M 18	x	75	S	1	311,00A2	M 27	x	110*	S	1	1096,00A2
M 12	x	75	S	50	117,00A2	M 18	x	80	S	25	311,00A2	M 27	x	120*	S	1	1175,00A2
M 12	x	80	S	50	80,70A2	M 18	x	90	S	25	341,00A2	M 27	x	130*	S	1	1214,00A2
M 12	x	85	S	50	136,00A2	M 18	x	100	S	25	370,00A2	M 27	x	140*	S	1	1287,00A2
M 12	x	90	S	50	109,00A2	M 18	x	110	S	25	524,00A2	M 27	x	150*	S	1	1366,00A2
M 12	x	100	S	50	121,00A2	M 18	x	120	S	25	574,00A2	M 27	x	160*	S	1	1439,00A2
M 12	x	105	S	50	250,00A2	M 18	x	130	S	25	674,00A2	M 27	x	170*	S	1	1591,00A2
M 12	x	110	S	50	147,00A2	M 18	x	140	S	25	739,00A2	M 27	x	180*	S	1	1591,00A2
M 12	x	120	S	25	174,00A2	M 18	x	150	S	25	803,00A2	M 27	x	200*	S	1	1737,00A2
M 12	x	130	S	1	214,00A2	M 18	x	160	S	25	841,00A2	M 27	x	210*	S	1	2147,00A2

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M 27	x	220*	S	1	2147,00 A 2
M 27	x	230*	S	1	2403,00 A 2
M 27	x	240*	S	1	2403,00 A 2
M 27	x	250*	S	1	2658,00 A 2
M 30	x	90*	S	1	1231,00 A 2
M 30	x	100*	S	1	1338,00 A 2
M 30	x	110*	S	1	1428,00 A 2
M 30	x	120*	S	1	1524,00 A 2
M 30	x	130*	S	1	1597,00 A 2
M 30	x	140*	S	1	1810,00 A 2
M 30	x	150*	S	1	1912,00 A 2
M 30	x	160*	S	1	2114,00 A 2
M 30	x	170*	S	1	2328,00 A 2
M 30	x	180*	S	1	2328,00 A 2
M 30	x	190*	S	1	2547,00 A 2
M 30	x	200*	S	1	2547,00 A 2
M 30	x	210*	S	1	2760,00 A 2
M 30	x	220*	S	1	2760,00 A 2
M 30	x	240*	S	1	2965,00 A 2
M 30	x	250*	S	1	3170,00 A 2
M 33	x	100*	S	1	1760,00 A 2
M 33	x	110*	S	1	1884,00 A 2
M 33	x	120*	S	1	2007,00 A 2
M 33	x	130*	S	1	2120,00 A 2
M 33	x	140*	S	1	2255,00 A 2
M 33	x	150*	S	1	2373,00 A 2
M 33	x	160*	S	1	2491,00 A 2
M 33	x	170*	S	1	2727,00 A 2
M 33	x	180*	S	1	2727,00 A 2
M 33	x	190*	S	1	2969,00 A 2
M 33	x	200*	S	1	2969,00 A 2
M 33	x	210*	S	1	3221,00 A 2
M 33	x	220*	S	1	3221,00 A 2
M 33	x	230*	S	1	3476,00 A 2
M 33	x	240*	S	1	3476,00 A 2
M 33	x	250*	S	1	3732,00 A 2
M 36	x	100*	S	1	2154,00 A 2
M 36	x	110*	S	1	2305,00 A 2
M 36	x	120*	S	1	2457,00 A 2
M 36	x	130*	S	1	2575,00 A 2
M 36	x	140*	S	1	2727,00 A 2
M 36	x	150*	S	1	2879,00 A 2
M 36	x	160*	S	1	3025,00 A 2
M 36	x	170*	S	1	3498,00 A 2
M 36	x	180*	S	1	3498,00 A 2
M 36	x	190*	S	1	3801,00 A 2
M 36	x	200*	S	1	3801,00 A 2
M 36	x	210*	S	1	4090,00 A 2
M 36	x	220*	S	1	4090,00 A 2
M 36	x	230*	S	1	4397,00 A 2
M 36	x	240*	S	1	4397,00 A 2
M 36	x	250*	S	1	4703,00 A 2

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Hexagon head bolts with shank

Short dimensions in part thread up to head

Dimensions → **TI-15** Tightening torque → **TI-235**
 Mech. properties → **TI-224** Standard conversion → **TI-6**

Steel → **S. 137**

Brass → **S. 577**

DIN 931 → replaced by ISO 4014

*Prop. class for dimensions different depending on production

M 5	x	30	S	100	11,60 A 4
M 5	x	35	S	100	12,50 A 4
M 5	x	40	S	100	13,70 A 4
M 5	x	45	S	100	15,80 A 4
M 5	x	50	S	100	19,80 A 4
M 5	x	55	S	100	32,70 A 4
M 5	x	60	S	100	34,20 A 4
M 5	x	70	S	100	72,00 A 4
M 5	x	80	S	100	222,00 A 4
M 5	x	90	S	100	285,00 A 4
M 5	x	100	S	100	363,00 A 4
M 6	x	30	S	200	11,50 A 4
M 6	x	35	S	100	12,30 A 4
M 6	x	40	S	100	13,20 A 4
M 6	x	45	S	100	15,20 A 4
M 6	x	50	S	100	17,30 A 4
M 6	x	55	S	100	24,00 A 4
M 6	x	60	S	100	27,60 A 4
M 6	x	65	S	100	33,20 A 4
M 6	x	70	S	100	35,20 A 4
M 6	x	80	S	100	43,40 A 4
M 6	x	90	S	100	57,20 A 4
M 6	x	100	S	100	63,40 A 4
M 6	x	110	S	50	83,80 A 4
M 6	x	120	S	50	102,00 A 4
M 6	x	130	S	50	173,00 A 4
M 6	x	140	S	1	192,00 A 4
M 6	x	150	S	1	212,00 A 4
M 6	x	160*	S	1	231,00 A 4
M 6	x	170*	S	1	295,00 A 4
M 8	x	35	S	100	25,00 A 4
M 8	x	40	S	100	25,00 A 4
M 8	x	45	S	100	26,50 A 4
M 8	x	50	S	100	28,60 A 4
M 8	x	55	S	100	33,70 A 4
M 8	x	60	S	100	34,70 A 4
M 8	x	65	S	100	45,50 A 4
M 8	x	70	S	100	48,00 A 4
M 8	x	75	S	100	100,00 A 4
M 8	x	80	S	100	72,00 A 4
M 8	x	85	S	100	105,00 A 4
M 8	x	90	S	100	84,80 A 4
M 8	x	100	S	100	99,70 A 4
M 8	x	110	S	50	122,00 A 4
M 8	x	120	S	50	139,00 A 4
M 8	x	130	S	50	174,00 A 4
M 8	x	140	S	1	203,00 A 4
M 8	x	150	S	1	232,00 A 4
M 8	x	160	S	1	289,00 A 4
M 8	x	170	S	1	354,00 A 4
M 8	x	180	S	1	354,00 A 4
M 8	x	190	S	1	470,00 A 4
M 8	x	200	S	1	470,00 A 4
M 8	x	220*	S	1	695,00 A 4

M 10	x	40	S	100	46,50 A 4
M 10	x	45	S	100	47,50 A 4
M 10	x	50	S	100	49,50 A 4
M 10	x	55	S	100	55,20 A 4
M 10	x	60	S	100	57,70 A 4
M 10	x	65	S	100	67,40 A 4
M 10	x	70	S	100	69,00 A 4
M 10	x	75	S	50	118,00 A 4
M 10	x	80	S	50	83,30 A 4
M 10	x	90	S	50	115,00 A 4
M 10	x	100	S	50	145,00 A 4
M 10	x	110	S	50	183,00 A 4
M 10	x	120	S	50	225,00 A 4
M 10	x	130	S	1	289,00 A 4
M 10	x	140	S	1	332,00 A 4
M 10	x	150	S	1	377,00 A 4
M 10	x	160	S	1	469,00 A 4
M 10	x	170	S	1	573,00 A 4
M 10	x	180	S	1	573,00 A 4
M 10	x	190	S	1	760,00 A 4
M 10	x	200	S	1	760,00 A 4
M 10	x	210	S	1	938,00 A 4
M 10	x	220	S	1	1058,00 A 4
M 12	x	45	S	50	69,50 A 4
M 12	x	50	S	50	70,00 A 4
M 12	x	55	S	50	77,20 A 4
M 12	x	60	S	50	78,70 A 4
M 12	x	65	S	50	93,50 A 4
M 12	x	70	S	50	95,10 A 4
M 12	x	75	S	50	158,00 A 4
M 12	x	80	S	50	111,00 A 4
M 12	x	85	S	50	168,00 A 4
M 12	x	90	S	50	135,00 A 4
M 12	x	95	S	50	200,00 A 4
M 12	x	100	S	50	161,00 A 4
M 12	x	110	S	50	197,00 A 4
M 12	x	120	S	25	242,00 A 4
M 12	x	130	S	1	305,00 A 4
M 12	x	140	S	1	358,00 A 4
M 12	x	150	S	1	413,00 A 4
M 12	x	160	S	1	537,00 A 4
M 12	x	170	S	1	674,00 A 4
M 12	x	180	S	1	674,00 A 4
M 12	x	190	S	1	833,00 A 4
M 12	x	200	S	1	833,00 A 4
M 12	x	210	S	1	1016,00 A 4
M 12	x	220	S	1	1077,00 A 4
M 12	x	240	S	1	1159,00 A 4
M 12	x	250	S	1	1199,00 A 4
M 12	x	260*	S	1	1304,00 A 4
M 12	x	280*	S	1	1381,00 A 4
M 12	x	300*	S	1	1432,00 A 4
M 12	x	320*	S	1	1509,00 A 4
M 12	x	340*	S	1	1585,00 A 4
M 12	x	360*	S	1	1662,00 A 4
M 12	x	380*	S	1	1739,00 A 4
M 12	x	400*	S	1	1867,00 A 4
M 14	x	50	S	50	172,00 A 4
M 14	x	55	S	50	169,00 A 4
M 14	x	60	S	50	169,00 A 4
M 14	x	65	S	50	185,00 A 4
M 14	x	70	S	50	187,00 A 4
M 14	x	80	S	50	204,00 A 4
M 14	x	90	S	50	228,00 A 4
M 14	x	100	S	50	247,00 A 4
M 14	x	110	S	1	310,00 A 4
M 14	x	120	S	1	351,00 A 4
M 14	x	130	S	1	418,00 A 4
M 14	x	140	S	1	464,00 A 4
M 14	x	150	S	1	509,00 A 4
M 14	x	160	S	1	668,00 A 4
M 14	x	170*	S	1	772,00 A 4
M 14	x	180*	S	1	772,00 A 4
M 14	x	190*	S	1	869,00 A 4
M 14	x	200*	S	1	869,00 A 4



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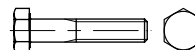
M 16	x	55	S	50	169,00 A4
M 16	x	60	S	50	169,00 A4
M 16	x	65	S	50	185,00 A4
M 16	x	70	S	25	187,00 A4
M 16	x	75	S	25	204,00 A4
M 16	x	80	S	25	204,00 A4
M 16	x	85	S	25	285,00 A4
M 16	x	90	S	25	228,00 A4
M 16	x	100	S	25	247,00 A4
M 16	x	110	S	25	310,00 A4
M 16	x	120	S	25	351,00 A4
M 16	x	130	S	1	418,00 A4
M 16	x	140	S	1	464,00 A4
M 16	x	150	S	1	509,00 A4
M 16	x	160	S	1	668,00 A4
M 16	x	170	S	1	772,00 A4
M 16	x	180	S	1	772,00 A4
M 16	x	190	S	1	869,00 A4
M 16	x	200	S	1	869,00 A4
M 16	x	210	S	1	1231,00 A4
M 16	x	220	S	1	1231,00 A4
M 16	x	230	S	1	1399,00 A4
M 16	x	240	S	1	1399,00 A4
M 16	x	250	S	1	1568,00 A4
M 16	x	260*	S	1	1568,00 A4
M 16	x	270*	S	1	1737,00 A4
M 16	x	280*	S	1	1737,00 A4
M 16	x	290*	S	1	1906,00 A4
M 16	x	300*	S	1	1906,00 A4
M 16	x	320*	S	1	3052,00 A4
M 16	x	340*	S	1	3313,00 A4
M 16	x	360*	S	1	3400,00 A4
M 16	x	380*	S	1	3436,00 A4
M 16	x	400*	S	1	3503,00 A4
M 18	x	70	S	1	372,00 A4
M 18	x	80	S	1	412,00 A4
M 18	x	90	S	1	455,00 A4
M 18	x	100	S	1	493,00 A4
M 18	x	110	S	1	741,00 A4
M 18	x	120	S	1	802,00 A4
M 18	x	130	S	1	937,00 A4
M 18	x	140	S	1	949,00 A4
M 18	x	150	S	1	951,00 A4
M 18	x	160	S	1	965,00 A4
M 18	x	170	S	1	1407,00 A4
M 18	x	180	S	1	1407,00 A4
M 18	x	190	S	1	1611,00 A4
M 18	x	200	S	1	1611,00 A4
M 20	x	65	S	1	288,00 A4
M 20	x	70	S	1	298,00 A4
M 20	x	75	S	1	313,00 A4
M 20	x	80	S	1	313,00 A4
M 20	x	85	S	1	452,00 A4
M 20	x	90	S	1	361,00 A4
M 20	x	100	S	1	399,00 A4
M 20	x	110	S	1	494,00 A4
M 20	x	120	S	1	535,00 A4
M 20	x	130	S	1	625,00 A4
M 20	x	140	S	1	685,00 A4
M 20	x	150	S	1	745,00 A4
M 20	x	160	S	1	965,00 A4
M 20	x	170	S	1	1110,00 A4
M 20	x	180	S	1	1110,00 A4
M 20	x	190	S	1	1255,00 A4
M 20	x	200	S	1	1255,00 A4
M 20	x	210	S	1	1432,00 A4
M 20	x	220	S	1	1432,00 A4
M 20	x	230	S	1	1609,00 A4
M 20	x	240	S	1	1609,00 A4
M 20	x	250	S	1	2141,00 A4
M 20	x	260*	S	1	2141,00 A4
M 20	x	270*	S	1	2356,00 A4
M 20	x	280*	S	1	2356,00 A4
M 20	x	290*	S	1	2570,00 A4
M 20	x	300*	S	1	2570,00 A4

M 22	x	80	S	1	796,00 A4
M 22	x	90	S	1	852,00 A4
M 22	x	100	S	1	933,00 A4
M 22	x	110	S	1	1078,00 A4
M 22	x	120	S	1	1167,00 A4
M 22	x	130	S	1	1247,00 A4
M 22	x	140	S	1	1416,00 A4
M 22	x	150	S	1	1545,00 A4
M 22	x	160	S	1	1649,00 A4
M 22	x	200	S	1	2052,00 A4
M 24	x	75	S	1	720,00 A4
M 24	x	80	S	1	610,00 A4
M 24	x	85	S	1	823,00 A4
M 24	x	90	S	1	662,00 A4
M 24	x	100	S	1	734,00 A4
M 24	x	110	S	1	827,00 A4
M 24	x	120	S	1	874,00 A4
M 24	x	130	S	1	953,00 A4
M 24	x	140	S	1	1049,00 A4
M 24	x	150	S	1	1116,00 A4
M 24	x	160	S	1	1488,00 A4
M 24	x	170	S	1	1649,00 A4
M 24	x	180	S	1	1649,00 A4
M 24	x	190	S	1	1850,00 A4
M 24	x	200	S	1	1850,00 A4
M 24	x	210	S	1	2431,00 A4
M 24	x	220	S	1	2431,00 A4
M 24	x	230	S	1	2668,00 A4
M 24	x	240	S	1	2668,00 A4
M 24	x	250	S	1	2906,00 A4
M 24	x	260*	S	1	2906,00 A4
M 24	x	270*	S	1	3144,00 A4
M 24	x	280*	S	1	3144,00 A4
M 24	x	290*	S	1	3382,00 A4
M 24	x	300*	S	1	3382,00 A4
M 27	x	90*	S	1	1354,00 A4
M 27	x	100*	S	1	1467,00 A4
M 27	x	110*	S	1	1579,00 A4
M 27	x	120*	S	1	1687,00 A4
M 27	x	130*	S	1	1748,00 A4
M 27	x	140*	S	1	1855,00 A4
M 27	x	150*	S	1	1963,00 A4
M 27	x	160*	S	1	2075,00 A4
M 27	x	170*	S	1	2290,00 A4
M 27	x	180*	S	1	2290,00 A4
M 27	x	190*	S	1	2495,00 A4
M 27	x	200*	S	1	2495,00 A4
M 27	x	210*	S	1	3221,00 A4
M 27	x	220*	S	1	3221,00 A4
M 27	x	230*	S	1	3527,00 A4
M 27	x	240*	S	1	3527,00 A4
M 27	x	250*	S	1	3834,00 A4
M 27	x	260*	S	1	4121,00 A4
M 27	x	280*	S	1	4693,00 A4
M 30	x	90*	S	1	1692,00 A4
M 30	x	100*	S	1	1830,00 A4
M 30	x	110*	S	1	1968,00 A4
M 30	x	120*	S	1	2096,00 A4
M 30	x	130*	S	1	2188,00 A4
M 30	x	140*	S	1	2326,00 A4
M 30	x	150*	S	1	2454,00 A4
M 30	x	160*	S	1	2602,00 A4
M 30	x	170*	S	1	2863,00 A4
M 30	x	180*	S	1	2863,00 A4
M 30	x	190*	S	1	3118,00 A4
M 30	x	200*	S	1	3118,00 A4
M 30	x	210*	S	1	3783,00 A4
M 30	x	220*	S	1	3783,00 A4
M 30	x	240*	S	1	4090,00 A4
M 30	x	250*	S	1	4499,00 A4
M 30	x	260*	S	1	4755,00 A4
M 30	x	280*	S	1	5241,00 A4
M 30	x	300*	S	1	5700,00 A4
M 33	x	90*	S	1	2351,00 A4
M 33	x	100*	S	1	2530,00 A4

M 33	x	110*	S	1	2709,00 A4
M 33	x	120*	S	1	2893,00 A4
M 33	x	130*	S	1	3067,00 A4
M 33	x	140*	S	1	3236,00 A4
M 33	x	150*	S	1	3425,00 A4
M 33	x	160*	S	1	3589,00 A4
M 33	x	170*	S	1	3936,00 A4
M 33	x	180*	S	1	3936,00 A4
M 33	x	190*	S	1	4279,00 A4
M 33	x	200*	S	1	4279,00 A4
M 33	x	210*	S	1	4857,00 A4
M 33	x	220*	S	1	4857,00 A4
M 33	x	230*	S	1	5419,00 A4
M 33	x	240*	S	1	5419,00 A4
M 33	x	250*	S	1	5777,00 A4
M 36	x	100*	S	1	3103,00 A4
M 36	x	110*	S	1	3323,00 A4
M 36	x	120*	S	1	3533,00 A4
M 36	x	130*	S	1	3717,00 A4
M 36	x	140*	S	1	3936,00 A4
M 36	x	150*	S	1	4141,00 A4
M 36	x	160*	S	1	4361,00 A4
M 36	x	170*	S	1	5010,00 A4
M 36	x	180*	S	1	5010,00 A4
M 36	x	190*	S	1	5470,00 A4
M 36	x	200*	S	1	5470,00 A4
M 36	x	220*	S	1	6084,00 A4
M 36	x	230*	S	1	6749,00 A4
M 36	x	240*	S	1	6749,00 A4
M 36	x	250*	S	1	7413,00 A4

DIN 00931.948 RAZ 403

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Hexagon head bolts with shank

Short dimensions in part thread up to head, high strength (strongly cold worked)

Dimensions → TI-15 Tightening torque → TI-235
Mech. properties → TI-224 Standard conversion → TI-6

Steel → S. 137
Brass → S. 577

DIN 931 → replaced by ISO 4014

M 6	x	30	S	100	29,00 A4-80
M 6	x	35	S	100	31,00 A4-80
M 6	x	40	S	100	33,50 A4-80
M 6	x	45	S	100	38,50 A4-80
M 6	x	50	S	100	43,50 A4-80
M 6	x	55	S	100	61,00 A4-80
M 6	x	60	S	100	70,00 A4-80
M 6	x	65	S	100	84,00 A4-80
M 6	x	70	S	100	87,00 A4-80
M 8	x	35	S	100	63,00 A4-80
M 8	x	40	S	100	63,00 A4-80
M 8	x	45	S	100	67,00 A4-80
M 8	x	50	S	100	72,00 A4-80
M 8	x	55	S	100	85,00 A4-80
M 8	x	60	S	100	87,00 A4-80
M 8	x	65	S	100	114,00 A4-80
M 8	x	70	S	50	121,00 A4-80
M 8	x	75	S	50	260,00 A4-80
M 8	x	80	S	50	179,00 A4-80
M 8	x	90	S	50	211,00 A4-80
M 8	x	100	S	50	248,00 A4-80
M 10	x	40	S	100	117,00 A4-80
M 10	x	45	S	100	119,00 A4-80

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M 10	x	50	S	100	124,00 A4-80
M 10	x	55	S	50	139,00 A4-80
M 10	x	60	S	50	145,00 A4-80
M 10	x	65	S	50	169,00 A4-80
M 10	x	70	S	50	173,00 A4-80
M 10	x	75	S	50	310,00 A4-80
M 10	x	80	S	50	209,00 A4-80
M 10	x	90	S	50	290,00 A4-80
M 10	x	100	S	50	365,00 A4-80
M 10	x	110	S	25	465,00 A4-80
M 10	x	120	S	25	570,00 A4-80
M 12	x	45	S	50	174,00 A4-80
M 12	x	50	S	50	176,00 A4-80
M 12	x	55	S	50	194,00 A4-80
M 12	x	60	S	50	197,00 A4-80
M 12	x	65	S	50	234,00 A4-80
M 12	x	70	S	25	238,00 A4-80
M 12	x	75	S	25	430,00 A4-80
M 12	x	80	S	25	280,00 A4-80
M 12	x	90	S	25	340,00 A4-80
M 12	x	100	S	25	405,00 A4-80
M 12	x	110	S	25	495,00 A4-80
M 12	x	120	S	25	610,00 A4-80
M 14	x	50	S	50	430,00 A4-80
M 14	x	55	S	50	430,00 A4-80
M 14	x	60	S	50	430,00 A4-80
M 14	x	80	S	50	520,00 A4-80
M 14	x	90	S	50	580,00 A4-80
M 14	x	100	S	50	620,00 A4-80
M 14	x	110	S	1	780,00 A4-80
M 16	x	55	S	25	430,00 A4-80
M 16	x	60	S	25	430,00 A4-80
M 16	x	65	S	25	470,00 A4-80
M 16	x	70	S	25	475,00 A4-80
M 16	x	75	S	25	610,00 A4-80
M 16	x	80	S	25	520,00 A4-80
M 16	x	85	S	25	710,00 A4-80
M 16	x	90	S	25	580,00 A4-80
M 16	x	100	S	25	620,00 A4-80
M 16	x	110	S	25	780,00 A4-80
M 16	x	120	S	25	890,00 A4-80
M 16	x	130	S	1	1050,00 A4-80
M 16	x	140	S	1	1170,00 A4-80
M 16	x	150	S	1	1280,00 A4-80
M 16	x	160	S	1	1680,00 A4-80
M 16	x	180	S	1	1940,00 A4-80
M 16	x	200	S	1	2180,00 A4-80
M 20	x	65	S	1	730,00 A4-80
M 20	x	70	S	1	760,00 A4-80
M 20	x	75	S	1	900,00 A4-80
M 20	x	80	S	1	800,00 A4-80
M 20	x	90	S	1	910,00 A4-80
M 20	x	100	S	1	1010,00 A4-80
M 20	x	110	S	1	1240,00 A4-80
M 20	x	120	S	1	1350,00 A4-80
M 20	x	130	S	1	1560,00 A4-80
M 20	x	140	S	1	1720,00 A4-80
M 20	x	150	S	1	1860,00 A4-80
M 20	x	160	S	1	2420,00 A4-80
M 20	x	180	S	1	2800,00 A4-80
M 20	x	200	S	1	3150,00 A4-80

DIN	00931.950	RAZ 403
931	1.4571 (A 5)	



Hexagon head bolts with shank

Short dimensions in part thread up to head

Dimensions → **TI-15** Tightening torque → **TI-235**
Mech. properties → **TI-224** Standard conversion → **TI-6**

Steel → **S. 137**

Brass → **S. 577**

DIN 931 → replaced by ISO 4014

M 16	x	55	S	1	620,00 A5
M 16	x	60	S	1	640,00 A5
M 16	x	65	S	1	660,00 A5
M 16	x	70	S	1	680,00 A5
M 16	x	80	S	1	710,00 A5
M 16	x	90	S	1	750,00 A5
M 16	x	100	S	1	780,00 A5
M 20	x	65	S	1	920,00 A5
M 20	x	70	S	1	940,00 A5
M 20	x	80	S	1	1000,00 A5
M 20	x	85	S	1	1030,00 A5
M 20	x	90	S	1	1130,00 A5
M 20	x	100	S	1	1160,00 A5
M 20	x	110	S	1	1180,00 A5
M 20	x	120	S	1	1230,00 A5
M 20	x	140	S	1	1340,00 A5

DIN	00933.920	RAZ 401
931	A 2 - 70	



Hexagon head screws with thread up to head

Dimensions → **TI-15** Tightening torque → **TI-235**
Mech. properties → **TI-224** Standard conversion → **TI-6**

Steel → **S. 148**

Brass, plastic → **S. 577**

DIN 933 → replaced by ISO 4017

*Prop. class for dimensions different depending on production

M 3	x	6	S	100	8,15 A2
M 3	x	8	S	100	5,85 A2
M 3	x	10	S	100	5,60 A2
M 3	x	12	S	100	5,20 A2
M 3	x	14	S	100	6,90 A2
M 3	x	16	S	100	5,20 A2
M 3	x	20	S	100	5,85 A2
M 3	x	25	S	100	6,30 A2
M 3	x	30	S	100	7,60 A2
M 3	x	35	S	100	10,90 A2
M 3	x	40	S	100	16,30 A2
M 4	x	6	S	200	8,15 A2
M 4	x	8	S	200	5,85 A2
M 4	x	10	S	200	5,60 A2
M 4	x	12	S	200	5,20 A2
M 4	x	14	S	100	6,90 A2
M 4	x	16	S	200	4,25 A2

M 4	x	18	S	100	5,60 A2
M 4	x	20	S	200	4,60 A2
M 4	x	22	S	100	6,40 A2
M 4	x	25	S	200	5,30 A2
M 4	x	30	S	200	5,95 A2
M 4	x	35	S	200	10,20 A2
M 4	x	40	S	200	12,20 A2
M 4	x	45	S	100	15,50 A2
M 4	x	50	S	100	18,40 A2
M 4	x	60	S	100	56,20 A2
M 5	x	6*	S	100	17,30 A2
M 5	x	8*	S	100	5,85 A2
M 5	x	10	S	500	5,60 A2
M 5	x	10	K	100	7,70 A2
M 5	x	12	S	500	5,20 A2
M 5	x	12	K	100	7,25 A2
M 5	x	14	S	500	6,90 A2
M 5	x	14	K	100	9,40 A2
M 5	x	16	S	500	4,25 A2
M 5	x	16	K	100	6,30 A2
M 5	x	18	S	500	5,60 A2
M 5	x	18	K	100	8,10 A2
M 5	x	20	S	500	4,60 A2
M 5	x	20	K	100	6,65 A2
M 5	x	22	S	200	6,40 A2
M 5	x	25	S	200	6,10 A2
M 5	x	25	K	100	8,20 A2
M 5	x	30	S	200	6,85 A2
M 5	x	30	K	100	8,90 A2
M 5	x	35	S	200	8,05 A2
M 5	x	40	S	200	11,60 A2
M 5	x	45	S	200	15,50 A2
M 5	x	50	S	200	18,40 A2
M 5	x	55	S	200	21,70 A2
M 5	x	60	S	200	23,50 A2
M 5	x	70*	S	100	61,80 A2
M 5	x	80*	S	100	208,00 A2
M 6	x	6*	S	100	67,00 A2
M 6	x	8*	S	100	8,15 A2
M 6	x	10	S	500	6,90 A2
M 6	x	10	K	100	8,95 A2
M 6	x	12	S	500	6,90 A2
M 6	x	12	K	100	8,95 A2
M 6	x	14	S	500	8,20 A2
M 6	x	14	K	100	10,70 A2
M 6	x	16	S	200	4,90 A2
M 6	x	16	K	100	7,00 A2
M 6	x	18	S	200	7,00 A2
M 6	x	20	S	200	5,60 A2
M 6	x	20	K	100	7,70 A2
M 6	x	22	S	200	7,80 A2
M 6	x	25	S	200	6,25 A2
M 6	x	25	K	100	8,30 A2
M 6	x	30	S	200	7,25 A2
M 6	x	30	K	100	9,30 A2
M 6	x	35	S	200	7,90 A2
M 6	x	35	K	100	10,00 A2
M 6	x	40	S	200	8,85 A2
M 6	x	40	K	100	10,90 A2
M 6	x	45	S	100	13,80 A2
M 6	x	50	S	100	15,00 A2
M 6	x	55	S	100	19,10 A2
M 6	x	60	S	100	21,70 A2
M 6	x	65	S	100	30,00 A2
M 6	x	70	S	100	30,00 A2
M 6	x	75	S	100	44,60 A2
M 6	x	80	S	100	35,80 A2
M 6	x	90	S	100	51,10 A2
M 6	x	100	S	100	58,70 A2
M 6	x	110	S	100	228,00 A2
M 6	x	120	S	100	267,00 A2
M 8	x	8*	S	100	77,30 A2
M 8	x	10*	S	200	16,10 A2
M 8	x	10*	K	100	18,15 A2
M 8	x	12	S	200	15,00 A2



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M 8	x	12	K	100	17,10A2	M 12	x	25	S	100	31,10A2	M 18	x	45	S	25	209,00A2
M 8	x	14	S	200	17,80A2	M 12	x	30	S	100	33,20A2	M 18	x	50	S	25	223,00A2
M 8	x	16	S	200	10,20A2	M 12	x	35	S	100	36,30A2	M 18	x	55	S	25	243,00A2
M 8	x	16	K	100	12,30A2	M 12	x	40	S	50	39,30A2	M 18	x	60	S	25	246,00A2
M 8	x	18	S	200	12,70A2	M 12	x	45	S	50	41,90A2	M 18	x	65	S	25	274,00A2
M 8	x	20	S	200	10,20A2	M 12	x	50	S	50	44,90A2	M 18	x	70	S	25	282,00A2
M 8	x	20	K	100	12,80A2	M 12	x	55	S	50	48,00A2	M 18	x	75	S	25	323,00A2
M 8	x	22	S	200	15,20A2	M 12	x	60	S	50	50,60A2	M 18	x	80	S	25	323,00A2
M 8	x	25	S	200	12,10A2	M 12	x	65	S	50	72,60A2	M 18	x	90	S	25	529,00A2
M 8	x	25	K	100	14,20A2	M 12	x	70	S	50	77,20A2	M 18	x	100	S	25	600,00A2
M 8	x	30	S	200	12,80A2	M 12	x	75	S	50	116,00A2	M 18	x	110	S	1	685,00A2
M 8	x	30	K	100	14,90A2	M 12	x	80	S	50	93,50A2	M 18	x	120	S	1	759,00A2
M 8	x	35	S	200	15,90A2	M 12	x	85	S	50	164,00A2	M 18	x	130	S	1	915,00A2
M 8	x	35	K	100	21,00A2	M 12	x	90	S	50	129,00A2	M 18	x	140	S	1	997,00A2
M 8	x	40	S	200	15,10A2	M 12	x	95	S	50	179,00A2	M 18	x	150	S	1	1119,00A2
M 8	x	40	K	100	17,20A2	M 12	x	100	S	50	154,00A2	M 20	x	30*	S	25	174,00A2
M 8	x	45	S	200	16,80A2	M 12	x	110	S	25	185,00A2	M 20	x	35	S	25	142,00A2
M 8	x	45	K	100	19,00A2	M 12	x	120	S	25	227,00A2	M 20	x	40	S	25	131,00A2
M 8	x	50	S	200	17,80A2	M 12	x	130	S	1	275,00A2	M 20	x	45	S	25	139,00A2
M 8	x	50	K	100	20,10A2	M 12	x	140	S	1	323,00A2	M 20	x	50	S	25	149,00A2
M 8	x	55	S	100	27,00A2	M 12	x	150	S	1	371,00A2	M 20	x	55	S	25	162,00A2
M 8	x	60	S	200	28,60A2	M 12	x	160	S	1	419,00A2	M 20	x	60	S	25	164,00A2
M 8	x	60	K	100	31,00A2	M 12	x	170	S	1	515,00A2	M 20	x	65	S	25	183,00A2
M 8	x	65	S	50	35,70A2	M 12	x	180	S	1	515,00A2	M 20	x	70	S	25	188,00A2
M 8	x	70	S	50	42,40A2	M 12	x	190	S	1	843,00A2	M 20	x	75	S	25	215,00A2
M 8	x	75	S	50	66,90A2	M 12	x	200	S	1	945,00A2	M 20	x	80	S	25	215,00A2
M 8	x	80	S	50	53,60A2	M 14	x	20*	S	50	115,00A2	M 20	x	85	S	25	440,00A2
M 8	x	85	S	50	86,00A2	M 14	x	25	S	50	95,60A2	M 20	x	90	S	25	352,00A2
M 8	x	90	S	50	68,50A2	M 14	x	30	S	50	69,50A2	M 20	x	95	S	10	352,00A2
M 8	x	100	S	50	77,20A2	M 14	x	35	S	50	69,50A2	M 20	x	100	S	10	401,00A2
M 8	x	110	S	50	116,00A2	M 14	x	40	S	50	74,10A2	M 20	x	110	S	10	457,00A2
M 8	x	120	S	50	136,00A2	M 14	x	45	S	50	79,70A2	M 20	x	120	S	10	506,00A2
M 8	x	130	S	50	171,00A2	M 14	x	50	S	50	84,30A2	M 20	x	130	S	10	610,00A2
M 8	x	140	S	50	206,00A2	M 14	x	55	S	50	89,90A2	M 20	x	140	S	10	662,00A2
M 8	x	150	S	50	240,00A2	M 14	x	60	S	50	96,10A2	M 20	x	150	S	10	721,00A2
M 8	x	160	S	50	275,00A2	M 14	x	65	S	50	103,00A2	M 20	x	160	S	10	1124,00A2
M 8	x	170	S	50	343,00A2	M 14	x	70	S	50	107,00A2	M 20	x	170	S	10	1164,00A2
M 8	x	180	S	50	343,00A2	M 14	x	75	S	50	158,00A2	M 20	x	180	S	10	1164,00A2
M 8	x	190	S	50	650,00A2	M 14	x	80	S	50	127,00A2	M 20	x	200	S	10	1271,00A2
M 8	x	200	S	50	860,00A2	M 14	x	90	S	50	214,00A2	M 20	x	220*	S	10	1540,00A2
M 10	x	10*	S	100	111,00A2	M 14	x	100	S	50	245,00A2	M 22	x	30	S	25	715,00A2
M 10	x	12*	S	100	59,30A2	M 14	x	110	S	25	302,00A2	M 22	x	35	S	25	715,00A2
M 10	x	14*	S	100	37,30A2	M 14	x	120	S	25	340,00A2	M 22	x	40	S	25	715,00A2
M 10	x	16	S	100	30,10A2	M 14	x	130	S	25	404,00A2	M 22	x	50	S	25	443,00A2
M 10	x	18	S	100	33,20A2	M 14	x	140	S	25	455,00A2	M 22	x	55	S	1	465,00A2
M 10	x	20	S	100	21,90A2	M 14	x	150	S	25	498,00A2	M 22	x	60	S	1	485,00A2
M 10	x	22	S	100	25,80A2	M 16	x	20*	S	50	115,00A2	M 22	x	65	S	1	521,00A2
M 10	x	25	S	100	20,90A2	M 16	x	25	S	50	95,60A2	M 22	x	70	S	1	521,00A2
M 10	x	30	S	100	23,20A2	M 16	x	30	S	50	69,50A2	M 22	x	75	S	1	564,00A2
M 10	x	35	S	100	25,50A2	M 16	x	35	S	50	69,50A2	M 22	x	80	S	1	564,00A2
M 10	x	40	S	100	27,60A2	M 16	x	40	S	50	74,10A2	M 22	x	90	S	1	695,00A2
M 10	x	45	S	100	29,60A2	M 16	x	45	S	50	79,70A2	M 22	x	100	S	1	761,00A2
M 10	x	50	S	100	31,60A2	M 16	x	50	S	50	84,30A2	M 22	x	110	S	1	1226,00A2
M 10	x	55	S	50	44,40A2	M 16	x	55	S	25	89,90A2	M 22	x	120	S	1	1254,00A2
M 10	x	60	S	50	47,00A2	M 16	x	60	S	25	96,10A2	M 22	x	130	S	1	1282,00A2
M 10	x	65	S	50	52,60A2	M 16	x	65	S	25	103,00A2	M 22	x	140	S	1	1304,00A2
M 10	x	70	S	50	55,70A2	M 16	x	70	S	25	107,00A2	M 24	x	40*	S	1	562,00A2
M 10	x	75	S	50	82,80A2	M 16	x	75	S	25	127,00A2	M 24	x	45*	S	20	562,00A2
M 10	x	80	S	50	66,40A2	M 16	x	80	S	25	127,00A2	M 24	x	50	S	20	296,00A2
M 10	x	85	S	50	115,00A2	M 16	x	85	S	25	261,00A2	M 24	x	55	S	10	309,00A2
M 10	x	90	S	50	89,40A2	M 16	x	90	S	25	214,00A2	M 24	x	60	S	10	322,00A2
M 10	x	100	S	50	103,00A2	M 16	x	100	S	25	245,00A2	M 24	x	65	S	10	333,00A2
M 10	x	110	S	50	170,00A2	M 16	x	110	S	25	302,00A2	M 24	x	70	S	10	351,00A2
M 10	x	120	S	50	187,00A2	M 16	x	120	S	25	340,00A2	M 24	x	80	S	10	377,00A2
M 10	x	130	S	1	233,00A2	M 16	x	130	S	25	404,00A2	M 24	x	90	S	1	533,00A2
M 10	x	140	S	1	275,00A2	M 16	x	140	S	25	455,00A2	M 24	x	100	S	1	641,00A2
M 10	x	150	S	1	315,00A2	M 16	x	150	S	25	498,00A2	M 24	x	110	S	1	755,00A2
M 10	x	160	S	1	357,00A2	M 16	x	160	S	25	888,00A2	M 24	x	120	S	1	833,00A2
M 10	x	170	S	1	439,00A2	M 16	x	170	S	25	916,00A2	M 24	x	130	S	1	901,00A2
M 10	x	180	S	1	439,00A2	M 16	x	180	S	25	916,00A2	M 24	x	140	S	1	996,00A2
M 10	x	190	S	1	695,00A2	M 16	x	190	S	10	1012,00A2	M 24	x	150	S	1	1073,00A2
M 10	x	200	S	1	766,00A2	M 16	x	200	S	10	1012,00A2	M 24	x	160	S	1	1552,00A2
M 12	x	16*	S	100	47,00A2	M 18	x	30	S	25	262,00A2	M 24	x	170	S	1	1586,00A2
M 12	x	20	S	100	41,90A2	M 18	x	35	S	25	213,00A2	M 24	x	180	S	1	1586,00A2
M 12	x	22	S	100	50,10A2	M 18	x	40	S	25	196,00A2	M 24	x	190	S	1	1653,00A2

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M 24	x	200	S	1	1653,00 A2
M 27	x	50*	S	1	558,00 A2
M 27	x	55*	S	1	608,00 A2
M 27	x	60*	S	1	618,00 A2
M 27	x	65*	S	1	669,00 A2
M 27	x	70*	S	1	669,00 A2
M 27	x	80*	S	1	721,00 A2
M 27	x	90*	S	1	773,00 A2
M 27	x	100*	S	1	824,00 A2
M 27	x	110*	S	1	938,00 A2
M 27	x	120*	S	1	997,00 A2
M 27	x	130*	S	1	1073,00 A2
M 27	x	140*	S	1	1134,00 A2
M 27	x	150*	S	1	1202,00 A2
M 30	x	60*	S	1	824,00 A2
M 30	x	65*	S	1	893,00 A2
M 30	x	70*	S	1	930,00 A2
M 30	x	80*	S	1	987,00 A2
M 30	x	90*	S	1	1073,00 A2
M 30	x	100*	S	1	1168,00 A2
M 30	x	110*	S	1	1288,00 A2
M 30	x	120*	S	1	1365,00 A2
M 30	x	130*	S	1	1486,00 A2
M 30	x	140*	S	1	1589,00 A2
M 30	x	150*	S	1	1674,00 A2
M 33	x	70*	S	1	1204,00 A2
M 33	x	80*	S	1	1303,00 A2
M 33	x	90*	S	1	1395,00 A2
M 33	x	100*	S	1	1487,00 A2
M 33	x	110*	S	1	1656,00 A2
M 33	x	120*	S	1	1756,00 A2
M 33	x	130*	S	1	1840,00 A2
M 33	x	140*	S	1	1940,00 A2
M 33	x	150*	S	1	2047,00 A2
M 36	x	80*	S	1	1671,00 A2
M 36	x	90*	S	1	1794,00 A2
M 36	x	100*	S	1	1927,00 A2
M 36	x	110*	S	1	2126,00 A2
M 36	x	120*	S	1	2234,00 A2
M 36	x	130*	S	1	2262,00 A2
M 36	x	140*	S	1	2385,00 A2
M 36	x	150*	S	1	2495,00 A2

DIN	00933.924	RAZ 404
933	A 2	Sz



Hexagon head screws with thread up to head Sz = slotted head as per DIN 962

Dimensions → TI-15/141 Tightening torque → TI-235
 Mech. properties → TI-224 Standard conversion → TI-6
 Steel → S. 156

M 4	x	6	S	100	24,30 A2
M 4	x	8	S	100	21,50 A2
M 4	x	10	S	100	21,30 A2
M 4	x	12	S	100	20,70 A2
M 5	x	8	S	100	23,80 A2
M 5	x	10	S	100	22,80 A2
M 5	x	12	S	100	22,60 A2
M 5	x	16	S	100	21,50 A2
M 5	x	20	S	100	22,50 A2
M 5	x	25	S	100	24,20 A2
M 5	x	30	S	100	26,00 A2
M 6	x	10	S	100	25,50 A2
M 6	x	12	S	100	24,20 A2

M 6	x	16	S	100	23,30 A2
M 6	x	20	S	100	25,00 A2
M 6	x	25	S	100	27,00 A2
M 6	x	30	S	100	29,50 A2
M 6	x	35	S	100	31,50 A2
M 6	x	40	S	100	34,00 A2
M 8	x	16	S	100	52,00 A2
M 8	x	20	S	100	52,00 A2
M 8	x	25	S	100	55,00 A2
M 8	x	30	S	100	57,00 A2
M 8	x	35	S	100	59,00 A2
M 8	x	40	S	100	62,00 A2

DIN	00933.940	RAZ 401
933	A 4 - 70	



Hexagon head screws with thread up to head

Dimensions → TI-15 Tightening torque → TI-235
 Mech. properties → TI-224 Standard conversion → TI-6
 Steel → S. 148
 Brass, plastic → S. 577
 DIN 933 → replaced by ISO 4017

*Prop. class for dimensions different depending on production

M 3	x	5	S	100	10,70 A4
M 3	x	6	S	100	8,65 A4
M 3	x	8	S	100	7,15 A4
M 3	x	10	S	100	6,90 A4
M 3	x	12	S	100	6,45 A4
M 3	x	16	S	100	6,45 A4
M 3	x	18	S	100	8,90 A4
M 3	x	20	S	100	7,05 A4
M 3	x	25	S	100	7,90 A4
M 3	x	30	S	100	9,15 A4
M 3	x	35	S	100	14,10 A4
M 3	x	40	S	100	19,90 A4
M 4	x	6	S	200	8,65 A4
M 4	x	8	S	200	7,15 A4
M 4	x	10	S	200	6,90 A4
M 4	x	12	S	200	6,45 A4
M 4	x	14	S	200	7,70 A4
M 4	x	16	S	200	5,25 A4
M 4	x	18	S	200	6,95 A4
M 4	x	20	S	200	5,55 A4
M 4	x	25	S	200	6,80 A4
M 4	x	30	S	200	7,70 A4
M 4	x	35	S	200	13,20 A4
M 4	x	40	S	200	17,30 A4
M 4	x	45	S	200	20,40 A4
M 4	x	50	S	200	21,90 A4
M 4	x	60	S	100	66,90 A4
M 5	x	6*	S	100	21,90 A4
M 5	x	8*	S	100	7,15 A4
M 5	x	10	S	500	6,90 A4
M 5	x	10	K	100	9,40 A4
M 5	x	12	S	500	6,45 A4
M 5	x	12	K	100	8,95 A4
M 5	x	14	S	500	7,70 A4
M 5	x	14	K	100	10,20 A4
M 5	x	16	S	500	5,75 A4
M 5	x	16	K	100	8,25 A4
M 5	x	18	S	500	7,70 A4
M 5	x	18	K	100	10,20 A4
M 5	x	20	S	500	6,35 A4
M 5	x	20	K	100	8,85 A4
M 5	x	22	S	200	9,10 A4

M 5	x	25	S	200	7,30 A4
M 5	x	30	S	200	8,50 A4
M 5	x	35	S	200	12,30 A4
M 5	x	40	S	200	15,30 A4
M 5	x	45	S	200	20,40 A4
M 5	x	50	S	200	21,90 A4
M 5	x	55	S	200	29,60 A4
M 5	x	60	S	200	31,70 A4
M 5	x	70*	S	100	72,60 A4
M 5	x	80*	S	100	222,00 A4
M 6	x	8*	S	100	11,10 A4
M 6	x	10	S	500	10,10 A4
M 6	x	10	K	100	12,60 A4
M 6	x	12	S	500	9,30 A4
M 6	x	12	K	100	11,80 A4
M 6	x	14	S	500	10,80 A4
M 6	x	14	K	100	13,30 A4
M 6	x	16	S	200	7,30 A4
M 6	x	20	S	200	7,90 A4
M 6	x	22	S	200	10,90 A4
M 6	x	25	S	200	8,70 A4
M 6	x	30	S	200	9,95 A4
M 6	x	35	S	200	11,70 A4
M 6	x	40	S	200	13,20 A4
M 6	x	45	S	100	17,80 A4
M 6	x	50	S	100	20,70 A4
M 6	x	55	S	100	27,60 A4
M 6	x	60	S	100	29,60 A4
M 6	x	65	S	50	47,00 A4
M 6	x	70	S	50	47,00 A4
M 6	x	75	S	50	71,00 A4
M 6	x	80	S	50	57,20 A4
M 6	x	90	S	50	79,70 A4
M 6	x	100	S	50	91,50 A4
M 6	x	110	S	50	273,00 A4
M 6	x	120	S	50	330,00 A4
M 8	x	8*	S	100	43,00 A4
M 8	x	10*	S	200	21,90 A4
M 8	x	12	S	200	21,40 A4
M 8	x	14	S	200	25,50 A4
M 8	x	16	S	200	16,90 A4
M 8	x	18	S	200	21,50 A4
M 8	x	20	S	200	16,90 A4
M 8	x	22	S	200	21,50 A4
M 8	x	25	S	200	17,10 A4
M 8	x	30	S	200	18,10 A4
M 8	x	35	S	200	20,10 A4
M 8	x	40	S	100	21,20 A4
M 8	x	45	S	100	25,00 A4
M 8	x	50	S	100	26,70 A4
M 8	x	55	S	100	35,20 A4
M 8	x	60	S	100	37,80 A4
M 8	x	65	S	50	51,10 A4
M 8	x	70	S	50	54,10 A4
M 8	x	75	S	50	82,80 A4
M 8	x	80	S	50	66,40 A4
M 8	x	90	S	50	95,10 A4
M 8	x	100	S	50	108,00 A4
M 8	x	110	S	1	141,00 A4
M 8	x	120	S	1	164,00 A4
M 8	x	130	S	1	212,00 A4
M 8	x	140	S	1	257,00 A4
M 8	x	150	S	1	302,00 A4
M 8	x	160	S	1	347,00 A4
M 8	x	170	S	1	437,00 A4
M 8	x	180	S	1	437,00 A4
M 8	x	200	S	1	655,00 A4
M 10	x	10*	S	100	116,00 A4
M 10	x	12*	S	100	68,50 A4
M 10	x	14*	S	100	49,50 A4
M 10	x	16	S	100	39,80 A4
M 10	x	20	S	100	30,60 A4
M 10	x	22	S	100	37,30 A4
M 10	x	25	S	100	29,60 A4
M 10	x	30	S	100	31,70 A4



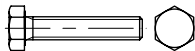
DIN 933

M 10	x	35	S	100	33,20 A4	M 16	x	30	S	50	118,00 A4	M 22	x	110	S	1	1868,00 A4
M 10	x	40	S	100	36,30 A4	M 16	x	35	S	50	118,00 A4	M 22	x	120	S	1	2040,00 A4
M 10	x	45	S	100	39,80 A4	M 16	x	40	S	50	118,00 A4	M 22	x	130	S	1	2236,00 A4
M 10	x	50	S	100	43,40 A4	M 16	x	45	S	50	120,00 A4	M 22	x	140	S	1	2400,00 A4
M 10	x	55	S	50	56,20 A4	M 16	x	50	S	50	127,00 A4	M 24	x	30*	S	1	962,00 A4
M 10	x	60	S	50	58,20 A4	M 16	x	55	S	25	141,00 A4	M 24	x	35*	S	1	962,00 A4
M 10	x	65	S	50	71,00 A4	M 16	x	60	S	25	144,00 A4	M 24	x	40*	S	1	805,00 A4
M 10	x	70	S	50	74,60 A4	M 16	x	65	S	25	167,00 A4	M 24	x	45*	S	1	805,00 A4
M 10	x	75	S	50	115,00 A4	M 16	x	70	S	25	172,00 A4	M 24	x	50*	S	1	547,00 A4
M 10	x	80	S	50	92,00 A4	M 16	x	75	S	25	195,00 A4	M 24	x	55*	S	1	557,00 A4
M 10	x	85	S	50	146,00 A4	M 16	x	80	S	25	195,00 A4	M 24	x	60	S	1	572,00 A4
M 10	x	90	S	50	134,00 A4	M 16	x	90	S	25	278,00 A4	M 24	x	65	S	1	593,00 A4
M 10	x	95	S	50	225,00 A4	M 16	x	100	S	25	327,00 A4	M 24	x	70	S	1	623,00 A4
M 10	x	100	S	50	155,00 A4	M 16	x	110	S	1	423,00 A4	M 24	x	75	S	1	677,00 A4
M 10	x	110	S	50	219,00 A4	M 16	x	120	S	1	481,00 A4	M 24	x	80	S	1	677,00 A4
M 10	x	120	S	50	270,00 A4	M 16	x	130	S	1	547,00 A4	M 24	x	90	S	1	925,00 A4
M 10	x	130	S	1	351,00 A4	M 16	x	140	S	1	603,00 A4	M 24	x	100	S	1	1006,00 A4
M 10	x	140	S	1	414,00 A4	M 16	x	150	S	1	669,00 A4	M 24	x	110	S	1	1167,00 A4
M 10	x	150	S	1	482,00 A4	M 16	x	160	S	1	1220,00 A4	M 24	x	120	S	1	1274,00 A4
M 10	x	160	S	1	547,00 A4	M 16	x	170	S	1	1287,00 A4	M 24	x	130	S	1	1397,00 A4
M 10	x	170	S	1	629,00 A4	M 16	x	180	S	1	1287,00 A4	M 24	x	140	S	1	1501,00 A4
M 10	x	180	S	1	675,00 A4	M 16	x	190	S	1	1338,00 A4	M 24	x	150	S	1	1631,00 A4
M 10	x	200	S	1	869,00 A4	M 16	x	200	S	1	1338,00 A4	M 24	x	160	S	1	2443,00 A4
M 12	x	16*	S	100	69,00 A4	M 18	x	30	S	1	373,00 A4	M 24	x	170	S	1	2489,00 A4
M 12	x	18*	S	100	69,00 A4	M 18	x	35	S	1	334,00 A4	M 24	x	180	S	1	2489,00 A4
M 12	x	20	S	100	55,70 A4	M 18	x	40	S	1	334,00 A4	M 24	x	190	S	1	2551,00 A4
M 12	x	22	S	100	65,40 A4	M 18	x	45	S	1	334,00 A4	M 24	x	200	S	1	2551,00 A4
M 12	x	25	S	100	46,50 A4	M 18	x	50	S	1	349,00 A4	M 27	x	50*	S	1	997,00 A4
M 12	x	30	S	100	46,50 A4	M 18	x	55	S	1	376,00 A4	M 27	x	55*	S	1	1055,00 A4
M 12	x	35	S	100	50,10 A4	M 18	x	60	S	1	380,00 A4	M 27	x	60*	S	1	1106,00 A4
M 12	x	40	S	50	51,60 A4	M 18	x	65	S	1	423,00 A4	M 27	x	65*	S	1	1150,00 A4
M 12	x	45	S	50	55,70 A4	M 18	x	70	S	1	436,00 A4	M 27	x	70*	S	1	1209,00 A4
M 12	x	50	S	50	59,80 A4	M 18	x	75	S	1	482,00 A4	M 27	x	80*	S	1	1303,00 A4
M 12	x	55	S	50	72,00 A4	M 18	x	80	S	1	482,00 A4	M 27	x	90*	S	1	1413,00 A4
M 12	x	60	S	50	73,10 A4	M 18	x	90	S	1	697,00 A4	M 27	x	100*	S	1	1508,00 A4
M 12	x	65	S	50	94,00 A4	M 18	x	100	S	1	822,00 A4	M 27	x	110*	S	1	1702,00 A4
M 12	x	70	S	50	97,60 A4	M 18	x	110	S	1	1000,00 A4	M 27	x	120*	S	1	1802,00 A4
M 12	x	75	S	50	140,00 A4	M 18	x	120	S	1	1088,00 A4	M 27	x	130*	S	1	1866,00 A4
M 12	x	80	S	50	112,00 A4	M 18	x	130	S	1	1277,00 A4	M 27	x	140*	S	1	1968,00 A4
M 12	x	85	S	50	180,00 A4	M 18	x	150	S	1	1513,00 A4	M 27	x	150*	S	1	2034,00 A4
M 12	x	90	S	50	139,00 A4	M 20	x	20*	S	25	338,00 A4	M 30	x	40*	S	1	2400,00 A4
M 12	x	95	S	1	299,00 A4	M 20	x	30*	S	25	248,00 A4	M 30	x	50*	S	1	1748,00 A4
M 12	x	100	S	1	163,00 A4	M 20	x	35*	S	25	223,00 A4	M 30	x	60*	S	1	1360,00 A4
M 12	x	110	S	1	238,00 A4	M 20	x	40	S	25	223,00 A4	M 30	x	65*	S	1	1416,00 A4
M 12	x	120	S	1	296,00 A4	M 20	x	45	S	25	223,00 A4	M 30	x	70*	S	1	1472,00 A4
M 12	x	130	S	1	386,00 A4	M 20	x	50	S	25	233,00 A4	M 30	x	80*	S	1	1587,00 A4
M 12	x	140	S	1	463,00 A4	M 20	x	55	S	25	251,00 A4	M 30	x	90*	S	1	1707,00 A4
M 12	x	150	S	1	540,00 A4	M 20	x	60	S	25	254,00 A4	M 30	x	100*	S	1	1902,00 A4
M 12	x	160	S	1	618,00 A4	M 20	x	65	S	25	282,00 A4	M 30	x	110*	S	1	2167,00 A4
M 12	x	170	S	1	748,00 A4	M 20	x	70	S	25	290,00 A4	M 30	x	120*	S	1	2305,00 A4
M 12	x	180	S	1	772,00 A4	M 20	x	75	S	25	321,00 A4	M 30	x	130*	S	1	2397,00 A4
M 12	x	190	S	1	971,00 A4	M 20	x	80	S	25	321,00 A4	M 30	x	140*	S	1	2479,00 A4
M 12	x	200	S	1	1124,00 A4	M 20	x	90	S	1	465,00 A4	M 30	x	150*	S	1	2525,00 A4
M 14	x	20*	S	50	149,00 A4	M 20	x	100	S	1	548,00 A4	M 33	x	70*	S	1	1983,00 A4
M 14	x	25	S	50	138,00 A4	M 20	x	110	S	1	667,00 A4	M 33	x	80*	S	1	2152,00 A4
M 14	x	30	S	50	118,00 A4	M 20	x	120	S	1	725,00 A4	M 33	x	90*	S	1	2305,00 A4
M 14	x	35	S	50	118,00 A4	M 20	x	130	S	1	851,00 A4	M 33	x	120*	S	1	2888,00 A4
M 14	x	40	S	50	118,00 A4	M 20	x	140	S	1	914,00 A4	M 33	x	130*	S	1	2985,00 A4
M 14	x	45	S	50	120,00 A4	M 20	x	150	S	1	1008,00 A4	M 33	x	140*	S	1	3026,00 A4
M 14	x	50	S	50	127,00 A4	M 20	x	160	S	1	1816,00 A4	M 33	x	150*	S	1	3062,00 A4
M 14	x	55	S	50	141,00 A4	M 20	x	170	S	1	1855,00 A4	M 36	x	80*	S	1	2658,00 A4
M 14	x	60	S	50	144,00 A4	M 20	x	180	S	1	1855,00 A4	M 36	x	90*	S	1	2842,00 A4
M 14	x	65	S	50	167,00 A4	M 20	x	190	S	1	1968,00 A4	M 36	x	100*	S	1	3195,00 A4
M 14	x	70	S	50	172,00 A4	M 20	x	200	S	1	1968,00 A4	M 36	x	110*	S	1	3359,00 A4
M 14	x	75	S	50	236,00 A4	M 22	x	40	S	1	1073,00 A4	M 36	x	120*	S	1	3527,00 A4
M 14	x	80	S	1	195,00 A4	M 22	x	45	S	1	1073,00 A4	M 36	x	130*	S	1	3604,00 A4
M 14	x	100	S	1	327,00 A4	M 22	x	50	S	1	875,00 A4	M 36	x	140*	S	1	3676,00 A4
M 14	x	110	S	1	423,00 A4	M 22	x	55	S	1	892,00 A4	M 36	x	150*	S	1	3752,00 A4
M 14	x	120	S	1	481,00 A4	M 22	x	60	S	1	916,00 A4						
M 14	x	130	S	1	547,00 A4	M 22	x	65	S	1	948,00 A4						
M 14	x	140	S	1	603,00 A4	M 22	x	70	S	1	998,00 A4						
M 14	x	150	S	1	669,00 A4	M 22	x	75	S	1	1084,00 A4						
M 14	x	160*	S	1	1248,00 A4	M 22	x	80	S	1	1084,00 A4						
M 16	x	20*	S	50	149,00 A4	M 22	x	90	S	1	1385,00 A4						
M 16	x	25	S	50	138,00 A4	M 22	x	100	S	1	1523,00 A4						



DIN 933

DIN	00933.948	RAZ 403
933	A 4 - 80	



Hexagon head screws with thread up to head

High strength (strongly cold worked)

Dimensions → **TI-15** Tightening torque → **TI-235**
 Mech. properties → **TI-224** Standard conversion → **TI-6**

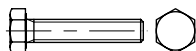
Steel → **S. 148**
 Brass, plastic → **S. 577**

DIN 933 → replaced by ISO 4017

M 6	x	10	S	100	25,50 A 4-80
M 6	x	12	S	100	23,20 A 4-80
M 6	x	16	S	100	18,30 A 4-80
M 6	x	20	S	100	19,90 A 4-80
M 6	x	25	S	100	21,90 A 4-80
M 6	x	30	S	100	25,00 A 4-80
M 6	x	35	S	100	29,50 A 4-80
M 6	x	40	S	100	33,50 A 4-80
M 6	x	45	S	100	45,00 A 4-80
M 6	x	50	S	100	52,00 A 4-80
M 6	x	55	S	100	68,00 A 4-80
M 6	x	60	S	100	73,00 A 4-80
M 8	x	10	S	100	55,00 A 4-80
M 8	x	12	S	100	54,00 A 4-80
M 8	x	16	S	100	43,00 A 4-80
M 8	x	20	S	100	43,00 A 4-80
M 8	x	25	S	100	43,00 A 4-80
M 8	x	30	S	100	45,50 A 4-80
M 8	x	35	S	100	51,00 A 4-80
M 8	x	40	S	100	54,00 A 4-80
M 8	x	45	S	100	63,00 A 4-80
M 8	x	50	S	100	68,00 A 4-80
M 8	x	55	S	100	89,00 A 4-80
M 8	x	60	S	100	94,00 A 4-80
M 10	x	16	S	100	99,00 A 4-80
M 10	x	20	S	100	77,00 A 4-80
M 10	x	25	S	100	75,00 A 4-80
M 10	x	30	S	100	80,00 A 4-80
M 10	x	35	S	100	84,00 A 4-80
M 10	x	40	S	100	91,00 A 4-80
M 10	x	45	S	100	100,00 A 4-80
M 10	x	50	S	100	109,00 A 4-80
M 10	x	55	S	100	140,00 A 4-80
M 10	x	60	S	100	146,00 A 4-80
M 10	x	65	S	100	177,00 A 4-80
M 10	x	70	S	100	186,00 A 4-80
M 10	x	75	S	50	295,00 A 4-80
M 10	x	80	S	50	229,00 A 4-80
M 12	x	20	S	100	139,00 A 4-80
M 12	x	25	S	100	117,00 A 4-80
M 12	x	30	S	100	117,00 A 4-80
M 12	x	35	S	100	126,00 A 4-80
M 12	x	40	S	100	130,00 A 4-80
M 12	x	45	S	50	140,00 A 4-80
M 12	x	50	S	50	150,00 A 4-80
M 12	x	55	S	50	181,00 A 4-80
M 12	x	60	S	50	183,00 A 4-80
M 12	x	65	S	50	234,00 A 4-80
M 12	x	70	S	50	243,00 A 4-80
M 12	x	75	S	50	355,00 A 4-80
M 12	x	80	S	50	285,00 A 4-80
M 14	x	25	S	50	350,00 A 4-80
M 14	x	30	S	50	300,00 A 4-80

M 14	x	35	S	50	300,00 A 4-80
M 14	x	40	S	50	300,00 A 4-80
M 14	x	45	S	50	305,00 A 4-80
M 14	x	50	S	50	320,00 A 4-80
M 14	x	55	S	50	360,00 A 4-80
M 14	x	60	S	50	365,00 A 4-80
M 14	x	65	S	50	425,00 A 4-80
M 14	x	80	S	1	495,00 A 4-80
M 16	x	25	S	50	350,00 A 4-80
M 16	x	30	S	50	300,00 A 4-80
M 16	x	35	S	50	300,00 A 4-80
M 16	x	40	S	50	300,00 A 4-80
M 16	x	45	S	50	305,00 A 4-80
M 16	x	50	S	25	320,00 A 4-80
M 16	x	55	S	25	360,00 A 4-80
M 16	x	60	S	25	365,00 A 4-80
M 16	x	65	S	25	425,00 A 4-80
M 16	x	70	S	25	435,00 A 4-80
M 16	x	75	S	25	570,00 A 4-80
M 16	x	80	S	25	495,00 A 4-80
M 16	x	90	S	25	710,00 A 4-80
M 16	x	100	S	25	820,00 A 4-80
M 20	x	30	S	25	630,00 A 4-80
M 20	x	35	S	25	680,00 A 4-80
M 20	x	40	S	25	570,00 A 4-80
M 20	x	45	S	25	570,00 A 4-80
M 20	x	50	S	25	590,00 A 4-80
M 20	x	55	S	25	640,00 A 4-80
M 20	x	60	S	25	640,00 A 4-80
M 20	x	65	S	25	720,00 A 4-80
M 20	x	70	S	25	730,00 A 4-80
M 20	x	75	S	25	780,00 A 4-80
M 20	x	80	S	25	810,00 A 4-80

DIN	00933.950	RAZ 403
933	1.4571 (A 5)	



Hexagon head screws with thread up to head

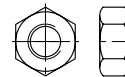
Dimensions → **TI-15** Tightening torque → **TI-233**
 Mech. properties → **TI-224** Standard conversion → **TI-7**

Steel → **S. 148**
 Brass, plastic → **S. 577**

M 10	x	20	S	1	405,00 A 5
M 10	x	25	S	1	410,00 A 5
M 10	x	30	S	1	415,00 A 5
M 10	x	35	S	1	425,00 A 5
M 10	x	40	S	1	435,00 A 5
M 10	x	45	S	1	445,00 A 5
M 10	x	50	S	1	530,00 A 5
M 12	x	25	S	1	415,00 A 5
M 12	x	30	S	1	425,00 A 5
M 12	x	35	S	1	435,00 A 5
M 12	x	40	S	1	445,00 A 5
M 12	x	45	S	1	455,00 A 5
M 12	x	50	S	1	540,00 A 5
M 16	x	30	S	1	600,00 A 5
M 16	x	35	S	1	620,00 A 5
M 16	x	40	S	1	640,00 A 5
M 16	x	45	S	1	650,00 A 5
M 16	x	50	S	1	670,00 A 5
M 16	x	55	S	1	950,00 A 5
M 16	x	60	S	1	1000,00 A 5
M 16	x	65	S	1	1100,00 A 5
M 20	x	40	S	1	1190,00 A 5

M 20	x	45	S	1	1220,00 A 5
M 20	x	50	S	1	1240,00 A 5
M 20	x	60	S	1	1390,00 A 5

DIN	00934.910	RAZ 410
934	A 1/A 2	



Hexagon nuts

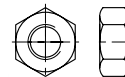
Dimensions → **TI-61** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

Steel → **S. 160**
 Brass, copper, aluminium, titanium → **S. 578**

DIN 934 → replaced by ISO 4032

M 1,6	S	500	21,50 A 1/A 2
M 2	S	500	15,10 A 1/A 2
M 2	K	100	19,70 A 1/A 2
M 2,3	S	500	19,95 A 1/A 2
M 2,3	K	100	23,00 A 1/A 2
M 2,5	S	500	13,80 A 1/A 2
M 2,5	K	100	16,65 A 1/A 2
M 2,6	S	500	27,10 A 1/A 2
M 2,6	K	100	31,70 A 1/A 2

DIN	00934.920	RAZ 410
934	A 2 - 70	



Hexagon nuts

Dimensions → **TI-61** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

Steel → **S. 160**
 Brass, copper, aluminium, titanium → **S. 578**

DIN 934 → replaced by ISO 4032

*Prop. class for dimensions different depending on production

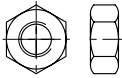
M 3*	S	1000	5,55 A 2
M 3*	K	100	8,85 A 2
M 3,5*	K	100	23,55 A 2
M 4*	S	1000	6,30 A 2
M 4*	K	100	9,20 A 2
M 5	S	1000	7,40 A 2
M 5	K	100	10,40 A 2
M 6	S	1000	11,20 A 2
M 6	K	100	14,10 A 2
M 7	S	100	18,40 A 2
M 8	S	500	20,70 A 2
M 8	K	100	24,05 A 2
M 10	S	250	44,00 A 2
M 10	K	100	47,55 A 2
M 12	S	250	62,90 A 2
M 12	K	100	66,50 A 2
M 14	S	25	110,00 A 2
M 16	S	50	110,00 A 2
M 18	S	10	282,00 A 2
M 20	S	25	282,00 A 2
M 22	S	10	640,00 A 2
M 24	S	25	640,00 A 2
M 27*	S	1	1217,00 A 2



DIN 934

M 30*	S	1	1713,00 A2
M 33*	S	1	2225,00 A2
M 36*	S	1	2455,00 A2
M 42*	S	1	3580,00 A2
M 48*	S	1	5931,00 A2

DIN	00934.925	RAZ 410
934	A 2	fine



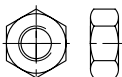
Hexagon nuts with metric fine pitch thread

Dimensions → **TI-61** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

DIN 934 fine thread → replaced by ISO 8673

M 6	x 0,75	S	100	80,00 A2
M 8	x 1	S	100	48,60 A2
M 10	x 1	S	50	66,50 A2
M 10	x 1,25	S	50	66,50 A2
M 12	x 1,25	S	50	117,00 A2
M 12	x 1,5	S	50	95,65 A2
M 14	x 1,5	S	25	131,00 A2
M 16	x 1,5	S	25	177,00 A2
M 18	x 1,5	S	10	322,11 A2
M 20	x 1,5	S	10	323,00 A2
M 24	x 1,5	S	10	747,00 A2
M 24	x 2	S	10	747,00 A2
M 30	x 1,5	S	1	1841,00 A2
M 30	x 2	S	1	1841,00 A2
M 36	x 1,5	S	1	3017,00 A2

DIN	00934.924	RAZ 410
934	A 2	left

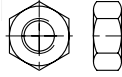


Hexagon nuts with metric left hand thread

Dimensions → **TI-61** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

M 5 -LH	S	100	20,50 A2
M 6 -LH	S	100	31,00 A2
M 8 -LH	S	100	49,50 A2
M 10 -LH	S	50	95,00 A2
M 12 -LH	S	25	129,00 A2
M 14 -LH	S	25	242,00 A2
M 16 -LH	S	25	242,00 A2
M 18 -LH	S	25	300,00 A2
M 20 -LH	S	1	370,00 A2
M 22 -LH	S	10	520,00 A2
M 24 -LH	S	1	1030,00 A2
M 27 -LH	S	1	1080,00 A2
M 30 -LH	S	1	1250,00 A2

~DIN	00934.926	RAZ 415
934	A 2	Ww-BSW

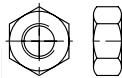


Hexagon nuts with Whitworth thread

Dimensions → **TI-61** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

WW 1/4	S	50	52,00 A2
WW 5/16	S	50	89,00 A2
WW 3/8	S	50	164,00 A2
WW 1/2	S	50	200,00 A2
WW 5/8	S	25	380,00 A2
WW 3/4	S	10	620,00 A2

DIN	00934.940	RAZ 410
934	A 4 - 70	



Hexagon nuts

Dimensions → **TI-61** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

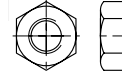
Steel → **S. 160**
 Brass, copper, aluminium, titanium → **S. 578**

DIN 934 → replaced by ISO 4032

*Prop. class for dimensions different depending on production

M 2*	S	1000	17,90 A4
M 2*	K	100	20,70 A4
M 2,5*	S	500	17,40 A4
M 2,5*	K	100	19,95 A4
M 3*	S	1000	7,20 A4
M 3*	K	100	10,40 A4
M 4*	S	1000	8,15 A4
M 4*	K	100	12,00 A4
M 5	S	1000	8,75 A4
M 5	K	100	12,60 A4
M 6	S	1000	13,55 A4
M 6	K	100	17,40 A4
M 7	S	100	24,55 A4
M 8	S	500	26,10 A4
M 8	K	100	29,15 A4
M 10	S	250	55,75 A4
M 10	K	50	61,35 A4
M 12	S	250	76,70 A4
M 12	K	50	82,35 A4
M 14	S	25	159,00 A4
M 16	S	50	159,00 A4
M 18	S	10	389,00 A4
M 20	S	25	389,00 A4
M 22	S	10	783,00 A4
M 24	S	10	783,00 A4
M 27*	S	1	1483,00 A4
M 30*	S	1	1995,00 A4
M 33*	S	1	2531,00 A4
M 36*	S	1	3068,00 A4
M 39*	S	1	6238,00 A4
M 42*	S	1	4346,00 A4
M 48*	S	1	8300,00 A4

DIN	00934.948	RAZ 409
934	A 4 - 80	



Hexagon nuts

High strength (strongly cold worked)

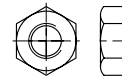
Dimensions → **TI-61** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

Steel → **S. 160**
 Brass, copper, aluminium, titanium → **S. 578**

DIN 934 → replaced by ISO 4032

M 6	S	200	10,25 A4-80
M 8	S	200	12,80 A4-80
M 10	S	100	25,60 A4-80
M 12	S	100	33,25 A4-80
M 14	S	100	56,25 A4-80
M 16	S	50	71,60 A4-80
M 18	S	50	103,00 A4-80
M 20	S	50	116,00 A4-80
M 24	S	25	350,00 A4-80

DIN	00934.950	RAZ 409
934	1.4571 (A 5)	



Hexagon nuts

Dimensions → **TI-61** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

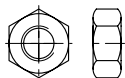
Steel → **S. 160**
 Brass, copper, aluminium, titanium → **S. 578**

DIN 934 → replaced by ISO 4032

M 6	S	100	102,00 A5
M 8	S	100	111,00 A5
M 10	S	100	118,00 A5
M 12	S	50	151,00 A5
M 16	S	25	254,00 A5
M 20	S	25	507,00 A5
M 24	S	10	895,00 A5
M 27	S	10	1432,00 A5
M 30	S	10	1969,00 A5

DIN 934

DIN	00934.944	RAZ 410
934	A 4	left



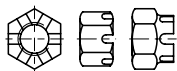
Hexagon nuts with metric left hand thread

Dimensions → [TI-61](#) Standard conversion → [TI-7](#)
 Mech. properties → [TI-224](#)

DIN 934 → replaced by ISO 4032

M 5 -LH	S 100	26,00 A 4
M 6 -LH	S 100	36,00 A 4
M 8 -LH	S 100	55,00 A 4
M 10 -LH	S 50	103,00 A 4
M 12 -LH	S 25	139,00 A 4
M 14 -LH	S 25	260,00 A 4
M 16 -LH	S 25	270,00 A 4
M 18 -LH	S 25	370,00 A 4
M 20 -LH	S 10	450,00 A 4
M 22 -LH	S 10	720,00 A 4
M 24 -LH	S 10	1130,00 A 4
M 27 -LH	S 1	1400,00 A 4
M 30 -LH	S 1	1640,00 A 4

DIN	00935.920	RAZ 420
935-1	A 2	



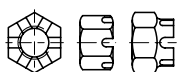
Hexagon slotted and castle nuts

Dimensions → [TI-65](#) Standard conversion → [TI-7](#)
 Mech. properties → [TI-224](#)

Steel → [S. 165](#)

M 6	S 50	79,00 A 2
M 8	S 25	107,00 A 2
M 10 SW 17	S 25	158,00 A 2
M 12 SW 19	S 25	197,00 A 2
M 16	S 1	365,00 A 2
M 20	S 1	620,00 A 2
M 24	S 1	870,00 A 2

DIN	00935.940	RAZ 420
935-1	A 4	



Hexagon slotted and castle nuts

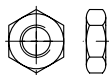
Dimensions → [TI-65](#) Standard conversion → [TI-7](#)
 Mech. properties → [TI-224](#)

Steel → [S. 165](#)

M 8	S 25	190,00 A 4
M 10 SW 17	S 25	203,00 A 4
M 12 SW 19	S 25	285,00 A 4

M 16	S 1	475,00 A 4
M 20	S 1	840,00 A 4
M 24	S 1	1620,00 A 4
M 30	S 1	8500,00 A 4

DIN	00936.920	RAZ 420
936	A 2	



Hexagon thin nuts

Dimensions → [TI-62](#) Mech. properties → [TI-224](#)

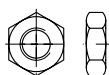
Steel → [S. 166](#)

Brass → [S. 579](#)

Nuts acc. to ISO → ISO 4035 (DIN 439)

M 8	S 100	33,50 A 2
M 10	S 50	60,00 A 2
M 12	S 50	84,00 A 2
M 16	S 25	136,00 A 2
M 20	S 10	217,00 A 2
M 24	S 1	335,00 A 2
M 27	S 1	500,00 A 2
M 30	S 1	700,00 A 2
M 36	S 1	1410,00 A 2

DIN	00936.940	RAZ 420
936	A 4	



Hexagon thin nuts

Dimensions → [TI-62](#) Mech. properties → [TI-224](#)

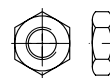
Steel → [S. 166](#)

Brass → [S. 579](#)

Nuts acc. to ISO → ISO 4035 (DIN 439)

M 8	S 100	39,50 A 4
M 10	S 50	75,00 A 4
M 12	S 50	108,00 A 4
M 14	S 25	209,00 A 4
M 16	S 25	174,00 A 4
M 20	S 10	290,00 A 4
M 22	S 10	415,00 A 4
M 24	S 1	435,00 A 4
M 30	S 1	880,00 A 4
M 36	S 1	2080,00 A 4

DIN	00936.925	RAZ 420
936	A 2	fine



Hexagon thin nuts with metric fine pitch thread

Dimensions → [TI-62](#) Mech. properties → [TI-224](#)

Steel → [S. 166](#)

Brass → [S. 580](#)

Nuts acc. to ISO → ISO 8675 (DIN 439)

M 8	x 1	S 100	46,50 A 2
M 10	x 1	S 50	85,00 A 2
M 12	x 1,5	S 50	111,00 A 2
M 14	x 1,5	S 25	164,00 A 2
M 16	x 1,5	S 25	175,00 A 2
M 18	x 1,5	S 10	243,00 A 2
M 20	x 1,5	S 10	295,00 A 2
M 22	x 1,5	S 10	390,00 A 2
M 24	x 1,5	S 1	440,00 A 2
M 27	x 1,5	S 1	810,00 A 2
M 30	x 1,5	S 1	840,00 A 2
M 36	x 1,5	S 1	1900,00 A 2

DIN	00936.945	RAZ 420
936	A 4	fine



Hexagon thin nuts with metric fine pitch thread

Dimensions → [TI-62](#) Mech. properties → [TI-224](#)

Steel → [S. 166](#)

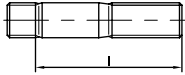
Brass → [S. 580](#)

Nuts acc. to ISO → ISO 8675 (DIN 439)

M 10	x 1	S 50	108,00 A 4
M 12	x 1,5	S 50	166,00 A 4
M 14	x 1,5	S 25	245,00 A 4
M 16	x 1,5	S 25	250,00 A 4
M 18	x 1,5	S 10	435,00 A 4
M 20	x 1,5	S 10	465,00 A 4
M 24	x 1,5	S 1	610,00 A 4
M 30	x 1,5	S 1	1120,00 A 4
M 36	x 1,5	S 1	2280,00 A 4



DIN	00938.920	RAZ 430
938	A 2	



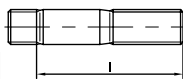
Studs, metal end R 1 d

Dimensions → **TI-18** Mech. properties → **TI-224**
Steel → **S. 169**

M 6	x	16	S	25	69,00 A 2
M 6	x	20	S	25	70,00 A 2
M 6	x	25	S	25	73,00 A 2
M 6	x	30	S	25	75,00 A 2
M 6	x	35	S	25	77,00 A 2
M 6	x	40	S	25	79,00 A 2
M 8	x	16	S	25	84,00 A 2
M 8	x	20	S	25	87,00 A 2
M 8	x	25	S	25	90,00 A 2
M 8	x	30	S	25	93,00 A 2
M 8	x	35	S	25	96,00 A 2
M 8	x	40	S	25	97,00 A 2
M 8	x	45	S	25	101,00 A 2
M 8	x	50	S	25	104,00 A 2
M 8	x	55	S	25	106,00 A 2
M 8	x	60	S	25	131,00 A 2
M 10	x	20	S	25	109,00 A 2
M 10	x	25	S	25	113,00 A 2
M 10	x	30	S	25	118,00 A 2
M 10	x	35	S	25	123,00 A 2
M 10	x	40	S	25	126,00 A 2
M 10	x	45	S	25	131,00 A 2
M 10	x	50	S	25	135,00 A 2
M 10	x	55	S	25	140,00 A 2
M 10	x	60	S	25	145,00 A 2
M 10	x	65	S	25	150,00 A 2
M 10	x	70	S	25	158,00 A 2
M 12	x	25	S	25	140,00 A 2
M 12	x	30	S	25	142,00 A 2
M 12	x	35	S	25	149,00 A 2
M 12	x	40	S	25	154,00 A 2
M 12	x	45	S	25	161,00 A 2
M 12	x	50	S	25	169,00 A 2
M 12	x	55	S	10	179,00 A 2
M 12	x	60	S	10	186,00 A 2
M 12	x	65	S	10	207,00 A 2
M 12	x	70	S	10	220,00 A 2
M 12	x	75	S	10	229,00 A 2
M 12	x	80	S	10	235,00 A 2
M 12	x	90	S	10	280,00 A 2
M 12	x	100	S	10	315,00 A 2
M 16	x	30	S	10	250,00 A 2
M 16	x	35	S	10	265,00 A 2
M 16	x	40	S	10	275,00 A 2
M 16	x	45	S	10	290,00 A 2
M 16	x	50	S	10	300,00 A 2
M 16	x	55	S	10	320,00 A 2
M 16	x	60	S	10	370,00 A 2
M 16	x	65	S	10	380,00 A 2
M 16	x	70	S	10	390,00 A 2
M 16	x	75	S	10	410,00 A 2
M 16	x	80	S	10	425,00 A 2
M 16	x	90	S	10	440,00 A 2
M 16	x	100	S	1	450,00 A 2
M 20	x	35	S	1	400,00 A 2
M 20	x	40	S	1	430,00 A 2
M 20	x	45	S	1	445,00 A 2
M 20	x	50	S	1	520,00 A 2

M 20	x	55	S	1	530,00 A 2
M 20	x	60	S	1	540,00 A 2
M 20	x	65	S	1	550,00 A 2
M 20	x	70	S	1	560,00 A 2
M 20	x	75	S	1	590,00 A 2
M 20	x	80	S	1	610,00 A 2
M 20	x	90	S	1	670,00 A 2
M 20	x	100	S	1	730,00 A 2
M 24	x	50	S	1	680,00 A 2
M 24	x	55	S	1	710,00 A 2
M 24	x	60	S	1	740,00 A 2
M 24	x	65	S	1	770,00 A 2
M 24	x	70	S	1	800,00 A 2

DIN	00938.940	RAZ 430
938	A 4	



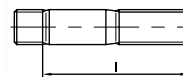
Studs, metal end R 1 d

Dimensions → **TI-18** Mech. properties → **TI-224**
Steel → **S. 169**

M 6	x	20	S	25	92,00 A 4
M 6	x	25	S	25	95,00 A 4
M 6	x	30	S	25	99,00 A 4
M 6	x	35	S	25	102,00 A 4
M 6	x	40	S	25	104,00 A 4
M 6	x	45	S	25	107,00 A 4
M 8	x	16	S	25	98,00 A 4
M 8	x	20	S	25	100,00 A 4
M 8	x	25	S	25	102,00 A 4
M 8	x	30	S	25	105,00 A 4
M 8	x	35	S	25	119,00 A 4
M 8	x	40	S	25	122,00 A 4
M 8	x	45	S	25	129,00 A 4
M 8	x	50	S	25	131,00 A 4
M 8	x	55	S	25	136,00 A 4
M 8	x	60	S	25	138,00 A 4
M 8	x	65	S	25	144,00 A 4
M 8	x	70	S	25	152,00 A 4
M 8	x	75	S	25	156,00 A 4
M 8	x	80	S	25	161,00 A 4
M 8	x	90	S	25	169,00 A 4
M 10	x	20	S	25	136,00 A 4
M 10	x	25	S	25	138,00 A 4
M 10	x	30	S	25	144,00 A 4
M 10	x	35	S	25	160,00 A 4
M 10	x	40	S	25	166,00 A 4
M 10	x	45	S	25	172,00 A 4
M 10	x	50	S	25	178,00 A 4
M 10	x	55	S	25	187,00 A 4
M 10	x	60	S	25	197,00 A 4
M 10	x	65	S	25	213,00 A 4
M 10	x	70	S	25	221,00 A 4
M 10	x	80	S	25	230,00 A 4
M 12	x	20	S	25	180,00 A 4
M 12	x	25	S	25	180,00 A 4
M 12	x	30	S	25	189,00 A 4
M 12	x	35	S	25	199,00 A 4
M 12	x	40	S	25	211,00 A 4
M 12	x	45	S	25	221,00 A 4
M 12	x	50	S	25	230,00 A 4
M 12	x	55	S	10	240,00 A 4
M 12	x	60	S	10	248,00 A 4
M 12	x	65	S	10	265,00 A 4
M 12	x	70	S	10	285,00 A 4

M 12	x	75	S	10	290,00 A 4
M 12	x	80	S	10	300,00 A 4
M 12	x	85	S	10	315,00 A 4
M 12	x	90	S	10	320,00 A 4
M 12	x	95	S	10	340,00 A 4
M 12	x	100	S	10	355,00 A 4
M 16	x	30	S	10	320,00 A 4
M 16	x	35	S	10	340,00 A 4
M 16	x	40	S	10	365,00 A 4
M 16	x	45	S	10	375,00 A 4
M 16	x	50	S	10	395,00 A 4
M 16	x	55	S	10	410,00 A 4
M 16	x	60	S	10	440,00 A 4
M 16	x	65	S	1	465,00 A 4
M 16	x	70	S	1	485,00 A 4
M 16	x	75	S	1	495,00 A 4
M 16	x	80	S	1	520,00 A 4
M 16	x	85	S	1	610,00 A 4
M 16	x	90	S	1	630,00 A 4
M 16	x	95	S	1	640,00 A 4
M 16	x	100	S	1	680,00 A 4
M 20	x	40	S	1	590,00 A 4
M 20	x	45	S	1	610,00 A 4
M 20	x	50	S	1	630,00 A 4
M 20	x	55	S	1	670,00 A 4
M 20	x	60	S	1	700,00 A 4
M 20	x	65	S	1	740,00 A 4
M 20	x	70	S	1	780,00 A 4
M 20	x	75	S	1	820,00 A 4
M 20	x	80	S	1	870,00 A 4
M 20	x	85	S	1	910,00 A 4
M 20	x	90	S	1	950,00 A 4
M 20	x	95	S	1	1000,00 A 4
M 20	x	100	S	1	1050,00 A 4
M 24	x	45	S	1	800,00 A 4
M 24	x	50	S	1	840,00 A 4
M 24	x	55	S	1	880,00 A 4
M 24	x	60	S	1	930,00 A 4
M 24	x	65	S	1	970,00 A 4
M 24	x	70	S	1	1010,00 A 4
M 24	x	75	S	1	1070,00 A 4
M 24	x	80	S	1	1120,00 A 4
M 24	x	85	S	1	1180,00 A 4
M 24	x	90	S	1	1240,00 A 4
M 24	x	95	S	1	1300,00 A 4
M 24	x	100	S	1	1340,00 A 4

DIN	00938.941	RAZ 2013
938	A 4 BUMAX88*	



Studs, metal end R 1 d

Dimension from M 6 and length > 3xd, approved for use acc. to pressure equipment directive → cert. 3.1 on request

Dimensions → **TI-18** Tightening torque → **TI-236**
Mech. properties → **TI-225**

Steel → **S. 169**

*Mechanical properties ~ Class 8.8



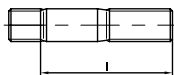
M 6	x	25	S	100	197,00 A 4-88
M 6	x	30	S	100	203,00 A 4-88
M 6	x	35	S	100	210,00 A 4-88

DIN 938

M 8	x	30	S 50	152,00 A 4-88
M 8	x	35	S 50	163,00 A 4-88
M 8	x	40	S 50	174,00 A 4-88
M 8	x	50	S 50	197,00 A 4-88
M 10	x	20	S 50	310,00 A 4-88
M 10	x	25	S 50	325,00 A 4-88
M 10	x	30	S 50	345,00 A 4-88
M 10	x	40	S 50	375,00 A 4-88
M 10	x	45	S 50	390,00 A 4-88
M 10	x	50	S 50	410,00 A 4-88
M 10	x	60	S 50	445,00 A 4-88
M 10	x	65	S 50	460,00 A 4-88
M 12	x	25	S 25	280,00 A 4-88
M 12	x	30	S 25	300,00 A 4-88
M 12	x	35	S 25	320,00 A 4-88
M 12	x	40	S 25	340,00 A 4-88
M 12	x	45	S 25	365,00 A 4-88
M 12	x	50	S 25	395,00 A 4-88
M 12	x	60	S 25	630,00 A 4-88
M 16	x	35	S 25	750,00 A 4-88
M 16	x	40	S 25	770,00 A 4-88
M 16	x	45	S 25	800,00 A 4-88
M 16	x	50	S 25	970,00 A 4-88
M 16	x	55	S 25	1020,00 A 4-88
M 16	x	60	S 25	1060,00 A 4-88
M 16	x	65	S 25	1110,00 A 4-88
M 20	x	40	S 10	1570,00 A 4-88
M 20	x	50	S 10	1690,00 A 4-88
M 20	x	60	S 10	1830,00 A 4-88
M 20	x	80	S 10	2550,00 A 4-88

DIN 00939.920 RAZ 430

939 A 2



Studs, metal end R 1,25 d

Dimensions → TI-18 Mech. properties → TI-224

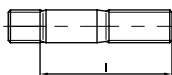
Steel → S. 170

M 6	x	16	S 25	71,00 A 2
M 6	x	20	S 25	72,00 A 2
M 6	x	25	S 25	75,00 A 2
M 6	x	30	S 25	77,00 A 2
M 6	x	35	S 25	79,00 A 2
M 6	x	40	S 25	81,00 A 2
M 8	x	16	S 25	86,00 A 2
M 8	x	20	S 25	89,00 A 2
M 8	x	25	S 25	92,00 A 2
M 8	x	30	S 25	95,00 A 2
M 8	x	35	S 25	99,00 A 2
M 8	x	40	S 25	100,00 A 2
M 8	x	45	S 25	103,00 A 2
M 8	x	50	S 25	106,00 A 2
M 8	x	55	S 25	109,00 A 2
M 8	x	60	S 25	135,00 A 2
M 10	x	20	S 25	112,00 A 2
M 10	x	25	S 25	116,00 A 2
M 10	x	30	S 25	121,00 A 2
M 10	x	35	S 25	126,00 A 2
M 10	x	40	S 25	129,00 A 2
M 10	x	45	S 25	135,00 A 2
M 10	x	50	S 25	139,00 A 2
M 10	x	55	S 25	144,00 A 2
M 10	x	60	S 25	149,00 A 2
M 10	x	70	S 25	162,00 A 2
M 12	x	25	S 25	144,00 A 2

M 12	x	30	S 25	146,00 A 2
M 12	x	35	S 25	153,00 A 2
M 12	x	40	S 25	158,00 A 2
M 12	x	45	S 25	165,00 A 2
M 12	x	50	S 25	173,00 A 2
M 12	x	55	S 10	184,00 A 2
M 12	x	60	S 10	191,00 A 2
M 12	x	65	S 10	207,00 A 2
M 12	x	70	S 10	220,00 A 2
M 12	x	75	S 10	229,00 A 2
M 12	x	80	S 10	235,00 A 2
M 12	x	90	S 10	280,00 A 2
M 12	x	100	S 10	315,00 A 2
M 16	x	30	S 10	250,00 A 2
M 16	x	35	S 10	265,00 A 2
M 16	x	40	S 10	275,00 A 2
M 16	x	45	S 10	290,00 A 2
M 16	x	50	S 10	300,00 A 2
M 16	x	55	S 10	320,00 A 2
M 16	x	60	S 10	370,00 A 2
M 16	x	65	S 10	380,00 A 2
M 16	x	70	S 10	390,00 A 2
M 16	x	75	S 10	410,00 A 2
M 16	x	80	S 10	425,00 A 2
M 16	x	90	S 10	440,00 A 2
M 16	x	100	S 1	450,00 A 2
M 20	x	45	S 1	445,00 A 2
M 20	x	50	S 1	520,00 A 2
M 20	x	55	S 1	530,00 A 2
M 20	x	60	S 1	540,00 A 2
M 20	x	65	S 1	550,00 A 2
M 20	x	70	S 1	560,00 A 2
M 20	x	75	S 1	590,00 A 2
M 20	x	80	S 1	610,00 A 2
M 20	x	90	S 1	670,00 A 2
M 20	x	100	S 1	730,00 A 2

DIN 00939.940 RAZ 430

939 A 4



Studs, metal end R 1,25 d

Dimensions → TI-18 Mech. properties → TI-224

Steel → S. 170

M 6	x	20	S 25	92,00 A 4
M 6	x	25	S 25	95,00 A 4
M 6	x	30	S 25	99,00 A 4
M 6	x	35	S 25	102,00 A 4
M 6	x	40	S 25	104,00 A 4
M 6	x	45	S 25	107,00 A 4
M 6	x	50	S 25	111,00 A 4
M 8	x	20	S 25	100,00 A 4
M 8	x	25	S 25	102,00 A 4
M 8	x	30	S 25	105,00 A 4
M 8	x	35	S 25	119,00 A 4
M 8	x	40	S 25	122,00 A 4
M 8	x	45	S 25	129,00 A 4
M 8	x	50	S 25	131,00 A 4
M 8	x	55	S 25	136,00 A 4
M 8	x	60	S 25	138,00 A 4
M 8	x	65	S 25	144,00 A 4
M 8	x	70	S 25	152,00 A 4
M 8	x	75	S 25	156,00 A 4
M 8	x	80	S 25	161,00 A 4
M 10	x	20	S 25	136,00 A 4

M 10	x	25	S 25	138,00 A 4
M 10	x	30	S 25	144,00 A 4
M 10	x	35	S 25	160,00 A 4
M 10	x	40	S 25	166,00 A 4
M 10	x	45	S 25	172,00 A 4
M 10	x	50	S 25	178,00 A 4
M 10	x	55	S 25	187,00 A 4
M 10	x	60	S 25	197,00 A 4
M 10	x	65	S 25	213,00 A 4
M 10	x	70	S 25	221,00 A 4
M 10	x	75	S 25	223,00 A 4
M 10	x	80	S 25	230,00 A 4
M 12	x	25	S 25	180,00 A 4
M 12	x	30	S 25	189,00 A 4
M 12	x	35	S 25	199,00 A 4
M 12	x	40	S 25	211,00 A 4
M 12	x	45	S 25	221,00 A 4
M 12	x	50	S 25	230,00 A 4
M 12	x	55	S 10	240,00 A 4
M 12	x	60	S 10	248,00 A 4
M 12	x	65	S 10	265,00 A 4
M 12	x	70	S 10	285,00 A 4
M 12	x	75	S 10	290,00 A 4
M 12	x	80	S 10	300,00 A 4
M 12	x	85	S 10	315,00 A 4
M 12	x	90	S 10	320,00 A 4
M 12	x	95	S 10	340,00 A 4
M 12	x	100	S 10	355,00 A 4
M 16	x	30	S 10	320,00 A 4
M 16	x	35	S 10	340,00 A 4
M 16	x	40	S 10	365,00 A 4
M 16	x	45	S 10	375,00 A 4
M 16	x	50	S 10	395,00 A 4
M 16	x	55	S 10	410,00 A 4
M 16	x	60	S 10	440,00 A 4
M 16	x	65	S 1	465,00 A 4
M 16	x	70	S 1	485,00 A 4
M 16	x	75	S 1	495,00 A 4
M 16	x	80	S 1	520,00 A 4
M 16	x	85	S 1	610,00 A 4
M 16	x	90	S 1	630,00 A 4
M 16	x	95	S 1	640,00 A 4
M 16	x	100	S 1	680,00 A 4
M 16	x	120	S 1	700,00 A 4
M 16	x	140	S 1	720,00 A 4
M 20	x	40	S 1	590,00 A 4
M 20	x	45	S 1	610,00 A 4
M 20	x	50	S 1	630,00 A 4
M 20	x	55	S 1	670,00 A 4
M 20	x	60	S 1	700,00 A 4
M 20	x	70	S 1	780,00 A 4
M 20	x	75	S 1	820,00 A 4
M 20	x	80	S 1	870,00 A 4
M 20	x	85	S 1	910,00 A 4
M 20	x	90	S 1	950,00 A 4
M 20	x	95	S 1	1000,00 A 4
M 20	x	100	S 1	1050,00 A 4
M 24	x	50	S 1	840,00 A 4
M 24	x	55	S 1	880,00 A 4
M 24	x	60	S 1	930,00 A 4
M 24	x	65	S 1	970,00 A 4
M 24	x	70	S 1	1010,00 A 4
M 24	x	75	S 1	1070,00 A 4
M 24	x	80	S 1	1120,00 A 4
M 24	x	85	S 1	1180,00 A 4
M 24	x	90	S 1	1240,00 A 4
M 24	x	95	S 1	1300,00 A 4
M 24	x	100	S 1	1340,00 A 4

DIN	00963.914	RAZ 450
963	A 1	turned



Slotted countersunk head screws

Dimensions → **TI-38** Standard conversion → **TI-11**

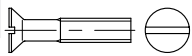
Steel → **S. 177**

Brass → **S. 580**

DIN 963 → replaced by ISO 2009

M 1,4	x	3	S 100	35,50 A1
M 1,4	x	4	S 100	28,50 A1
M 1,4	x	5	S 100	29,00 A1
M 1,4	x	6	S 100	30,00 A1
M 1,4	x	8	S 100	31,50 A1
M 1,6	x	4	S 100	14,55 A1
M 1,6	x	5	S 100	13,65 A1
M 1,6	x	6	S 100	12,65 A1
M 1,6	x	8	S 100	13,65 A1
M 1,6	x	10	S 100	14,15 A1

DIN	00963.920	RAZ 450
963	A 2	



Slotted countersunk head screws

Dimensions → **TI-38** Standard conversion → **TI-11**

Steel → **S. 177**

Brass, plastic → **S. 580**

DIN 963 → replaced by ISO 2009

M 1	x	2	S 1000	150,00 A2
M 1	x	3	S 1000	150,00 A2
M 1	x	4	S 1000	150,00 A2
M 1	x	5	S 1000	150,00 A2
M 1,2	x	2	S 1000	150,00 A2
M 1,2	x	3	S 1000	150,00 A2
M 1,2	x	4	S 1000	150,00 A2
M 1,2	x	5	S 1000	160,00 A2
M 1,2	x	6	S 1000	175,00 A2
M 1,4	x	2	S 1000	150,00 A2
M 1,4	x	3	S 1000	150,00 A2
M 1,4	x	4	S 1000	150,00 A2
M 1,4	x	5	S 1000	160,00 A2
M 1,4	x	6	S 1000	175,00 A2
M 1,4	x	8	S 1000	195,00 A2
M 1,4	x	10	S 1000	225,00 A2
M 1,6	x	3	S 1000	55,00 A2
M 1,6	x	4	S 1000	55,00 A2
M 1,6	x	5	S 1000	65,00 A2
M 1,6	x	6	S 1000	70,00 A2
M 1,6	x	8	S 1000	75,00 A2
M 1,6	x	10	S 1000	80,00 A2
M 2	x	3	S 1000	65,00 A2
M 2	x	4	S 1000	4,60 A2
M 2	x	5	S 1000	3,30 A2
M 2	x	6	S 1000	3,45 A2
M 2	x	8	S 1000	3,65 A2
M 2	x	10	S 1000	4,00 A2

M 2	x	12	S 1000	4,30 A2
M 2	x	16	S 1000	4,60 A2
M 2	x	18	S 1000	6,00 A2
M 2,5	x	4	S 1000	4,60 A2
M 2,5	x	5	S 1000	3,30 A2
M 2,5	x	6	S 1000	3,45 A2
M 2,5	x	8	S 1000	3,65 A2
M 2,5	x	10	S 1000	4,00 A2
M 2,5	x	12	S 1000	4,30 A2
M 2,5	x	14	S 1000	4,60 A2
M 2,5	x	16	S 1000	4,60 A2
M 2,5	x	20	S 1000	12,75 A2
M 2,5	x	25	S 1000	16,15 A2
M 3	x	4	S 1000	25,20 A2
M 3	x	5	S 1000	5,05 A2
M 3	x	5	K 200	6,05 A2
M 3	x	6	S 1000	2,90 A2
M 3	x	6	K 200	3,90 A2
M 3	x	8	S 1000	2,65 A2
M 3	x	8	K 200	3,65 A2
M 3	x	10	S 1000	2,45 A2
M 3	x	10	K 200	3,45 A2
M 3	x	12	S 1000	2,50 A2
M 3	x	12	K 200	3,50 A2
M 3	x	14	K 200	5,75 A2
M 3	x	16	S 1000	2,85 A2
M 3	x	16	K 200	3,85 A2
M 3	x	20	S 1000	3,30 A2
M 3	x	20	K 200	4,30 A2
M 3	x	22	S 1000	11,05 A2
M 3	x	25	S 1000	4,15 A2
M 3	x	25	K 200	5,15 A2
M 3	x	30	S 1000	24,35 A2
M 3	x	30	K 200	8,20 A2
M 3	x	35	S 1000	25,35 A2
M 3	x	40	S 1000	32,00 A2
M 3	x	45	S 1000	29,00 A2
M 3	x	50	S 500	39,00 A2
M 3	x	60	S 500	58,00 A2
M 3,5	x	8	K 200	15,85 A2
M 3,5	x	10	K 200	15,85 A2
M 3,5	x	12	K 200	17,15 A2
M 3,5	x	16	K 200	18,45 A2
M 4	x	5	S 1000	24,00 A2
M 4	x	5	K 200	10,65 A2
M 4	x	6	S 1000	4,45 A2
M 4	x	6	K 200	5,45 A2
M 4	x	8	S 1000	4,30 A2
M 4	x	8	K 200	5,30 A2
M 4	x	10	S 1000	3,75 A2
M 4	x	10	K 200	4,75 A2
M 4	x	12	S 1000	3,45 A2
M 4	x	12	K 200	4,45 A2
M 4	x	14	S 1000	19,05 A2
M 4	x	16	S 1000	3,60 A2
M 4	x	16	K 200	4,60 A2
M 4	x	18	S 1000	20,75 A2
M 4	x	20	S 1000	4,10 A2
M 4	x	20	K 200	5,10 A2
M 4	x	22	K 200	8,05 A2
M 4	x	25	S 500	4,60 A2
M 4	x	25	K 200	5,60 A2
M 4	x	30	S 500	6,20 A2
M 4	x	30	K 200	7,20 A2
M 4	x	35	S 500	8,45 A2
M 4	x	35	K 200	9,45 A2
M 4	x	40	K 100	12,65 A2
M 4	x	50	K 100	19,45 A2
M 5	x	6	S 500	6,80 A2
M 5	x	6	K 200	7,80 A2
M 5	x	8	S 500	5,95 A2
M 5	x	8	K 200	6,95 A2
M 5	x	10	S 500	5,95 A2
M 5	x	10	K 200	6,95 A2
M 5	x	12	S 500	4,40 A2

M 5	x	12	K 200	5,40 A2
M 5	x	14	K 200	8,65 A2
M 5	x	16	S 500	5,10 A2
M 5	x	16	K 200	6,10 A2
M 5	x	18	S 500	6,50 A2
M 5	x	20	S 500	5,90 A2
M 5	x	20	K 200	6,90 A2
M 5	x	25	S 500	6,95 A2
M 5	x	25	K 200	7,95 A2
M 5	x	30	S 500	7,85 A2
M 5	x	30	K 200	8,85 A2
M 5	x	35	S 200	9,55 A2
M 5	x	35	K 100	11,60 A2
M 5	x	40	S 200	12,30 A2
M 5	x	40	K 100	14,35 A2
M 5	x	45	K 100	17,55 A2
M 5	x	50	K 100	22,25 A2
M 5	x	60	K 100	33,45 A2
M 5	x	65	K 100	46,00 A2
M 5	x	70	K 100	46,00 A2
M 5	x	80	S 500	52,00 A2
M 5	x	90	K 100	66,00 A2
M 5	x	100	K 100	75,00 A2
M 6	x	8	S 200	10,70 A2
M 6	x	8	K 100	12,75 A2
M 6	x	10	S 200	7,15 A2
M 6	x	10	K 100	9,20 A2
M 6	x	12	S 200	6,90 A2
M 6	x	12	K 100	8,95 A2
M 6	x	16	S 200	6,45 A2
M 6	x	16	K 100	8,50 A2
M 6	x	18	K 100	14,00 A2
M 6	x	20	S 200	7,15 A2
M 6	x	20	K 100	9,20 A2
M 6	x	25	S 200	8,20 A2
M 6	x	25	K 100	10,25 A2
M 6	x	30	S 200	9,95 A2
M 6	x	30	K 100	12,00 A2
M 6	x	35	S 100	11,90 A2
M 6	x	35	K 50	16,00 A2
M 6	x	40	S 100	15,40 A2
M 6	x	40	K 50	19,50 A2
M 6	x	45	K 100	22,50 A2
M 6	x	50	K 50	27,60 A2
M 6	x	55	K 50	41,00 A2
M 6	x	60	K 50	41,00 A2
M 6	x	65	K 50	45,45 A2
M 6	x	70	K 50	45,45 A2
M 6	x	80	K 50	50,10 A2
M 6	x	90	K 50	66,00 A2
M 6	x	100	K 50	100,00 A2
M 6	x	110	K 50	180,00 A2
M 6	x	120	K 25	200,00 A2
M 6	x	130	K 25	256,00 A2
M 6	x	140	K 25	298,00 A2
M 6	x	160	K 25	350,00 A2
M 8	x	12	S 100	16,00 A2
M 8	x	16	S 100	16,40 A2
M 8	x	16	K 50	20,50 A2
M 8	x	18	S 200	42,00 A2
M 8	x	20	S 100	17,00 A2
M 8	x	20	K 50	21,10 A2
M 8	x	25	S 100	20,40 A2
M 8	x	25	K 50	24,50 A2
M 8	x	30	S 100	21,70 A2
M 8	x	30	K 50	25,80 A2
M 8	x	35	S 100	24,20 A2
M 8	x	35	K 50	28,30 A2
M 8	x	40	S 100	26,80 A2
M 8	x	40	K 50	30,90 A2
M 8	x	45	K 50	36,70 A2
M 8	x	50	S 100	35,10 A2
M 8	x	50	K 50	39,20 A2
M 8	x	55	K 50	55,20 A2
M 8	x	60	K 50	55,20 A2

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M 8	x	70	K 50	59,30 A2
M 8	x	80	K 50	65,40 A2
M 8	x	90	K 50	72,00 A2
M 8	x	100	K 50	115,00 A2
M 8	x	110	K 50	200,00 A2
M 10	x	16	K 50	65,40 A2
M 10	x	20	S 100	33,20 A2
M 10	x	20	K 50	37,30 A2
M 10	x	25	S 100	37,60 A2
M 10	x	25	K 50	41,70 A2
M 10	x	30	S 100	42,20 A2
M 10	x	30	K 50	46,30 A2
M 10	x	35	S 100	46,60 A2
M 10	x	35	K 50	50,70 A2
M 10	x	40	S 100	51,10 A2
M 10	x	40	K 50	55,20 A2
M 10	x	50	S 100	59,80 A2
M 10	x	50	K 50	63,90 A2
M 10	x	60	S 100	77,70 A2
M 10	x	60	K 50	81,80 A2
M 10	x	70	S 50	100,00 A2
M 10	x	80	S 50	115,70 A2
M 10	x	90	K 50	125,00 A2
M 10	x	100	K 50	175,00 A2
M 10	x	120	K 25	399,00 A2
M 10	x	130	K 25	420,00 A2
M 10	x	140	K 25	420,00 A2

DIN	00963.940	RAZ 450
963	A 4	



Slotted countersunk head screws

Dimensions → TI-38 Standard conversion → TI-11

Steel → S. 177

Brass, plastic → S. 580

DIN 963 → replaced by ISO 2009

M 2	x	3	S 1000	85,00 A4
M 2	x	4	S 1000	4,60 A4
M 2	x	4	K 200	5,60 A4
M 2	x	5	S 1000	3,30 A4
M 2	x	5	K 200	4,30 A4
M 2	x	6	S 1000	3,45 A4
M 2	x	6	K 200	4,45 A4
M 2	x	8	S 1000	3,65 A4
M 2	x	8	K 200	4,65 A4
M 2	x	10	S 1000	4,00 A4
M 2	x	10	K 200	5,00 A4
M 2	x	12	S 1000	4,30 A4
M 2	x	12	K 200	5,30 A4
M 2	x	16	S 1000	4,60 A4
M 2	x	16	K 200	5,60 A4
M 2	x	20	S 1000	6,10 A4
M 2	x	20	K 200	7,10 A4
M 2,5	x	4	S 1000	4,60 A4
M 2,5	x	4	K 200	5,60 A4
M 2,5	x	5	S 1000	3,30 A4
M 2,5	x	5	K 200	4,30 A4
M 2,5	x	6	S 1000	3,45 A4
M 2,5	x	6	K 200	4,45 A4
M 2,5	x	8	S 1000	3,65 A4
M 2,5	x	8	K 200	4,65 A4
M 2,5	x	10	S 1000	4,00 A4
M 2,5	x	10	K 200	5,00 A4
M 2,5	x	12	S 1000	4,30 A4
M 2,5	x	12	K 200	5,30 A4

M 2,5	x	16	S 1000	4,60 A4
M 2,5	x	16	K 200	5,60 A4
M 2,5	x	20	K 200	7,10 A4
M 3	x	4	S 1000	7,65 A4
M 3	x	4	K 200	8,65 A4
M 3	x	5	S 1000	6,60 A4
M 3	x	5	K 200	7,60 A4
M 3	x	6	S 1000	3,95 A4
M 3	x	6	K 200	4,95 A4
M 3	x	8	S 1000	3,35 A4
M 3	x	8	K 200	4,35 A4
M 3	x	10	S 1000	2,85 A4
M 3	x	10	K 200	3,85 A4
M 3	x	12	S 1000	3,00 A4
M 3	x	12	K 200	4,00 A4
M 3	x	16	S 1000	3,45 A4
M 3	x	16	K 200	4,45 A4
M 3	x	20	S 1000	3,80 A4
M 3	x	20	K 200	4,80 A4
M 3	x	25	S 1000	5,50 A4
M 3	x	25	K 200	6,50 A4
M 3	x	30	S 1000	6,15 A4
M 3	x	30	K 200	7,15 A4
M 3	x	35	S 1000	30,00 A4
M 3	x	40	S 1000	38,00 A4
M 3	x	40	K 200	15,95 A4
M 3	x	45	S 1000	47,00 A4
M 3	x	50	S 1000	59,00 A4
M 4	x	5	K 200	12,75 A4
M 4	x	6	S 1000	5,80 A4
M 4	x	6	K 200	6,80 A4
M 4	x	8	S 1000	5,50 A4
M 4	x	8	K 200	6,50 A4
M 4	x	10	S 1000	4,65 A4
M 4	x	10	K 200	5,65 A4
M 4	x	12	S 1000	4,45 A4
M 4	x	12	K 200	5,45 A4
M 4	x	16	S 1000	4,70 A4
M 4	x	16	K 200	5,70 A4
M 4	x	18	S 200	8,00 A4
M 4	x	20	S 1000	5,15 A4
M 4	x	20	K 200	6,15 A4
M 4	x	25	S 500	6,40 A4
M 4	x	25	K 200	7,40 A4
M 4	x	30	S 500	8,45 A4
M 4	x	30	K 200	9,45 A4
M 4	x	35	S 500	10,20 A4
M 4	x	35	K 200	11,20 A4
M 4	x	40	K 100	13,10 A4
M 4	x	45	K 100	21,75 A4
M 4	x	50	K 100	21,75 A4
M 4	x	60	K 100	33,15 A4
M 5	x	6	S 500	25,00 A4
M 5	x	8	S 500	7,15 A4
M 5	x	8	K 200	8,15 A4
M 5	x	10	S 500	7,15 A4
M 5	x	10	K 200	8,15 A4
M 5	x	12	S 500	5,55 A4
M 5	x	12	K 200	6,55 A4
M 5	x	16	S 500	6,45 A4
M 5	x	16	K 200	7,45 A4
M 5	x	18	K 200	12,00 A4
M 5	x	20	S 500	7,55 A4
M 5	x	20	K 200	8,55 A4
M 5	x	25	S 500	8,70 A4
M 5	x	25	K 200	9,70 A4
M 5	x	30	S 500	9,95 A4
M 5	x	30	K 200	10,95 A4
M 5	x	35	S 200	13,70 A4
M 5	x	35	K 100	15,75 A4
M 5	x	40	S 200	15,30 A4
M 5	x	40	K 100	17,35 A4
M 5	x	45	K 100	21,05 A4
M 5	x	50	K 100	22,95 A4
M 5	x	60	K 100	31,25 A4

M 5	x	70	K 100	49,55 A4
M 5	x	80	K 100	54,70 A4
M 5	x	90	K 100	72,00 A4
M 5	x	100	K 100	73,10 A4
M 6	x	8	S 200	28,00 A4
M 6	x	8	K 100	15,85 A4
M 6	x	10	S 200	10,20 A4
M 6	x	10	K 100	12,25 A4
M 6	x	12	S 200	9,85 A4
M 6	x	12	K 100	11,90 A4
M 6	x	14	S 200	12,00 A4
M 6	x	16	S 200	9,45 A4
M 6	x	16	K 100	11,50 A4
M 6	x	18	K 100	16,25 A4
M 6	x	20	S 200	10,90 A4
M 6	x	20	K 100	12,95 A4
M 6	x	25	S 200	12,70 A4
M 6	x	25	K 100	14,75 A4
M 6	x	30	S 200	14,70 A4
M 6	x	30	K 100	16,75 A4
M 6	x	35	S 100	18,60 A4
M 6	x	35	K 50	22,70 A4
M 6	x	40	S 100	23,00 A4
M 6	x	40	K 50	27,10 A4
M 6	x	45	S 100	25,30 A4
M 6	x	45	K 50	29,40 A4
M 6	x	50	S 100	26,70 A4
M 6	x	50	K 50	30,80 A4
M 6	x	55	K 100	37,80 A4
M 6	x	60	S 100	33,70 A4
M 6	x	60	K 50	37,80 A4
M 6	x	65	K 50	60,00 A4
M 6	x	70	K 50	60,30 A4
M 6	x	80	K 50	71,50 A4
M 6	x	90	K 50	88,90 A4
M 6	x	100	K 50	214,00 A4
M 6	x	110	K 50	274,00 A4
M 6	x	120	K 50	285,00 A4
M 8	x	10	K 50	40,10 A4
M 8	x	12	S 100	40,00 A4
M 8	x	12	K 50	27,70 A4
M 8	x	16	S 100	23,00 A4
M 8	x	16	K 50	27,10 A4
M 8	x	20	S 100	23,60 A4
M 8	x	20	K 50	27,70 A4
M 8	x	25	S 100	26,80 A4
M 8	x	25	K 50	30,90 A4
M 8	x	30	S 100	29,30 A4
M 8	x	30	K 50	33,40 A4
M 8	x	35	S 100	33,20 A4
M 8	x	35	K 50	37,30 A4
M 8	x	40	S 100	37,00 A4
M 8	x	40	K 50	41,10 A4
M 8	x	45	S 100	44,20 A4
M 8	x	45	K 50	48,30 A4
M 8	x	50	S 100	49,20 A4
M 8	x	50	K 50	53,30 A4
M 8	x	55	K 50	63,40 A4
M 8	x	60	K 50	63,40 A4
M 8	x	70	K 50	99,20 A4
M 8	x	80	K 50	120,00 A4
M 8	x	90	K 50	150,00 A4
M 8	x	100	K 50	158,00 A4
M 10	x	16	K 50	82,80 A4
M 10	x	20	S 100	46,00 A4
M 10	x	20	K 50	50,10 A4
M 10	x	25	S 100	52,60 A4
M 10	x	25	K 50	56,70 A4
M 10	x	30	S 100	58,70 A4
M 10	x	30	K 50	62,80 A4
M 10	x	35	S 100	64,90 A4
M 10	x	35	K 50	69,00 A4
M 10	x	40	S 100	71,50 A4
M 10	x	40	K 50	75,60 A4
M 10	x	45	S 100	77,70 A4



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M 10	x	45	K 50	81,80 A4
M 10	x	50	S 100	83,80 A4
M 10	x	50	K 50	87,90 A4
M 10	x	60	S 100	108,00 A4
M 10	x	60	K 50	113,00 A4
M 10	x	70	S 50	165,00 A4
M 10	x	70	K 25	175,00 A4
M 10	x	80	S 50	200,00 A4
M 10	x	90	K 25	245,00 A4
M 10	x	100	K 25	295,00 A4
M 10	x	110	K 25	395,00 A4
M 10	x	120	K 25	435,00 A4
M 10	x	130	K 25	500,00 A4
M 10	x	140	K 25	575,00 A4
M 12	x	16	K 25	116,00 A4
M 12	x	20	K 25	213,00 A4
M 12	x	25	K 25	213,00 A4
M 12	x	30	K 25	227,00 A4
M 12	x	35	K 25	241,00 A4
M 12	x	40	K 25	248,00 A4
M 12	x	45	K 25	281,00 A4
M 12	x	50	K 25	281,00 A4
M 12	x	60	K 25	323,00 A4
M 12	x	70	K 25	438,00 A4
M 12	x	80	K 25	509,00 A4
M 12	x	90	K 25	690,00 A4
M 12	x	100	K 25	935,00 A4
M 16	x	25	K 1	758,00 A4
M 16	x	30	K 1	773,00 A4
M 16	x	35	K 1	794,00 A4
M 16	x	40	K 1	823,00 A4
M 16	x	45	K 1	866,00 A4
M 16	x	50	K 1	866,00 A4
M 16	x	60	K 1	909,00 A4
M 16	x	70	K 1	1100,00 A4

DIN	00964.920	RAZ 450
964	A 2	



Slotted raised countersunk head screws

Dimensions → **TI-39** Standard conversion → **TI-11**

Steel → **S. 179**

Brass → **S. 581**

DIN 964 → replaced by ISO 2010

M 3	x	5	K 200	5,10 A2
M 3	x	6	S 1000	3,30 A2
M 3	x	6	K 200	4,30 A2
M 3	x	8	S 1000	3,00 A2
M 3	x	8	K 200	4,00 A2
M 3	x	10	S 1000	2,70 A2
M 3	x	10	K 200	3,70 A2
M 3	x	12	S 1000	2,75 A2
M 3	x	12	K 200	3,75 A2
M 3	x	16	K 200	4,10 A2
M 3	x	20	S 1000	3,70 A2
M 3	x	20	K 200	4,70 A2
M 3	x	25	K 200	5,70 A2
M 4	x	6	S 1000	7,10 A2
M 4	x	6	K 200	8,10 A2
M 4	x	8	S 1000	4,80 A2
M 4	x	8	K 200	5,80 A2
M 4	x	10	S 1000	4,10 A2
M 4	x	10	K 200	5,10 A2
M 4	x	12	S 1000	3,85 A2
M 4	x	12	K 200	4,85 A2

M 4	x	16	S 1000	4,20 A2
M 4	x	16	K 200	5,20 A2
M 4	x	20	S 1000	4,30 A2
M 4	x	20	K 200	5,30 A2
M 4	x	25	K 200	6,15 A2
M 4	x	30	K 200	7,65 A2
M 4	x	35	K 100	12,25 A2
M 5	x	8	K 100	10,60 A2
M 5	x	10	S 500	6,60 A2
M 5	x	10	K 200	7,60 A2
M 5	x	12	S 500	5,00 A2
M 5	x	12	K 200	6,00 A2
M 5	x	16	S 500	5,75 A2
M 5	x	16	K 200	6,75 A2
M 5	x	18	K 200	10,45 A2
M 5	x	20	S 500	6,40 A2
M 5	x	20	K 200	7,40 A2
M 5	x	25	S 500	7,55 A2
M 5	x	25	K 200	8,55 A2
M 5	x	30	S 500	8,90 A2
M 5	x	30	K 200	9,90 A2
M 5	x	35	S 200	10,90 A2
M 5	x	35	K 100	12,95 A2
M 5	x	40	K 100	16,15 A2
M 5	x	45	K 100	18,15 A2
M 5	x	50	K 100	22,85 A2
M 5	x	60	K 100	33,75 A2
M 5	x	70	K 100	48,35 A2
M 5	x	80	K 100	53,65 A2
M 6	x	10	S 200	8,20 A2
M 6	x	10	K 100	10,25 A2
M 6	x	12	S 200	7,90 A2
M 6	x	12	K 100	9,95 A2
M 6	x	16	S 200	7,15 A2
M 6	x	16	K 100	9,20 A2
M 6	x	20	S 200	8,20 A2
M 6	x	20	K 100	10,25 A2
M 6	x	25	S 200	9,55 A2
M 6	x	25	K 100	11,60 A2
M 6	x	30	S 200	10,60 A2
M 6	x	30	K 100	12,65 A2
M 6	x	35	S 100	13,70 A2
M 6	x	35	K 50	17,80 A2
M 6	x	40	S 100	17,70 A2
M 6	x	40	K 50	21,80 A2
M 6	x	45	K 50	23,20 A2
M 6	x	50	K 50	30,90 A2
M 6	x	55	S 100	40,30 A2
M 6	x	60	K 50	40,30 A2
M 6	x	70	K 50	59,80 A2
M 6	x	80	S 50	185,00 A2
M 6	x	90	S 50	245,00 A2
M 6	x	100	S 50	310,00 A2
M 6	x	105	S 50	350,00 A2
M 6	x	110	S 50	350,00 A2
M 8	x	12	K 50	37,90 A2
M 8	x	16	S 100	18,80 A2
M 8	x	16	K 50	22,90 A2
M 8	x	20	S 100	19,80 A2
M 8	x	20	K 50	23,90 A2
M 8	x	25	S 100	23,00 A2
M 8	x	25	K 50	27,10 A2
M 8	x	30	S 100	24,90 A2
M 8	x	30	K 50	29,00 A2
M 8	x	35	S 100	27,50 A2
M 8	x	40	S 100	30,60 A2
M 8	x	40	K 50	34,70 A2
M 8	x	45	S 100	36,50 A2
M 8	x	50	S 100	38,55 A2
M 8	x	55	S 100	55,00 A2
M 8	x	60	S 100	53,60 A2
M 8	x	70	S 100	82,30 A2
M 8	x	80	K 50	101,00 A2
M 10	x	20	S 100	44,30 A2
M 10	x	25	S 100	47,20 A2

M 10	x	25	K 50	51,30 A2
M 10	x	30	K 50	55,70 A2
M 10	x	35	S 100	55,20 A2
M 10	x	40	K 50	66,90 A2

DIN	00964.940	RAZ 450
964	A 4	



Slotted raised countersunk head screws

Dimensions → **TI-39** Standard conversion → **TI-11**

Steel → **S. 179**

Brass → **S. 581**

DIN 964 → replaced by ISO 2010

M 2	x	4	K 200	9,30 A4
M 2	x	5	K 200	5,10 A4
M 2	x	6	K 200	5,30 A4
M 2	x	8	K 200	5,60 A4
M 2	x	10	K 200	6,05 A4
M 2	x	12	K 200	6,40 A4
M 2	x	20	K 200	11,50 A4
M 2,5	x	6	K 200	5,30 A4
M 2,5	x	8	K 200	5,60 A4
M 2,5	x	10	K 200	6,05 A4
M 2,5	x	16	K 200	8,85 A4
M 2,5	x	20	K 200	11,50 A4
M 3	x	6	S 1000	4,30 A4
M 3	x	6	K 200	5,30 A4
M 3	x	8	K 200	4,70 A4
M 3	x	10	K 200	4,20 A4
M 3	x	12	K 200	4,40 A4
M 3	x	16	K 200	4,75 A4
M 3	x	20	K 200	5,25 A4
M 3	x	25	K 200	6,70 A4
M 3	x	30	K 200	10,10 A4
M 4	x	6	K 200	10,00 A4
M 4	x	8	S 1000	6,30 A4
M 4	x	8	K 200	7,30 A4
M 4	x	10	S 1000	5,15 A4
M 4	x	10	K 200	6,15 A4
M 4	x	12	K 200	6,00 A4
M 4	x	16	S 1000	5,30 A4
M 4	x	16	K 200	6,30 A4
M 4	x	18	K 200	9,50 A4
M 4	x	20	S 1000	5,75 A4
M 4	x	20	K 200	6,75 A4
M 4	x	25	K 200	8,15 A4
M 4	x	30	K 200	10,40 A4
M 4	x	35	K 100	15,45 A4
M 4	x	40	K 100	20,35 A4
M 4	x	45	K 100	26,35 A4
M 5	x	10	S 500	7,95 A4
M 5	x	10	K 200	8,95 A4
M 5	x	12	K 200	7,55 A4
M 5	x	16	S 500	7,30 A4
M 5	x	16	K 200	8,30 A4
M 5	x	20	S 500	7,70 A4
M 5	x	20	K 200	8,70 A4
M 5	x	25	K 200	10,20 A4
M 5	x	30	K 200	12,70 A4
M 5	x	35	K 100	17,25 A4
M 5	x	40	S 200	18,90 A4
M 5	x	40	K 100	20,95 A4
M 5	x	50	S 200	40,80 A4
M 5	x	50	K 100	42,85 A4
M 5	x	60	K 100	53,15 A4

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M 5	x	70	K	100	64,85 A4
M 5	x	80	K	100	72,05 A4
M 6	x	10	S	200	11,80 A4
M 6	x	10	K	100	13,85 A4
M 6	x	12	K	100	13,25 A4
M 6	x	16	S	200	10,80 A4
M 6	x	16	K	100	12,85 A4
M 6	x	20	S	200	12,60 A4
M 6	x	20	K	100	14,65 A4
M 6	x	25	S	200	14,70 A4
M 6	x	25	K	100	16,75 A4
M 6	x	30	S	200	16,80 A4
M 6	x	30	K	100	18,85 A4
M 6	x	35	S	100	21,10 A4
M 6	x	40	S	100	28,10 A4
M 6	x	40	K	50	32,20 A4
M 6	x	50	S	100	42,80 A4
M 6	x	50	K	50	46,90 A4
M 6	x	60	K	50	49,80 A4
M 6	x	70	K	50	72,60 A4
M 6	x	80	K	50	86,40 A4
M 8	x	16	K	50	30,90 A4
M 8	x	20	S	100	28,10 A4
M 8	x	20	K	50	32,20 A4
M 8	x	25	S	100	30,60 A4
M 8	x	25	K	50	34,70 A4
M 8	x	30	S	100	34,50 A4
M 8	x	40	K	50	46,90 A4
M 8	x	50	S	100	62,30 A4
M 8	x	50	K	50	66,40 A4
M 10	x	20	K	50	59,30 A4
M 10	x	25	K	50	61,80 A4
M 10	x	50	K	50	103,00 A4

DIN	00965.924	RAZ 460
965	A 2	H



Countersunk head screws with Phillips cross recess H

Dimensions → TI-39 Standard conversion → TI-TI

Steel → S. 180

DIN 965 → replaced by ISO 7046

M 1,6	x	3 -H	S	2000	60,00 A2
M 1,6	x	3 -H	K	1000	65,00 A2
M 1,6	x	4 -H	S	2000	60,00 A2
M 1,6	x	4 -H	K	1000	65,00 A2
M 1,6	x	5 -H	S	2000	65,00 A2
M 1,6	x	5 -H	K	1000	70,00 A2
M 1,6	x	6 -H	S	2000	67,00 A2
M 1,6	x	6 -H	K	1000	72,00 A2
M 1,6	x	8 -H	S	2000	69,00 A2
M 1,6	x	8 -H	K	1000	74,00 A2
M 1,6	x	10 -H	S	2000	71,00 A2
M 1,6	x	10 -H	K	1000	76,00 A2
M 1,6	x	12 -H	S	2000	73,00 A2
M 1,6	x	12 -H	K	1000	78,00 A2
M 1,6	x	16 -H	S	2000	75,00 A2
M 1,6	x	16 -H	K	1000	80,00 A2
M 2	x	3 -H	S	1000	5,80 A2
M 2	x	4 -H	S	1000	5,80 A2
M 2	x	5 -H	S	1000	5,80 A2
M 2	x	6 -H	S	1000	5,80 A2
M 2	x	8 -H	S	1000	5,80 A2
M 2	x	10 -H	S	1000	5,80 A2

M 2	x	12 -H	S	1000	6,30 A2
M 2	x	14 -H	S	1000	12,00 A2
M 2	x	16 -H	S	1000	19,90 A2
M 2	x	20 -H	S	1000	22,00 A2
M 2,5	x	3 -H	S	1000	12,00 A2
M 2,5	x	4 -H	S	1000	12,00 A2
M 2,5	x	5 -H	S	1000	5,80 A2
M 2,5	x	6 -H	S	1000	5,80 A2
M 2,5	x	8 -H	S	1000	5,80 A2
M 2,5	x	10 -H	S	1000	5,80 A2
M 2,5	x	12 -H	S	1000	6,00 A2
M 2,5	x	16 -H	S	1000	6,50 A2
M 2,5	x	20 -H	S	1000	7,00 A2
M 2,5	x	25 -H	S	1000	15,00 A2
M 3	x	4 -H	S	1000	6,60 A2
M 3	x	5 -H	S	1000	5,60 A2
M 3	x	5 -H	K	200	6,60 A2
M 3	x	6 -H	S	1000	3,70 A2
M 3	x	6 -H	K	200	4,70 A2
M 3	x	8 -H	S	1000	3,95 A2
M 3	x	8 -H	K	200	4,95 A2
M 3	x	10 -H	S	1000	4,20 A2
M 3	x	10 -H	K	200	5,20 A2
M 3	x	12 -H	S	1000	4,45 A2
M 3	x	12 -H	K	200	5,45 A2
M 3	x	16 -H	S	1000	4,85 A2
M 3	x	16 -H	K	200	5,85 A2
M 3	x	20 -H	S	1000	5,55 A2
M 3	x	20 -H	K	200	6,55 A2
M 3	x	22 -H	S	1000	9,00 A2
M 3	x	25 -H	S	1000	6,05 A2
M 3	x	30 -H	S	1000	8,90 A2
M 3	x	35 -H	S	500	15,00 A2
M 3	x	40 -H	S	500	18,50 A2
M 3	x	45 -H	S	500	34,20 A2
M 3	x	50 -H	S	500	34,20 A2
M 4	x	5 -H	S	1000	7,55 A2
M 4	x	6 -H	S	1000	5,95 A2
M 4	x	6 -H	K	200	6,95 A2
M 4	x	8 -H	S	1000	5,95 A2
M 4	x	8 -H	K	200	6,95 A2
M 4	x	10 -H	S	1000	6,20 A2
M 4	x	10 -H	K	200	7,20 A2
M 4	x	12 -H	S	1000	6,55 A2
M 4	x	12 -H	K	200	7,55 A2
M 4	x	14 -H	S	1000	7,40 A2
M 4	x	16 -H	S	1000	7,40 A2
M 4	x	16 -H	K	200	8,40 A2
M 4	x	18 -H	S	1000	8,25 A2
M 4	x	20 -H	S	1000	8,15 A2
M 4	x	20 -H	K	200	9,15 A2
M 4	x	25 -H	S	1000	9,50 A2
M 4	x	25 -H	K	200	10,50 A2
M 4	x	30 -H	S	1000	11,10 A2
M 4	x	30 -H	K	200	12,10 A2
M 4	x	35 -H	S	500	14,00 A2
M 4	x	35 -H	K	200	15,00 A2
M 4	x	40 -H	S	500	15,00 A2
M 4	x	40 -H	K	200	16,00 A2
M 4	x	45 -H	S	500	34,20 A2
M 4	x	50 -H	S	500	34,20 A2
M 4	x	60 -H	S	500	45,00 A2
M 5	x	6 -H	S	500	14,80 A2
M 5	x	8 -H	S	500	10,60 A2
M 5	x	8 -H	K	200	11,60 A2
M 5	x	10 -H	S	500	10,50 A2
M 5	x	10 -H	K	200	11,50 A2
M 5	x	12 -H	S	500	10,60 A2
M 5	x	12 -H	K	200	11,60 A2
M 5	x	14 -H	S	500	11,86 A2
M 5	x	16 -H	S	500	11,80 A2
M 5	x	16 -H	K	200	12,80 A2
M 5	x	18 -H	S	500	17,30 A2
M 5	x	20 -H	S	500	13,20 A2
M 5	x	20 -H	K	200	14,20 A2

M 5	x	25 -H	S	500	15,10 A2
M 5	x	25 -H	K	200	16,10 A2
M 5	x	30 -H	S	500	17,60 A2
M 5	x	30 -H	K	200	18,60 A2
M 5	x	35 -H	S	500	19,90 A2
M 5	x	35 -H	K	200	20,90 A2
M 5	x	40 -H	S	200	23,20 A2
M 5	x	45 -H	S	200	28,50 A2
M 5	x	50 -H	S	200	29,90 A2
M 5	x	55 -H	S	200	37,40 A2
M 5	x	60 -H	S	200	37,40 A2
M 5	x	70 -H	S	200	50,60 A2
M 5	x	80 -H	S	200	59,30 A2
M 5	x	90 -H	S	200	70,00 A2
M 5	x	100 -H	S	200	85,00 A2
M 6	x	8 -H	S	200	17,60 A2
M 6	x	10 -H	S	200	13,20 A2
M 6	x	12 -H	S	200	13,90 A2
M 6	x	16 -H	S	200	15,80 A2
M 6	x	20 -H	S	200	17,10 A2
M 6	x	25 -H	S	200	19,10 A2
M 6	x	30 -H	S	200	22,40 A2
M 6	x	35 -H	S	200	24,70 A2
M 6	x	40 -H	S	200	28,10 A2
M 6	x	45 -H	S	200	31,30 A2
M 6	x	50 -H	S	200	35,60 A2
M 6	x	55 -H	S	200	40,30 A2
M 6	x	60 -H	S	200	40,30 A2
M 6	x	70 -H	S	100	60,30 A2
M 6	x	80 -H	S	100	69,50 A2
M 6	x	90 -H	S	100	79,00 A2
M 6	x	100 -H	S	100	88,50 A2
M 6	x	110 -H	S	100	185,00 A2
M 6	x	120 -H	S	100	225,00 A2
M 8	x	10 -H	S	100	75,50 A2
M 8	x	12 -H	S	100	28,60 A2
M 8	x	16 -H	S	100	30,80 A2
M 8	x	20 -H	S	100	34,70 A2
M 8	x	25 -H	S	100	40,30 A2
M 8	x	30 -H	S	100	41,90 A2
M 8	x	35 -H	S	100	43,90 A2
M 8	x	40 -H	S	100	47,70 A2
M 8	x	45 -H	S	100	51,00 A2
M 8	x	50 -H	S	100	57,70 A2
M 8	x	55 -H	S	100	64,40 A2
M 8	x	60 -H	S	100	64,40 A2
M 8	x	70 -H	S	100	75,60 A2
M 8	x	80 -H	S	100	87,90 A2
M 8	x	105 -H	S	100	73,20 A2
M 8	x	130 -H	S	100	108,00 A2
M 10	x	12 -H	S	100	125,00 A2
M 10	x	16 -H	S	100	145,00 A2
M 10	x	20 -H	S	100	160,00 A2
M 10	x	25 -H	S	100	190,00 A2
M 10	x	30 -H	S	100	220,00 A2
M 10	x	35 -H	S	100	240,00 A2
M 10	x	40 -H	S	100	261,00 A2
M 10	x	45 -H	S	100	290,00 A2
M 10	x	50 -H	S	100	315,00 A2
M 10	x	55 -H	S	100	345,00 A2
M 10	x	60 -H	S	100	365,00 A2



DIN	00965.944	RAZ 460
965	A 4	H



Countersunk head screws with Phillips cross recess H

Dimensions → **TI-39** Standard conversion → **TI-11**

Steel → **S. 180**

DIN 965 → replaced by ISO 7046

M 1,6	x 3-H	S 1000	60,00 A4
M 1,6	x 4-H	S 1000	60,00 A4
M 1,6	x 5-H	S 1000	65,00 A4
M 1,6	x 10-H	S 1000	71,00 A4
M 1,6	x 16-H	S 1000	75,00 A4
M 2	x 3-H	S 1000	16,00 A4
M 2	x 4-H	S 1000	16,00 A4
M 2	x 5-H	S 1000	17,25 A4
M 2	x 6-H	S 1000	18,65 A4
M 2	x 8-H	S 1000	20,00 A4
M 2	x 10-H	S 1000	21,00 A4
M 2	x 12-H	S 1000	22,50 A4
M 2	x 16-H	S 1000	24,00 A4
M 2	x 20-H	S 1000	27,00 A4
M 2,5	x 3-H	S 1000	16,00 A4
M 2,5	x 4-H	S 1000	16,00 A4
M 2,5	x 5-H	S 1000	18,00 A4
M 2,5	x 6-H	S 1000	19,00 A4
M 2,5	x 8-H	S 1000	22,00 A4
M 2,5	x 10-H	S 1000	24,00 A4
M 2,5	x 12-H	S 1000	26,00 A4
M 2,5	x 14-H	S 1000	29,50 A4
M 2,5	x 16-H	S 1000	29,50 A4
M 2,5	x 20-H	S 1000	35,00 A4
M 2,5	x 25-H	S 1000	42,00 A4
M 3	x 4-H	S 1000	20,00 A4
M 3	x 5-H	S 1000	20,00 A4
M 3	x 6-H	S 1000	5,90 A4
M 3	x 8-H	S 1000	5,75 A4
M 3	x 10-H	S 1000	6,35 A4
M 3	x 12-H	S 1000	6,85 A4
M 3	x 14-H	S 1000	7,40 A4
M 3	x 16-H	S 1000	7,40 A4
M 3	x 20-H	S 1000	8,25 A4
M 3	x 25-H	S 1000	9,70 A4
M 3	x 30-H	S 1000	14,30 A4
M 3	x 35-H	S 1000	26,10 A4
M 3	x 40-H	S 500	33,00 A4
M 4	x 5-H	S 1000	13,50 A4
M 4	x 6-H	S 1000	9,55 A4
M 4	x 8-H	S 1000	8,60 A4
M 4	x 10-H	S 1000	9,20 A4
M 4	x 12-H	S 1000	9,90 A4
M 4	x 16-H	S 1000	10,60 A4
M 4	x 18-H	S 1000	12,00 A4
M 4	x 20-H	S 1000	11,90 A4
M 4	x 25-H	S 1000	14,10 A4
M 4	x 30-H	S 1000	17,80 A4
M 4	x 35-H	S 500	22,40 A4
M 4	x 40-H	S 500	24,10 A4
M 4	x 45-H	S 500	54,70 A4
M 4	x 50-H	S 200	54,70 A4
M 4	x 55-H	S 200	66,00 A4
M 4	x 60-H	S 200	85,00 A4
M 5	x 6-H	S 500	20,00 A4
M 5	x 8-H	S 500	18,00 A4

M 5	x 10-H	S 500	13,40 A4
M 5	x 12-H	S 500	14,40 A4
M 5	x 16-H	S 500	15,40 A4
M 5	x 20-H	S 500	16,80 A4
M 5	x 25-H	S 500	20,10 A4
M 5	x 30-H	S 500	23,60 A4
M 5	x 35-H	S 200	29,50 A4
M 5	x 40-H	S 200	38,00 A4
M 5	x 45-H	S 200	63,50 A4
M 5	x 50-H	S 200	70,00 A4
M 5	x 55-H	S 200	82,00 A4
M 5	x 60-H	S 200	95,00 A4
M 6	x 8-H	S 200	24,50 A4
M 6	x 10-H	S 200	20,10 A4
M 6	x 12-H	S 200	21,00 A4
M 6	x 16-H	S 200	22,80 A4
M 6	x 20-H	S 200	24,50 A4
M 6	x 25-H	S 200	28,60 A4
M 6	x 30-H	S 200	30,20 A4
M 6	x 35-H	S 200	39,60 A4
M 6	x 40-H	S 200	40,00 A4
M 6	x 45-H	S 200	54,10 A4
M 6	x 50-H	S 200	54,10 A4
M 6	x 55-H	S 200	65,00 A4
M 6	x 60-H	S 200	64,90 A4
M 6	x 70-H	S 200	95,00 A4
M 6	x 80-H	S 200	120,00 A4
M 6	x 90-H	S 200	145,00 A4
M 8	x 10-H	S 200	65,00 A4
M 8	x 12-H	S 100	65,00 A4
M 8	x 16-H	S 100	53,10 A4
M 8	x 20-H	S 100	57,20 A4
M 8	x 25-H	S 100	61,30 A4
M 8	x 30-H	S 100	71,00 A4
M 8	x 35-H	S 100	82,80 A4
M 8	x 40-H	S 100	91,50 A4
M 8	x 45-H	S 100	175,00 A4
M 8	x 50-H	S 100	205,00 A4
M 8	x 55-H	S 100	260,00 A4
M 8	x 60-H	S 100	290,00 A4
M 8	x 70-H	S 100	330,00 A4
M 8	x 80-H	S 100	375,00 A4
M 8	x 90-H	S 100	425,00 A4
M 10	x 16-H	S 100	250,00 A4
M 10	x 20-H	S 100	140,00 A4
M 10	x 25-H	S 100	151,00 A4
M 10	x 30-H	S 100	162,00 A4
M 10	x 35-H	S 100	181,00 A4
M 10	x 40-H	S 100	196,00 A4
M 10	x 45-H	S 100	201,00 A4
M 10	x 50-H	S 100	201,00 A4
M 10	x 55-H	S 100	225,00 A4
M 10	x 60-H	S 100	225,00 A4
M 10	x 70-H	S 100	420,00 A4
M 10	x 80-H	S 100	500,00 A4

DIN	00965.925	RAZ 460
965	A 2	Z



Countersunk head screws with Pozidriv cross recess Z

Dimensions → **TI-39** Standard conversion → **TI-11**

Steel → **S. 181**

DIN 965 → replaced by ISO 7046

M 1,6	x 3-Z	S 2000	60,00 A2
M 1,6	x 4-Z	S 2000	60,00 A2
M 1,6	x 5-Z	S 2000	65,00 A2
M 1,6	x 6-Z	S 2000	67,00 A2
M 1,6	x 8-Z	S 2000	69,00 A2
M 1,6	x 10-Z	S 2000	71,00 A2
M 1,6	x 12-Z	S 2000	73,00 A2
M 1,6	x 16-Z	S 2000	75,00 A2
M 2	x 3-Z	S 1000	12,00 A2
M 2	x 4-Z	S 1000	13,00 A2
M 2	x 5-Z	S 1000	14,25 A2
M 2	x 6-Z	S 1000	15,65 A2
M 2	x 10-Z	S 1000	15,85 A2
M 2	x 12-Z	S 1000	16,36 A2
M 2	x 14-Z	S 1000	19,90 A2
M 2	x 16-Z	S 1000	19,90 A2
M 2	x 20-Z	S 1000	22,00 A2
M 2,5	x 3-Z	S 1000	12,00 A2
M 2,5	x 4-Z	S 1000	12,00 A2
M 2,5	x 5-Z	S 1000	5,80 A2
M 2,5	x 6-Z	S 1000	5,80 A2
M 2,5	x 8-Z	S 1000	5,80 A2
M 2,5	x 10-Z	S 1000	5,80 A2
M 2,5	x 12-Z	S 1000	6,00 A2
M 2,5	x 16-Z	S 1000	6,50 A2
M 2,5	x 20-Z	S 1000	7,00 A2
M 2,5	x 25-Z	S 1000	15,00 A2
M 3	x 4-Z	S 1000	6,60 A2
M 3	x 5-Z	S 1000	5,60 A2
M 3	x 6-Z	S 1000	3,70 A2
M 3	x 8-Z	S 1000	3,95 A2
M 3	x 10-Z	S 1000	4,20 A2
M 3	x 12-Z	S 1000	4,45 A2
M 3	x 14-Z	S 1000	4,40 A2
M 3	x 16-Z	S 1000	4,85 A2
M 3	x 22-Z	S 1000	6,05 A2
M 3	x 25-Z	S 1000	6,05 A2
M 3	x 30-Z	S 1000	8,90 A2
M 3	x 40-Z	S 500	18,50 A2
M 3	x 50-Z	S 500	34,20 A2
M 4	x 5-Z	S 1000	7,55 A2
M 4	x 6-Z	S 1000	5,95 A2
M 4	x 8-Z	S 1000	5,95 A2
M 4	x 10-Z	S 1000	6,20 A2
M 4	x 12-Z	S 1000	6,55 A2
M 4	x 14-Z	S 1000	7,40 A2
M 4	x 16-Z	S 1000	7,40 A2
M 4	x 20-Z	S 1000	8,15 A2
M 4	x 22-Z	S 1000	9,50 A2
M 4	x 25-Z	S 1000	9,50 A2
M 4	x 30-Z	S 1000	11,10 A2
M 4	x 40-Z	S 500	15,00 A2
M 4	x 45-Z	S 500	34,20 A2
M 4	x 60-Z	S 500	40,00 A2
M 5	x 8-Z	S 500	10,60 A2
M 5	x 10-Z	S 500	10,50 A2

DIN 965

M 5	x	12 -Z	S	500	10,60 A2
M 5	x	16 -Z	S	500	11,80 A2
M 5	x	18 -Z	S	500	14,27 A2
M 5	x	20 -Z	S	500	13,20 A2
M 5	x	25 -Z	S	500	15,10 A2
M 5	x	30 -Z	S	500	17,60 A2
M 5	x	35 -Z	S	500	19,90 A2
M 5	x	40 -Z	S	200	23,20 A2
M 5	x	45 -Z	S	200	29,90 A2
M 5	x	50 -Z	S	200	29,90 A2
M 5	x	55 -Z	S	200	37,40 A2
M 5	x	60 -Z	S	200	37,40 A2
M 5	x	70 -Z	S	200	50,60 A2
M 5	x	80 -Z	S	200	59,30 A2
M 5	x	90 -Z	S	200	70,00 A2
M 5	x	100 -Z	S	200	85,00 A2
M 6	x	8 -Z	S	200	17,60 A2
M 6	x	10 -Z	S	200	13,20 A2
M 6	x	12 -Z	S	200	13,90 A2
M 6	x	16 -Z	S	200	15,80 A2
M 6	x	20 -Z	S	200	17,10 A2
M 6	x	25 -Z	S	200	19,10 A2
M 6	x	30 -Z	S	200	22,40 A2
M 6	x	40 -Z	S	200	28,10 A2
M 6	x	50 -Z	S	200	35,60 A2
M 6	x	60 -Z	S	200	40,30 A2
M 6	x	70 -Z	S	100	90,00 A2
M 6	x	80 -Z	S	100	105,00 A2
M 6	x	90 -Z	S	100	125,00 A2
M 6	x	100 -Z	S	100	150,00 A2
M 6	x	110 -Z	S	100	185,00 A2
M 6	x	120 -Z	S	100	225,00 A2
M 8	x	10 -Z	S	100	75,50 A2
M 8	x	12 -Z	S	100	85,00 A2
M 8	x	16 -Z	S	100	100,00 A2
M 8	x	20 -Z	S	100	110,00 A2
M 8	x	25 -Z	S	100	130,00 A2
M 8	x	30 -Z	S	100	150,00 A2
M 8	x	40 -Z	S	100	180,00 A2
M 8	x	45 -Z	S	100	200,00 A2
M 8	x	50 -Z	S	100	215,00 A2
M 8	x	55 -Z	S	100	235,00 A2
M 8	x	60 -Z	S	100	250,00 A2
M 8	x	70 -Z	S	100	295,00 A2
M 8	x	80 -Z	S	100	350,00 A2
M 10	x	16 -Z	S	100	145,00 A2
M 10	x	25 -Z	S	100	190,00 A2
M 10	x	35 -Z	S	100	240,00 A2
M 10	x	40 -Z	S	100	261,00 A2

~DIN	00965.926	RAZ 460
965	A 2	ISR



Countersunk head screws, ISR = hexalobular socket

~ ISO 14581

Dimensions → TI-39 Standard conversion → TI-11

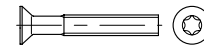
Steel → S. 181

M 1,6	x	3 -T5	K	1000	65,00 A2
M 1,6	x	4 -T5	K	1000	65,00 A2
M 1,6	x	5 -T5	K	1000	70,00 A2
M 1,6	x	6 -T5	K	1000	72,00 A2
M 1,6	x	8 -T5	K	1000	74,00 A2
M 1,6	x	10 -T5	K	1000	76,00 A2

M 2	x	3 -T6	S	2000	12,00 A2
M 2	x	4 -T6	S	2000	13,00 A2
M 2	x	5 -T6	S	2000	14,25 A2
M 2	x	6 -T6	S	2000	15,65 A2
M 2	x	8 -T6	S	2000	16,85 A2
M 2	x	10 -T6	S	2000	17,75 A2
M 2	x	12 -T6	S	2000	18,50 A2
M 2	x	16 -T6	S	2000	19,90 A2
M 2	x	20 -T6	S	2000	22,00 A2
M 2,5	x	3 -T8	S	2000	12,00 A2
M 2,5	x	4 -T8	S	2000	12,00 A2
M 2,5	x	5 -T8	S	1000	8,20 A2
M 2,5	x	6 -T8	S	1000	8,40 A2
M 2,5	x	8 -T8	S	1000	8,60 A2
M 2,5	x	10 -T8	S	1000	8,90 A2
M 2,5	x	12 -T8	S	1000	9,40 A2
M 2,5	x	16 -T8	S	1000	10,30 A2
M 2,5	x	18 -T8	S	1000	12,25 A2
M 2,5	x	20 -T8	S	1000	10,80 A2
M 2,5	x	25 -T8	S	1000	15,00 A2
M 3	x	4 -T10	S	1000	10,00 A2
M 3	x	5 -T10	S	1000	8,40 A2
M 3	x	6 -T10	S	1000	5,60 A2
M 3	x	8 -T10	S	1000	5,90 A2
M 3	x	10 -T10	S	1000	6,30 A2
M 3	x	12 -T10	S	1000	6,60 A2
M 3	x	16 -T10	S	1000	7,20 A2
M 3	x	20 -T10	S	1000	8,30 A2
M 3	x	22 -T10	S	1000	6,05 A2
M 3	x	25 -T10	S	1000	9,00 A2
M 3	x	30 -T10	S	1000	13,30 A2
M 4	x	5 -T20	S	1000	11,30 A2
M 4	x	6 -T20	S	1000	8,90 A2
M 4	x	8 -T20	S	1000	9,00 A2
M 4	x	10 -T20	S	1000	9,30 A2
M 4	x	12 -T20	S	1000	9,80 A2
M 4	x	16 -T20	S	1000	11,10 A2
M 4	x	20 -T20	S	1000	12,20 A2
M 4	x	25 -T20	S	1000	14,25 A2
M 4	x	30 -T20	S	1000	16,70 A2
M 4	x	35 -T20	S	500	21,00 A2
M 4	x	40 -T20	S	500	22,50 A2
M 5	x	6 -T25	S	1000	17,50 A2
M 5	x	8 -T25	S	500	15,50 A2
M 5	x	10 -T25	S	500	15,70 A2
M 5	x	12 -T25	S	500	15,70 A2
M 5	x	14 -T25	S	500	22,00 A2
M 5	x	16 -T25	S	500	17,70 A2
M 5	x	20 -T25	S	500	12,80 A2
M 5	x	25 -T25	S	500	22,60 A2
M 5	x	30 -T25	S	500	26,40 A2
M 5	x	35 -T25	S	500	29,50 A2
M 5	x	40 -T25	S	200	34,50 A2
M 5	x	45 -T25	S	200	42,00 A2
M 5	x	50 -T25	S	200	55,00 A2
M 6	x	8 -T30	S	1000	15,00 A2
M 6	x	10 -T30	S	200	10,80 A2
M 6	x	12 -T30	S	200	20,50 A2
M 6	x	16 -T30	S	200	23,50 A2
M 6	x	20 -T30	S	200	25,50 A2
M 6	x	25 -T30	S	200	28,50 A2
M 6	x	30 -T30	S	200	33,50 A2
M 6	x	35 -T30	S	200	44,00 A2
M 6	x	40 -T30	S	200	45,70 A2
M 6	x	45 -T30	S	200	45,70 A2
M 6	x	50 -T30	S	200	82,00 A2
M 6	x	60 -T30	S	200	83,30 A2
M 8	x	10 -T40	S	100	75,50 A2
M 8	x	12 -T40	S	100	85,00 A2
M 8	x	16 -T40	S	100	100,00 A2
M 8	x	20 -T40	S	100	110,00 A2
M 8	x	25 -T40	S	100	130,00 A2
M 8	x	30 -T40	S	100	150,00 A2
M 8	x	35 -T40	S	100	165,00 A2
M 8	x	40 -T40	S	100	180,00 A2

M 8	x	45 -T40	S	100	200,00 A2
M 8	x	50 -T40	S	100	215,00 A2
M 8	x	55 -T40	S	100	235,00 A2
M 8	x	60 -T40	S	50	250,00 A2
M 10	x	12 -T50	S	100	170,00 A2
M 10	x	16 -T50	S	100	200,00 A2
M 10	x	20 -T50	S	100	215,00 A2
M 10	x	25 -T50	S	100	255,00 A2
M 10	x	30 -T50	S	100	300,00 A2
M 10	x	35 -T50	S	100	325,00 A2
M 10	x	40 -T50	S	100	375,00 A2
M 10	x	45 -T50	S	100	400,00 A2
M 10	x	50 -T50	S	100	420,00 A2
M 10	x	55 -T50	S	100	460,00 A2
M 10	x	60 -T50	S	100	500,00 A2

~DIN	00965.948	RAZ 460
965	A 4	ISR



Countersunk head screws, ISR = hexalobular socket

~ ISO 14581

Dimensions → TI-39 Standard conversion → TI-11

Steel → S. 181

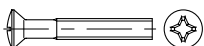
M 2	x	3 -T6	S	2000	21,00 A4
M 2	x	4 -T6	S	2000	23,00 A4
M 2	x	5 -T6	S	2000	25,00 A4
M 2	x	6 -T6	S	2000	27,40 A4
M 2	x	8 -T6	S	2000	30,00 A4
M 2	x	10 -T6	S	2000	21,50 A4
M 2	x	12 -T6	S	2000	32,50 A4
M 2	x	16 -T6	S	2000	35,00 A4
M 2	x	20 -T6	S	2000	38,50 A4
M 2,5	x	3 -T8	S	2000	21,00 A4
M 2,5	x	4 -T8	S	2000	21,00 A4
M 2,5	x	5 -T8	S	1000	15,00 A4
M 2,5	x	6 -T8	S	1000	15,00 A4
M 2,5	x	8 -T8	S	1000	15,50 A4
M 2,5	x	10 -T8	S	1000	16,00 A4
M 2,5	x	12 -T8	S	1000	17,00 A4
M 2,5	x	16 -T8	S	1000	19,00 A4
M 2,5	x	18 -T8	S	1000	22,00 A4
M 2,5	x	20 -T8	S	1000	25,00 A4
M 2,5	x	25 -T8	S	1000	27,00 A4
M 3	x	4 -T10	S	1000	18,00 A4
M 3	x	5 -T10	S	1000	15,00 A4
M 3	x	6 -T10	S	1000	10,00 A4
M 3	x	8 -T10	S	1000	11,00 A4
M 3	x	10 -T10	S	1000	11,50 A4
M 3	x	12 -T10	S	1000	12,00 A4
M 3	x	16 -T10	S	1000	13,00 A4
M 3	x	20 -T10	S	1000	15,00 A4
M 3	x	25 -T10	S	1000	16,00 A4
M 3	x	30 -T10	S	1000	24,00 A4
M 4	x	5 -T20	S	1000	20,00 A4
M 4	x	6 -T20	S	1000	16,00 A4
M 4	x	8 -T20	S	1000	16,00 A4
M 4	x	10 -T20	S	1000	17,00 A4
M 4	x	12 -T20	S	1000	17,50 A4
M 4	x	16 -T20	S	1000	20,00 A4
M 4	x	20 -T20	S	1000	22,00 A4
M 4	x	25 -T20	S	1000	25,00 A4
M 4	x	30 -T20	S	1000	30,00 A4
M 4	x	35 -T20	S	500	37,00 A4



DIN 966

M 4	x 40 -T20	S 500	40,00 A4
M 5	x 6 -T25	S 1000	31,00 A4
M 5	x 8 -T25	S 500	32,00 A4
M 5	x 10 -T25	S 500	35,00 A4
M 5	x 12 -T25	S 500	38,00 A4
M 5	x 14 -T25	S 500	40,00 A4
M 5	x 16 -T25	S 500	42,00 A4
M 5	x 20 -T25	S 500	44,00 A4
M 5	x 25 -T25	S 500	45,00 A4
M 5	x 30 -T25	S 500	47,00 A4
M 5	x 35 -T25	S 500	52,00 A4
M 5	x 40 -T25	S 500	44,40 A4
M 5	x 45 -T25	S 200	75,00 A4
M 5	x 50 -T25	S 200	100,00 A4
M 6	x 8 -T30	S 1000	27,00 A4
M 6	x 10 -T30	S 200	32,00 A4
M 6	x 12 -T30	S 200	36,00 A4
M 6	x 16 -T30	S 200	42,00 A4
M 6	x 20 -T30	S 200	45,00 A4
M 6	x 25 -T30	S 200	50,00 A4
M 6	x 30 -T30	S 200	59,00 A4
M 6	x 35 -T30	S 200	77,00 A4
M 6	x 40 -T30	S 200	80,00 A4
M 6	x 45 -T30	S 200	100,00 A4
M 6	x 50 -T30	S 200	145,00 A4
M 6	x 60 -T30	S 200	165,00 A4
M 8	x 10 -T40	S 100	135,00 A4
M 8	x 12 -T40	S 100	150,00 A4
M 8	x 16 -T40	S 200	39,20 A4
M 8	x 20 -T40	S 200	44,89 A4
M 8	x 25 -T40	S 100	230,00 A4
M 8	x 30 -T40	S 100	265,00 A4
M 8	x 35 -T40	S 100	290,00 A4
M 8	x 40 -T40	S 100	315,00 A4
M 8	x 45 -T40	S 100	350,00 A4
M 8	x 50 -T40	S 100	380,00 A4
M 8	x 60 -T40	S 50	440,00 A4

DIN	00966.924	RAZ 460
966	A 2	H



Raised countersunk head screws with Phillips cross recess H

Dimensions → **TI-39** Standard conversion → **TI-11**

Steel → **S. 182**

DIN 966 → replaced by ISO 7047

M 2,5	x 4 -H	S 1000	15,00 A2
M 2,5	x 5 -H	S 1000	13,50 A2
M 2,5	x 6 -H	S 1000	11,50 A2
M 2,5	x 8 -H	S 1000	6,95 A2
M 2,5	x 10 -H	S 1000	6,95 A2
M 2,5	x 12 -H	S 1000	8,50 A2
M 2,5	x 16 -H	S 1000	11,00 A2
M 2,5	x 20 -H	S 1000	16,00 A2
M 2,5	x 25 -H	S 1000	24,00 A2
M 3	x 4 -H	S 1000	10,00 A2
M 3	x 5 -H	S 1000	5,60 A2
M 3	x 6 -H	S 1000	3,70 A2
M 3	x 8 -H	S 1000	3,95 A2
M 3	x 10 -H	S 1000	4,20 A2
M 3	x 12 -H	S 1000	4,85 A2
M 3	x 16 -H	S 1000	4,85 A2
M 3	x 18 -H	S 1000	5,50 A2
M 3	x 20 -H	S 1000	5,55 A2

M 3	x 25 -H	S 1000	9,75 A2
M 3	x 30 -H	S 500	13,00 A2
M 3	x 35 -H	S 500	14,00 A2
M 3	x 45 -H	S 500	32,00 A2
M 3	x 50 -H	S 500	50,00 A2
M 4	x 5 -H	S 1000	12,00 A2
M 4	x 6 -H	S 1000	5,80 A2
M 4	x 8 -H	S 1000	5,95 A2
M 4	x 10 -H	S 1000	6,20 A2
M 4	x 12 -H	S 1000	6,55 A2
M 4	x 14 -H	S 1000	7,40 A2
M 4	x 16 -H	S 1000	7,40 A2
M 4	x 20 -H	S 1000	8,15 A2
M 4	x 25 -H	S 1000	9,50 A2
M 4	x 30 -H	S 500	11,10 A2
M 4	x 35 -H	S 500	14,00 A2
M 4	x 40 -H	S 500	15,00 A2
M 4	x 45 -H	S 500	35,00 A2
M 4	x 50 -H	S 500	58,00 A2
M 5	x 6 -H	S 500	16,00 A2
M 5	x 8 -H	S 500	10,60 A2
M 5	x 10 -H	S 500	10,50 A2
M 5	x 12 -H	S 500	10,60 A2
M 5	x 16 -H	S 500	11,80 A2
M 5	x 20 -H	S 500	13,20 A2
M 5	x 25 -H	S 500	15,10 A2
M 5	x 30 -H	S 500	17,60 A2
M 5	x 35 -H	S 500	19,90 A2
M 5	x 40 -H	S 200	23,20 A2
M 5	x 45 -H	S 200	30,90 A2
M 5	x 50 -H	S 200	32,70 A2
M 5	x 55 -H	S 200	45,00 A2
M 5	x 60 -H	S 200	42,40 A2
M 5	x 70 -H	S 200	60,00 A2
M 5	x 80 -H	S 200	85,00 A2
M 6	x 8 -H	S 200	20,00 A2
M 6	x 10 -H	S 200	20,00 A2
M 6	x 12 -H	S 200	13,90 A2
M 6	x 16 -H	S 200	15,80 A2
M 6	x 20 -H	S 200	17,10 A2
M 6	x 22 -H	S 200	66,47 A2
M 6	x 25 -H	S 200	19,10 A2
M 6	x 30 -H	S 200	22,40 A2
M 6	x 35 -H	S 200	24,70 A2
M 6	x 40 -H	S 200	28,10 A2
M 6	x 45 -H	S 200	33,20 A2
M 6	x 50 -H	S 200	33,70 A2
M 6	x 55 -H	S 200	40,60 A2
M 6	x 60 -H	S 200	40,60 A2
M 6	x 65 -H	S 200	75,00 A2
M 6	x 70 -H	S 200	88,00 A2
M 6	x 80 -H	S 200	110,00 A2
M 8	x 10 -H	S 200	30,00 A2
M 8	x 12 -H	S 200	30,00 A2
M 8	x 16 -H	S 200	23,60 A2
M 8	x 20 -H	S 200	25,00 A2
M 8	x 25 -H	S 200	30,70 A2
M 8	x 30 -H	S 200	33,60 A2
M 8	x 35 -H	S 100	37,20 A2
M 8	x 40 -H	S 100	39,20 A2
M 8	x 45 -H	S 100	79,70 A2
M 8	x 50 -H	S 100	79,70 A2
M 8	x 55 -H	S 100	86,00 A2
M 8	x 60 -H	S 100	92,00 A2

DIN	00966.944	RAZ 460
966	A 4	H



Raised countersunk head screws with Phillips cross recess H

Dimensions → **TI-39** Standard conversion → **TI-11**

Steel → **S. 182**

DIN 966 → replaced by ISO 7047

M 2,5	x 6 -H	S 1000	17,25 A4
M 2,5	x 8 -H	S 1000	10,50 A4
M 2,5	x 10 -H	S 1000	14,55 A4
M 2,5	x 12 -H	S 1000	12,75 A4
M 2,5	x 16 -H	S 1000	16,50 A4
M 2,5	x 20 -H	S 1000	24,00 A4
M 2,5	x 25 -H	S 1000	36,00 A4
M 3	x 4 -H	S 1000	15,00 A4
M 3	x 5 -H	S 1000	8,40 A4
M 3	x 6 -H	S 1000	5,75 A4
M 3	x 8 -H	S 1000	6,00 A4
M 3	x 10 -H	S 1000	6,35 A4
M 3	x 12 -H	S 1000	6,85 A4
M 3	x 16 -H	S 1000	7,40 A4
M 3	x 20 -H	S 1000	8,25 A4
M 3	x 25 -H	S 1000	9,70 A4
M 3	x 30 -H	S 1000	19,50 A4
M 4	x 6 -H	S 1000	8,70 A4
M 4	x 8 -H	S 1000	8,60 A4
M 4	x 10 -H	S 1000	9,20 A4
M 4	x 12 -H	S 1000	9,90 A4
M 4	x 16 -H	S 1000	10,60 A4
M 4	x 20 -H	S 1000	11,90 A4
M 4	x 25 -H	S 1000	14,10 A4
M 4	x 30 -H	S 1000	16,65 A4
M 4	x 35 -H	S 1000	21,00 A4
M 4	x 40 -H	S 1000	22,50 A4
M 5	x 6 -H	S 500	24,00 A4
M 5	x 8 -H	S 500	15,90 A4
M 5	x 10 -H	S 500	13,40 A4
M 5	x 12 -H	S 500	14,40 A4
M 5	x 16 -H	S 500	15,40 A4
M 5	x 20 -H	S 500	16,80 A4
M 5	x 25 -H	S 500	20,10 A4
M 5	x 30 -H	S 500	23,60 A4
M 5	x 35 -H	S 500	29,85 A4
M 5	x 40 -H	S 200	34,80 A4
M 5	x 45 -H	S 200	46,35 A4
M 5	x 50 -H	S 200	49,05 A4
M 6	x 8 -H	S 200	30,00 A4
M 6	x 10 -H	S 200	20,10 A4
M 6	x 12 -H	S 200	21,00 A4
M 6	x 16 -H	S 200	22,80 A4
M 6	x 20 -H	S 200	23,60 A4
M 6	x 25 -H	S 200	26,90 A4
M 6	x 30 -H	S 200	30,20 A4
M 6	x 35 -H	S 200	33,70 A4
M 6	x 40 -H	S 200	40,00 A4
M 6	x 45 -H	S 200	49,80 A4
M 6	x 50 -H	S 200	50,55 A4
M 6	x 55 -H	S 200	61,00 A4
M 6	x 60 -H	S 200	72,00 A4
M 8	x 10 -H	S 200	45,00 A4
M 8	x 16 -H	S 200	35,40 A4
M 8	x 20 -H	S 200	37,50 A4
M 8	x 25 -H	S 200	46,05 A4

DIN 966

M 8	x 30 -H	S 200	50,40 A 4
M 8	x 35 -H	S 100	55,80 A 4
M 8	x 40 -H	S 100	58,80 A 4
M 8	x 45 -H	S 100	119,55 A 4
M 8	x 50 -H	S 100	119,55 A 4
M 8	x 55 -H	S 100	129,00 A 4
M 8	x 60 -H	S 100	138,00 A 4

~DIN	00975.920	RAZ 470
975	A 2	



Threaded rods, length 1000 mm

As per DIN 976-1, type A

Mech. properties → **TI-224**

Steel → **S. 182**

Brass, plastic → **S. 582**

Colour codes (as substitute for marking)
→ information box

M 3	S 1	355,00 A 2
M 4	S 1	340,00 A 2
M 5	S 1	370,00 A 2
M 6	S 1	380,00 A 2
M 8	S 1	600,00 A 2
M 10	S 1	850,00 A 2
M 12	S 1	1240,00 A 2
M 14	S 1	1770,00 A 2
M 16	S 1	2000,00 A 2
M 20	S 1	3300,00 A 2
M 24	S 1	4600,00 A 2
M 27	S 1	5500,00 A 2
M 30	S 1	7600,00 A 2
M 36	S 1	10100,00 A 2

~DIN	00975.926	RAZ 470
975	A 2	2000



Threaded rods, length 2.000 mm

As per DIN 976-1, type A

Mech. properties → **TI-224**

Steel → **S. 183**

Colour codes (as substitute for marking)
→ information box

M 8	x 2000	S 1	1200,00 A 2
M 10	x 2000	S 1	1690,00 A 2
M 12	x 2000	S 1	2450,00 A 2
M 16	x 2000	S 1	4000,00 A 2
M 20	x 2000	S 1	6600,00 A 2
M 24	x 2000	S 1	9200,00 A 2

~DIN	00975.940	RAZ 470
975	A 4	



Threaded rods, length 1000 mm

As per DIN 976-1, type A

Mech. properties → **TI-224**

Steel → **S. 182**

Brass, plastic → **S. 582**

Colour codes (as substitute for marking)
→ information box

M 2	S 1	580,00 A 4
M 3	S 1	415,00 A 4
M 4	S 1	390,00 A 4
M 5	S 1	560,00 A 4
M 6	S 1	590,00 A 4
M 8	S 1	770,00 A 4
M 10	S 1	1180,00 A 4
M 12	S 1	1610,00 A 4
M 14	S 1	2180,00 A 4
M 16	S 1	2850,00 A 4
M 18	S 1	3500,00 A 4
M 20	S 1	4100,00 A 4
M 22	S 1	5600,00 A 4
M 24	S 1	6600,00 A 4
M 27	S 1	7600,00 A 4
M 30	S 1	9300,00 A 4
M 33	S 1	13900,00 A 4
M 36	S 1	14200,00 A 4

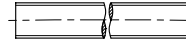
Colour marking for threaded rods

Property class/Mat.	Colour	~ Ral No.
A 2	green	6024
A 4	red	3000
others	as agreed	

Colour instead of stamping according to DIN 976-1



~DIN	00975.924	RAZ 470
975	A 2	left



Threaded rods, length 1000 mm with metric left hand thread

As per DIN 976-1, type A

Mech. properties → **TI-224**

Steel → **S. 183**

Colour codes (as substitute for marking)
→ information box

M 6 -LH	S 1	1560,00 A 2
M 8 -LH	S 1	1560,00 A 2
M 10 -LH	S 1	2150,00 A 2
M 12 -LH	S 1	3750,00 A 2
M 16 -LH	S 1	6000,00 A 2
M 20 -LH	S 1	9800,00 A 2

~DIN	00975.944	RAZ 472
975	A 4	trapezoid



Threaded rods, length 1000 mm, with normal trapezoidal thread

Thread acc. to DIN 103,
Thread ends acc. to DIN 78-Ko/ISO 4753-RL

Round nuts with trap. thread → article 88089

Mech. properties → **TI-224**

Steel → **S. 186**

TR 16	x 4	S 1	15800,00 A 4
TR 20	x 4	S 1	21400,00 A 4
TR 24	x 5	S 1	35400,00 A 4
TR 30	x 6	S 1	41300,00 A 4



Artikel 84032

DIN	00976.943	RAZ 2014
976	A 4 BUMAX88*	type B



Stud bolts, B = with flat point

Dimension from M 6 and length L > 3xd, approved for use acc. to pressure equipment directive → cert. 3.1 on request

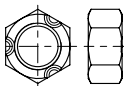
Mech. properties → **TI-225** Tightening torque → **TI-236**

Studs as per ANSI standard on request



BM 5	x	1000	S	1	3880,00	A4-88
BM 6	x	1000	S	1	4250,00	A4-88
BM 8	x	1000	S	1	7000,00	A4-88
BM 10	x	1000	S	1	8200,00	A4-88
BM 12	x	1000	S	1	10400,00	A4-88
BM 14	x	1000	S	1	13400,00	A4-88
BM 16	x	1000	S	1	16000,00	A4-88
BM 20	x	1000	S	1	23500,00	A4-88
BM 24	x	1000	S	1	33600,00	A4-88
BM 27	x	1000	S	1	43200,00	A4-88
BM 30	x	1000	S	1	47100,00	A4-88
BM 36	x	1000	S	1	74900,00	A4-88

~DIN	00980.924	RAZ 480
980	A 2	type V



Prevailing torque type hexagon nuts, V = all-metal nuts, single component

Type and dimensions ~ DIN 934 with squeezing

Caution! Risk of cold shut. Please note the technical advice given in the information box.

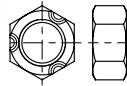
Dimensions → **TI-66** Standard conversion → **TI-7**
Mech. properties → **TI-224**

Steel → **S. 187**

DIN 980 → replaced by ISO 7042

VM 3	S	1000	12,30	A 2
VM 4	S	1000	24,60	A 2
VM 5	S	1000	28,00	A 2
VM 6	S	1000	31,00	A 2
VM 8	S	500	43,00	A 2
VM 10	S	500	59,00	A 2
VM 12	S	250	71,00	A 2
VM 14	S	100	154,00	A 2
VM 16	S	100	163,00	A 2
VM 18	S	50	178,00	A 2
VM 20	S	25	185,00	A 2
VM 22	S	25	192,00	A 2
VM 24	S	25	215,00	A 2

~DIN	00980.944	RAZ 480
980	A 4	type V



Prevailing torque type hexagon nuts, V = all-metal nuts, single component

Type and dimensions ~ DIN 934 with squeezing

Caution! Risk of cold shut. Please note the technical advice given in the information box.

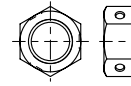
Dimensions → **TI-66** Standard conversion → **TI-7**
Mech. properties → **TI-224**

Steel → **S. 187**

DIN 980 → replaced by ISO 7042

VM 3	S	1000	80,00	A 4
VM 4	S	100	99,00	A 4
VM 5	S	1000	109,00	A 4
VM 5	K	100	111,00	A 4
VM 6	S	1000	112,00	A 4
VM 6	K	100	114,00	A 4
VM 8	S	500	118,00	A 4
VM 8	K	100	120,00	A 4
VM 10	S	500	176,00	A 4
VM 10	K	100	178,00	A 4
VM 12	S	250	270,00	A 4
VM 12	K	50	275,00	A 4
VM 14	S	100	325,00	A 4
VM 16	S	100	440,00	A 4
VM 16	K	25	445,00	A 4
VM 18	S	50	465,00	A 4
VM 20	S	25	590,00	A 4
VM 24	S	25	1110,00	A 4
VM 30	S	10	1610,00	A 4

Article	84032.927	RAZ 480
84032	A 2 - 70	Bilob



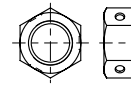
Prevailing torque type hexagon nuts, all-metal nuts

three squeezing points on the center key area
both sides screwable
suitable for automatic feeders
dimensions acc. ISO 4032

Dimensions → **TI-61**

M 6	S	1000	39,00
M 8	S	500	52,00
M 10	S	250	78,00
M 12	S	250	96,00
M 16	S	50	180,00
M 20	S	50	275,00

Article	84032.948	RAZ 480
84032	A 4 - 80	Bilob



Prevailing torque type hexagon nuts, all-metal nuts

three squeezing points on the center key area
both sides screwable
suitable for automatic feeders
dimensions acc. ISO 4032

Dimensions → **TI-61**

M 6	S	1000	45,00
M 8	S	1000	48,00
M 10	S	500	65,00
M 12	S	500	98,00
M 16	S	100	225,00
M 20	S	50	345,00

Important Note!

The current standards for prevailing torque type hexagon nuts apply for steel in the property classes 5, (6), 8, 10 and 12. The use of nuts from other materials (e.g. stainless steel, brass, aluminium) is carried out at your own risk. Nuts made from these softer materials sometimes tend to seize up because of the high flank pressure during forming of the bolt thread in the locking ring. The use of lubricant usually helps in such cases. The changes of the friction coefficient when tightening the fastener must be taken into account.

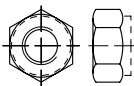


~DIN 982

Dimensions PU Pieces €.

~DIN 00982.920 RAZ 480

982 A 2



Prevailing torque type hexagon nuts with non-metallic insert, high type

For use at temperatures from -50 to +120 °C

Caution! Risk of cold shut. Please note the technical advice given in the information box.

Dimensions → TI-66 Standard conversion → TI-7
Mech. properties → TI-224

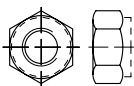
With heat-stabilised ring → ISO 7040 S. 531
Steel → S. 189

DIN 982 → replaced by ISO 7040

M 5	S 1000	40,00 A2
M 5	K 100	42,00 A2
M 6	S 1000	46,50 A2
M 6	K 100	48,50 A2
M 8	S 500	59,00 A2
M 8	K 100	61,00 A2
M 10	S 500	102,00 A2
M 10	K 100	104,00 A2
M 12	S 250	127,00 A2
M 12	K 50	131,00 A2
M 16	S 100	219,00 A2
M 16	K 25	227,00 A2
M 20	S 25	415,00 A2

~DIN 00982.940 RAZ 480

982 A 4



Prevailing torque type hexagon nuts with non-metallic insert, high type

For use at temperatures from -50 to +120 °C

Caution! Risk of cold shut. Please note the technical advice given in the information box.

Dimensions → TI-66 Standard conversion → TI-7
Mech. properties → TI-224

Steel → S. 189

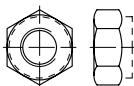
DIN 982 → replaced by ISO 7040

M 5	S 100	55,00 A4
M 6	S 100	63,00 A4
M 8	S 100	83,00 A4
M 10	S 100	165,00 A4
M 12	S 50	210,00 A4
M 16	S 25	365,00 A4
M 20	S 25	1500,00 A4
M 24	S 25	1700,00 A4

Dimensions PU Pieces €.

~DIN 00985.920 RAZ 480

985 A 2



Prevailing torque type hexagon nuts with non-metallic insert, low type

For use at temperatures from -50 to +120 °C

Caution! Risk of cold shut. Please note the technical advice given in the information box.

Dimensions → TI-67 Standard conversion → TI-7
Mech. properties → TI-224

Steel → S. 190
Brass → S. 582

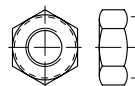
DIN 985 → replaced by ISO 10511

M 2,5	S 1000	15,50 A2
M 3	S 1000	16,30 A2
M 3	K 100	19,90 A2
M 4	S 1000	12,70 A2
M 4	K 100	15,80 A2
M 5	S 1000	12,70 A2
M 5	K 100	15,80 A2
M 6	S 1000	16,40 A2
M 6	K 100	19,90 A2
M 8	S 500	31,50 A2
M 8	K 100	36,50 A2
M 10	S 500	62,00 A2
M 10	K 50	69,00 A2
M 12	S 250	85,00 A2
M 12	K 25	101,00 A2
M 14	S 250	192,00 A2
M 14	K 25	222,00 A2
M 16	S 250	203,00 A2
M 16	K 25	234,00 A2
M 18	S 25	520,00 A2
M 20	S 1	620,00 A2
M 22	S 1	660,00 A2
M 24	S 1	660,00 A2
M 27	S 1	2410,00 A2
M 30	S 1	2410,00 A2
M 36	S 1	4750,00 A2

Dimensions PU Pieces €.

~DIN 00985.940 RAZ 480

985 A 4



Prevailing torque type hexagon nuts with non-metallic insert, low type

For use at temperatures from -50 to +120 °C

Caution! Risk of cold shut. Please note the technical advice given in the information box.

Dimensions → TI-67 Standard conversion → TI-7
Mech. properties → TI-224

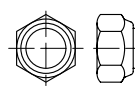
Steel → S. 190
Brass → S. 582

DIN 985 → replaced by ISO 10511

M 3	S 1000	45,50 A4
M 3	K 100	52,00 A4
M 4	S 1000	25,50 A4
M 4	K 100	30,00 A4
M 5	S 1000	25,50 A4
M 5	K 100	30,00 A4
M 6	S 1000	34,00 A4
M 6	K 100	41,50 A4
M 8	S 500	49,50 A4
M 8	K 100	56,00 A4
M 10	S 500	97,00 A4
M 10	K 50	109,00 A4
M 12	S 250	150,00 A4
M 12	K 25	171,00 A4
M 14	S 250	295,00 A4
M 14	K 25	340,00 A4
M 16	S 250	340,00 A4
M 16	K 25	380,00 A4
M 20	S 1	950,00 A4
M 24	S 1	1000,00 A4
M 27	S 1	2850,00 A4
M 30	S 1	3650,00 A4

~DIN 00986.920 RAZ 481

986 A 2



Prevailing torque type hexagon domed cap nuts with non-metallic insert

For use under temperatures from -50 to +120 °C

Caution! Risk of cold shut. Please note the technical advice given in the information box.

Dimensions → TI-67 Standard conversion → TI-7
Mech. properties → TI-224

Steel → S. 191

SW = wrench size

M 4	S 100	45,00 A2
M 5	S 100	45,00 A2
M 6	S 100	55,00 A2
M 8	S 100	58,00 A2

Important Note!

The current standards for prevailing torque type hexagon nuts apply for steel in the property classes 5, (6), 8, 10 and 12. The use of nuts from other materials (e.g. stainless steel, brass, aluminium) is carried out at your own risk. Nuts made from these softer materials sometimes tend to seize up because of the high flank pressure during forming of the bolt thread in the locking ring. The use of lubricant usually helps in such cases. The changes of the friction coefficient when tightening the fastener must be taken into account.





ISO 1207

Dimensions	PU Pieces	€.
M 10 SW 17	S 100	124,00 A 2
M 12 SW 19	S 50	174,00 A 2
M 16	S 25	420,00 A 2

~DIN	00988.920	RAZ 481
988	A 2/1.4310	



Shim rings

Caution! Tolerances as per product grade A-B ISO 4759-3/DIN 522.

Steel → **S. 191**
Spring steel → **S. 193**

Hole \varnothing x outside \varnothing x thickness h

6	x	12	x	0,25	S	100	265,00 A 2
6	x	12	x	0,5	S	100	260,00 A 2
6	x	12	x	1	S	100	340,00 A 2
8	x	14	x	0,1	S	100	305,00 A 2
8	x	14	x	0,25	S	100	260,00 A 2
8	x	14	x	0,5	S	100	260,00 A 2
8	x	14	x	1	S	100	335,00 A 2
10	x	16	x	0,1	S	100	225,00 A 2
10	x	16	x	0,25	S	100	255,00 A 2
10	x	16	x	0,5	S	100	255,00 A 2
10	x	16	x	1	S	100	330,00 A 2
12	x	18	x	0,1	S	100	225,00 A 2
12	x	18	x	0,25	S	100	255,00 A 2
12	x	18	x	0,5	S	100	255,00 A 2
12	x	18	x	1	S	100	330,00 A 2
14	x	20	x	1	S	100	35,00 A 2
16	x	22	x	0,1	S	100	285,00 A 2
16	x	22	x	0,25	S	100	275,00 A 2
16	x	22	x	0,5	S	100	260,00 A 2
16	x	22	x	1	S	100	335,00 A 2
18	x	25	x	1	S	100	335,00 A 2
20	x	28	x	0,1	S	100	300,00 A 2
20	x	28	x	0,2	S	100	315,00 A 2
20	x	28	x	0,25	S	100	275,00 A 2
20	x	28	x	0,5	S	100	265,00 A 2
20	x	28	x	1	S	100	340,00 A 2
20	x	28	x	2	S	100	490,00 A 2
25	x	35	x	0,1	S	100	256,00 A 2
25	x	35	x	0,2	S	100	270,00 A 2
25	x	35	x	0,25	S	100	305,00 A 2
25	x	35	x	0,5	S	100	285,00 A 2
25	x	35	x	1	S	100	370,00 A 2
30	x	42	x	1	S	100	335,00 A 2
40	x	50	x	0,2	S	50	110,00 A 2
40	x	50	x	0,5	S	50	140,00 A 2
40	x	50	x	1	S	50	280,00 A 2

Dimensions	PU Pieces	€.
DIN	01052.924	RAZ 485
1052	A 2	



Washers for timber connectors, heavy, round type

Dimensions → **TI-85**
Steel → **S. 193**

Hole \varnothing x outside \varnothing x thickness

14	x	58	x	6	S	25	450,00 A 2
18	x	68	x	6	S	25	607,00 A 2
23	x	80	x	8	S	10	1464,00 A 2
25	x	92	x	8	S	10	1770,00 A 2
27	x	105	x	8	S	10	2000,00 A 2

DIN	01052.944	RAZ 485
1052	A 4	



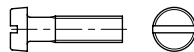
Washers for timber connectors, heavy, round type

Dimensions → **TI-85**
Steel → **S. 193**

Hole \varnothing x outside \varnothing x thickness

14	x	58	x	6	S	25	620,00 A 4
18	x	68	x	6	S	25	850,00 A 4
23	x	80	x	8	S	10	2050,00 A 4
25	x	92	x	8	S	10	2480,00 A 4
27	x	105	x	8	S	10	2800,00 A 4

ISO	01207.914	RAZ 30
1207	A 1 turned	



Slotted cheese head screws

Dimensions → **TI-37** Standard conversion → **TI-11**
Steel → **S. 194**
Brass/plastic → **S. 582**

ISO 1207 → replaces DIN 84 (compatible)

M 1,4	x	3	S	100	55,20 A 1
M 1,4	x	4	S	100	56,20 A 1
M 1,4	x	5	S	100	58,20 A 1
M 1,4	x	6	S	100	61,80 A 1
M 1,4	x	8	S	100	64,40 A 1
M 1,4	x	10	S	100	68,50 A 1
M 1,6	x	3	S	100	15,80 A 1
M 1,6	x	4	S	100	11,90 A 1
M 1,6	x	5	S	100	11,00 A 1
M 1,6	x	6	S	100	10,40 A 1

Dimensions	PU Pieces	€.
M 1,6 x 8	S 100	11,50 A 1
M 1,6 x 10	S 100	12,70 A 1
M 1,6 x 12	S 100	17,30 A 1

ISO	01207.920	RAZ 30
1207	A 2	



Slotted cheese head screws

Partly from l = 60mm partial thread

Dimensions → **TI-37** Standard conversion → **TI-11**

Steel → **S. 194**
Brass/plastic → **S. 582**

ISO 1207 → replaces DIN 84 (compatible)

M 1	x	2	S	2000	150,00 A 2
M 1	x	3	S	2000	150,00 A 2
M 1	x	4	S	2000	150,00 A 2
M 1	x	5	S	2000	150,00 A 2
M 1	x	6	S	2000	150,00 A 2
M 1	x	8	S	2000	175,00 A 2
M 1	x	10	S	2000	195,00 A 2
M 1,2	x	2	S	2000	150,00 A 2
M 1,2	x	3	S	2000	150,00 A 2
M 1,2	x	4	S	2000	150,00 A 2
M 1,2	x	5	S	2000	150,00 A 2
M 1,2	x	6	S	2000	175,00 A 2
M 1,2	x	8	S	2000	195,00 A 2
M 1,2	x	10	S	2000	225,00 A 2
M 1,2	x	12	S	2000	255,00 A 2
M 1,4	x	2	S	2000	150,00 A 2
M 1,4	x	3	S	2000	150,00 A 2
M 1,4	x	4	S	2000	150,00 A 2
M 1,4	x	5	S	2000	150,00 A 2
M 1,4	x	6	S	2000	175,00 A 2
M 1,4	x	8	S	2000	195,00 A 2
M 1,4	x	10	S	2000	225,00 A 2
M 1,4	x	12	S	2000	255,00 A 2
M 1,6	x	2	S	2000	150,00 A 2
M 1,6	x	3	S	2000	150,00 A 2
M 1,6	x	4	S	2000	150,00 A 2
M 1,6	x	5	S	2000	150,00 A 2
M 1,6	x	6	S	2000	175,00 A 2
M 1,6	x	8	S	2000	195,00 A 2
M 1,6	x	10	S	2000	225,00 A 2
M 1,6	x	12	S	2000	255,00 A 2
M 1,6	x	16	S	2000	295,00 A 2
M 2	x	3	S	1000	3,90 A 2
M 2	x	4	S	1000	3,80 A 2
M 2	x	5	S	1000	3,85 A 2
M 2	x	6	S	1000	3,90 A 2
M 2	x	8	S	1000	4,10 A 2
M 2	x	10	S	1000	4,45 A 2
M 2	x	12	S	1000	5,00 A 2
M 2	x	16	S	1000	5,40 A 2
M 2	x	20	S	1000	9,00 A 2
M 2,5	x	3	S	1000	3,90 A 2
M 2,5	x	4	S	1000	3,80 A 2
M 2,5	x	5	S	1000	3,85 A 2
M 2,5	x	6	S	1000	3,90 A 2
M 2,5	x	8	S	1000	4,10 A 2
M 2,5	x	10	S	1000	4,45 A 2
M 2,5	x	12	S	1000	5,00 A 2
M 2,5	x	16	S	1000	5,40 A 2
M 2,5	x	18	S	1000	10,00 A 2
M 2,5	x	20	S	1000	7,75 A 2



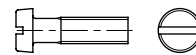
ISO 1207

Dimensions	PU	Pieces	€.
M 2,5 x 22	S	1000	13,29A2
M 2,5 x 25	S	1000	9,30A2
M 2,5 x 30	S	1000	15,00A2
M 2,5 x 35	S	1000	27,00A2
M 2,5 x 40	S	1000	51,00A2
M 3 x 3	S	1000	10,00A2
M 3 x 4	S	1000	6,10A2
M 3 x 5	S	1000	4,10A2
M 3 x 5	K	200	5,10A2
M 3 x 6	S	1000	2,75A2
M 3 x 6	K	200	3,75A2
M 3 x 8	S	1000	2,40A2
M 3 x 8	K	200	3,40A2
M 3 x 10	S	1000	2,50A2
M 3 x 10	K	200	3,50A2
M 3 x 12	S	1000	2,70A2
M 3 x 12	K	200	3,70A2
M 3 x 14	S	1000	3,90A2
M 3 x 14	K	200	4,90A2
M 3 x 16	S	1000	3,00A2
M 3 x 16	K	200	4,00A2
M 3 x 18	S	1000	4,30A2
M 3 x 18	K	200	5,30A2
M 3 x 20	S	1000	3,30A2
M 3 x 20	K	200	4,30A2
M 3 x 22	S	1000	5,85A2
M 3 x 22	K	200	6,85A2
M 3 x 25	S	1000	3,80A2
M 3 x 25	K	200	4,80A2
M 3 x 30	S	1000	6,35A2
M 3 x 30	K	200	7,35A2
M 3 x 35	S	1000	9,25A2
M 3 x 40	K	200	12,55A2
M 3 x 45	S	500	18,00A2
M 3 x 50	K	200	36,00A2
M 3 x 55	K	200	70,00A2
M 3,5 x 6	K	200	20,00A2
M 3,5 x 8	K	200	16,15A2
M 3,5 x 10	K	200	15,95A2
M 3,5 x 12	K	200	16,85A2
M 3,5 x 16	K	200	17,85A2
M 3,5 x 20	K	200	21,65A2
M 3,5 x 25	K	200	32,50A2
M 4 x 4	K	200	11,50A2
M 4 x 5	S	1000	6,60A2
M 4 x 5	K	200	7,60A2
M 4 x 6	S	1000	4,30A2
M 4 x 6	K	200	5,30A2
M 4 x 8	S	1000	4,30A2
M 4 x 8	K	200	5,30A2
M 4 x 10	S	1000	3,50A2
M 4 x 10	K	200	4,50A2
M 4 x 12	S	1000	3,80A2
M 4 x 12	K	200	4,80A2
M 4 x 14	S	1000	5,60A2
M 4 x 16	S	1000	4,30A2
M 4 x 16	K	200	5,30A2
M 4 x 18	S	1000	6,15A2
M 4 x 18	K	200	7,15A2
M 4 x 20	S	1000	4,70A2
M 4 x 20	K	200	5,70A2
M 4 x 22	K	200	9,15A2
M 4 x 25	S	500	5,75A2
M 4 x 25	K	200	6,75A2
M 4 x 30	S	500	6,60A2
M 4 x 30	K	200	7,60A2
M 4 x 35	S	500	11,50A2
M 4 x 35	K	100	12,15A2
M 4 x 40	K	100	15,05A2
M 4 x 45	K	100	15,05A2
M 4 x 50	K	100	21,45A2
M 4 x 55	K	100	30,00A2
M 4 x 60	K	100	29,05A2
M 4 x 70	K	100	34,75A2
M 4 x 80	K	100	43,00A2

Dimensions	PU	Pieces	€.
M 4 x 90	K	100	60,50A2
M 4 x 100	K	100	87,00A2
M 5 x 6	S	500	9,00A2
M 5 x 8	S	500	6,35A2
M 5 x 8	K	200	7,35A2
M 5 x 10	S	500	5,25A2
M 5 x 10	K	200	6,25A2
M 5 x 12	S	500	5,75A2
M 5 x 12	K	200	6,75A2
M 5 x 14	K	200	8,40A2
M 5 x 16	S	500	6,40A2
M 5 x 16	K	200	7,40A2
M 5 x 18	S	500	9,45A2
M 5 x 18	K	200	10,45A2
M 5 x 20	S	500	7,25A2
M 5 x 20	K	200	8,25A2
M 5 x 22	K	200	8,95A2
M 5 x 25	S	500	8,10A2
M 5 x 25	K	200	9,10A2
M 5 x 30	S	500	9,95A2
M 5 x 30	K	200	10,95A2
M 5 x 35	S	200	10,90A2
M 5 x 35	K	100	12,95A2
M 5 x 40	S	200	14,80A2
M 5 x 40	K	100	16,85A2
M 5 x 45	K	100	19,05A2
M 5 x 50	K	100	23,65A2
M 5 x 55	K	100	37,45A2
M 5 x 60	K	100	37,45A2
M 5 x 70	K	100	40,35A2
M 5 x 80	K	100	43,45A2
M 5 x 90	K	100	62,00A2
M 5 x 100	S	100	127,00A2
M 6 x 8	K	100	10,30A2
M 6 x 10	S	200	8,25A2
M 6 x 10	K	100	10,30A2
M 6 x 12	S	200	7,05A2
M 6 x 12	K	100	9,10A2
M 6 x 16	S	200	7,95A2
M 6 x 16	K	100	10,00A2
M 6 x 18	S	200	11,40A2
M 6 x 18	K	100	13,45A2
M 6 x 20	S	200	8,70A2
M 6 x 20	K	100	10,75A2
M 6 x 25	S	200	9,95A2
M 6 x 25	K	100	12,00A2
M 6 x 30	S	200	11,30A2
M 6 x 30	K	100	13,35A2
M 6 x 35	S	100	12,80A2
M 6 x 35	K	50	16,90A2
M 6 x 40	S	100	14,40A2
M 6 x 40	K	50	18,50A2
M 6 x 45	S	100	17,80A2
M 6 x 45	K	50	21,90A2
M 6 x 50	K	50	35,20A2
M 6 x 60	K	50	43,00A2
M 6 x 70	K	50	47,50A2
M 6 x 75	K	50	78,00A2
M 6 x 80	K	50	52,10A2
M 6 x 90	K	50	56,70A2
M 6 x 100	K	50	61,30A2
M 8 x 10	K	50	35,00A2
M 8 x 12	S	100	22,90A2
M 8 x 12	K	50	27,00A2
M 8 x 16	S	100	20,90A2
M 8 x 16	K	50	25,00A2
M 8 x 20	S	100	21,50A2
M 8 x 20	K	50	25,60A2
M 8 x 25	S	100	22,90A2
M 8 x 25	K	50	27,00A2
M 8 x 30	S	100	25,60A2
M 8 x 30	K	50	29,70A2
M 8 x 35	S	100	30,30A2
M 8 x 35	K	50	34,40A2
M 8 x 40	S	100	35,00A2

Dimensions	PU	Pieces	€.
M 8 x 40	K	50	39,10A2
M 8 x 50	S	100	45,80A2
M 8 x 50	K	50	49,90A2
M 8 x 60	K	50	60,80A2
M 8 x 70	K	50	71,00A2
M 8 x 80	K	50	77,65A2
M 8 x 90	K	50	85,90A2
M 8 x 100	K	50	93,00A2
M 10 x 12	K	50	50,00A2
M 10 x 16	K	50	51,60A2
M 10 x 20	K	50	38,30A2
M 10 x 25	K	50	42,40A2
M 10 x 30	K	50	46,00A2
M 10 x 35	K	50	51,60A2
M 10 x 40	K	50	55,70A2
M 10 x 45	K	50	55,70A2
M 10 x 50	K	50	78,20A2
M 10 x 60	K	50	102,00A2
M 10 x 70	K	25	115,00A2
M 10 x 80	K	25	124,00A2
M 10 x 90	K	25	135,00A2
M 10 x 100	K	25	147,00A2

ISO	01207.940	RAZ 30
1207		A 4



Slotted cheese head screws

Partly from l = 60mm partial thread

Dimensions → **TI-37** Standard conversion → **TI-11**

Steel → **S. 194**

Brass/plastic → **S. 582**

ISO 1207 → replaces DIN 84 (compatible)

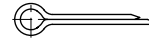
M 2 x 3	S	1000	3,90A4
M 2 x 3	K	200	4,90A4
M 2 x 4	S	1000	3,80A4
M 2 x 4	K	200	4,80A4
M 2 x 5	S	1000	3,85A4
M 2 x 5	K	200	4,85A4
M 2 x 6	S	1000	3,90A4
M 2 x 6	K	200	4,90A4
M 2 x 8	S	1000	4,10A4
M 2 x 8	K	200	5,10A4
M 2 x 10	S	1000	4,45A4
M 2 x 10	K	200	5,45A4
M 2 x 12	S	1000	5,00A4
M 2 x 12	K	200	6,00A4
M 2 x 16	S	1000	5,45A4
M 2 x 16	K	200	6,45A4
M 2 x 20	S	1000	7,80A4
M 2 x 20	K	200	8,80A4
M 2 x 25	K	200	15,00A4
M 2,5 x 3	S	1000	3,90A4
M 2,5 x 3	K	200	4,90A4
M 2,5 x 4	S	1000	3,80A4
M 2,5 x 4	K	200	4,80A4
M 2,5 x 5	S	1000	3,85A4
M 2,5 x 5	K	200	4,85A4
M 2,5 x 6	S	1000	3,90A4
M 2,5 x 6	K	200	4,90A4
M 2,5 x 8	S	1000	4,10A4
M 2,5 x 8	K	200	5,10A4
M 2,5 x 10	S	1000	4,45A4
M 2,5 x 10	K	200	5,45A4
M 2,5 x 12	S	1000	5,00A4



ISO 1234

Dimensions	PU Pieces	€.	Dimensions	PU Pieces	€.	Dimensions	PU Pieces	€.
M 2,5 x 12	K 200	6,00 A4	M 4 x 50	K 100	21,95 A4	M 8 x 40	K 50	45,80 A4
M 2,5 x 14	K 200	9,10 A4	M 4 x 55	K 100	34,25 A4	M 8 x 45	K 50	54,85 A4
M 2,5 x 16	S 1000	5,45 A4	M 4 x 60	K 100	34,25 A4	M 8 x 50	S 100	59,30 A4
M 2,5 x 16	K 200	6,45 A4	M 4 x 70	K 100	42,15 A4	M 8 x 50	K 50	63,40 A4
M 2,5 x 18	K 200	8,75 A4	M 4 x 80	K 100	44,95 A4	M 8 x 55	K 50	76,10 A4
M 2,5 x 20	S 1000	7,75 A4	M 5 x 6	S 500	8,70 A4	M 8 x 60	K 50	76,10 A4
M 2,5 x 20	K 200	8,75 A4	M 5 x 6	K 200	9,70 A4	M 8 x 70	K 50	103,00 A4
M 2,5 x 22	K 200	16,85 A4	M 5 x 8	S 500	8,40 A4	M 10 x 16	K 50	70,30 A4
M 2,5 x 25	K 200	17,75 A4	M 5 x 8	K 200	9,40 A4	M 10 x 20	K 50	48,00 A4
M 3 x 3	S 1000	10,70 A4	M 5 x 10	S 500	7,40 A4	M 10 x 25	K 50	52,10 A4
M 3 x 3	K 200	11,70 A4	M 5 x 10	K 200	8,40 A4	M 10 x 30	K 50	57,20 A4
M 3 x 4	S 1000	6,85 A4	M 5 x 12	S 500	7,25 A4	M 10 x 35	K 50	63,40 A4
M 3 x 4	K 200	7,85 A4	M 5 x 12	K 200	8,25 A4	M 10 x 40	K 50	69,00 A4
M 3 x 5	S 1000	5,45 A4	M 5 x 16	S 500	8,10 A4	M 10 x 50	K 50	98,10 A4
M 3 x 5	K 200	6,45 A4	M 5 x 16	K 200	9,10 A4	M 10 x 60	K 50	119,00 A4
M 3 x 6	S 1000	3,45 A4	M 5 x 18	K 200	13,95 A4	M 10 x 65	K 50	165,00 A4
M 3 x 6	K 200	4,45 A4	M 5 x 20	S 500	9,15 A4	M 10 x 70	K 50	165,00 A4
M 3 x 8	S 1000	3,15 A4	M 5 x 20	K 200	10,15 A4			
M 3 x 8	K 200	4,15 A4	M 5 x 25	S 500	10,20 A4			
M 3 x 10	S 1000	2,90 A4	M 5 x 25	K 200	11,20 A4			
M 3 x 10	K 200	3,90 A4	M 5 x 30	S 500	12,50 A4			
M 3 x 12	S 1000	3,20 A4	M 5 x 30	K 200	13,50 A4			
M 3 x 12	K 200	4,20 A4	M 5 x 35	S 200	13,80 A4			
M 3 x 14	K 200	4,50 A4	M 5 x 35	K 100	15,85 A4			
M 3 x 16	S 1000	3,50 A4	M 5 x 40	S 200	20,60 A4			
M 3 x 16	K 200	4,50 A4	M 5 x 40	K 100	22,65 A4			
M 3 x 18	K 200	5,95 A4	M 5 x 45	K 100	23,95 A4			
M 3 x 20	S 1000	3,95 A4	M 5 x 50	S 200	23,30 A4			
M 3 x 20	K 200	4,95 A4	M 5 x 50	K 100	25,35 A4			
M 3 x 22	K 200	8,95 A4	M 5 x 60	K 100	44,35 A4			
M 3 x 25	S 1000	5,30 A4	M 5 x 70	K 100	51,05 A4			
M 3 x 25	K 200	6,30 A4	M 5 x 80	K 100	57,75 A4			
M 3 x 30	S 1000	7,40 A4	M 5 x 100	K 100	71,05 A4			
M 3 x 30	K 200	8,40 A4	M 6 x 8	S 200	10,90 A4			
M 3 x 35	S 500	13,20 A4	M 6 x 8	K 100	12,95 A4			
M 3 x 35	K 100	15,25 A4	M 6 x 10	S 200	10,40 A4			
M 3 x 40	S 500	15,90 A4	M 6 x 10	K 100	12,45 A4			
M 3 x 40	K 100	17,95 A4	M 6 x 12	S 200	9,30 A4			
M 3 x 50	S 500	28,90 A4	M 6 x 12	K 100	11,35 A4			
M 3 x 50	K 100	30,95 A4	M 6 x 16	S 200	10,40 A4			
M 3 x 55	K 100	46,45 A4	M 6 x 16	K 100	12,45 A4			
M 3 x 60	K 100	46,45 A4	M 6 x 18	K 100	17,05 A4			
M 3,5 x 6	K 100	25,00 A4	M 6 x 20	S 200	11,50 A4			
M 3,5 x 8	K 200	19,55 A4	M 6 x 20	K 100	13,55 A4			
M 3,5 x 10	K 200	19,25 A4	M 6 x 22	K 100	19,15 A4			
M 3,5 x 20	S 500	28,00 A4	M 6 x 25	S 200	13,10 A4			
M 3,5 x 20	K 200	30,00 A4	M 6 x 25	K 100	15,15 A4			
M 4 x 4	K 200	12,75 A4	M 6 x 30	S 200	15,00 A4			
M 4 x 5	S 1000	7,55 A4	M 6 x 30	K 100	17,05 A4			
M 4 x 5	K 200	8,55 A4	M 6 x 35	S 100	17,10 A4			
M 4 x 6	S 1000	5,05 A4	M 6 x 35	K 50	21,20 A4			
M 4 x 6	K 200	6,05 A4	M 6 x 40	S 100	25,10 A4			
M 4 x 8	S 1000	4,90 A4	M 6 x 40	K 50	29,20 A4			
M 4 x 8	K 200	5,90 A4	M 6 x 45	K 50	33,00 A4			
M 4 x 10	S 1000	4,30 A4	M 6 x 50	S 100	31,70 A4			
M 4 x 10	K 200	5,30 A4	M 6 x 50	K 50	35,80 A4			
M 4 x 12	S 1000	4,60 A4	M 6 x 60	K 50	47,40 A4			
M 4 x 12	K 200	5,60 A4	M 6 x 70	K 50	60,80 A4			
M 4 x 16	S 1000	5,30 A4	M 6 x 75	K 50	71,00 A4			
M 4 x 16	K 200	6,30 A4	M 6 x 80	K 50	71,00 A4			
M 4 x 18	S 1000	7,50 A4	M 8 x 10	S 100	35,80 A4			
M 4 x 18	K 200	8,50 A4	M 8 x 10	K 50	39,90 A4			
M 4 x 20	S 1000	5,75 A4	M 8 x 12	S 100	27,90 A4			
M 4 x 20	K 200	6,75 A4	M 8 x 12	K 50	32,00 A4			
M 4 x 22	K 200	11,20 A4	M 8 x 16	S 100	24,50 A4			
M 4 x 25	S 500	7,05 A4	M 8 x 16	K 50	28,60 A4			
M 4 x 25	K 200	8,05 A4	M 8 x 20	S 100	25,70 A4			
M 4 x 30	S 500	8,00 A4	M 8 x 20	K 50	29,80 A4			
M 4 x 30	K 200	9,00 A4	M 8 x 25	S 100	28,20 A4			
M 4 x 35	S 500	11,40 A4	M 8 x 25	K 50	32,30 A4			
M 4 x 35	K 100	13,45 A4	M 8 x 30	S 100	31,20 A4			
M 4 x 40	S 500	14,10 A4	M 8 x 30	K 50	35,30 A4			
M 4 x 40	K 100	16,15 A4	M 8 x 35	S 100	37,40 A4			
M 4 x 45	K 100	18,85 A4	M 8 x 35	K 50	41,50 A4			
M 4 x 50	S 500	19,90 A4	M 8 x 40	S 100	41,70 A4			

ISO	01234.300	RAZ 40
1234	1.4300/A 2	



Split pins

Dimensions → TI-120 Standard conversion → TI-10

Steel → S. 196

Copper → S. 584

ISO 1234 → replaces DIN 94 (compatible)

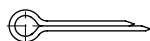
Nominal Ø (= drilling Ø) x length

1	x	8	S 1000	3,60 A2
1	x	10	S 1000	3,60 A2
1	x	16	S 1000	3,60 A2
1	x	20	S 1000	3,75 A2
1	x	25	S 1000	4,40 A2
1	x	32	S 1000	6,00 A2
1,6	x	8	S 1000	4,25 A2
1,6	x	10	S 1000	4,25 A2
1,6	x	12	S 1000	4,25 A2
1,6	x	16	S 1000	4,25 A2
1,6	x	20	S 1000	4,45 A2
1,6	x	25	S 1000	5,20 A2
1,6	x	32	S 1000	6,00 A2
2	x	10	S 1000	5,80 A2
2	x	12	S 1000	5,80 A2
2	x	14	S 1000	5,80 A2
2	x	16	S 1000	5,80 A2
2	x	20	S 1000	6,20 A2
2	x	25	S 1000	7,20 A2
2	x	32	S 1000	8,60 A2
2	x	40	S 1000	10,00 A2
2,5	x	12	S 500	9,70 A2
2,5	x	16	S 500	9,70 A2
2,5	x	20	S 500	10,50 A2
2,5	x	25	S 500	12,30 A2
2,5	x	32	S 500	14,80 A2
2,5	x	36	S 500	16,30 A2
2,5	x	40	S 500	17,80 A2
2,5	x	45	S 500	19,60 A2
2,5	x	50	S 500	21,40 A2
3,2	x	16	S 500	13,60 A2
3,2	x	20	S 500	14,60 A2
3,2	x	25	S 500	16,90 A2
3,2	x	32	S 500	20,30 A2
3,2	x	36	S 500	22,20 A2
3,2	x	40	S 500	24,20 A2
3,2	x	45	S 500	27,00 A2
3,2	x	50	S 500	29,00 A2
4	x	20	S 500	23,00 A2

ISO 1234

Dimensions	PU	Pieces	€.
4 x 25	S	500	27,00 A 2
4 x 28	S	500	28,00 A 2
4 x 32	S	500	32,50 A 2
4 x 36	S	500	35,50 A 2
4 x 40	S	500	38,50 A 2
4 x 45	S	500	42,00 A 2
4 x 50	S	500	46,00 A 2
4 x 63	S	500	60,00 A 2
5 x 25	S	250	39,50 A 2
5 x 28	S	250	40,00 A 2
5 x 32	S	250	47,50 A 2
5 x 36	S	250	52,00 A 2
5 x 40	S	250	56,00 A 2
5 x 45	S	250	62,00 A 2
5 x 50	S	250	67,00 A 2
5 x 56	S	250	74,00 A 2
5 x 63	S	250	82,00 A 2
5 x 71	S	250	91,00 A 2
5 x 80	S	250	95,00 A 2
6,3 x 32	S	250	68,00 A 2
6,3 x 36	S	250	74,00 A 2
6,3 x 40	S	250	80,00 A 2
6,3 x 45	S	250	95,00 A 2
6,3 x 50	S	250	95,00 A 2
6,3 x 56	S	250	105,00 A 2
6,3 x 63	S	250	116,00 A 2
6,3 x 71	S	250	128,00 A 2
6,3 x 80	S	250	142,00 A 2
8 x 36	S	100	148,00 A 2
8 x 45	S	100	162,00 A 2
8 x 50	S	100	175,00 A 2
8 x 56	S	100	191,00 A 2
8 x 63	S	100	210,00 A 2
8 x 71	S	100	231,00 A 2
8 x 80	S	100	255,00 A 2
10 x 63	S	50	310,00 A 2
10 x 71	S	50	370,00 A 2
10 x 80	S	50	405,00 A 2
10 x 100	S	25	490,00 A 2

ISO	01234.940	RAZ 40
1234	A 4	



Split pins

Dimensions → **TI-120** Corrosion protection → **TI-217**

Steel → **S. 196**

Copper → **S. 584**

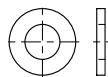
ISO 1234 → replaces DIN 94 (compatible)

Nominal Ø (= drilling Ø) x length

1 x 16	K	100	6,40 A 4
1 x 20	K	100	7,40 A 4
1,6 x 10	K	100	6,60 A 4
1,6 x 12	K	100	7,10 A 4
1,6 x 16	K	100	9,00 A 4
1,6 x 20	K	100	11,30 A 4
1,6 x 25	K	100	12,90 A 4
1,6 x 32	K	100	14,70 A 4
2 x 10	K	100	9,20 A 4
2 x 16	K	100	11,00 A 4
2 x 20	K	100	13,00 A 4
2 x 25	K	100	15,10 A 4
2 x 32	K	100	18,00 A 4
2 x 40	K	100	22,10 A 4
2 x 40	K	100	20,20 A 4
2,5 x 25	K	100	25,50 A 4
2,5 x 32	K	100	28,50 A 4

Dimensions	PU	Pieces	€.
3,2 x 16	K	100	21,90 A 4
3,2 x 20	K	100	26,00 A 4
3,2 x 25	K	100	29,50 A 4
3,2 x 32	K	100	33,00 A 4
3,2 x 36	K	100	37,00 A 4
3,2 x 40	K	100	41,00 A 4
3,2 x 45	K	100	45,00 A 4
3,2 x 50	K	100	51,00 A 4
3,2 x 63	K	100	61,00 A 4
4 x 20	K	100	41,00 A 4
4 x 25	K	100	47,00 A 4
4 x 32	K	100	56,00 A 4
4 x 40	K	100	68,00 A 4
4 x 50	K	100	80,00 A 4
4 x 63	K	100	89,48 A 4
5 x 32	K	50	88,00 A 4
5 x 36	K	50	97,00 A 4
5 x 40	K	50	106,00 A 4
5 x 50	K	50	124,00 A 4
5 x 63	K	50	141,00 A 4
6,3 x 36	K	50	137,00 A 4
6,3 x 40	K	50	150,00 A 4
6,3 x 50	K	50	175,00 A 4
6,3 x 63	K	50	201,00 A 4
6,3 x 80	K	25	227,00 A 4
8 x 40	K	25	305,00 A 4
8 x 45	K	25	320,00 A 4
8 x 50	K	25	335,00 A 4
8 x 56	S	25	350,00 A 4
8 x 80	K	25	435,00 A 4
8 x 100	K	25	475,00 A 4
8 x 140	K	25	515,00 A 4
10 x 71	K	25	400,00 A 4
10 x 80	K	25	410,00 A 4
10 x 90	K	25	415,00 A 4
10 x 100	K	25	420,00 A 4
10 x 112	K	25	430,00 A 4
10 x 125	K	25	435,00 A 4
13 x 71	K	25	600,00 A 4
13 x 100	K	25	620,00 A 4
13 x 125	K	25	650,00 A 4
13 x 140	K	25	680,00 A 4
13 x 160	K	25	700,00 A 4
13 x 180	K	25	720,00 A 4
13 x 200	K	25	750,00 A 4

DIN	01440.920	RAZ 490
1440	A 2	



Washers for clevis pins

Dimensions → **TI-85** Standard conversion → **TI-10**

Steel → **S. 197**

DIN 1440 → replaced by ISO 8738

Inside Ø min. = bolt Ø x outside Ø x thickness

5 x 10 x 0,8	S	50	32,00 A 2
6 x 12 x 1,6	S	50	39,00 A 2
8 x 16 x 2	S	50	65,00 A 2
10 x 20 x 2,5	S	50	89,00 A 2
12 x 25 x 3	S	25	124,00 A 2
14 x 28 x 3	S	25	176,00 A 2
16 x 28 x 3	S	25	181,00 A 2
20 x 32 x 4	S	10	260,00 A 2
25 x 40 x 4	S	1	345,00 A 2

Dimensions	PU	Pieces	€.
DIN	01440.940	RAZ 490	
1440	A 4		



Washers for clevis pins

Dimensions → **TI-85** Standard conversion → **TI-10**

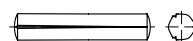
Steel → **S. 197**

DIN 1440 → replaced by ISO 8738

Inside Ø min. = bolt Ø x outside Ø x thickness

5 x 10 x 0,8	S	50	38,00 A 4
6 x 12 x 1,6	S	50	44,50 A 4
8 x 16 x 2	S	50	77,00 A 4
10 x 20 x 2,5	S	50	112,00 A 4
12 x 25 x 3	S	25	165,00 A 4
14 x 28 x 3	S	25	228,00 A 4
16 x 28 x 3	S	25	233,00 A 4
18 x 30 x 4	S	10	315,00 A 4
20 x 32 x 4	S	10	345,00 A 4
23 x 36 x 4	S	10	445,00 A 4
25 x 40 x 4	S	1	470,00 A 4
30 x 45 x 5	S	1	1300,00 A 4
36 x 52 x 6	S	1	1530,00 A 4
40 x 58 x 6	S	1	2290,00 A 4
50 x 68 x 8	S	1	3400,00 A 4
60 x 80 x 9	S	1	4450,00 A 4

DIN	01471.910	RAZ 500
1471	A 1	



Grooved pins, full-length taper grooved

Dimensions → **TI-117** Standard conversion → **TI-10**

Steel → **S. 199**

DIN 1471 → replaced by ISO 8744

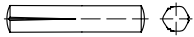
2 x 8	S	100	9,70 A 1
2 x 10	S	100	10,00 A 1
2 x 12	S	100	10,30 A 1
2 x 16	S	100	10,80 A 1
2 x 18	S	100	11,20 A 1
2 x 20	S	100	11,60 A 1
3 x 8	S	100	12,70 A 1
3 x 10	S	100	13,40 A 1
3 x 12	S	100	13,60 A 1
3 x 16	S	100	13,70 A 1
3 x 18	S	100	13,90 A 1
3 x 20	S	100	14,60 A 1
3 x 25	S	100	16,40 A 1
4 x 8	S	100	14,60 A 1
4 x 10	S	100	15,00 A 1
4 x 12	S	100	15,30 A 1
4 x 16	S	100	17,70 A 1
4 x 18	S	100	18,30 A 1
4 x 20	S	100	18,80 A 1
4 x 25	S	100	21,90 A 1
4 x 30	S	100	23,80 A 1
4 x 35	S	100	26,50 A 1



DIN 1476

Dimensions	PU Pieces	€.
4 x 40	S 100	28,50 A1
5 x 8	S 100	18,30 A1
5 x 10	S 100	19,70 A1
5 x 12	S 100	19,80 A1
5 x 16	S 100	23,80 A1
5 x 18	S 100	24,90 A1
5 x 20	S 100	26,50 A1
5 x 25	S 100	30,50 A1
5 x 30	S 100	33,00 A1
5 x 35	S 100	37,00 A1
5 x 40	S 100	40,00 A1
6 x 10	S 100	33,00 A1
6 x 12	S 100	34,00 A1
6 x 16	S 100	37,50 A1
6 x 18	S 100	39,00 A1
6 x 20	S 100	40,50 A1
6 x 25	S 100	46,00 A1
6 x 30	S 100	49,50 A1
6 x 40	S 100	59,00 A1
6 x 45	S 100	63,00 A1
6 x 50	S 100	67,00 A1
8 x 12	S 100	52,00 A1
8 x 16	S 100	55,00 A1
8 x 20	S 100	61,00 A1
8 x 25	S 100	69,00 A1
8 x 30	S 100	74,00 A1
8 x 35	S 100	82,00 A1
8 x 40	S 100	87,00 A1
8 x 45	S 100	94,00 A1
8 x 50	S 100	101,00 A1
8 x 60	S 100	114,00 A1

DIN	01472.910	RAZ 500
1472 A1		



Grooved pins, half length taper grooved

Dimensions → **TI-118** Standard conversion → **TI-10**

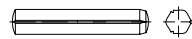
Steel → **S. 200**

DIN 1472 → replaced by ISO 8745

1,5 x 8	S 100	14,20 A1
1,5 x 10	S 100	14,40 A1
2 x 8	S 100	14,70 A1
2 x 10	S 100	15,10 A1
2 x 12	S 100	15,40 A1
2 x 14	S 100	15,60 A1
2 x 16	S 100	17,10 A1
2 x 18	S 100	17,40 A1
2 x 20	S 100	19,30 A1
3 x 6	S 100	15,30 A1
3 x 8	S 100	15,30 A1
3 x 10	S 100	15,60 A1
3 x 12	S 100	17,00 A1
3 x 14	S 100	17,20 A1
3 x 16	S 100	18,50 A1
3 x 18	S 100	19,00 A1
3 x 20	S 100	19,70 A1
3 x 25	S 100	20,10 A1
4 x 8	S 100	17,10 A1
4 x 10	S 100	17,50 A1
4 x 12	S 100	24,50 A1
4 x 14	S 100	25,30 A1
4 x 16	S 100	26,00 A1
4 x 18	S 100	27,50 A1
4 x 20	S 100	27,50 A1

Dimensions	PU Pieces	€.
4 x 25	S 100	30,00 A1
4 x 30	S 100	31,50 A1
4 x 40	S 100	33,50 A1
5 x 8	S 100	18,30 A1
5 x 10	S 100	19,70 A1
5 x 12	S 100	19,80 A1
5 x 16	S 100	23,80 A1
5 x 18	S 100	31,50 A1
5 x 20	S 100	34,00 A1
5 x 25	S 100	35,50 A1
5 x 30	S 100	36,00 A1
5 x 35	S 100	37,00 A1
5 x 40	S 100	40,00 A1
6 x 10	S 100	33,00 A1
6 x 18	S 100	39,00 A1
6 x 20	S 100	40,50 A1
6 x 25	S 100	46,00 A1
6 x 30	S 100	49,50 A1
6 x 35	S 100	55,00 A1
6 x 40	S 100	59,00 A1
6 x 45	S 100	63,00 A1
6 x 50	S 100	67,00 A1
8 x 12	S 100	52,00 A1
8 x 16	S 100	55,00 A1
8 x 18	S 100	58,00 A1
8 x 20	S 100	61,00 A1
8 x 25	S 100	69,00 A1
8 x 30	S 100	74,00 A1
8 x 35	S 100	82,00 A1
8 x 40	S 100	87,00 A1
8 x 45	S 100	94,00 A1
8 x 50	S 100	101,00 A1
8 x 60	S 100	114,00 A1

DIN	01473.910	RAZ 500
1473 A1		



Grooved pins, full length parallel grooved

Dimensions → **TI-117** Standard conversion → **TI-10**

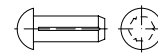
Steel → **S. 200**

DIN 1473 → replaced by ISO 8740

2 x 8	S 100	9,70 A1
2 x 10	S 100	10,00 A1
2 x 12	S 100	10,30 A1
2 x 16	S 100	10,80 A1
2 x 18	S 100	11,20 A1
2 x 20	S 100	11,60 A1
3 x 8	S 100	12,70 A1
3 x 10	S 100	13,40 A1
3 x 12	S 100	13,40 A1
3 x 16	S 100	13,40 A1
3 x 18	S 100	13,90 A1
3 x 20	S 100	14,60 A1
3 x 24	S 100	15,70 A1
3 x 30	S 100	17,30 A1
4 x 8	S 100	14,60 A1
4 x 10	S 100	15,00 A1
4 x 12	S 100	15,00 A1
4 x 16	S 100	17,70 A1
4 x 18	S 100	17,70 A1
4 x 20	S 100	18,80 A1
4 x 24	S 100	21,20 A1
4 x 30	S 100	23,80 A1
4 x 35	S 100	26,50 A1

Dimensions	PU Pieces	€.
4 x 40	S 100	28,50 A1
5 x 8	S 100	18,30 A1
5 x 10	S 100	19,70 A1
5 x 12	S 100	19,80 A1
5 x 16	S 100	23,80 A1
5 x 18	S 100	24,90 A1
5 x 20	S 100	26,50 A1
5 x 24	S 100	30,50 A1
5 x 30	S 100	33,00 A1
5 x 35	S 100	37,00 A1
5 x 40	S 100	40,00 A1
6 x 10	S 100	33,00 A1
6 x 12	S 100	34,00 A1
6 x 16	S 100	37,50 A1
6 x 18	S 100	39,00 A1
6 x 20	S 100	40,50 A1
6 x 24	S 100	44,50 A1
6 x 30	S 100	49,50 A1
6 x 35	S 100	55,00 A1
6 x 40	S 100	59,00 A1
6 x 45	S 100	63,00 A1
6 x 50	S 100	67,00 A1
8 x 10	S 100	49,50 A1
8 x 12	S 100	52,00 A1
8 x 16	S 100	55,00 A1
8 x 20	S 100	61,00 A1
8 x 25	S 100	69,00 A1
8 x 30	S 100	74,00 A1
8 x 35	S 100	82,00 A1
8 x 40	S 100	87,00 A1
8 x 45	S 100	94,00 A1
8 x 50	S 100	101,00 A1
8 x 60	S 100	114,00 A1

DIN	01476.920	RAZ 500
1476 1.4303 (A 2)		



Grooved pins with round head

Dimensions → **TI-118** Standard conversion → **TI-10**

Steel → **S. 202**

Brass, aluminium → **S. 584**

DIN 1476 → replaced by ISO 8746 (compatible)

1,4 x 3	S 100	7,90 A2
1,4 x 4	S 100	8,10 A2
1,4 x 5	S 100	8,20 A2
1,4 x 6	S 100	9,00 A2
1,6 x 3	S 100	8,10 A2
1,6 x 4	S 100	8,70 A2
1,6 x 5	S 100	8,90 A2
1,6 x 6	S 100	9,30 A2
2 x 3	S 100	10,80 A2
2 x 4	S 100	10,80 A2
2 x 5	S 100	10,80 A2
2 x 6	S 100	11,50 A2
2 x 8	S 100	12,20 A2
2 x 10	S 100	13,10 A2
2,5 x 4	S 100	11,20 A2
2,5 x 5	S 100	11,40 A2
2,5 x 6	S 100	11,50 A2
2,5 x 8	S 100	11,70 A2
2,5 x 10	S 100	13,50 A2
3 x 4	S 100	13,30 A2
3 x 5	S 100	14,20 A2
3 x 6	S 100	14,90 A2
3 x 8	S 100	18,30 A2

DIN 1476

Dimensions	PU	Pieces	€.
3 x 10	S	100	19,00 A 2
3 x 12	S	100	21,90 A 2
4 x 6	S	100	24,10 A 2
4 x 8	S	100	27,00 A 2
4 x 10	S	100	29,00 A 2
4 x 12	S	100	33,00 A 2
5 x 8	S	100	33,00 A 2
5 x 10	S	100	36,00 A 2
5 x 12	S	100	41,00 A 2
5 x 16	S	100	43,50 A 2
6 x 10	S	100	40,00 A 2
6 x 12	S	100	44,00 A 2

ISO	91479.923	RAZ 660
1479	A 2	type C



Hexagon head tapping screws, C = with cone end

Caution! Hardness only ~ 250 HV.

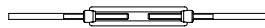
Dimensions → TI-46 Standard conversion → TI-11
Mounting instructions → TI-237

Steel → S. 203

C 2,9 x 9,5	S	1000	5,40 A 2
C 2,9 x 13	S	1000	6,10 A 2
C 2,9 x 16	S	1000	6,40 A 2
C 2,9 x 22	S	1000	8,70 A 2
C 2,9 x 25	S	1000	9,80 A 2
C 2,9 x 32	S	1000	12,00 A 2
C 3,5 x 9,5	S	1000	6,60 A 2
C 3,5 x 13	S	1000	6,70 A 2
C 3,5 x 16	S	1000	7,10 A 2
C 3,5 x 19	S	1000	7,90 A 2
C 3,5 x 22	S	1000	9,30 A 2
C 3,5 x 25	S	1000	10,70 A 2
C 3,5 x 32	S	1000	12,80 A 2
C 3,5 x 38	S	1000	14,20 A 2
C 3,9 x 9,5	S	1000	7,70 A 2
C 3,9 x 13	S	1000	7,60 A 2
C 3,9 x 16	S	1000	8,00 A 2
C 3,9 x 19	S	1000	8,20 A 2
C 3,9 x 22	S	500	10,60 A 2
C 3,9 x 25	S	500	11,80 A 2
C 3,9 x 32	S	500	13,70 A 2
C 4,2 x 9,5	S	1000	8,40 A 2
C 4,2 x 13	S	1000	8,20 A 2
C 4,2 x 16	S	1000	8,50 A 2
C 4,2 x 19	S	1000	9,30 A 2
C 4,2 x 22	S	500	11,90 A 2
C 4,2 x 25	S	500	12,20 A 2
C 4,2 x 32	S	500	14,80 A 2
C 4,2 x 38	S	500	16,90 A 2
C 4,2 x 45	S	500	20,60 A 2
C 4,2 x 50	S	500	24,10 A 2
C 4,8 x 13	S	1000	10,50 A 2
C 4,8 x 16	S	1000	11,30 A 2
C 4,8 x 19	S	1000	11,90 A 2
C 4,8 x 22	S	1000	13,30 A 2
C 4,8 x 25	S	1000	14,60 A 2
C 4,8 x 32	S	500	18,20 A 2
C 4,8 x 38	S	500	19,50 A 2
C 4,8 x 45	S	500	25,00 A 2
C 4,8 x 50	S	250	29,50 A 2
C 5,5 x 13	S	500	16,40 A 2
C 5,5 x 16	S	500	17,00 A 2

Dimensions	PU	Pieces	€.
C 5,5 x 19	S	500	18,20 A 2
C 5,5 x 22	S	500	20,70 A 2
C 5,5 x 25	S	250	22,70 A 2
C 5,5 x 32	S	250	26,00 A 2
C 5,5 x 38	S	250	29,50 A 2
C 5,5 x 45	S	250	33,00 A 2
C 5,5 x 50	S	250	36,00 A 2
C 6,3 x 13	S	250	23,80 A 2
C 6,3 x 16	S	500	23,80 A 2
C 6,3 x 19	S	500	25,50 A 2
C 6,3 x 22	S	500	29,00 A 2
C 6,3 x 25	S	500	31,00 A 2
C 6,3 x 32	S	250	34,00 A 2
C 6,3 x 38	S	250	38,00 A 2
C 6,3 x 45	S	250	42,50 A 2
C 6,3 x 50	S	250	45,50 A 2
C 6,3 x 60	S	100	56,00 A 2
C 6,3 x 70	S	100	78,00 A 2
C 8 x 16	S	100	45,00 A 2
C 8 x 19	S	100	50,00 A 2
C 8,0 x 22	S	250	51,00 A 2
C 8 x 25	S	100	78,00 A 2
C 8,0 x 32	S	100	82,85 A 2
C 8 x 38	S	100	111,00 A 2
C 8 x 45	S	100	150,00 A 2
C 8 x 50	S	100	205,00 A 2
C 8 x 60	S	100	277,00 A 2

DIN	01480.924	RAZ 510
1480	A 2	SP-AE



Turnbuckles, forged, open type, AE = with 2 welding studs

Dimensions → TI-81

SP-AE M 12	S	1	5000,00 A 2
SP-AE M 16	S	1	10700,00 A 2
SP-AE M 20	S	1	14500,00 A 2

DIN	01480.925	RAZ 510
1480	A 2	SP-RR



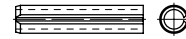
Turnbuckles, forged, open type, RR = with 2 eye bolts

Dimensions → TI-81

Steel → S. 204

SP-RR M 6	S	1	1480,00 A 2
SP-RR M 8	S	1	2150,00 A 2
SP-RR M 10	S	1	3200,00 A 2
SP-RR M 12	S	1	5000,00 A 2
SP-RR M 16	S	1	10400,00 A 2

Dimensions	PU	Pieces	€.
DIN	01481.960	RAZ 520	
1481	1.4310		



Spring type straight pins, slotted, heavy duty (clamping sleeves)

Caution! Reduced spring load.

Dimensions → TI-119 Standard conversion → TI-10

Mech. properties → TI-224

Spring steel → S. 205

DIN 1481 → replaced by ISO 8752

1 x 4	S	100	8,50
1 x 5	S	100	8,50
1 x 6	S	100	8,50
1 x 8	S	100	8,50
1 x 10	S	100	9,00
1 x 12	S	100	9,20
1 x 14	S	100	9,50
1 x 16	S	100	9,80
1 x 18	S	100	10,10
1 x 20	S	100	10,50
1,5 x 5	S	100	8,30
1,5 x 6	S	100	8,50
1,5 x 8	S	100	8,50
1,5 x 10	S	100	9,00
1,5 x 12	S	100	9,20
1,5 x 14	S	100	9,50
1,5 x 16	S	100	9,80
1,5 x 18	S	100	10,10
1,5 x 20	S	100	10,80
2 x 4	S	100	8,50
2 x 5	S	100	8,50
2 x 6	S	100	8,50
2 x 8	S	100	9,00
2 x 10	S	100	9,30
2 x 12	S	100	9,70
2 x 14	S	100	10,10
2 x 16	S	100	10,60
2 x 18	S	100	11,00
2 x 20	S	100	11,60
2 x 22	S	100	12,20
2 x 24	S	100	12,70
2 x 26	S	100	13,30
2 x 28	S	100	14,00
2 x 30	S	100	14,70
2,5 x 4	S	100	8,70
2,5 x 6	S	100	9,20
2,5 x 8	S	100	9,50
2,5 x 10	S	100	10,10
2,5 x 12	S	100	10,40
2,5 x 14	S	100	11,00
2,5 x 16	S	100	11,50
2,5 x 18	S	100	12,20
2,5 x 20	S	100	13,00
2,5 x 22	S	100	13,60
2,5 x 24	S	100	14,40
2,5 x 26	S	100	15,10
2,5 x 28	S	100	16,00
2,5 x 30	S	100	16,90
3 x 4	S	100	9,50
3 x 5	S	100	10,10
3 x 6	S	100	11,00
3 x 8	S	100	12,20
3 x 10	S	100	13,10
3 x 12	S	100	14,20



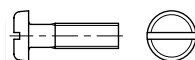
ISO 1580

Dimensions	PU Pieces	€.
3 x 14	S 100	16,00
3 x 16	S 100	16,60
3 x 18	S 100	17,20
3 x 20	S 100	17,90
3 x 22	S 100	19,70
3 x 24	S 50	21,50
3 x 26	S 50	22,40
3 x 28	S 50	23,50
3 x 30	S 50	24,60
3 x 32	S 50	25,50
3 x 36	S 50	27,00
3 x 40	S 50	28,50
3,5 x 4	S 100	13,50
3,5 x 5	S 100	14,00
3,5 x 6	S 100	14,70
3,5 x 8	S 100	16,10
3,5 x 10	S 100	16,50
3,5 x 12	S 100	18,70
3,5 x 14	S 100	21,00
3,5 x 16	S 100	22,80
3,5 x 18	S 100	24,20
3,5 x 20	S 100	27,00
3,5 x 22	S 100	28,00
3,5 x 24	S 100	30,50
3,5 x 26	S 100	31,00
3,5 x 28	S 100	33,00
3,5 x 30	S 100	34,50
3,5 x 32	S 100	36,50
3,5 x 36	S 100	39,50
3,5 x 40	S 100	44,50
4 x 6	S 100	14,70
4 x 8	S 100	16,10
4 x 10	S 100	16,50
4 x 12	S 100	18,70
4 x 14	S 50	22,10
4 x 16	S 50	23,80
4 x 18	S 50	25,50
4 x 20	S 50	28,00
4 x 22	S 50	29,00
4 x 24	S 50	31,50
4 x 26	S 50	33,00
4 x 28	S 50	34,00
4 x 30	S 50	35,50
4 x 32	S 50	35,50
4 x 36	S 50	40,50
4 x 40	S 50	45,50
4 x 45	S 50	48,00
4 x 50	S 50	55,00
4,5 x 6	S 100	19,70
4,5 x 8	S 100	19,70
4,5 x 10	S 100	19,70
4,5 x 12	S 100	21,70
4,5 x 14	S 100	24,00
4,5 x 16	S 100	25,50
4,5 x 18	S 100	28,00
4,5 x 20	S 100	30,50
4,5 x 22	S 100	32,00
4,5 x 24	S 100	34,00
4,5 x 26	S 100	36,00
4,5 x 28	S 100	38,00
4,5 x 30	S 100	41,00
4,5 x 32	S 100	43,00
4,5 x 36	S 100	51,00
4,5 x 40	S 100	54,00
4,5 x 45	S 100	59,00
4,5 x 50	S 100	64,00
5 x 6	S 50	19,10
5 x 8	S 50	20,90
5 x 10	S 50	23,10
5 x 12	S 50	26,00
5 x 14	S 50	28,50
5 x 16	S 50	31,50
5 x 18	S 50	34,00
5 x 20	S 50	36,50
5 x 22	S 50	39,00

Dimensions	PU Pieces	€.
5 x 24	S 50	41,50
5 x 26	S 50	44,00
5 x 28	S 50	47,50
5 x 30	S 50	51,00
5 x 32	S 50	53,00
5 x 36	S 50	59,00
5 x 40	S 50	64,00
5 x 45	S 50	69,00
5 x 50	S 50	78,00
5 x 60	S 50	125,00
5 x 70	S 50	162,00
6 x 10	S 25	33,00
6 x 12	S 25	35,00
6 x 14	S 25	36,50
6 x 16	S 25	39,00
6 x 18	S 25	45,00
6 x 20	S 25	52,00
6 x 22	S 25	55,00
6 x 24	S 25	59,00
6 x 26	S 25	63,00
6 x 28	S 25	67,00
6 x 30	S 25	71,00
6 x 32	S 25	76,00
6 x 36	S 25	84,00
6 x 40	S 25	102,00
6 x 45	S 25	117,00
6 x 50	S 25	133,00
6 x 60	S 25	174,00
6 x 70	S 25	192,00
6 x 80	S 25	206,00
10 x 10	S 50	81,00
10 x 12	S 50	84,00
10 x 16	S 50	92,00
10 x 18	S 50	119,00
10 x 20	S 50	119,00
10 x 22	S 50	136,00
10 x 24	S 50	141,00
10 x 28	S 50	153,00
10 x 30	S 10	165,00
10 x 32	S 50	159,00
10 x 36	S 50	191,00
10 x 40	S 50	229,00
10 x 45	S 10	249,00
10 x 50	S 50	270,00
10 x 55	S 10	285,00
10 x 60	S 10	305,00
10 x 65	S 50	320,00
10 x 70	S 50	330,00
10 x 75	S 50	340,00
10 x 80	S 10	355,00
10 x 85	S 50	365,00
10 x 90	S 50	375,00
10 x 95	S 50	390,00
10 x 100	S 50	410,00

Dimensions	PU Pieces	€.
M 3 x 6	K 200	4,35 A2
M 3 x 8	S 1000	3,10 A2
M 3 x 8	K 200	4,10 A2
M 3 x 10	S 1000	2,95 A2
M 3 x 10	K 200	3,95 A2
M 3 x 12	S 1000	3,20 A2
M 3 x 12	K 200	4,20 A2
M 3 x 14	S 1000	3,50 A2
M 3 x 16	S 1000	3,60 A2
M 3 x 16	K 200	4,60 A2
M 3 x 20	S 1000	4,00 A2
M 3 x 20	K 200	5,00 A2
M 3 x 25	K 200	4,85 A2
M 3 x 30	S 500	9,00 A2
M 3 x 35	K 200	6,90 A2
M 4 x 5	S 1000	9,00 A2
M 4 x 5	K 200	10,95 A2
M 4 x 6	S 1000	6,00 A2
M 4 x 8	S 1000	4,80 A2
M 4 x 8	K 200	5,80 A2
M 4 x 10	S 1000	4,35 A2
M 4 x 10	K 200	5,35 A2
M 4 x 12	S 1000	4,35 A2
M 4 x 12	K 200	5,35 A2
M 4 x 16	S 1000	4,80 A2
M 4 x 16	K 200	5,80 A2
M 4 x 20	S 1000	5,00 A2
M 4 x 20	K 200	6,00 A2
M 4 x 25	S 500	6,00 A2
M 4 x 25	K 200	7,00 A2
M 4 x 30	S 500	6,70 A2
M 4 x 35	S 500	9,00 A2
M 4 x 40	S 500	11,00 A2
M 4 x 50	S 500	18,85 A2
M 4 x 60	S 500	22,20 A2
M 5 x 6	S 500	11,70 A2
M 5 x 6	K 100	13,75 A2
M 5 x 8	S 500	10,20 A2
M 5 x 8	K 200	11,20 A2
M 5 x 10	S 500	8,00 A2
M 5 x 10	K 200	9,00 A2
M 5 x 12	S 500	6,00 A2
M 5 x 12	K 200	7,00 A2
M 5 x 16	S 500	6,70 A2
M 5 x 16	K 200	7,70 A2
M 5 x 20	S 500	7,45 A2
M 5 x 20	K 200	8,45 A2
M 5 x 25	S 500	8,50 A2
M 5 x 25	K 100	10,55 A2
M 5 x 30	S 500	10,10 A2
M 5 x 30	K 100	12,15 A2
M 5 x 35	S 500	14,10 A2
M 5 x 40	K 100	18,15 A2
M 5 x 45	S 500	19,65 A2
M 5 x 50	S 500	24,30 A2
M 5 x 60	S 500	28,80 A2
M 5 x 70	S 200	35,00 A2
M 5 x 80	S 200	50,00 A2
M 6 x 8	S 500	12,00 A2
M 6 x 10	S 200	8,95 A2
M 6 x 10	K 100	11,00 A2
M 6 x 12	S 200	8,20 A2
M 6 x 12	K 100	10,25 A2
M 6 x 16	S 200	8,80 A2
M 6 x 16	K 100	10,85 A2
M 6 x 20	S 200	9,75 A2
M 6 x 20	K 100	11,80 A2
M 6 x 25	S 200	10,90 A2
M 6 x 25	K 100	12,95 A2
M 6 x 30	S 200	12,70 A2
M 6 x 30	K 100	14,75 A2
M 6 x 35	S 200	17,50 A2
M 6 x 40	K 100	18,25 A2
M 6 x 45	K 100	20,95 A2
M 6 x 50	K 50	42,70 A2

ISO 01580.920 RAZ 30
1580 A 2



Slotted pan head screws

Dimensions → TI-37 Standard conversion → TI-11

Steel → S. 209

Brass, plastic → S. 585

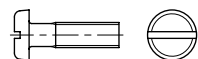
ISO 1580 → replaces DIN 85 (compatible)

M 3 x 4	S 1000	9,00 A2
M 3 x 5	S 1000	6,10 A2
M 3 x 6	S 1000	3,35 A2

ISO 1580

Dimensions	PU	Pieces	€.
M 6 x 60	S	200	65,00 A2
M 6 x 70	S	200	78,00 A2
M 6 x 80	S	200	95,00 A2

ISO	01580.940	RAZ 30
1580	A 4	



Slotted pan head screws

Dimensions → **TI-37** Standard conversion → **TI-11**

Steel → **S. 209**

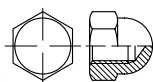
Brass, plastic → **S. 585**

ISO 1580 → replaces DIN 85 (compatible)

M 2 x 3	S	1000	35,00 A4
M 2 x 4	S	1000	20,00 A4
M 2 x 5	S	1000	21,00 A4
M 2 x 6	S	1000	17,00 A4
M 2 x 8	S	1000	18,00 A4
M 2 x 10	S	1000	19,00 A4
M 2 x 12	S	1000	20,00 A4
M 2 x 16	S	1000	25,00 A4
M 2 x 20	S	1000	28,00 A4
M 2 x 25	S	1000	36,00 A4
M 2 x 30	S	1000	45,00 A4
M 2,5 x 3	S	1000	40,00 A4
M 2,5 x 4	S	1000	32,00 A4
M 2,5 x 5	S	1000	28,00 A4
M 2,5 x 6	S	1000	29,00 A4
M 2,5 x 8	S	1000	30,00 A4
M 2,5 x 10	S	1000	31,00 A4
M 2,5 x 12	S	1000	32,00 A4
M 2,5 x 16	S	1000	35,00 A4
M 2,5 x 20	S	1000	42,00 A4
M 2,5 x 25	S	1000	50,00 A4
M 2,5 x 30	S	1000	65,00 A4
M 3 x 5	S	1000	6,90 A4
M 3 x 5	K	200	7,90 A4
M 3 x 6	S	1000	4,30 A4
M 3 x 6	K	200	5,30 A4
M 3 x 8	S	1000	4,00 A4
M 3 x 8	K	200	5,00 A4
M 3 x 10	S	1000	3,80 A4
M 3 x 10	K	200	4,80 A4
M 3 x 12	S	1000	4,00 A4
M 3 x 12	K	200	5,00 A4
M 3 x 16	S	1000	4,60 A4
M 3 x 16	K	200	5,60 A4
M 3 x 20	S	1000	4,90 A4
M 3 x 20	K	200	5,90 A4
M 3 x 25	K	100	6,30 A4
M 3 x 30	K	100	8,35 A4
M 4 x 5	S	1000	11,30 A4
M 4 x 5	K	200	12,30 A4
M 4 x 6	S	1000	6,40 A4
M 4 x 6	K	200	7,40 A4
M 4 x 8	S	1000	6,10 A4
M 4 x 8	K	200	7,10 A4
M 4 x 10	S	1000	5,60 A4
M 4 x 10	K	200	6,60 A4
M 4 x 12	S	1000	5,50 A4
M 4 x 12	K	200	6,50 A4
M 4 x 16	S	1000	6,25 A4
M 4 x 16	K	200	7,25 A4
M 4 x 20	S	1000	7,15 A4
M 4 x 20	K	200	8,15 A4
M 4 x 25	K	200	9,20 A4

Dimensions	PU	Pieces	€.
M 4 x 30	K	100	11,65 A4
M 4 x 35	K	100	17,45 A4
M 4 x 40	K	100	19,65 A4
M 4 x 45	K	100	25,65 A4
M 4 x 50	K	100	23,60 A4
M 5 x 8	S	500	11,50 A4
M 5 x 8	K	200	13,55 A4
M 5 x 10	S	500	9,30 A4
M 5 x 10	K	200	10,30 A4
M 5 x 12	S	500	8,85 A4
M 5 x 12	K	200	9,85 A4
M 5 x 16	S	500	9,80 A4
M 5 x 16	K	200	10,80 A4
M 5 x 20	S	500	11,20 A4
M 5 x 20	K	200	12,20 A4
M 5 x 25	S	500	12,60 A4
M 5 x 25	K	100	14,65 A4
M 5 x 30	S	500	15,10 A4
M 5 x 30	K	100	17,15 A4
M 5 x 40	K	100	23,25 A4
M 5 x 50	K	100	48,35 A4
M 6 x 8	K	100	19,85 A4
M 6 x 10	S	200	12,60 A4
M 6 x 10	K	100	14,65 A4
M 6 x 12	S	200	11,40 A4
M 6 x 12	K	100	13,45 A4
M 6 x 16	S	200	12,50 A4
M 6 x 16	K	100	14,55 A4
M 6 x 20	S	200	14,10 A4
M 6 x 20	K	100	16,15 A4
M 6 x 25	S	200	15,50 A4
M 6 x 25	K	100	17,55 A4
M 6 x 30	S	200	19,60 A4
M 6 x 30	K	100	21,65 A4
M 6 x 35	K	50	22,85 A4
M 6 x 40	K	50	24,90 A4
M 6 x 50	K	50	55,20 A4
M 8 x 10	K	50	46,40 A4
M 8 x 12	K	50	44,50 A4
M 8 x 16	K	50	44,50 A4
M 8 x 20	K	50	44,50 A4
M 8 x 25	K	50	48,80 A4

DIN	01587.920	RAZ 530
1587	A 2	



Hexagon domed cap nuts, high type

From M 12 with groove or appropriate screwing in depth t min.

Dimensions → **TI-62** Standard conversion → **TI-10**

Mech. properties → **TI-224**

Steel → **S. 209**

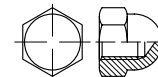
Brass, plastic → **S. 585**

SW = wrench size

M 4	S	1000	22,00 A2
M 4	K	100	26,50 A2
M 5	S	1000	25,50 A2
M 5	K	50	33,00 A2
M 6	S	500	29,00 A2
M 6	K	50	36,50 A2
M 8	S	500	54,00 A2
M 8	K	50	60,00 A2
M 10 SW 17	S	250	103,00 A2
M 10 SW 17	K	25	122,00 A2
M 12 SW 19	S	200	181,00 A2
M 12 SW 19	K	25	201,00 A2

Dimensions	PU	Pieces	€.
M 14 SW 22	S	10	290,00 A2
M 16	S	10	305,00 A2
M 20	S	1	590,00 A2
M 24	S	1	1400,00 A2
M 27	S	1	4500,00 A2
M 30	S	1	5500,00 A2

DIN	01587.940	RAZ 530
1587	A 4	



Hexagon domed cap nuts, high type

From M 12 with groove or appropriate screwing in depth t min.

Dimensions → **TI-62** Standard conversion → **TI-10**

Mech. properties → **TI-224**

Steel → **S. 209**

Brass, plastic → **S. 585**

SW = wrench size

M 3	S	100	46,00 A4
M 4	S	100	46,00 A4
M 5	S	1000	50,00 A4
M 5	K	50	52,00 A4
M 6	S	500	61,00 A4
M 6	K	50	69,00 A4
M 8	S	500	84,00 A4
M 8	K	50	92,00 A4
M 10 SW 17	S	250	170,00 A4
M 10 SW 17	K	25	185,00 A4
M 12 SW 19	S	200	270,00 A4
M 12 SW 19	K	25	285,00 A4
M 14 SW 22	S	10	455,00 A4
M 16	S	10	520,00 A4
M 18	S	10	1000,00 A4
M 20	S	1	850,00 A4
M 24	S	1	1660,00 A4
M 27	S	1	5800,00 A4

EN	01661.920	RAZ 615
1661	A 2	



Hexagon flange nuts

Dimensions → **TI-63** Mech. properties → **TI-224**

Steel → **S. 210**

EN 1661 → replaces DIN 6923

M 4	S	1000	8,50 A2
M 5	S	1000	12,80 A2
M 6	S	1000	20,50 A2
M 8	S	1000	26,00 A2
M 10	S	500	38,50 A2
M 12	S	250	80,00 A2

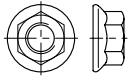


ISO 2009

Dimensions PU Pieces €.

EN 01661.940 RAZ 615

1661 A 4



Hexagon flange nuts

Dimensions → TI-63 Mech. properties → TI-224

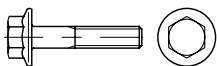
Steel → S. 210

EN 1661 → replaces DIN 6923

Dimensions	PU Pieces	€.
M 5	S 1000	26,00 A 4
M 6	S 1000	33,50 A 4
M 8	S 1000	38,50 A 4
M 10	S 500	90,00 A 4

EN 01665.920 RAZ 401

1665 A 2



Hexagon flange bolts, heavy series

Dimensions → TI-17 Standard conversion → TI-6

Mech. properties → TI-224

Steel → S. 210

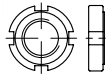
EN 1665 → replaces DIN 6921

Dimensions	PU Pieces	€.
M 5 x 10	S 200	17,60 A 2
M 5 x 12	S 200	18,00 A 2
M 5 x 16	S 200	18,80 A 2
M 5 x 20	S 200	19,50 A 2
M 5 x 25	S 200	20,70 A 2
M 5 x 30	S 200	22,30 A 2
M 6 x 10	S 200	22,30 A 2
M 6 x 12	S 200	23,10 A 2
M 6 x 16	S 200	24,40 A 2
M 6 x 20	S 200	25,50 A 2
M 6 x 25	S 200	28,00 A 2
M 6 x 30	S 200	29,00 A 2
M 6 x 35	S 200	31,50 A 2
M 6 x 40	S 200	33,00 A 2
M 6 x 45	S 200	34,50 A 2
M 8 x 16	S 200	43,50 A 2
M 8 x 20	S 200	45,00 A 2
M 8 x 25	S 200	48,00 A 2
M 8 x 30	S 200	52,00 A 2
M 8 x 35	S 200	55,00 A 2
M 8 x 40	S 200	58,00 A 2
M 8 x 45	S 200	61,00 A 2
M 8 x 50	S 200	65,00 A 2
M 10 x 20	S 100	65,00 A 2
M 10 x 25	S 100	70,00 A 2
M 10 x 30	S 100	74,00 A 2
M 10 x 35	S 100	79,00 A 2
M 10 x 40	S 100	85,00 A 2
M 10 x 45	S 100	90,00 A 2
M 10 x 50	S 100	95,00 A 2
M 10 x 60	S 100	105,00 A 2

Dimensions PU Pieces €.

DIN 01804.920 RAZ 530

1804 A 2



Slotted round nuts

Dimensions → TI-72

Steel → S. 212

Dimensions	PU Pieces	€.
M 14 x 1,5	S 1	1750,00 A 2
M 16 x 1,5	S 1	1960,00 A 2
M 18 x 1,5	S 1	2030,00 A 2
M 20 x 1,5	S 1	2080,00 A 2
M 24 x 1,5	S 1	3650,00 A 2
M 30 x 1,5	S 1	4050,00 A 2
M 40 x 1,5	S 1	5400,00 A 2
M 42 x 1,5	S 1	5900,00 A 2
M 45 x 1,5	S 1	6100,00 A 2
M 50 x 1,5	S 1	6700,00 A 2

ISO 02009.914 RAZ 450

2009 A 1 turned



Slotted countersunk head screws

Dimensions → TI-38 Standard conversion → TI-11

Steel → S. 212

Brass, plastic → S. 586

ISO 2009 → replaces DIN 963

Dimensions	PU Pieces	€.
M 1,4 x 3	S 100	35,50 A 1
M 1,4 x 4	S 100	28,50 A 1
M 1,4 x 5	S 100	29,00 A 1
M 1,4 x 6	S 100	30,00 A 1
M 1,4 x 8	S 100	31,50 A 1
M 1,6 x 4	S 100	14,55 A 1
M 1,6 x 5	S 100	13,65 A 1
M 1,6 x 6	S 100	12,65 A 1
M 1,6 x 8	S 100	13,65 A 1
M 1,6 x 10	S 100	14,15 A 1

ISO 02009.920 RAZ 450

2009 A 2



Slotted countersunk head screws

Dimensions → TI-38 Standard conversion → TI-11

Steel → S. 212

Brass, plastic → S. 586

ISO 2009 → replaces DIN 963

Dimensions	PU Pieces	€.
M 1 x 2	S 1000	150,00 A 2
M 1 x 3	S 1000	150,00 A 2
M 1 x 4	S 1000	150,00 A 2

Dimensions PU Pieces €.

Dimensions	PU Pieces	€.
M 1 x 5	S 1000	150,00 A 2
M 1,2 x 2	S 1000	150,00 A 2
M 1,2 x 3	S 1000	150,00 A 2
M 1,2 x 4	S 1000	150,00 A 2
M 1,2 x 5	S 1000	160,00 A 2
M 1,2 x 6	S 1000	175,00 A 2
M 1,4 x 2	S 1000	150,00 A 2
M 1,4 x 3	S 1000	150,00 A 2
M 1,4 x 4	S 1000	150,00 A 2
M 1,4 x 5	S 1000	160,00 A 2
M 1,4 x 6	S 1000	175,00 A 2
M 1,4 x 8	S 1000	195,00 A 2
M 1,4 x 10	S 1000	225,00 A 2
M 1,6 x 3	S 1000	55,00 A 2
M 1,6 x 4	S 1000	55,00 A 2
M 1,6 x 5	S 1000	65,00 A 2
M 1,6 x 6	S 1000	70,00 A 2
M 1,6 x 8	S 1000	75,00 A 2
M 1,6 x 10	S 1000	80,00 A 2
M 2 x 3	S 1000	65,00 A 2
M 2 x 4	S 1000	4,60 A 2
M 2 x 5	S 1000	3,30 A 2
M 2 x 6	S 1000	3,45 A 2
M 2 x 8	S 1000	3,65 A 2
M 2 x 10	S 1000	4,00 A 2
M 2 x 12	S 1000	4,30 A 2
M 2 x 16	S 1000	4,60 A 2
M 2 x 18	S 1000	6,00 A 2
M 2,5 x 4	S 1000	4,60 A 2
M 2,5 x 5	S 1000	3,30 A 2
M 2,5 x 6	S 1000	3,45 A 2
M 2,5 x 8	S 1000	3,65 A 2
M 2,5 x 10	S 1000	4,00 A 2
M 2,5 x 12	S 1000	4,30 A 2
M 2,5 x 14	S 1000	4,60 A 2
M 2,5 x 16	S 1000	4,60 A 2
M 2,5 x 20	S 1000	12,75 A 2
M 2,5 x 25	S 1000	16,15 A 2
M 3 x 4	S 1000	25,20 A 2
M 3 x 5	S 1000	5,05 A 2
M 3 x 6	K 200	6,05 A 2
M 3 x 6	S 1000	2,90 A 2
M 3 x 6	K 200	3,90 A 2
M 3 x 8	S 1000	2,65 A 2
M 3 x 8	K 200	3,65 A 2
M 3 x 10	S 1000	2,45 A 2
M 3 x 10	K 200	3,45 A 2
M 3 x 12	S 1000	2,50 A 2
M 3 x 12	K 200	3,50 A 2
M 3 x 14	K 200	5,75 A 2
M 3 x 16	S 1000	2,85 A 2
M 3 x 16	K 200	3,85 A 2
M 3 x 20	S 1000	3,30 A 2
M 3 x 20	K 200	4,30 A 2
M 3 x 22	S 1000	11,05 A 2
M 3 x 25	S 1000	4,15 A 2
M 3 x 25	K 200	5,15 A 2
M 3 x 30	S 1000	24,35 A 2
M 3 x 30	K 200	8,20 A 2
M 3 x 35	S 1000	25,35 A 2
M 3 x 40	S 1000	32,00 A 2
M 3 x 45	S 1000	29,00 A 2
M 3 x 50	S 500	39,00 A 2
M 3 x 60	S 500	58,00 A 2
M 3,5 x 8	K 200	15,85 A 2
M 3,5 x 10	K 200	15,85 A 2
M 3,5 x 12	K 200	17,15 A 2
M 3,5 x 16	K 200	18,45 A 2
M 4 x 5	S 1000	24,00 A 2
M 4 x 5	K 200	10,65 A 2
M 4 x 6	S 1000	4,45 A 2
M 4 x 6	K 200	5,45 A 2
M 4 x 8	S 1000	4,30 A 2
M 4 x 8	K 200	5,30 A 2
M 4 x 10	S 1000	3,75 A 2

ISO 2009

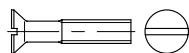
Dimensions	PU	Pieces	€.
M 4 x 10	K	200	4,75 A2
M 4 x 12	S	1000	3,45 A2
M 4 x 12	K	200	4,45 A2
M 4 x 14	S	1000	19,05 A2
M 4 x 16	S	1000	3,60 A2
M 4 x 16	K	200	4,60 A2
M 4 x 18	S	1000	20,75 A2
M 4 x 20	S	1000	4,10 A2
M 4 x 20	K	200	5,10 A2
M 4 x 22	K	200	8,05 A2
M 4 x 25	S	500	4,60 A2
M 4 x 25	K	200	5,60 A2
M 4 x 30	S	500	6,20 A2
M 4 x 30	K	200	7,20 A2
M 4 x 35	S	500	8,45 A2
M 4 x 35	K	200	9,45 A2
M 4 x 40	K	100	12,65 A2
M 4 x 50	K	100	19,45 A2
M 5 x 6	S	500	6,80 A2
M 5 x 6	K	200	7,80 A2
M 5 x 8	S	500	5,95 A2
M 5 x 8	K	200	6,95 A2
M 5 x 10	S	500	5,95 A2
M 5 x 10	K	200	6,95 A2
M 5 x 12	S	500	4,40 A2
M 5 x 12	K	200	5,40 A2
M 5 x 14	K	200	8,65 A2
M 5 x 16	S	500	5,10 A2
M 5 x 16	K	200	6,10 A2
M 5 x 18	S	500	6,50 A2
M 5 x 20	S	500	5,90 A2
M 5 x 20	K	200	6,90 A2
M 5 x 25	S	500	6,95 A2
M 5 x 25	K	200	7,95 A2
M 5 x 30	S	500	7,85 A2
M 5 x 30	K	200	8,85 A2
M 5 x 35	S	200	9,55 A2
M 5 x 35	K	100	11,60 A2
M 5 x 40	S	200	12,30 A2
M 5 x 40	K	100	14,35 A2
M 5 x 45	K	100	17,55 A2
M 5 x 50	K	100	22,25 A2
M 5 x 60	K	100	33,45 A2
M 5 x 65	K	100	46,00 A2
M 5 x 70	K	100	46,00 A2
M 5 x 80	S	500	52,00 A2
M 5 x 90	K	100	66,00 A2
M 5 x 100	K	100	75,00 A2
M 6 x 8	S	200	10,70 A2
M 6 x 8	K	100	12,75 A2
M 6 x 10	S	200	7,15 A2
M 6 x 10	K	100	9,20 A2
M 6 x 12	S	200	6,90 A2
M 6 x 12	K	100	8,95 A2
M 6 x 16	S	200	6,45 A2
M 6 x 16	K	100	8,50 A2
M 6 x 18	K	100	14,00 A2
M 6 x 20	S	200	7,15 A2
M 6 x 20	K	100	9,20 A2
M 6 x 25	S	200	8,20 A2
M 6 x 25	K	100	10,25 A2
M 6 x 30	S	200	9,95 A2
M 6 x 30	K	100	12,00 A2
M 6 x 35	S	100	11,90 A2
M 6 x 35	K	50	16,00 A2
M 6 x 40	S	100	15,40 A2
M 6 x 40	K	50	19,50 A2
M 6 x 45	K	100	22,50 A2
M 6 x 50	K	50	27,60 A2
M 6 x 55	K	50	41,00 A2
M 6 x 60	K	50	41,00 A2
M 6 x 65	K	50	45,45 A2
M 6 x 70	K	50	45,45 A2
M 6 x 80	K	50	50,10 A2
M 6 x 90	K	50	66,00 A2

Dimensions	PU	Pieces	€.
M 6 x 100	K	50	100,00 A2
M 6 x 110	K	50	180,00 A2
M 6 x 120	K	25	200,00 A2
M 6 x 130	K	25	256,00 A2
M 6 x 140	K	25	298,00 A2
M 6 x 160	K	25	350,00 A2
M 8 x 12	S	100	16,00 A2
M 8 x 16	S	100	16,40 A2
M 8 x 16	K	50	20,50 A2
M 8 x 18	S	200	42,00 A2
M 8 x 20	S	100	17,00 A2
M 8 x 20	K	50	21,10 A2
M 8 x 25	S	100	20,40 A2
M 8 x 25	K	50	24,50 A2
M 8 x 30	S	100	21,70 A2
M 8 x 30	K	50	25,80 A2
M 8 x 35	S	100	24,20 A2
M 8 x 35	K	50	28,30 A2
M 8 x 40	S	100	26,80 A2
M 8 x 40	K	50	30,90 A2
M 8 x 45	K	50	36,70 A2
M 8 x 50	S	100	35,10 A2
M 8 x 50	K	50	39,20 A2
M 8 x 55	K	50	55,20 A2
M 8 x 60	K	50	55,20 A2
M 8 x 70	K	50	59,30 A2
M 8 x 80	K	50	65,40 A2
M 8 x 90	K	50	72,00 A2
M 8 x 100	K	50	115,00 A2
M 8 x 110	K	50	200,00 A2
M 10 x 16	K	50	65,40 A2
M 10 x 20	S	100	33,20 A2
M 10 x 20	K	50	37,30 A2
M 10 x 25	S	100	37,60 A2
M 10 x 25	K	50	41,70 A2
M 10 x 30	S	100	42,20 A2
M 10 x 30	K	50	46,30 A2
M 10 x 35	S	100	46,60 A2
M 10 x 35	K	50	50,70 A2
M 10 x 40	S	100	51,10 A2
M 10 x 40	K	50	55,20 A2
M 10 x 50	S	100	59,80 A2
M 10 x 50	K	50	63,90 A2
M 10 x 60	S	100	77,70 A2
M 10 x 60	K	50	81,80 A2
M 10 x 70	S	50	100,00 A2
M 10 x 80	S	50	115,70 A2
M 10 x 90	K	50	125,00 A2
M 10 x 100	K	50	175,00 A2
M 10 x 120	K	25	399,00 A2
M 10 x 130	K	25	420,00 A2
M 10 x 140	K	25	420,00 A2

Dimensions	PU	Pieces	€.
M 2 x 5	S	1000	3,30 A4
M 2 x 5	K	200	4,30 A4
M 2 x 6	S	1000	3,45 A4
M 2 x 6	K	200	4,45 A4
M 2 x 8	S	1000	3,65 A4
M 2 x 8	K	200	4,65 A4
M 2 x 10	S	1000	4,00 A4
M 2 x 10	K	200	5,00 A4
M 2 x 12	S	1000	4,30 A4
M 2 x 12	K	200	5,30 A4
M 2 x 16	S	1000	4,60 A4
M 2 x 16	K	200	5,60 A4
M 2 x 20	S	1000	6,10 A4
M 2 x 20	K	200	7,10 A4
M 2,5 x 4	S	1000	4,60 A4
M 2,5 x 4	K	200	5,60 A4
M 2,5 x 5	S	1000	3,30 A4
M 2,5 x 5	K	200	4,30 A4
M 2,5 x 6	S	1000	3,45 A4
M 2,5 x 6	K	200	4,45 A4
M 2,5 x 8	S	1000	3,65 A4
M 2,5 x 8	K	200	4,65 A4
M 2,5 x 10	S	1000	4,00 A4
M 2,5 x 10	K	200	5,00 A4
M 2,5 x 12	S	1000	4,30 A4
M 2,5 x 12	K	200	5,30 A4
M 2,5 x 16	S	1000	4,60 A4
M 2,5 x 16	K	200	5,60 A4
M 2,5 x 20	K	200	7,10 A4
M 3 x 4	S	1000	7,65 A4
M 3 x 4	K	200	8,65 A4
M 3 x 5	S	1000	6,60 A4
M 3 x 5	K	200	7,60 A4
M 3 x 6	S	1000	3,95 A4
M 3 x 6	K	200	4,95 A4
M 3 x 8	S	1000	3,35 A4
M 3 x 8	K	200	4,35 A4
M 3 x 10	S	1000	2,85 A4
M 3 x 10	K	200	3,85 A4
M 3 x 12	S	1000	3,00 A4
M 3 x 12	K	200	4,00 A4
M 3 x 16	S	1000	3,45 A4
M 3 x 16	K	200	4,45 A4
M 3 x 20	S	1000	3,80 A4
M 3 x 20	K	200	4,80 A4
M 3 x 25	S	1000	5,50 A4
M 3 x 25	K	200	6,50 A4
M 3 x 30	S	1000	6,15 A4
M 3 x 30	K	200	7,15 A4
M 3 x 35	S	1000	30,00 A4
M 3 x 40	S	1000	38,00 A4
M 3 x 40	K	200	15,95 A4
M 3 x 45	S	1000	47,00 A4
M 3 x 50	S	1000	59,00 A4
M 4 x 5	K	200	12,75 A4
M 4 x 6	S	1000	5,80 A4
M 4 x 6	K	200	6,80 A4
M 4 x 8	S	1000	5,50 A4
M 4 x 8	K	200	6,50 A4
M 4 x 10	S	1000	4,65 A4
M 4 x 10	K	200	5,65 A4
M 4 x 12	S	1000	4,45 A4
M 4 x 12	K	200	5,45 A4
M 4 x 16	S	1000	4,70 A4
M 4 x 16	K	200	5,70 A4
M 4 x 18	S	200	8,00 A4
M 4 x 20	S	1000	5,15 A4
M 4 x 20	K	200	6,15 A4
M 4 x 25	S	500	6,40 A4
M 4 x 25	K	200	7,40 A4
M 4 x 30	S	500	8,45 A4
M 4 x 30	K	200	9,45 A4
M 4 x 35	S	500	10,20 A4
M 4 x 35	K	200	11,20 A4
M 4 x 40	K	100	13,10 A4

ISO 02009.940 RAZ 450

2009 A 4



Slotted countersunk head screws

Dimensions → **TI-38** Standard conversion → **TI-11**

Steel → **S. 212**

Brass, plastic → **S. 586**

ISO 2009 → replaces DIN 963

M 1 x 2	S	1000	190,00 A4
M 2 x 3	S	1000	85,00 A4
M 2 x 4	S	1000	4,60 A4
M 2 x 4	K	200	5,60 A4



ISO 2010

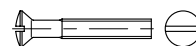
Dimensions	PU	Pieces	€.
M 4 x 45	K	100	21,75 A4
M 4 x 50	K	100	21,75 A4
M 4 x 60	K	100	33,15 A4
M 5 x 6	S	500	25,00 A4
M 5 x 8	S	500	7,15 A4
M 5 x 8	K	200	8,15 A4
M 5 x 10	S	500	7,15 A4
M 5 x 10	K	200	8,15 A4
M 5 x 12	S	500	5,55 A4
M 5 x 12	K	200	6,55 A4
M 5 x 16	S	500	6,45 A4
M 5 x 16	K	200	7,45 A4
M 5 x 18	K	200	12,00 A4
M 5 x 20	S	500	7,55 A4
M 5 x 20	K	200	8,55 A4
M 5 x 25	S	500	8,70 A4
M 5 x 25	K	200	9,70 A4
M 5 x 30	S	500	9,95 A4
M 5 x 30	K	200	10,95 A4
M 5 x 35	S	200	13,70 A4
M 5 x 35	K	100	15,75 A4
M 5 x 40	S	200	15,30 A4
M 5 x 40	K	100	17,35 A4
M 5 x 45	K	100	21,05 A4
M 5 x 50	K	100	22,95 A4
M 5 x 60	K	100	31,25 A4
M 5 x 70	K	100	49,55 A4
M 5 x 80	K	100	54,70 A4
M 5 x 90	K	100	72,00 A4
M 5 x 100	K	100	73,10 A4
M 6 x 8	S	200	28,00 A4
M 6 x 8	K	100	15,85 A4
M 6 x 10	S	200	10,20 A4
M 6 x 10	K	100	12,25 A4
M 6 x 12	S	200	9,85 A4
M 6 x 12	K	100	11,90 A4
M 6 x 14	S	200	12,00 A4
M 6 x 16	S	200	9,45 A4
M 6 x 16	K	100	11,50 A4
M 6 x 18	K	100	16,25 A4
M 6 x 20	S	200	10,90 A4
M 6 x 20	K	100	12,95 A4
M 6 x 25	S	200	12,70 A4
M 6 x 25	K	100	14,75 A4
M 6 x 30	S	200	14,70 A4
M 6 x 30	K	100	16,75 A4
M 6 x 35	S	100	18,60 A4
M 6 x 35	K	50	22,70 A4
M 6 x 40	S	100	23,00 A4
M 6 x 40	K	50	27,10 A4
M 6 x 45	S	100	25,30 A4
M 6 x 45	K	50	29,40 A4
M 6 x 50	S	100	26,70 A4
M 6 x 50	K	50	30,80 A4
M 6 x 55	K	100	37,80 A4
M 6 x 60	S	100	33,70 A4
M 6 x 60	K	50	37,80 A4
M 6 x 65	K	50	60,00 A4
M 6 x 70	K	50	60,30 A4
M 6 x 80	K	50	71,50 A4
M 6 x 90	K	50	88,90 A4
M 6 x 100	K	50	214,00 A4
M 6 x 110	K	50	274,00 A4
M 6 x 120	K	50	285,00 A4
M 8 x 10	K	50	40,10 A4
M 8 x 12	S	100	40,00 A4
M 8 x 12	K	50	27,70 A4
M 8 x 16	S	100	23,00 A4
M 8 x 16	K	50	27,10 A4
M 8 x 20	S	100	23,60 A4
M 8 x 20	K	50	27,70 A4
M 8 x 25	S	100	26,80 A4
M 8 x 25	K	50	30,90 A4
M 8 x 30	S	100	29,30 A4
M 8 x 30	K	50	33,40 A4

Dimensions	PU	Pieces	€.
M 8 x 35	S	100	33,20 A4
M 8 x 35	K	50	37,30 A4
M 8 x 40	S	100	37,00 A4
M 8 x 40	K	50	41,10 A4
M 8 x 45	S	100	44,20 A4
M 8 x 45	K	50	48,30 A4
M 8 x 50	S	100	49,20 A4
M 8 x 50	K	50	53,30 A4
M 8 x 55	K	50	63,40 A4
M 8 x 60	K	50	63,40 A4
M 8 x 70	K	50	99,20 A4
M 8 x 80	K	50	120,00 A4
M 8 x 90	K	50	150,00 A4
M 8 x 100	K	50	158,00 A4
M 10 x 16	K	50	82,80 A4
M 10 x 20	S	100	46,00 A4
M 10 x 20	K	50	50,10 A4
M 10 x 25	S	100	52,60 A4
M 10 x 25	K	50	56,70 A4
M 10 x 30	S	100	58,70 A4
M 10 x 30	K	50	62,80 A4
M 10 x 35	S	100	64,90 A4
M 10 x 35	K	50	69,00 A4
M 10 x 40	S	100	71,50 A4
M 10 x 40	K	50	75,60 A4
M 10 x 45	S	100	77,70 A4
M 10 x 45	K	50	81,80 A4
M 10 x 50	S	100	83,80 A4
M 10 x 50	K	50	87,90 A4
M 10 x 60	S	100	108,00 A4
M 10 x 60	K	50	113,00 A4
M 10 x 70	S	50	165,00 A4
M 10 x 70	K	25	175,00 A4
M 10 x 80	S	50	200,00 A4
M 10 x 90	K	25	245,00 A4
M 10 x 100	K	25	295,00 A4
M 10 x 110	K	25	395,00 A4
M 10 x 120	K	25	435,00 A4
M 10 x 130	K	25	500,00 A4
M 10 x 140	K	25	575,00 A4
M 12 x 16	K	25	116,00 A4
M 12 x 20	K	25	213,00 A4
M 12 x 25	K	25	213,00 A4
M 12 x 30	K	25	227,00 A4
M 12 x 35	K	25	241,00 A4
M 12 x 40	K	25	248,00 A4
M 12 x 45	K	25	281,00 A4
M 12 x 50	K	25	281,00 A4
M 12 x 60	K	25	323,00 A4
M 12 x 70	K	25	438,00 A4
M 12 x 80	K	25	509,00 A4
M 12 x 90	K	25	690,00 A4
M 12 x 100	K	25	935,00 A4
M 16 x 25	K	1	758,00 A4
M 16 x 30	K	1	773,00 A4
M 16 x 35	K	1	794,00 A4
M 16 x 40	K	1	823,00 A4
M 16 x 45	K	1	866,00 A4
M 16 x 50	K	1	866,00 A4
M 16 x 60	K	1	909,00 A4
M 16 x 70	K	1	1100,00 A4

Dimensions PU Pieces €.

ISO 2010 02010.920 RAZ 450

2010 A 2



Slotted raised countersunk head screws

Dimensions → TI-39 Standard conversion → TI-11

Steel → S. 214

Brass → S. 587

ISO 2010 → replaces DIN 964

M 3 x 5	K	200	5,10 A2
M 3 x 6	S	1000	3,30 A2
M 3 x 6	K	200	4,30 A2
M 3 x 8	S	1000	3,00 A2
M 3 x 8	K	200	4,00 A2
M 3 x 10	S	1000	2,70 A2
M 3 x 10	K	200	3,70 A2
M 3 x 12	S	1000	2,75 A2
M 3 x 12	K	200	3,75 A2
M 3 x 16	K	200	4,10 A2
M 3 x 20	S	1000	3,70 A2
M 3 x 20	K	200	4,70 A2
M 3 x 25	K	200	5,70 A2
M 4 x 6	S	1000	7,10 A2
M 4 x 6	K	200	8,10 A2
M 4 x 8	S	1000	4,80 A2
M 4 x 8	K	200	5,80 A2
M 4 x 10	S	1000	4,10 A2
M 4 x 10	K	200	5,10 A2
M 4 x 12	S	1000	3,85 A2
M 4 x 12	K	200	4,85 A2
M 4 x 16	S	1000	4,20 A2
M 4 x 16	K	200	5,20 A2
M 4 x 20	S	1000	4,30 A2
M 4 x 20	K	200	5,30 A2
M 4 x 25	K	200	6,15 A2
M 4 x 30	K	200	7,65 A2
M 4 x 35	K	100	12,25 A2
M 5 x 8	K	100	10,60 A2
M 5 x 10	S	500	6,60 A2
M 5 x 10	K	200	7,60 A2
M 5 x 12	S	500	5,00 A2
M 5 x 12	K	200	6,00 A2
M 5 x 16	S	500	5,75 A2
M 5 x 16	K	200	6,75 A2
M 5 x 18	K	200	10,45 A2
M 5 x 20	S	500	6,40 A2
M 5 x 20	K	200	7,40 A2
M 5 x 25	S	500	7,55 A2
M 5 x 25	K	200	8,55 A2
M 5 x 30	S	500	8,90 A2
M 5 x 30	K	200	9,90 A2
M 5 x 35	S	200	10,90 A2
M 5 x 35	K	100	12,95 A2
M 5 x 40	K	100	16,15 A2
M 5 x 45	K	100	18,15 A2
M 5 x 50	K	100	22,85 A2
M 5 x 60	K	100	33,75 A2
M 5 x 70	K	100	48,35 A2
M 5 x 80	K	100	53,65 A2
M 6 x 10	S	200	8,20 A2
M 6 x 10	K	100	10,25 A2
M 6 x 12	S	200	7,90 A2
M 6 x 12	K	100	9,95 A2
M 6 x 16	S	200	7,15 A2
M 6 x 16	K	100	9,20 A2
M 6 x 20	S	200	8,20 A2



ISO 2010

Dimensions	PU	Pieces	€.
M 6 x 20	K	100	10,25 A 2
M 6 x 25	S	200	9,55 A 2
M 6 x 25	K	100	11,60 A 2
M 6 x 30	S	200	10,60 A 2
M 6 x 30	K	100	12,65 A 2
M 6 x 35	S	100	13,70 A 2
M 6 x 35	K	50	17,80 A 2
M 6 x 40	S	100	17,70 A 2
M 6 x 40	K	50	21,80 A 2
M 6 x 45	K	50	23,20 A 2
M 6 x 50	K	50	30,90 A 2
M 6 x 55	S	100	40,30 A 2
M 6 x 60	K	50	40,30 A 2
M 6 x 70	K	50	59,80 A 2
M 6 x 80	S	50	185,00 A 2
M 6 x 90	S	50	245,00 A 2
M 6 x 100	S	50	310,00 A 2
M 6 x 105	S	50	350,00 A 2
M 6 x 110	S	50	350,00 A 2
M 8 x 12	K	50	37,90 A 2
M 8 x 16	S	100	18,80 A 2
M 8 x 16	K	50	22,90 A 2
M 8 x 20	S	100	19,80 A 2
M 8 x 20	K	50	23,90 A 2
M 8 x 25	S	100	23,00 A 2
M 8 x 25	K	50	27,10 A 2
M 8 x 30	S	100	24,90 A 2
M 8 x 30	K	50	29,00 A 2
M 8 x 35	S	100	27,50 A 2
M 8 x 40	S	100	30,60 A 2
M 8 x 40	K	50	34,70 A 2
M 8 x 45	S	100	36,50 A 2
M 8 x 50	S	100	38,55 A 2
M 8 x 55	S	100	55,00 A 2
M 8 x 60	S	100	53,60 A 2
M 8 x 70	S	100	82,30 A 2
M 8 x 80	K	50	101,00 A 2
M 10 x 20	S	100	44,30 A 2
M 10 x 25	S	100	47,20 A 2
M 10 x 25	K	50	51,30 A 2
M 10 x 30	K	50	55,70 A 2
M 10 x 35	S	100	55,20 A 2
M 10 x 40	K	50	66,90 A 2

ISO	02010.940	RAZ 450
2010	A 4	



Slotted raised countersunk head screws

Dimensions → **TI-39** Standard conversion → **TI-11**

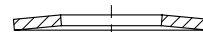
Steel → **S. 214**
Brass → **S. 587**

ISO 2010 → replaces DIN 964

M 2 x 4	K	200	9,30 A 4
M 2 x 5	K	200	5,10 A 4
M 2 x 6	K	200	5,30 A 4
M 2 x 8	K	200	5,60 A 4
M 2 x 10	K	200	6,05 A 4
M 2 x 12	K	200	6,40 A 4
M 2 x 20	K	200	11,50 A 4
M 2,5 x 6	K	200	5,30 A 4
M 2,5 x 8	K	200	5,60 A 4
M 2,5 x 10	K	200	6,05 A 4
M 2,5 x 16	K	200	8,85 A 4
M 2,5 x 20	K	200	11,50 A 4
M 3 x 6	S	1000	4,30 A 4

Dimensions	PU	Pieces	€.
M 3 x 6	K	200	5,30 A 4
M 3 x 8	K	200	4,70 A 4
M 3 x 10	K	200	4,20 A 4
M 3 x 12	K	200	4,40 A 4
M 3 x 16	K	200	4,75 A 4
M 3 x 20	K	200	5,25 A 4
M 3 x 25	K	200	6,70 A 4
M 3 x 30	K	200	10,10 A 4
M 4 x 6	K	200	10,00 A 4
M 4 x 8	S	1000	6,30 A 4
M 4 x 8	K	200	7,30 A 4
M 4 x 10	S	1000	5,15 A 4
M 4 x 10	K	200	6,15 A 4
M 4 x 12	K	200	6,00 A 4
M 4 x 16	S	1000	5,30 A 4
M 4 x 16	K	200	6,30 A 4
M 4 x 18	K	200	9,50 A 4
M 4 x 20	S	1000	5,75 A 4
M 4 x 20	K	200	6,75 A 4
M 4 x 25	K	200	8,15 A 4
M 4 x 30	K	200	10,40 A 4
M 4 x 35	K	100	15,45 A 4
M 4 x 40	K	100	20,35 A 4
M 4 x 45	K	100	26,35 A 4
M 5 x 10	S	500	7,95 A 4
M 5 x 10	K	200	8,95 A 4
M 5 x 12	K	200	7,55 A 4
M 5 x 16	S	500	7,30 A 4
M 5 x 16	K	200	8,30 A 4
M 5 x 20	S	500	7,70 A 4
M 5 x 20	K	200	8,70 A 4
M 5 x 25	K	200	10,20 A 4
M 5 x 30	K	200	12,70 A 4
M 5 x 35	K	100	17,25 A 4
M 5 x 40	S	200	18,90 A 4
M 5 x 40	K	100	20,95 A 4
M 5 x 50	S	200	40,80 A 4
M 5 x 50	K	100	42,85 A 4
M 5 x 60	K	100	53,15 A 4
M 5 x 70	K	100	64,85 A 4
M 5 x 80	K	100	72,05 A 4
M 6 x 10	S	200	11,80 A 4
M 6 x 10	K	100	13,85 A 4
M 6 x 12	K	100	13,25 A 4
M 6 x 16	S	200	10,80 A 4
M 6 x 16	K	100	12,85 A 4
M 6 x 20	S	200	12,60 A 4
M 6 x 20	K	100	14,65 A 4
M 6 x 25	S	200	14,70 A 4
M 6 x 25	K	100	16,75 A 4
M 6 x 30	S	200	16,80 A 4
M 6 x 30	K	100	18,85 A 4
M 6 x 35	S	100	21,10 A 4
M 6 x 40	S	100	28,10 A 4
M 6 x 40	K	50	32,20 A 4
M 6 x 50	S	100	42,80 A 4
M 6 x 50	K	50	46,90 A 4
M 6 x 60	K	50	49,80 A 4
M 6 x 70	K	50	72,60 A 4
M 6 x 80	K	50	86,40 A 4
M 8 x 16	K	50	30,90 A 4
M 8 x 20	S	100	28,10 A 4
M 8 x 20	K	50	32,20 A 4
M 8 x 25	S	100	30,60 A 4
M 8 x 25	K	50	34,70 A 4
M 8 x 30	S	100	34,50 A 4
M 8 x 40	K	50	46,90 A 4
M 8 x 50	S	100	62,30 A 4
M 8 x 50	K	50	66,40 A 4
M 10 x 20	K	50	59,30 A 4
M 10 x 25	K	50	61,80 A 4
M 10 x 50	K	50	103,00 A 4

Dimensions	PU	Pieces	€.
DIN	02093.960	RAZ 540	
2093	1.4310/1.4568*		



Disc springs

*t F 2mm = 1.4310 or 1.4568; t > 2mm = 1.4568

Caution! Reduced spring load.

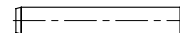
Dimensions → **TI-142**

Steel → **S. 215**

Outside Ø x inside Ø x thickness t

8 x 3,2 x 0,5	S	200	37,50
8 x 4,2 x 0,3	S	200	35,00
8 x 4,2 x 0,4	S	200	36,00
10 x 5,2 x 0,4	S	200	39,00
10 x 5,2 x 0,5	S	200	40,50
12,5 x 6,2 x 0,5	S	200	45,50
12,5 x 6,2 x 0,7	S	200	53,00
15 x 8,2 x 0,8	S	200	62,00
16 x 8,2 x 0,6	S	200	58,00
16 x 8,2 x 0,9	S	200	69,00
18 x 9,2 x 0,7	S	200	69,00
18 x 9,2 x 1,0	S	200	83,00
20 x 8,2 x 0,5	S	200	65,00
20 x 10,2 x 0,6	S	200	71,00
20 x 10,2 x 0,8	S	200	82,00
20 x 10,2 x 0,9	S	200	87,00
20 x 10,2 x 1	S	200	92,00
20 x 10,2 x 1,1	S	200	96,00
25 x 12,2 x 0,9	S	200	110,00
25 x 12,2 x 1,5	S	200	153,00
28 x 14,2 x 1,0	S	200	136,00
28 x 14,2 x 1,5	S	200	179,00
31,5 x 16,3 x 1,25	S	200	370,00
31,5 x 16,3 x 1,75	S	200	495,00
31,5 x 16,3 x 2	S	200	510,00
35,5 x 18,3 x 1,25	S	100	455,00
35,5 x 18,3 x 2,0	S	100	690,00
40 x 20,4 x 1,5	S	100	660,00
40 x 20,4 x 2	S	100	860,00
40 x 20,4 x 2,25	S	100	960,00

ISO	02338.910	RAZ 3100
2338	A 1	m6



Parallel pins, tolerance m6

Conform to EN 22338

Dimensions → **TI-114**

Steel → **S. 216**

ISO 2338 → replaces DIN 7

Ø - tol. x length (with cone)

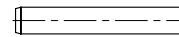
0,8 m6 x 4	S	100	9,70 A 1
0,8 m6 x 5	S	100	10,10 A 1
0,8 m6 x 6	S	100	10,40 A 1
0,8 m6 x 8	S	100	10,70 A 1
0,8 m6 x 10	S	100	11,10 A 1
1 m6 x 3	S	100	7,00 A 1
1 m6 x 4	S	100	7,20 A 1



ISO 2338

Dimensions	PU Pieces	€.	Dimensions	PU Pieces	€.	Dimensions	PU Pieces	€.
1 m6 x 5	S 100	7,60 A1	5 m6 x 10	S 50	26,00 A1	12 m6 x 32	S 10	345,00 A1
1 m6 x 6	S 100	7,80 A1	5 m6 x 12	S 50	28,00 A1	12 m6 x 40	S 10	415,00 A1
1 m6 x 8	S 100	8,00 A1	5 m6 x 14	S 100	29,50 A1	12 m6 x 45	S 10	470,00 A1
1 m6 x 10	S 100	8,30 A1	5 m6 x 16	S 50	30,50 A1	12 m6 x 50	S 10	510,00 A1
1 m6 x 12	S 100	8,70 A1	5 m6 x 18	S 25	36,00 A1	12 m6 x 55	S 10	560,00 A1
1,5 m6 x 3	S 100	7,80 A1	5 m6 x 20	S 25	37,50 A1	12 m6 x 60	S 10	600,00 A1
1,5 m6 x 4	S 100	8,00 A1	5 m6 x 24	S 25	40,50 A1	12 m6 x 70	S 10	710,00 A1
1,5 m6 x 5	S 100	8,20 A1	5 m6 x 28	S 25	43,50 A1	12 m6 x 80	S 10	780,00 A1
1,5 m6 x 6	S 100	8,40 A1	5 m6 x 30	S 25	46,00 A1	12 m6 x 90	S 10	870,00 A1
1,5 m6 x 8	S 100	8,90 A1	5 m6 x 32	S 25	51,00 A1	12 m6 x 100	S 10	950,00 A1
1,5 m6 x 10	S 100	9,30 A1	5 m6 x 36	S 25	56,00 A1	16 m6 x 20	S 10	590,00 A1
1,5 m6 x 12	S 100	9,70 A1	5 m6 x 40	S 25	64,00 A1	16 m6 x 24	S 10	610,00 A1
1,5 m6 x 14	S 100	10,10 A1	5 m6 x 45	S 25	74,00 A1	16 m6 x 28	S 10	680,00 A1
1,5 m6 x 16	S 100	10,70 A1	5 m6 x 50	S 25	83,00 A1	16 m6 x 32	S 10	840,00 A1
1,5 m6 x 18	S 100	11,50 A1	6 m6 x 6	S 50	32,50 A1	16 m6 x 36	S 10	1160,00 A1
1,5 m6 x 20	S 100	11,70 A1	6 m6 x 8	S 50	34,00 A1	16 m6 x 40	S 10	1250,00 A1
2 m6 x 4	S 100	8,60 A1	6 m6 x 10	S 50	36,00 A1	16 m6 x 45	S 10	1410,00 A1
2 m6 x 5	S 100	8,80 A1	6 m6 x 12	S 25	40,50 A1	16 m6 x 50	S 10	1540,00 A1
2 m6 x 6	S 100	9,00 A1	6 m6 x 14	S 25	42,00 A1	16 m6 x 55	S 10	1700,00 A1
2 m6 x 8	S 100	9,90 A1	6 m6 x 16	S 25	43,50 A1	16 m6 x 60	S 10	1820,00 A1
2 m6 x 10	S 100	10,30 A1	6 m6 x 18	S 25	44,50 A1	16 m6 x 70	S 10	2010,00 A1
2 m6 x 12	S 100	10,70 A1	6 m6 x 20	S 25	46,00 A1	16 m6 x 80	S 10	2150,00 A1
2 m6 x 14	S 100	11,10 A1	6 m6 x 24	S 25	59,00 A1	16 m6 x 90	S 10	2290,00 A1
2 m6 x 16	S 100	11,60 A1	6 m6 x 28	S 25	62,00 A1	16 m6 x 100	S 10	2410,00 A1
2 m6 x 18	S 100	12,10 A1	6 m6 x 30	S 25	71,00 A1			
2 m6 x 20	S 100	13,10 A1	6 m6 x 32	S 25	65,00 A1			
2,5 m6 x 4	S 100	9,70 A1	6 m6 x 36	S 25	69,00 A1			
2,5 m6 x 5	S 100	10,00 A1	6 m6 x 40	S 10	86,00 A1			
2,5 m6 x 6	S 100	10,30 A1	6 m6 x 45	S 10	92,00 A1			
2,5 m6 x 8	S 100	10,70 A1	6 m6 x 50	S 10	97,00 A1			
2,5 m6 x 10	S 100	11,10 A1	6 m6 x 55	S 10	105,00 A1			
2,5 m6 x 12	S 100	11,70 A1	6 m6 x 60	S 10	111,00 A1			
2,5 m6 x 14	S 100	13,50 A1	8 m6 x 10	S 10	61,00 A1			
2,5 m6 x 16	S 100	14,60 A1	8 m6 x 12	S 10	63,00 A1			
2,5 m6 x 18	S 100	16,00 A1	8 m6 x 14	S 10	66,00 A1			
2,5 m6 x 20	S 100	16,60 A1	8 m6 x 16	S 10	72,00 A1			
2,5 m6 x 24	S 100	19,70 A1	8 m6 x 18	S 10	76,00 A1			
3 m6 x 4	S 100	12,10 A1	8 m6 x 20	S 10	79,00 A1			
3 m6 x 5	S 100	12,50 A1	8 m6 x 24	S 10	83,00 A1			
3 m6 x 6	S 100	12,90 A1	8 m6 x 28	S 10	86,00 A1			
3 m6 x 8	S 100	13,70 A1	8 m6 x 30	S 10	94,00 A1			
3 m6 x 10	S 100	14,20 A1	8 m6 x 32	S 10	95,00 A1			
3 m6 x 12	S 100	14,80 A1	8 m6 x 36	S 10	120,00 A1			
3 m6 x 14	S 100	15,60 A1	8 m6 x 40	S 10	128,00 A1			
3 m6 x 16	S 100	16,00 A1	8 m6 x 45	S 10	136,00 A1			
3 m6 x 18	S 50	18,70 A1	8 m6 x 50	S 10	151,00 A1			
3 m6 x 20	S 50	19,80 A1	8 m6 x 55	S 10	167,00 A1			
3 m6 x 24	S 50	22,50 A1	8 m6 x 60	S 10	178,00 A1			
3 m6 x 28	S 50	26,00 A1	8 m6 x 70	S 1	209,00 A1			
3 m6 x 30	S 50	29,00 A1	8 m6 x 80	S 1	255,00 A1			
3 m6 x 32	S 50	31,00 A1	8 m6 x 90	S 100	257,00 A1			
3 m6 x 40	S 50	55,00 A1	10 m6 x 10	S 10	91,00 A1			
3 m6 x 45	S 50	66,00 A1	10 m6 x 12	S 10	94,00 A1			
3 m6 x 50	S 50	78,00 A1	10 m6 x 14	S 10	97,00 A1			
3 m6 x 60	S 50	200,00 A1	10 m6 x 16	S 10	100,00 A1			
4 m6 x 5	S 50	17,30 A1	10 m6 x 18	S 10	105,00 A1			
4 m6 x 6	S 50	17,70 A1	10 m6 x 20	S 10	130,00 A1			
4 m6 x 8	S 50	18,80 A1	10 m6 x 24	S 10	140,00 A1			
4 m6 x 10	S 50	21,50 A1	10 m6 x 28	S 10	157,00 A1			
4 m6 x 12	S 50	23,50 A1	10 m6 x 32	S 10	171,00 A1			
4 m6 x 14	S 50	26,50 A1	10 m6 x 36	S 10	182,00 A1			
4 m6 x 16	S 50	27,50 A1	10 m6 x 40	S 10	193,00 A1			
4 m6 x 18	S 50	29,00 A1	10 m6 x 45	S 10	208,00 A1			
4 m6 x 20	S 50	32,00 A1	10 m6 x 50	S 10	236,00 A1			
4 m6 x 24	S 50	33,50 A1	10 m6 x 55	S 10	260,00 A1			
4 m6 x 26	S 50	36,00 A1	10 m6 x 60	S 10	275,00 A1			
4 m6 x 28	S 25	40,00 A1	10 m6 x 70	S 10	310,00 A1			
4 m6 x 32	S 25	45,50 A1	10 m6 x 80	S 10	350,00 A1			
4 m6 x 36	S 25	53,00 A1	10 m6 x 90	S 10	390,00 A1			
4 m6 x 40	S 25	56,00 A1	10 m6 x 100	S 10	480,00 A1			
4 m6 x 50	S 25	90,00 A1	12 m6 x 16	S 10	198,00 A1			
4 m6 x 60	S 25	132,00 A1	12 m6 x 18	S 10	220,00 A1			
5 m6 x 5	S 50	19,10 A1	12 m6 x 20	S 10	236,00 A1			
5 m6 x 6	S 50	19,20 A1	12 m6 x 24	S 10	243,00 A1			
5 m6 x 8	S 50	25,50 A1	12 m6 x 30	S 10	305,00 A1			

ISO	02338.940	RAZ 3100
2338	A 4	m6



Parallel pins, tolerance m6

conform to EN 22338

Dimensions → **TI-T14**

Steel → **S. 216**

ISO 2338 → replaces DIN 7

∅ - tol. x length (with cone)

1 m6 x 3	S 100	11,40 A4
1 m6 x 4	S 100	11,40 A4
1 m6 x 5	S 100	11,40 A4
1 m6 x 6	S 100	11,90 A4
1 m6 x 8	S 100	12,60 A4
1 m6 x 10	S 100	12,70 A4
1 m6 x 12	S 100	12,70 A4
1,5 m6 x 4	S 100	12,80 A4
1,5 m6 x 5	S 100	12,80 A4
1,5 m6 x 6	S 100	13,20 A4
1,5 m6 x 8	S 100	13,20 A4
1,5 m6 x 10	S 100	14,10 A4
1,5 m6 x 12	S 100	14,60 A4
1,5 m6 x 14	S 100	15,30 A4
1,5 m6 x 16	S 100	15,80 A4
1,5 m6 x 18	S 100	22,30 A4
1,5 m6 x 20	S 100	24,10 A4
2 m6 x 5	S 100	14,00 A4
2 m6 x 6	S 100	14,10 A4
2 m6 x 8	S 100	14,70 A4
2 m6 x 10	S 100	15,60 A4
2 m6 x 12	S 100	16,70 A4
2 m6 x 14	S 100	17,70 A4
2 m6 x 16	S 100	19,00 A4
2 m6 x 18	S 100	22,30 A4
2 m6 x 20	S 100	24,10 A4
2 m6 x 24	S 100	27,50 A4
2,5 m6 x 4	S 100	14,10 A4
2,5 m6 x 5	S 100	14,70 A4
2,5 m6 x 6	S 100	15,60 A4
2,5 m6 x 8	S 100	16,70 A4
2,5 m6 x 10	S 100	17,70 A4



ISO 2338

Dimensions	PU	Pieces	€.
2,5 m6 x 12	S	100	19,00 A4
2,5 m6 x 14	S	100	19,90 A4
2,5 m6 x 16	S	100	21,00 A4
2,5 m6 x 18	S	100	22,30 A4
2,5 m6 x 20	S	100	24,10 A4
2,5 m6 x 24	S	100	27,50 A4
3 m6 x 4	S	100	16,40 A4
3 m6 x 5	S	100	14,10 A4
3 m6 x 6	S	100	18,30 A4
3 m6 x 8	S	100	19,90 A4
3 m6 x 10	S	100	21,30 A4
3 m6 x 12	S	100	23,30 A4
3 m6 x 14	S	100	26,00 A4
3 m6 x 16	S	100	27,50 A4
3 m6 x 18	S	50	31,00 A4
3 m6 x 20	S	50	33,50 A4
3 m6 x 24	S	50	36,50 A4
3 m6 x 28	S	50	38,50 A4
3 m6 x 30	S	50	41,00 A4
3 m6 x 32	S	50	42,00 A4
4 m6 x 6	S	50	27,50 A4
4 m6 x 8	S	50	31,00 A4
4 m6 x 10	S	50	34,50 A4
4 m6 x 12	S	50	38,00 A4
4 m6 x 14	S	50	41,00 A4
4 m6 x 16	S	50	44,00 A4
4 m6 x 18	S	25	51,00 A4
4 m6 x 20	S	25	54,00 A4
4 m6 x 24	S	25	61,00 A4
4 m6 x 28	S	25	68,00 A4
4 m6 x 30	S	25	71,00 A4
4 m6 x 32	S	25	74,00 A4
4 m6 x 36	S	25	82,00 A4
4 m6 x 40	S	25	91,00 A4
5 m6 x 6	S	50	30,50 A4
5 m6 x 8	S	50	34,50 A4
5 m6 x 10	S	50	39,00 A4
5 m6 x 12	S	50	41,00 A4
5 m6 x 14	S	25	44,50 A4
5 m6 x 16	S	25	47,00 A4
5 m6 x 18	S	25	51,00 A4
5 m6 x 20	S	25	62,00 A4
5 m6 x 24	S	25	61,00 A4
5 m6 x 28	S	25	68,00 A4
5 m6 x 30	S	25	71,00 A4
5 m6 x 32	S	25	75,00 A4
5 m6 x 36	S	25	81,00 A4
5 m6 x 40	S	25	89,00 A4
5 m6 x 45	S	25	98,00 A4
5 m6 x 50	S	25	106,00 A4
6 m6 x 8	S	25	47,50 A4
6 m6 x 10	S	25	49,00 A4
6 m6 x 12	S	25	53,00 A4
6 m6 x 14	S	25	58,00 A4
6 m6 x 16	S	25	61,00 A4
6 m6 x 18	S	10	75,00 A4
6 m6 x 20	S	10	79,00 A4
6 m6 x 24	S	10	87,00 A4
6 m6 x 28	S	10	99,00 A4
6 m6 x 30	S	10	100,00 A4
6 m6 x 32	S	10	105,00 A4
6 m6 x 36	S	10	115,00 A4
6 m6 x 40	S	10	125,00 A4
6 m6 x 45	S	10	135,00 A4
6 m6 x 50	S	10	146,00 A4
6 m6 x 55	S	10	156,00 A4
6 m6 x 60	S	10	167,00 A4
8 m6 x 10	S	10	82,00 A4
8 m6 x 12	S	10	88,00 A4
8 m6 x 14	S	10	96,00 A4
8 m6 x 16	S	10	102,00 A4
8 m6 x 18	S	10	109,00 A4
8 m6 x 20	S	10	116,00 A4
8 m6 x 24	S	10	129,00 A4
8 m6 x 28	S	10	142,00 A4

Dimensions	PU	Pieces	€.
8 m6 x 30	S	10	147,00 A4
8 m6 x 32	S	10	155,00 A4
8 m6 x 36	S	10	169,00 A4
8 m6 x 40	S	10	185,00 A4
8 m6 x 45	S	10	202,00 A4
8 m6 x 50	S	10	218,00 A4
8 m6 x 55	S	10	236,00 A4
8 m6 x 60	S	1	265,00 A4
8 m6 x 70	S	1	315,00 A4
8 m6 x 80	S	1	350,00 A4
10 m6 x 12	S	10	156,00 A4
10 m6 x 14	S	10	156,00 A4
10 m6 x 16	S	10	157,00 A4
10 m6 x 18	S	10	160,00 A4
10 m6 x 20	S	10	168,00 A4
10 m6 x 24	S	10	188,00 A4
10 m6 x 28	S	10	210,00 A4
10 m6 x 30	S	10	220,00 A4
10 m6 x 32	S	10	231,00 A4
10 m6 x 36	S	10	270,00 A4
10 m6 x 40	S	10	290,00 A4
10 m6 x 45	S	10	315,00 A4
10 m6 x 50	S	10	345,00 A4
10 m6 x 55	S	10	370,00 A4
10 m6 x 60	S	10	395,00 A4
10 m6 x 70	S	10	475,00 A4
10 m6 x 80	S	1	520,00 A4
10 m6 x 90	S	1	580,00 A4
10 m6 x 100	S	1	620,00 A4
12 m6 x 14	S	10	350,00 A4
12 m6 x 16	S	10	280,00 A4
12 m6 x 18	S	10	300,00 A4
12 m6 x 20	S	10	325,00 A4
12 m6 x 24	S	10	350,00 A4
12 m6 x 28	S	10	395,00 A4
12 m6 x 32	S	10	440,00 A4
12 m6 x 36	S	10	485,00 A4
12 m6 x 40	S	10	550,00 A4
12 m6 x 45	S	10	600,00 A4
12 m6 x 50	S	10	650,00 A4
12 m6 x 55	S	10	720,00 A4
12 m6 x 60	S	10	760,00 A4
12 m6 x 70	S	10	880,00 A4
12 m6 x 80	S	10	1040,00 A4
12 m6 x 90	S	10	1130,00 A4
12 m6 x 100	S	10	1270,00 A4
16 m6 x 20	S	10	580,00 A4
16 m6 x 24	S	10	640,00 A4
16 m6 x 28	S	10	750,00 A4
16 m6 x 32	S	10	830,00 A4
16 m6 x 36	S	10	890,00 A4
16 m6 x 40	S	10	950,00 A4
16 m6 x 45	S	10	1040,00 A4
16 m6 x 50	S	10	1110,00 A4
16 m6 x 55	S	10	1190,00 A4
16 m6 x 60	S	10	1290,00 A4
16 m6 x 70	S	10	1410,00 A4
16 m6 x 80	S	10	1560,00 A4
16 m6 x 90	S	10	1720,00 A4
16 m6 x 100	S	10	1870,00 A4

Dimensions	PU	Pieces	€.
ISO		02339.912	RAZ 3100
2339	A 1		type B



**Taper pins, taper 1 : 50,
B = turned**
Equals to EN 23339

Dimensions → TI-115

Steel → S. 217

ISO 2339 → replaces DIN 1

∅ x length (with cone)

1	x	8	S	50	33,50 A1
1	x	10	S	50	33,50 A1
1	x	12	S	50	36,50 A1
1	x	14	S	50	36,50 A1
1	x	16	S	50	39,50 A1
1	x	18	S	50	39,50 A1
1,5	x	6	S	50	27,50 A1
1,5	x	8	S	50	27,50 A1
1,5	x	10	S	50	27,50 A1
1,5	x	12	S	50	29,50 A1
1,5	x	14	S	50	30,50 A1
1,5	x	16	S	50	30,50 A1
1,5	x	18	S	50	34,00 A1
1,5	x	20	S	50	35,50 A1
1,5	x	22	S	50	36,50 A1
1,5	x	24	S	50	39,00 A1
1,5	x	26	S	50	39,50 A1
2	x	8	S	50	28,50 A1
2	x	10	S	50	28,50 A1
2	x	12	S	50	29,00 A1
2	x	14	S	50	32,00 A1
2	x	16	S	50	33,00 A1
2	x	18	S	50	35,00 A1
2	x	20	S	50	36,50 A1
2	x	22	S	50	38,50 A1
2	x	24	S	50	40,00 A1
2	x	26	S	50	41,50 A1
2	x	28	S	50	42,50 A1
2	x	30	S	50	44,50 A1
2	x	32	S	50	46,00 A1
2	x	36	S	50	55,00 A1
2,5	x	12	S	50	33,50 A1
2,5	x	14	S	50	33,50 A1
2,5	x	16	S	50	35,50 A1
2,5	x	18	S	50	39,00 A1
2,5	x	20	S	50	42,50 A1
2,5	x	22	S	50	46,00 A1
2,5	x	24	S	50	49,50 A1
2,5	x	26	S	50	52,00 A1
2,5	x	28	S	50	55,00 A1
2,5	x	30	S	50	58,00 A1
2,5	x	32	S	50	61,00 A1
2,5	x	36	S	50	63,00 A1
3	x	12	S	50	35,50 A1
3	x	14	S	50	35,50 A1
3	x	16	S	50	39,00 A1
3	x	18	S	50	42,50 A1
3	x	20	S	50	48,50 A1
3	x	22	S	50	54,00 A1
3	x	24	S	50	59,00 A1
3	x	26	S	50	63,00 A1
3	x	28	S	50	67,00 A1
3	x	30	S	50	72,00 A1
3	x	32	S	50	76,00 A1
3	x	36	S	50	79,00 A1
3	x	40	S	50	83,00 A1



DIN 3017

Dimensions	PU	Pieces	€.
3 x 45	S	50	87,00 A1
3 x 50	S	50	92,00 A1
4 x 18	S	50	59,00 A1
4 x 20	S	50	65,00 A1
4 x 22	S	50	71,00 A1
4 x 24	S	50	78,00 A1
4 x 26	S	25	84,00 A1
4 x 28	S	25	89,00 A1
4 x 30	S	25	96,00 A1
4 x 32	S	25	103,00 A1
4 x 36	S	25	113,00 A1
4 x 40	S	25	123,00 A1
4 x 45	S	25	133,00 A1
4 x 50	S	25	144,00 A1
4 x 55	S	25	155,00 A1
4 x 60	S	25	174,00 A1
5 x 20	S	25	88,00 A1
5 x 22	S	25	94,00 A1
5 x 24	S	25	101,00 A1
5 x 26	S	25	108,00 A1
5 x 28	S	25	114,00 A1
5 x 30	S	25	121,00 A1
5 x 32	S	25	127,00 A1
5 x 36	S	25	138,00 A1
5 x 40	S	25	147,00 A1
5 x 45	S	10	164,00 A1
5 x 50	S	10	176,00 A1
5 x 55	S	10	187,00 A1
5 x 60	S	10	198,00 A1
5 x 70	S	10	225,00 A1
6 x 24	S	10	130,00 A1
6 x 26	S	10	136,00 A1
6 x 28	S	10	142,00 A1
6 x 30	S	10	149,00 A1
6 x 32	S	10	155,00 A1
6 x 36	S	10	170,00 A1
6 x 40	S	10	186,00 A1
6 x 45	S	10	204,00 A1
6 x 50	S	10	224,00 A1
6 x 55	S	10	249,00 A1
6 x 60	S	10	265,00 A1
6 x 70	S	10	300,00 A1
6 x 80	S	10	330,00 A1
8 x 28	S	10	224,00 A1
8 x 30	S	10	255,00 A1
8 x 32	S	10	280,00 A1
8 x 36	S	10	320,00 A1
8 x 40	S	10	350,00 A1
8 x 45	S	10	385,00 A1
8 x 50	S	10	420,00 A1
8 x 55	S	10	450,00 A1
8 x 60	S	10	475,00 A1
8 x 70	S	1	530,00 A1
8 x 80	S	1	580,00 A1
8 x 90	S	1	630,00 A1
8 x 100	S	1	680,00 A1
10 x 32	S	10	380,00 A1
10 x 36	S	10	410,00 A1
10 x 40	S	10	430,00 A1
10 x 45	S	10	455,00 A1
10 x 50	S	10	475,00 A1
10 x 55	S	1	530,00 A1
10 x 60	S	1	570,00 A1
10 x 70	S	1	620,00 A1
10 x 80	S	1	670,00 A1
10 x 90	S	1	740,00 A1
10 x 100	S	1	820,00 A1

Dimensions	PU	Pieces	€.
ISO 02342.910			RAZ 140
2342	A 1		



Slotted headless screws with chamfered end

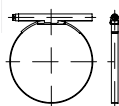
Dimensions → **Tl-19**

Steel → **S. 219**

ISO 2342 → replaces DIN 427 (compatible)

M 3 x 6	S	100	47,00 A1
M 3 x 8	S	100	52,00 A1
M 4 x 8	S	100	55,00 A1
M 4 x 10	S	100	58,00 A1
M 4 x 12	S	100	62,00 A1
M 4 x 16	S	100	67,00 A1
M 4 x 20	S	100	72,00 A1
M 5 x 10	S	100	62,00 A1
M 5 x 12	S	100	64,00 A1
M 5 x 16	S	100	85,00 A1
M 5 x 20	S	100	106,00 A1
M 6 x 12	S	100	136,00 A1
M 6 x 16	S	100	139,00 A1
M 6 x 20	S	100	142,00 A1
M 6 x 30	S	100	148,00 A1
M 8 x 16	S	100	188,00 A1
M 8 x 20	S	100	198,00 A1
M 10 x 20	S	100	260,00 A1
M 10 x 25	S	100	285,00 A1
M 10 x 30	S	100	300,00 A1
M 10 x 50	S	100	345,00 A1

Dimensions	PU	Pieces	€.
DIN 03017.311			RAZ 555
3017	1.4016 (W2)	type A	



Hose clamps, A = with worm gear drive

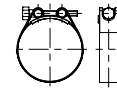
Clamping screw with slotted, hexagon and cross recess (H2), band and casing: 1.4016, screw = steel, ZP

Stainless → **S. 496**

Clamping range/band width x wrench size

8-12/7,5 C6	S	100	84,00
10-16/7,5 C6	S	100	85,00
8-16/9 C7	S	100	87,00
12-20/9 C7	S	100	89,00
16-27/9 C7	S	100	94,00
20-32/9 C7	S	100	99,00
25-40/9 C7	S	100	103,00
32-50/9 C7	S	50	107,00
40-60/9 C7	S	50	110,00
50-70/9 C7	S	50	112,00
60-80/9 C7	S	25	119,00
70-90/9 C7	S	25	141,00
80-100/9 C7	S	25	144,00
90-110/9 C7	S	25	152,00

Dimensions	PU	Pieces	€.
DIN 03017.903			RAZ 555
3017	1.4016 (W2)	type C1	



Hose clamps, C1 = with hinge bolts, one-piece

With hexagon clamping screw

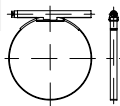
Clamping range/band width

17-19/18	S	50	990,00
19-21/18	S	50	990,00
21-23/18	S	50	1000,00
23-25/18	S	50	1010,00
25-27/18	S	50	1020,00
27-29/18	S	50	1020,00
29-31/18	S	50	1030,00
31-34/18	S	50	1030,00
34-37/18	S	50	1030,00
37-40/18	S	50	1040,00
40-43/18	S	50	1040,00
43-47/20	S	50	1060,00
47-51/20	S	50	1090,00
51-55/20	S	50	1090,00
55-59/20	S	50	1110,00
59-63/20	S	50	1120,00
63-68/20	S	50	1150,00
68-73/25	S	25	1390,00
73-79/25	S	25	1410,00
79-85/25	S	25	1450,00
85-91/25	S	25	1470,00
91-97/25	S	25	1500,00
97-104/25	S	25	1520,00
104-112/25	S	25	1560,00
112-121/25	S	25	1600,00
121-130/25	S	25	1650,00
130-140/30	S	10	2700,00
140-150/30	S	10	2750,00
150-162/30	S	10	2850,00
162-174/30	S	10	3050,00
174-187/30	S	10	3100,00
187-200/30	S	10	3150,00
200-213/30	S	10	3400,00
213-226/30	S	10	3450,00
226-239/30	S	10	3550,00
239-252/30	S	10	3600,00

DIN 3017

Dimensions PU Pieces €.

DIN	03017.941	RAZ 555
3017	A 4 (W5)	type A



Hose clamps, A = with worm gear drive

Clamping screw with slot and hexagon, band, casing and screw: 1.4401

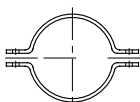
Steel → S. 221

Clamping range/band width x wrench size

8- 16/ 9	C7	S 100	91,75 A4
12- 20/ 9	C7	S 100	103,00 A4
12- 22/ 9	C7	S 100	105,00 A4
16- 27/ 9	C7	S 100	109,00 A4
16- 27/12	C7	S 50	177,00 A4
20- 32/ 9	C7	S 100	110,00 A4
20- 32/12	C7	S 50	181,00 A4
25- 40/ 9	C7	S 100	123,00 A4
25- 40/12	C7	S 50	190,00 A4
32- 50/ 9	C7	S 50	130,00 A4
32- 50/12	C7	S 50	199,00 A4
40- 60/ 9	C7	S 50	139,00 A4
40- 60/12	C7	S 25	240,00 A4
50- 70/ 9	C7	S 50	147,00 A4
50- 70/12	C7	S 25	252,00 A4
60- 80/ 9	C7	S 25	161,00 A4
60- 80/12	C7	S 25	282,00 A4
70- 90/ 9	C7	S 25	170,00 A4
70- 90/12	C7	S 25	300,00 A4
80-100/ 9	C7	S 25	176,00 A4
80-100/12	C7	S 1	314,00 A4
90-110/ 9	C7	S 25	183,00 A4
90-110/12	C7	S 20	326,00 A4
100-120/12	C7	S 1	357,00 A4
110-130/12	C7	S 1	380,00 A4
120-140/12	C7	S 1	396,00 A4
130-150/12	C7	S 1	410,00 A4
140-160/12	C7	S 1	426,00 A4
150-170/12	C7	S 1	440,00 A4
160-180/12	C7	S 1	454,00 A4
170-190/12	C7	S 1	469,00 A4

Dimensions PU Pieces €.

DIN	03567.951	RAZ 560
3567	1.4571 (A5)	type A



Pipe clamps, A = equal sided

Dimensions → TI-129

Steel → S. 222

Prices are valid for pipe clamps halves

Inside Ø/for pipe nominal width

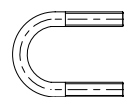
A 34 / NW 25	S 1	735,00 A5
A 43 / NW 32	S 1	767,00 A5
A 49 / NW 40	S 1	813,00 A5
A 61 / NW 50	S 1	1202,00 A5

Dimensions PU Pieces €.

A 77 / NW 65	S 1	1458,00 A5
A 89 / NW 80	S 1	1560,00 A5
A 115 / NW 100	S 1	3385,00 A5
A 140 / NW 125	S 1	3794,00 A5
A 169 / NW 150	S 1	4336,00 A5
A 220 / NW 200	S 1	5436,00 A5

Dimensions PU Pieces €.

DIN	03570.941	RAZ 560
3570	A 4	type A



Stirrup bolts without nuts, A = double-sided fixing thread

Hanger height for sheet thickness 10 mm

Nuts → DIN 555/ISO 4034

Dimensions → TI-128

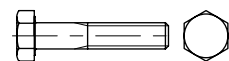
Steel → S. 224

Nominal width/– pipe outside Ø

A 23 / NW 15	S 1	270,00 A4
A 30 / NW 20	S 1	335,00 A4
A 38 / NW 25	S 1	345,00 A4
A 46 / NW 32	S 1	370,00 A4
A 52 / NW 40	S 1	390,00 A4
A 64 / NW 50	S 1	550,00 A4
A 82 / NW 65	S 1	630,00 A4
A 94 / NW 80	S 1	660,00 A4
A 120 / NW 100	S 1	2200,00 A4
A 148 / NW 125	S 1	2600,00 A4
A 176 / NW 150	S 1	2900,00 A4
A 228 / NW 200	S 1	6000,00 A4
A 282 / NW 250	S 1	6800,00 A4
A 332 / NW 300	S 1	7900,00 A4
A 530 / NW 500	S 1	8600,00 A4

ISO 04014.920 **

4014	A 2 - 70
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Hexagon head bolts with shank

Short dimensions in part thread up to head,

**M 10/12/14/22= RAZ 3220 other Ø = RAZ 401

Dimensions → TI-15 Tightening torque → TI-235

Mech. properties → TI-224 Standard conversion → TI-6

Steel → S. 224

Brass → S. 588

ISO 4014 → replaces DIN 931

*Prop. class for dimensions different depending on production

M 5 x 30*	S 100	8,20 A2
M 5 x 35*	S 100	9,90 A2
M 5 x 40*	S 100	10,40 A2
M 5 x 45*	S 100	12,20 A2
M 5 x 50*	S 100	14,20 A2
M 5 x 55*	S 100	27,60 A2
M 5 x 60*	S 100	27,60 A2
M 5 x 65*	S 200	60,30 A2
M 5 x 70*	S 100	61,80 A2
M 5 x 80*	S 100	208,00 A2
M 5 x 90*	S 100	278,00 A2

Dimensions PU Pieces €.

M 5 x 100*	S 100	350,00 A2
M 6 x 30*	S 200	7,90 A2
M 6 x 35*	S 100	8,85 A2
M 6 x 40*	S 100	10,20 A2
M 6 x 45*	S 100	11,90 A2
M 6 x 50*	S 100	14,20 A2
M 6 x 55*	S 100	20,90 A2
M 6 x 60*	S 100	23,70 A2
M 6 x 65*	S 100	29,60 A2
M 6 x 70*	S 100	32,20 A2
M 6 x 75*	S 100	46,40 A2
M 6 x 80*	S 100	38,80 A2
M 6 x 85*	S 100	63,90 A2
M 6 x 90*	S 100	51,10 A2
M 6 x 100*	S 100	59,80 A2
M 6 x 110*	S 50	75,10 A2
M 6 x 120*	S 50	88,40 A2
M 6 x 130*	S 50	143,00 A2
M 6 x 140*	S 50	151,00 A2
M 6 x 150*	S 50	180,00 A2
M 6 x 160*	S 50	194,00 A2
M 6 x 170*	S 50	236,00 A2
M 6 x 180*	S 50	239,00 A2
M 8 x 35*	S 100	14,80 A2
M 8 x 40*	S 100	17,30 A2
M 8 x 45*	S 100	18,40 A2
M 8 x 50*	S 100	19,60 A2
M 8 x 55*	S 100	21,90 A2
M 8 x 60*	S 100	22,40 A2
M 8 x 65*	S 100	31,10 A2
M 8 x 70*	S 100	32,70 A2
M 8 x 75*	S 100	63,40 A2
M 8 x 80*	S 100	50,10 A2
M 8 x 85*	S 100	76,60 A2
M 8 x 90*	S 100	61,30 A2
M 8 x 100*	S 100	74,10 A2
M 8 x 110*	S 50	88,90 A2
M 8 x 120*	S 50	101,00 A2
M 8 x 130*	S 50	114,00 A2
M 8 x 140*	S 50	126,00 A2
M 8 x 150*	S 50	138,00 A2
M 8 x 160*	S 25	192,00 A2
M 8 x 170*	S 25	233,00 A2
M 8 x 180*	S 25	233,00 A2
M 8 x 190*	S 25	309,00 A2
M 8 x 200*	S 25	309,00 A2
M 8 x 220*	S 25	466,00 A2
M 10 x 40	S 100	31,50 A2
M 10 x 45	S 100	32,00 A2
M 10 x 50	S 100	34,00 A2
M 10 x 55	S 50	37,00 A2
M 10 x 60	S 50	39,50 A2
M 10 x 65	S 50	45,00 A2
M 10 x 70	S 50	46,00 A2
M 10 x 75	S 50	84,00 A2
M 10 x 80	S 50	57,00 A2
M 10 x 85	S 50	126,00 A2
M 10 x 90	S 50	86,00 A2
M 10 x 100	S 50	110,00 A2
M 10 x 110*	S 100	184,00 A2
M 10 x 120*	S 50	165,00 A2
M 10 x 130*	S 50	202,00 A2
M 10 x 140*	S 50	509,00 A2
M 10 x 150*	S 50	264,00 A2
M 10 x 160*	S 50	309,00 A2
M 10 x 170*	S 1	378,00 A2
M 10 x 180*	S 1	382,00 A2
M 10 x 190*	S 1	502,00 A2
M 10 x 200*	S 1	502,00 A2
M 10 x 210*	S 1	649,00 A2
M 10 x 220*	S 1	726,00 A2
M 12 x 40*	S 50	42,10 A2
M 12 x 45	S 50	44,50 A2
M 12 x 50	S 50	49,00 A2
M 12 x 55	S 50	53,00 A2



ISO 4014

Dimensions	PU	Pieces	€.	Dimensions	PU	Pieces	€.	Dimensions	PU	Pieces	€.
M 12 x 60	S	50	56,00 A2	M 16 x 300*	S	1	1316,00 A2	M 24 x 300*	S	1	2178,00 A2
M 12 x 65	S	50	63,00 A2	M 18 x 65*	S	1	267,00 A2	M 27 x 90*	S	1	944,00 A2
M 12 x 70	S	50	67,00 A2	M 18 x 70*	S	25	282,00 A2	M 27 x 100*	S	1	1017,00 A2
M 12 x 75	S	50	119,00 A2	M 18 x 75*	S	1	311,00 A2	M 27 x 110*	S	1	1096,00 A2
M 12 x 80	S	50	81,00 A2	M 18 x 80*	S	25	311,00 A2	M 27 x 120*	S	1	1175,00 A2
M 12 x 85	S	50	153,00 A2	M 18 x 90*	S	25	341,00 A2	M 27 x 130*	S	1	1214,00 A2
M 12 x 90	S	50	109,00 A2	M 18 x 100*	S	25	370,00 A2	M 27 x 140*	S	1	1287,00 A2
M 12 x 100	S	50	122,00 A2	M 18 x 110*	S	25	524,00 A2	M 27 x 150*	S	1	1366,00 A2
M 12 x 105	S	50	250,00 A2	M 18 x 120*	S	25	574,00 A2	M 27 x 160*	S	1	1439,00 A2
M 12 x 110	S	25	149,00 A2	M 18 x 130*	S	25	674,00 A2	M 27 x 170*	S	1	1591,00 A2
M 12 x 120	S	25	177,00 A2	M 18 x 140*	S	25	739,00 A2	M 27 x 180*	S	1	1591,00 A2
M 12 x 130*	S	1	214,00 A2	M 18 x 150*	S	25	803,00 A2	M 27 x 200*	S	1	1737,00 A2
M 12 x 140*	S	1	296,55 A2	M 18 x 160*	S	25	841,00 A2	M 27 x 210*	S	1	2147,00 A2
M 12 x 150*	S	1	290,00 A2	M 20 x 65*	S	1	178,00 A2	M 27 x 220*	S	1	2147,00 A2
M 12 x 160*	S	1	347,00 A2	M 20 x 70*	S	1	188,00 A2	M 27 x 230*	S	1	2403,00 A2
M 12 x 170*	S	1	436,00 A2	M 20 x 75*	S	1	208,00 A2	M 27 x 240*	S	1	2403,00 A2
M 12 x 180*	S	1	436,00 A2	M 20 x 80*	S	1	208,00 A2	M 27 x 250*	S	1	2658,00 A2
M 12 x 190*	S	1	593,00 A2	M 20 x 85*	S	1	284,00 A2	M 30 x 90*	S	1	1231,00 A2
M 12 x 200*	S	1	593,00 A2	M 20 x 90*	S	1	227,00 A2	M 30 x 100*	S	1	1338,00 A2
M 12 x 210*	S	1	764,00 A2	M 20 x 100*	S	1	246,00 A2	M 30 x 110*	S	1	1428,00 A2
M 12 x 220*	S	1	834,00 A2	M 20 x 110*	S	1	349,00 A2	M 30 x 120*	S	1	1524,00 A2
M 12 x 230*	S	1	881,00 A2	M 20 x 120*	S	1	382,00 A2	M 30 x 130*	S	1	1597,00 A2
M 12 x 240*	S	1	929,00 A2	M 20 x 130*	S	1	449,00 A2	M 30 x 140*	S	1	1810,00 A2
M 12 x 250*	S	1	976,00 A2	M 20 x 140*	S	1	493,00 A2	M 30 x 150*	S	1	1912,00 A2
M 12 x 260*	S	1	1078,00 A2	M 20 x 150*	S	1	535,00 A2	M 30 x 160*	S	1	2114,00 A2
M 12 x 280*	S	1	1170,00 A2	M 20 x 160*	S	1	687,00 A2	M 30 x 170*	S	1	2328,00 A2
M 12 x 300*	S	1	1252,00 A2	M 20 x 170*	S	1	747,00 A2	M 30 x 180*	S	1	2328,00 A2
M 12 x 320*	S	1	1500,00 A2	M 20 x 180*	S	1	790,00 A2	M 30 x 190*	S	1	2547,00 A2
M 14 x 50	S	100	67,00 A2	M 20 x 190*	S	1	893,00 A2	M 30 x 200*	S	1	2547,00 A2
M 14 x 55	S	50	67,00 A2	M 20 x 200*	S	1	893,00 A2	M 30 x 210*	S	1	2760,00 A2
M 14 x 60	S	50	69,00 A2	M 20 x 210*	S	1	1089,00 A2	M 30 x 220*	S	1	2760,00 A2
M 14 x 65	S	50	74,00 A2	M 20 x 220*	S	1	1089,00 A2	M 30 x 240*	S	1	2965,00 A2
M 14 x 70	S	50	78,00 A2	M 20 x 230*	S	1	1242,00 A2	M 30 x 250*	S	1	3170,00 A2
M 14 x 75	S	50	174,00 A2	M 20 x 240*	S	1	1242,00 A2	M 33 x 100*	S	1	1760,00 A2
M 14 x 80	S	50	88,00 A2	M 20 x 250*	S	1	1395,00 A2	M 33 x 110*	S	1	1884,00 A2
M 14 x 90	S	50	97,00 A2	M 20 x 260*	S	1	1395,00 A2	M 33 x 120*	S	1	2007,00 A2
M 14 x 100	S	50	105,00 A2	M 20 x 270*	S	1	1549,00 A2	M 33 x 130*	S	1	2120,00 A2
M 14 x 110	S	25	151,00 A2	M 20 x 280*	S	1	1549,00 A2	M 33 x 140*	S	1	2255,00 A2
M 14 x 120	S	25	167,00 A2	M 20 x 290*	S	1	1702,00 A2	M 33 x 150*	S	1	2373,00 A2
M 14 x 130	S	25	390,00 A2	M 20 x 300*	S	1	1702,00 A2	M 33 x 160*	S	1	2491,00 A2
M 14 x 140	S	25	420,00 A2	M 22 x 80	S	10	750,00 A2	M 33 x 170*	S	1	2727,00 A2
M 14 x 150*	S	1	367,00 A2	M 22 x 90	S	10	800,00 A2	M 33 x 180*	S	1	2727,00 A2
M 14 x 160*	S	1	472,00 A2	M 22 x 100	S	10	880,00 A2	M 33 x 190*	S	1	2969,00 A2
M 14 x 170*	S	1	524,00 A2	M 22 x 110	S	10	990,00 A2	M 33 x 200*	S	1	2969,00 A2
M 14 x 180*	S	1	558,00 A2	M 22 x 120	S	10	1080,00 A2	M 33 x 210*	S	1	3221,00 A2
M 14 x 200*	S	1	644,00 A2	M 22 x 130*	S	1	816,00 A2	M 33 x 220*	S	1	3221,00 A2
M 16 x 55*	S	50	103,00 A2	M 22 x 140*	S	1	885,00 A2	M 33 x 230*	S	1	3476,00 A2
M 16 x 60*	S	50	105,00 A2	M 22 x 150	S	10	1390,00 A2	M 33 x 240*	S	1	3476,00 A2
M 16 x 65*	S	50	114,00 A2	M 22 x 160*	S	1	1125,00 A2	M 33 x 250*	S	1	3732,00 A2
M 16 x 70*	S	25	120,00 A2	M 22 x 180*	S	1	1269,00 A2	M 36 x 100*	S	1	2154,00 A2
M 16 x 75*	S	25	133,00 A2	M 22 x 200*	S	1	1417,00 A2	M 36 x 110*	S	1	2305,00 A2
M 16 x 80*	S	25	133,00 A2	M 24 x 75*	S	1	414,00 A2	M 36 x 120*	S	1	2457,00 A2
M 16 x 85*	S	25	182,00 A2	M 24 x 80*	S	1	334,00 A2	M 36 x 130*	S	1	2575,00 A2
M 16 x 90*	S	25	146,00 A2	M 24 x 85*	S	1	443,00 A2	M 36 x 140*	S	1	2727,00 A2
M 16 x 95*	S	25	210,00 A2	M 24 x 90*	S	1	354,00 A2	M 36 x 150*	S	1	2879,00 A2
M 16 x 100*	S	25	159,00 A2	M 24 x 95*	S	1	476,00 A2	M 36 x 160*	S	1	3025,00 A2
M 16 x 110*	S	25	232,00 A2	M 24 x 100*	S	1	380,00 A2	M 36 x 170*	S	1	3498,00 A2
M 16 x 120*	S	25	251,00 A2	M 24 x 110*	S	1	423,00 A2	M 36 x 180*	S	1	3498,00 A2
M 16 x 130*	S	1	307,00 A2	M 24 x 120*	S	1	459,00 A2	M 36 x 190*	S	1	3801,00 A2
M 16 x 140*	S	1	334,00 A2	M 24 x 130*	S	1	579,00 A2	M 36 x 200*	S	1	3801,00 A2
M 16 x 150*	S	1	367,00 A2	M 24 x 140*	S	1	626,00 A2	M 36 x 210*	S	1	4090,00 A2
M 16 x 160*	S	1	472,00 A2	M 24 x 150*	S	1	662,00 A2	M 36 x 220*	S	1	4090,00 A2
M 16 x 170*	S	1	524,00 A2	M 24 x 160*	S	1	984,00 A2	M 36 x 230*	S	1	4397,00 A2
M 16 x 180*	S	1	558,00 A2	M 24 x 170*	S	1	1142,00 A2	M 36 x 240*	S	1	4397,00 A2
M 16 x 190*	S	1	644,00 A2	M 24 x 180*	S	1	1142,00 A2	M 36 x 250*	S	1	4703,00 A2
M 16 x 200*	S	1	644,00 A2	M 24 x 190*	S	1	1271,00 A2				
M 16 x 210*	S	1	764,00 A2	M 24 x 200*	S	1	1271,00 A2				
M 16 x 220*	S	1	764,00 A2	M 24 x 210*	S	1	1443,00 A2				
M 16 x 230*	S	1	885,00 A2	M 24 x 220*	S	1	1443,00 A2				
M 16 x 240*	S	1	885,00 A2	M 24 x 230*	S	1	1597,00 A2				
M 16 x 250*	S	1	1055,00 A2	M 24 x 240*	S	1	1597,00 A2				
M 16 x 260*	S	1	1055,00 A2	M 24 x 250*	S	1	1840,00 A2				
M 16 x 270*	S	1	1185,00 A2	M 24 x 260*	S	1	1840,00 A2				
M 16 x 280*	S	1	1185,00 A2	M 24 x 280*	S	1	2009,00 A2				
M 16 x 290*	S	1	1316,00 A2	M 24 x 290*	S	1	2178,00 A2				

ISO 4014

Dimensions	PU	Pieces	€.
ISO	04014.927		*
4014	A 2 - 70		AD W2



Hexagon head bolts with shank

Short dimensions in part thread up to head, for pressure vessel const. as per AD regulations, products with renunciation of inspection certificate, *M 10/12= RAZ 3223 other Ø = RAZ 403

Dimensions → **TI-15** Tightening torque → **TI-235**
 Mech. properties → **TI-224** Standard conversion → **TI-6**

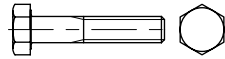
Steel → **S. 224**
 Brass → **S. 588**

ISO 4014 → replaces DIN 931

M 10	x	50	S	100	35,00 A2-70
M 10	x	55	S	100	38,00 A2-70
M 10	x	60	S	100	41,00 A2-70
M 10	x	65	S	100	47,50 A2-70
M 10	x	70	S	100	48,00 A2-70
M 10	x	75	S	50	84,00 A2-70
M 10	x	80	S	50	58,00 A2-70
M 10	x	90	S	50	88,00 A2-70
M 10	x	100	S	50	112,00 A2-70
M 10	x	110	S	50	136,00 A2-70
M 10	x	120	S	50	168,00 A2-70
M 10	x	130	S	50	205,00 A2-70
M 10	x	140	S	50	237,00 A2-70
M 10	x	150	S	50	268,00 A2-70
M 12	x	50	S	50	48,60 A2-70
M 12	x	55	S	50	52,15 A2-70
M 12	x	60	S	50	55,75 A2-70
M 12	x	65	S	50	62,40 A2-70
M 12	x	70	S	50	67,00 A2-70
M 12	x	75	S	50	119,00 A2-70
M 12	x	80	S	25	80,80 A2-70
M 12	x	85	S	25	154,00 A2-70
M 12	x	90	S	25	109,00 A2-70
M 12	x	100	S	25	122,00 A2-70
M 12	x	110	S	25	149,00 A2-70
M 12	x	120	S	25	177,00 A2-70
M 12	x	130	S	25	217,00 A2-70
M 12	x	140	S	25	258,00 A2-70
M 12	x	150	S	25	293,00 A2-70
M 16	x	50	S	25	102,00 A2-70
M 16	x	55	S	25	105,00 A2-70
M 16	x	60	S	25	107,00 A2-70
M 16	x	65	S	25	115,00 A2-70
M 16	x	70	S	25	121,00 A2-70
M 16	x	75	S	25	174,00 A2-70
M 16	x	80	S	25	136,00 A2-70
M 16	x	85	S	25	197,00 A2-70
M 16	x	90	S	25	149,00 A2-70
M 16	x	95	S	25	213,00 A2-70
M 16	x	100	S	25	162,00 A2-70
M 16	x	110	S	25	233,00 A2-70
M 16	x	120	S	25	254,00 A2-70
M 16	x	130	S	25	312,00 A2-70
M 16	x	140	S	25	338,00 A2-70
M 16	x	150	S	1	369,00 A2-70
M 16	x	160	S	1	476,00 A2-70
M 16	x	170	S	1	502,00 A2-70
M 16	x	180	S	1	563,00 A2-70
M 20	x	65	S	25	179,00 A2-70
M 20	x	70	S	25	190,00 A2-70
M 20	x	75	S	25	210,00 A2-70
M 20	x	80	S	25	210,00 A2-70

Dimensions	PU	Pieces	€.		
M 20	x	85	S	25	415,00 A2-70
M 20	x	90	S	25	228,00 A2-70
M 20	x	100	S	25	248,00 A2-70
M 20	x	110	S	25	353,00 A2-70
M 20	x	120	S	25	384,00 A2-70
M 20	x	130	S	25	450,00 A2-70
M 20	x	140	S	1	496,00 A2-70
M 20	x	150	S	1	537,00 A2-70
M 20	x	160	S	1	721,00 A2-70
M 20	x	170	S	1	931,00 A2-70
M 20	x	180	S	1	972,00 A2-70
M 20	x	190	S	1	1074,00 A2-70
M 20	x	200	S	1	1125,00 A2-70
M 20	x	220	S	1	1100,00 A2-70
M 27	x	90	S	1	947,00 A2-70

ISO	04014.940	**
4014	A 4 - 70	



Hexagon head bolts with shank

Short dimensions in part thread up to head, **M 10/12/14/22= RAZ 3220 other Ø = RAZ 401

Dimensions → **TI-15** Tightening torque → **TI-235**
 Mech. properties → **TI-224** Standard conversion → **TI-6**

Steel → **S. 224**
 Brass → **S. 588**

ISO 4014 → replaces DIN 931

*Prop. class for dimensions different depending on production

M 5	x	30*	S	100	11,60 A4
M 5	x	35*	S	100	12,50 A4
M 5	x	40*	S	100	13,70 A4
M 5	x	45*	S	100	15,80 A4
M 5	x	50*	S	100	19,80 A4
M 5	x	55*	S	100	32,70 A4
M 5	x	60*	S	100	34,20 A4
M 5	x	70*	S	100	72,00 A4
M 5	x	80*	S	100	222,00 A4
M 5	x	90*	S	100	285,00 A4
M 5	x	100*	S	100	363,00 A4
M 6	x	30*	S	200	11,50 A4
M 6	x	35*	S	100	12,30 A4
M 6	x	40*	S	100	13,20 A4
M 6	x	45*	S	100	15,20 A4
M 6	x	50*	S	100	17,30 A4
M 6	x	55*	S	100	24,00 A4
M 6	x	60*	S	100	27,60 A4
M 6	x	65*	S	100	33,20 A4
M 6	x	70*	S	100	35,20 A4
M 6	x	80*	S	100	43,40 A4
M 6	x	90*	S	100	57,20 A4
M 6	x	100*	S	100	63,40 A4
M 6	x	110*	S	50	83,80 A4
M 6	x	120*	S	50	102,00 A4
M 6	x	130*	S	50	173,00 A4
M 6	x	140*	S	1	192,00 A4
M 6	x	150*	S	1	212,00 A4
M 6	x	160*	S	1	231,00 A4
M 6	x	170*	S	1	295,00 A4
M 8	x	35*	S	100	25,00 A4
M 8	x	40*	S	100	25,00 A4
M 8	x	45*	S	100	26,50 A4
M 8	x	50*	S	100	28,60 A4
M 8	x	55*	S	100	33,70 A4
M 8	x	60*	S	100	34,70 A4
M 8	x	65*	S	100	45,50 A4
M 8	x	70*	S	100	48,00 A4

Dimensions	PU	Pieces	€.		
M 8	x	75*	S	100	100,00 A4
M 8	x	80*	S	100	72,00 A4
M 8	x	85*	S	100	105,00 A4
M 8	x	90*	S	100	84,80 A4
M 8	x	100*	S	100	99,70 A4
M 8	x	110*	S	50	122,00 A4
M 8	x	120*	S	50	139,00 A4
M 8	x	130*	S	50	174,00 A4
M 8	x	140*	S	1	203,00 A4
M 8	x	150*	S	1	232,00 A4
M 8	x	160*	S	1	289,00 A4
M 8	x	170*	S	1	354,00 A4
M 8	x	180*	S	1	354,00 A4
M 8	x	190*	S	1	470,00 A4
M 8	x	200*	S	1	470,00 A4
M 8	x	220*	S	1	695,00 A4
M 10	x	40	S	100	47,00 A4
M 10	x	45	S	100	48,00 A4
M 10	x	50	S	100	50,00 A4
M 10	x	55	S	50	56,00 A4
M 10	x	60	S	50	58,00 A4
M 10	x	65	S	50	68,00 A4
M 10	x	70	S	50	69,00 A4
M 10	x	75	S	50	123,00 A4
M 10	x	80	S	50	84,00 A4
M 10	x	90	S	50	115,00 A4
M 10	x	95	S	50	380,00 A4
M 10	x	100	S	50	146,00 A4
M 10	x	110	S	50	184,07 A4
M 10	x	120	S	50	224,97 A4
M 10	x	130*	S	50	289,00 A4
M 10	x	140	S	1	705,58 A4
M 10	x	150	S	50	378,36 A4
M 10	x	160*	S	1	469,00 A4
M 10	x	170*	S	1	573,00 A4
M 10	x	180*	S	1	573,00 A4
M 10	x	190*	S	1	760,00 A4
M 10	x	200*	S	1	760,00 A4
M 10	x	210*	S	1	938,00 A4
M 10	x	220*	S	1	1058,00 A4
M 12	x	45	S	50	70,00 A4
M 12	x	50	S	50	71,00 A4
M 12	x	55	S	50	78,00 A4
M 12	x	60	S	50	79,00 A4
M 12	x	65	S	50	94,00 A4
M 12	x	70	S	50	96,00 A4
M 12	x	75	S	50	171,00 A4
M 12	x	80	S	50	112,00 A4
M 12	x	85	S	50	199,00 A4
M 12	x	90	S	50	136,00 A4
M 12	x	95	S	50	209,00 A4
M 12	x	100	S	50	162,00 A4
M 12	x	110	S	25	197,00 A4
M 12	x	120	S	25	243,00 A4
M 12	x	130*	S	1	305,00 A4
M 12	x	140	S	1	455,05 A4
M 12	x	150*	S	50	414,15 A4
M 12	x	160*	S	1	537,00 A4
M 12	x	170*	S	1	778,37 A4
M 12	x	180*	S	1	674,00 A4
M 12	x	190*	S	1	833,00 A4
M 12	x	200*	S	1	833,00 A4
M 12	x	210*	S	1	1016,00 A4
M 12	x	220*	S	1	1077,00 A4
M 12	x	240*	S	1	1159,00 A4
M 12	x	250*	S	1	1199,00 A4
M 12	x	260*	S	1	1304,00 A4
M 12	x	280*	S	1	1381,00 A4
M 12	x	300*	S	1	1432,00 A4
M 12	x	320*	S	1	1509,00 A4
M 12	x	340*	S	1	1585,00 A4
M 12	x	360*	S	1	1662,00 A4
M 14	x	50	S	100	172,00 A4
M 14	x	55	S	50	172,00 A4
M 14	x	60	S	50	172,00 A4



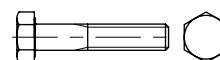
ISO 4014

Dimensions	PU	Pieces	€.
M 14 x 65	S	50	187,00 A 4
M 14 x 70	S	50	190,00 A 4
M 14 x 80	S	50	205,00 A 4
M 14 x 90	S	50	231,00 A 4
M 14 x 100	S	50	248,00 A 4
M 14 x 110	S	25	315,00 A 4
M 14 x 120	S	25	355,00 A 4
M 14 x 130	S	25	420,00 A 4
M 14 x 140	S	25	470,00 A 4
M 14 x 150*	S	1	509,00 A 4
M 14 x 160*	S	1	668,00 A 4
M 14 x 170*	S	1	772,00 A 4
M 14 x 180*	S	1	772,00 A 4
M 14 x 190*	S	1	869,00 A 4
M 14 x 200*	S	1	869,00 A 4
M 16 x 55*	S	50	169,00 A 4
M 16 x 60*	S	50	169,00 A 4
M 16 x 65*	S	50	185,00 A 4
M 16 x 70*	S	25	187,00 A 4
M 16 x 75*	S	25	204,00 A 4
M 16 x 80*	S	25	204,00 A 4
M 16 x 85*	S	25	285,00 A 4
M 16 x 90*	S	25	228,00 A 4
M 16 x 100*	S	25	247,00 A 4
M 16 x 110*	S	25	310,00 A 4
M 16 x 120*	S	25	351,00 A 4
M 16 x 130*	S	1	418,00 A 4
M 16 x 140*	S	1	464,00 A 4
M 16 x 150*	S	1	509,00 A 4
M 16 x 160*	S	1	668,00 A 4
M 16 x 170*	S	1	772,00 A 4
M 16 x 180*	S	1	772,00 A 4
M 16 x 190*	S	1	869,00 A 4
M 16 x 200*	S	1	869,00 A 4
M 16 x 210*	S	1	1231,00 A 4
M 16 x 220*	S	1	1231,00 A 4
M 16 x 230*	S	1	1399,00 A 4
M 16 x 240*	S	1	1399,00 A 4
M 16 x 250*	S	1	1568,00 A 4
M 16 x 260*	S	1	1568,00 A 4
M 16 x 270*	S	1	1737,00 A 4
M 16 x 280*	S	1	1737,00 A 4
M 16 x 290*	S	1	1906,00 A 4
M 16 x 300*	S	1	1906,00 A 4
M 16 x 320*	S	1	3052,00 A 4
M 16 x 340*	S	1	3313,00 A 4
M 16 x 360*	S	1	3400,00 A 4
M 16 x 380*	S	1	3436,00 A 4
M 16 x 400*	S	1	3503,00 A 4
M 18 x 70*	S	1	372,00 A 4
M 18 x 80*	S	1	412,00 A 4
M 18 x 90*	S	1	455,00 A 4
M 18 x 100*	S	1	493,00 A 4
M 18 x 110*	S	1	741,00 A 4
M 18 x 120*	S	1	802,00 A 4
M 18 x 130*	S	1	937,00 A 4
M 18 x 140*	S	1	949,00 A 4
M 18 x 150*	S	1	951,00 A 4
M 18 x 160*	S	1	965,00 A 4
M 18 x 170*	S	1	1407,00 A 4
M 18 x 180*	S	1	1407,00 A 4
M 18 x 190*	S	1	1611,00 A 4
M 18 x 200*	S	1	1611,00 A 4
M 20 x 65*	S	1	288,00 A 4
M 20 x 70*	S	1	298,00 A 4
M 20 x 75*	S	1	313,00 A 4
M 20 x 80*	S	1	313,00 A 4
M 20 x 85*	S	1	452,00 A 4
M 20 x 90*	S	1	361,00 A 4
M 20 x 100*	S	1	399,00 A 4
M 20 x 110*	S	1	494,00 A 4
M 20 x 120*	S	1	535,00 A 4
M 20 x 130*	S	1	625,00 A 4
M 20 x 140*	S	1	685,00 A 4
M 20 x 150*	S	1	745,00 A 4

Dimensions	PU	Pieces	€.
M 20 x 160*	S	1	965,00 A 4
M 20 x 170*	S	1	1110,00 A 4
M 20 x 180*	S	1	1110,00 A 4
M 20 x 190*	S	1	1255,00 A 4
M 20 x 200*	S	1	1255,00 A 4
M 20 x 210*	S	1	1432,00 A 4
M 20 x 220*	S	1	1432,00 A 4
M 20 x 230*	S	1	1609,00 A 4
M 20 x 240*	S	1	1609,00 A 4
M 20 x 250*	S	1	2141,00 A 4
M 20 x 260*	S	1	2141,00 A 4
M 20 x 270*	S	1	2356,00 A 4
M 20 x 280*	S	1	2356,00 A 4
M 20 x 290*	S	1	2570,00 A 4
M 20 x 300*	S	1	2570,00 A 4
M 22 x 70	S	10	800,00 A 4
M 22 x 80	S	10	800,00 A 4
M 22 x 90	S	10	860,00 A 4
M 22 x 100	S	10	940,00 A 4
M 22 x 110	S	10	1080,00 A 4
M 22 x 120	S	10	1170,00 A 4
M 22 x 130	S	10	1250,00 A 4
M 22 x 140	S	10	1440,00 A 4
M 22 x 150	S	10	1560,00 A 4
M 22 x 160	S	10	1670,00 A 4
M 22 x 170	S	10	1900,00 A 4
M 22 x 180	S	10	1850,00 A 4
M 22 x 200	S	10	2080,00 A 4
M 24 x 75*	S	1	720,00 A 4
M 24 x 80*	S	1	610,00 A 4
M 24 x 85*	S	1	823,00 A 4
M 24 x 90*	S	1	662,00 A 4
M 24 x 100*	S	1	734,00 A 4
M 24 x 110*	S	1	827,00 A 4
M 24 x 120*	S	1	874,00 A 4
M 24 x 130*	S	1	953,00 A 4
M 24 x 140*	S	1	1049,00 A 4
M 24 x 150*	S	1	1116,00 A 4
M 24 x 160*	S	1	1488,00 A 4
M 24 x 170*	S	1	1649,00 A 4
M 24 x 180*	S	1	1649,00 A 4
M 24 x 190*	S	1	1850,00 A 4
M 24 x 200*	S	1	1850,00 A 4
M 24 x 210*	S	1	2431,00 A 4
M 24 x 220*	S	1	2431,00 A 4
M 24 x 230*	S	1	2668,00 A 4
M 24 x 240*	S	1	2668,00 A 4
M 24 x 250*	S	1	2906,00 A 4
M 24 x 260*	S	1	2906,00 A 4
M 24 x 270*	S	1	3144,00 A 4
M 24 x 280*	S	1	3144,00 A 4
M 24 x 290*	S	1	3382,00 A 4
M 24 x 300*	S	1	3382,00 A 4
M 27 x 90*	S	1	1354,00 A 4
M 27 x 100*	S	1	1467,00 A 4
M 27 x 110*	S	1	1579,00 A 4
M 27 x 120*	S	1	1687,00 A 4
M 27 x 130*	S	1	1748,00 A 4
M 27 x 140*	S	1	1855,00 A 4
M 27 x 150*	S	1	1963,00 A 4
M 27 x 160*	S	1	2075,00 A 4
M 27 x 170*	S	1	2290,00 A 4
M 27 x 180*	S	1	2290,00 A 4
M 27 x 190*	S	1	2495,00 A 4
M 27 x 200*	S	1	2495,00 A 4
M 27 x 210*	S	1	3221,00 A 4
M 27 x 220*	S	1	3221,00 A 4
M 27 x 230*	S	1	3527,00 A 4
M 27 x 240*	S	1	3527,00 A 4
M 27 x 250*	S	1	3834,00 A 4
M 27 x 260*	S	1	4121,00 A 4
M 27 x 280*	S	1	4693,00 A 4
M 30 x 90*	S	1	1692,00 A 4
M 30 x 100*	S	1	1830,00 A 4
M 30 x 110*	S	1	1968,00 A 4

Dimensions	PU	Pieces	€.
M 30 x 120*	S	1	2096,00 A 4
M 30 x 130*	S	1	2188,00 A 4
M 30 x 140*	S	1	2326,00 A 4
M 30 x 150*	S	1	2454,00 A 4
M 30 x 160*	S	1	2602,00 A 4
M 30 x 170*	S	1	2863,00 A 4
M 30 x 180*	S	1	2863,00 A 4
M 30 x 190*	S	1	3118,00 A 4
M 30 x 200*	S	1	3118,00 A 4
M 30 x 210*	S	1	3783,00 A 4
M 30 x 220*	S	1	3783,00 A 4
M 30 x 240*	S	1	4090,00 A 4
M 30 x 250*	S	1	4499,00 A 4
M 30 x 260*	S	1	4755,00 A 4
M 30 x 280*	S	1	5241,00 A 4
M 30 x 300*	S	1	5700,00 A 4
M 33 x 90*	S	1	2351,00 A 4
M 33 x 100*	S	1	2530,00 A 4
M 33 x 110*	S	1	2709,00 A 4
M 33 x 120*	S	1	2893,00 A 4
M 33 x 130*	S	1	3067,00 A 4
M 33 x 140*	S	1	3236,00 A 4
M 33 x 150*	S	1	3425,00 A 4
M 33 x 160*	S	1	3589,00 A 4
M 33 x 170*	S	1	3936,00 A 4
M 33 x 180*	S	1	3936,00 A 4
M 33 x 190*	S	1	4279,00 A 4
M 33 x 200*	S	1	4279,00 A 4
M 33 x 210*	S	1	4857,00 A 4
M 33 x 220*	S	1	4857,00 A 4
M 33 x 230*	S	1	5419,00 A 4
M 33 x 240*	S	1	5419,00 A 4
M 33 x 250*	S	1	5777,00 A 4
M 36 x 100*	S	1	3103,00 A 4
M 36 x 110*	S	1	3323,00 A 4
M 36 x 120*	S	1	3533,00 A 4
M 36 x 130*	S	1	3717,00 A 4
M 36 x 140*	S	1	3936,00 A 4
M 36 x 150*	S	1	4141,00 A 4
M 36 x 160*	S	1	4361,00 A 4
M 36 x 170*	S	1	5010,00 A 4
M 36 x 180*	S	1	5010,00 A 4
M 36 x 190*	S	1	5470,00 A 4
M 36 x 200*	S	1	5470,00 A 4
M 36 x 220*	S	1	6084,00 A 4
M 36 x 230*	S	1	6749,00 A 4
M 36 x 240*	S	1	6749,00 A 4
M 36 x 250*	S	1	7413,00 A 4

ISO	04014.947	*
4014	A 4 - 70	AD W2



Hexagon head bolts with shank

Short dimensions in part thread up to head, for pressure vessel const. as per AD regulations, products with renunciation of inspection certificate, *M 10/12= RAZ 3223 other \varnothing = RAZ 401

Dimensions → **TI-15** Tightening torque → **TI-235**
 Mech. properties → **TI-224** Standard conversion → **TI-6**

Steel → **S. 224**
 Brass → **S. 588**

ISO 4014 → replaces DIN 931

M 10 x 50	S	100	51,00 A 4-70
M 10 x 55	S	100	56,50 A 4-70
M 10 x 60	S	100	58,50 A 4-70



ISO 4014

Dimensions	PU	Pieces	€.
M 10 x 65	S	100	68,50 A4-70
M 10 x 70	S	100	71,00 A4-70
M 10 x 75	S	50	120,00 A4-70
M 10 x 80	S	50	84,50 A4-70
M 10 x 90	S	50	117,00 A4-70
M 10 x 100	S	50	147,00 A4-70
M 10 x 110	S	50	185,00 A4-70
M 10 x 120	S	50	227,00 A4-70
M 10 x 130	S	1	292,00 A4-70
M 10 x 140	S	1	335,00 A4-70
M 10 x 150	S	1	380,00 A4-70
M 12 x 50	S	50	70,05 A4-70
M 12 x 55	S	50	77,20 A4-70
M 12 x 60	S	50	78,75 A4-70
M 12 x 65	S	50	93,60 A4-70
M 12 x 70	S	50	95,10 A4-70
M 12 x 75	S	25	172,00 A4-70
M 12 x 80	S	25	112,00 A4-70
M 12 x 85	S	50	171,00 A4-70
M 12 x 90	S	25	136,00 A4-70
M 12 x 100	S	25	162,00 A4-70
M 12 x 110	S	25	197,00 A4-70
M 12 x 120	S	25	243,00 A4-70
M 12 x 140	S	1	360,00 A4-70
M 12 x 150	S	1	415,00 A4-70
M 16 x 55	S	25	172,00 A4-70
M 16 x 60	S	25	172,00 A4-70
M 16 x 65	S	25	187,00 A4-70
M 16 x 70	S	25	190,00 A4-70
M 16 x 75	S	25	241,00 A4-70
M 16 x 80	S	25	205,00 A4-70
M 16 x 85	S	25	288,00 A4-70
M 16 x 90	S	25	231,00 A4-70
M 16 x 100	S	25	248,00 A4-70
M 16 x 110	S	25	312,00 A4-70
M 16 x 120	S	25	353,00 A4-70
M 16 x 130	S	1	420,00 A4-70
M 16 x 140	S	1	466,00 A4-70
M 16 x 150	S	1	512,00 A4-70
M 16 x 160	S	1	670,00 A4-70
M 16 x 170	S	1	773,00 A4-70
M 16 x 180	S	1	773,00 A4-70
M 16 x 200	S	1	871,00 A4-70
M 18 x 110	S	1	743,00 A4-70
M 20 x 65	S	25	292,00 A4-70
M 20 x 70	S	25	302,00 A4-70
M 20 x 75	S	25	358,00 A4-70
M 20 x 80	S	25	317,00 A4-70
M 20 x 90	S	25	364,00 A4-70
M 20 x 100	S	25	404,00 A4-70
M 20 x 110	S	25	496,00 A4-70
M 20 x 120	S	20	537,00 A4-70
M 20 x 130	S	20	624,00 A4-70
M 20 x 140	S	1	686,00 A4-70
M 20 x 150	S	1	742,00 A4-70
M 20 x 160	S	1	967,00 A4-70
M 20 x 170	S	1	1038,00 A4-70
M 20 x 180	S	1	1110,00 A4-70
M 20 x 190	S	1	1202,00 A4-70
M 20 x 200	S	1	1253,00 A4-70
M 24 x 90	S	1	665,00 A4-70
M 24 x 100	S	1	720,00 A4-70
M 24 x 110	S	1	770,00 A4-70
M 24 x 120	S	1	876,00 A4-70
M 24 x 150	S	1	1122,00 A4-70
M 27 x 100	S	1	1470,00 A4-70

Dimensions	PU	Pieces	€.
ISO	04014.948		RAZ 403

4014 A 4 - 80



Hexagon head bolts with shank

High strength (strongly cold worked), short dimensions in part thread up to head

Dimensions → TI-15 Tightening torque → TI-235
Mech. properties → TI-224 Standard conversion → TI-6

Steel → S. 224
Brass → S. 588

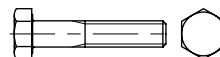
ISO 4014 → replaces DIN 931

M 6 x 30	S	100	29,00 A4-80
M 6 x 35	S	100	31,00 A4-80
M 6 x 40	S	100	33,50 A4-80
M 6 x 45	S	100	38,50 A4-80
M 6 x 50	S	100	43,50 A4-80
M 6 x 55	S	100	61,00 A4-80
M 6 x 60	S	100	70,00 A4-80
M 6 x 65	S	100	84,00 A4-80
M 6 x 70	S	100	87,00 A4-80
M 8 x 35	S	100	63,00 A4-80
M 8 x 40	S	100	63,00 A4-80
M 8 x 45	S	100	67,00 A4-80
M 8 x 50	S	100	72,00 A4-80
M 8 x 55	S	100	85,00 A4-80
M 8 x 60	S	100	87,00 A4-80
M 8 x 65	S	100	114,00 A4-80
M 8 x 70	S	50	121,00 A4-80
M 8 x 75	S	50	260,00 A4-80
M 8 x 80	S	50	179,00 A4-80
M 8 x 90	S	50	211,00 A4-80
M 8 x 100	S	50	248,00 A4-80
M 10 x 40	S	100	117,00 A4-80
M 10 x 45	S	100	119,00 A4-80
M 10 x 50	S	100	124,00 A4-80
M 10 x 55	S	50	139,00 A4-80
M 10 x 60	S	50	145,00 A4-80
M 10 x 65	S	50	169,00 A4-80
M 10 x 70	S	50	173,00 A4-80
M 10 x 75	S	50	310,00 A4-80
M 10 x 80	S	50	209,00 A4-80
M 10 x 90	S	50	290,00 A4-80
M 10 x 100	S	50	365,00 A4-80
M 10 x 110	S	25	465,00 A4-80
M 10 x 120	S	25	570,00 A4-80
M 12 x 45	S	50	174,00 A4-80
M 12 x 50	S	50	176,00 A4-80
M 12 x 55	S	50	194,00 A4-80
M 12 x 60	S	50	197,00 A4-80
M 12 x 65	S	50	234,00 A4-80
M 12 x 70	S	25	238,00 A4-80
M 12 x 75	S	25	430,00 A4-80
M 12 x 80	S	25	280,00 A4-80
M 12 x 90	S	25	340,00 A4-80
M 12 x 100	S	25	405,00 A4-80
M 12 x 110	S	25	495,00 A4-80
M 12 x 120	S	25	610,00 A4-80
M 14 x 50	S	50	430,00 A4-80
M 14 x 60	S	50	430,00 A4-80
M 14 x 80	S	50	520,00 A4-80
M 14 x 90	S	50	580,00 A4-80
M 14 x 100	S	50	620,00 A4-80
M 14 x 110	S	1	780,00 A4-80
M 16 x 55	S	25	430,00 A4-80
M 16 x 60	S	25	430,00 A4-80

Dimensions	PU	Pieces	€.
M 16 x 65	S	25	470,00 A4-80
M 16 x 70	S	25	475,00 A4-80
M 16 x 75	S	25	610,00 A4-80
M 16 x 80	S	25	520,00 A4-80
M 16 x 85	S	25	710,00 A4-80
M 16 x 90	S	25	580,00 A4-80
M 16 x 100	S	25	620,00 A4-80
M 16 x 110	S	25	780,00 A4-80
M 16 x 120	S	25	890,00 A4-80
M 16 x 130	S	1	1050,00 A4-80
M 16 x 140	S	1	1170,00 A4-80
M 16 x 150	S	1	1280,00 A4-80
M 16 x 160	S	1	1680,00 A4-80
M 16 x 180	S	1	1940,00 A4-80
M 16 x 200	S	1	2180,00 A4-80
M 20 x 65	S	1	730,00 A4-80
M 20 x 70	S	1	760,00 A4-80
M 20 x 75	S	1	900,00 A4-80
M 20 x 80	S	1	800,00 A4-80
M 20 x 90	S	1	910,00 A4-80
M 20 x 100	S	1	1010,00 A4-80
M 20 x 110	S	1	1240,00 A4-80
M 20 x 120	S	1	1350,00 A4-80
M 20 x 130	S	1	1560,00 A4-80
M 20 x 140	S	1	1720,00 A4-80
M 20 x 150	S	1	1860,00 A4-80
M 20 x 160	S	1	2420,00 A4-80
M 20 x 180	S	1	2800,00 A4-80
M 20 x 200	S	1	3150,00 A4-80

Dimensions	PU	Pieces	€.
ISO	04014.941		RAZ 2010

4014 A 4 BUMAX88*



Hexagon head bolts with shank

Dimension from M 6 and length > 3xd, approved for use acc. to pressure equipment directive → cert. 3.1 on request

Dimensions → TI-15 Tightening torque → TI-236
Mech. properties → TI-225

Steel → S. 224
Brass → S. 588

*Mechanical properties ~ Class 8.8



M 6 x 30	S	100	116,00 A4-88
M 6 x 35	S	100	125,00 A4-88
M 6 x 40	S	100	134,00 A4-88
M 6 x 45	S	100	145,00 A4-88
M 6 x 50	S	100	154,00 A4-88
M 6 x 55	S	100	164,00 A4-88
M 6 x 60	S	100	174,00 A4-88
M 6 x 65	S	100	183,00 A4-88
M 6 x 70	S	100	193,00 A4-88
M 6 x 80	S	100	217,00 A4-88
M 6 x 90	S	100	600,00 A4-88
M 6 x 100	S	100	550,00 A4-88
M 6 x 110	S	100	390,00 A4-88
M 6 x 120	S	100	770,00 A4-88
M 6 x 130	S	100	1160,00 A4-88
M 8 x 35	S	50	213,00 A4-88
M 8 x 40	S	50	230,00 A4-88
M 8 x 45	S	50	244,00 A4-88
M 8 x 50	S	50	270,00 A4-88
M 8 x 55	S	50	285,00 A4-88



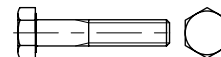
ISO 4014

Dimensions	PU Pieces	€.
M 8 x 60	S 50	300,00 A4-88
M 8 x 65	S 50	320,00 A4-88
M 8 x 70	S 50	340,00 A4-88
M 8 x 75	S 50	365,00 A4-88
M 8 x 80	S 50	380,00 A4-88
M 8 x 90	S 50	710,00 A4-88
M 8 x 100	S 50	770,00 A4-88
M 8 x 110	S 50	1470,00 A4-88
M 8 x 120	S 50	1310,00 A4-88
M 8 x 130	S 50	1320,00 A4-88
M 8 x 140	S 50	1350,00 A4-88
M 8 x 150	S 50	1380,00 A4-88
M 10 x 40	S 50	430,00 A4-88
M 10 x 45	S 50	460,00 A4-88
M 10 x 50	S 50	485,00 A4-88
M 10 x 55	S 50	500,00 A4-88
M 10 x 60	S 50	540,00 A4-88
M 10 x 65	S 50	570,00 A4-88
M 10 x 70	S 50	600,00 A4-88
M 10 x 75	S 50	640,00 A4-88
M 10 x 80	S 50	670,00 A4-88
M 10 x 85	S 50	690,00 A4-88
M 10 x 85	S 50	720,00 A4-88
M 10 x 100	S 50	780,00 A4-88
M 10 x 110	S 50	860,00 A4-88
M 10 x 120	S 50	950,00 A4-88
M 10 x 130	S 50	1140,00 A4-88
M 10 x 140	S 50	1170,00 A4-88
M 10 x 150	S 50	1290,00 A4-88
M 10 x 160	S 50	1640,00 A4-88
M 10 x 180	S 50	1850,00 A4-88
M 10 x 200	S 50	2650,00 A4-88
M 12 x 45	S 25	630,00 A4-88
M 12 x 50	S 25	670,00 A4-88
M 12 x 55	S 25	710,00 A4-88
M 12 x 60	S 25	750,00 A4-88
M 12 x 65	S 25	790,00 A4-88
M 12 x 70	S 25	830,00 A4-88
M 12 x 75	S 25	890,00 A4-88
M 12 x 80	S 25	940,00 A4-88
M 12 x 90	S 25	1010,00 A4-88
M 12 x 100	S 25	1090,00 A4-88
M 12 x 110	S 25	1190,00 A4-88
M 12 x 120	S 25	1250,00 A4-88
M 12 x 130	S 25	1330,00 A4-88
M 12 x 140	S 25	1450,00 A4-88
M 12 x 150	S 25	1570,00 A4-88
M 12 x 160	S 25	2220,00 A4-88
M 12 x 180	S 25	2550,00 A4-88
M 14 x 80	S 25	1670,00 A4-88
M 14 x 90	S 25	1750,00 A4-88
M 14 x 100	S 25	1870,00 A4-88
M 14 x 120	S 25	2100,00 A4-88
M 14 x 140	S 25	2320,00 A4-88
M 16 x 50	S 25	1240,00 A4-88
M 16 x 55	S 25	1310,00 A4-88
M 16 x 60	S 25	1420,00 A4-88
M 16 x 65	S 25	1490,00 A4-88
M 16 x 70	S 25	1570,00 A4-88
M 16 x 75	S 25	1640,00 A4-88
M 16 x 80	S 25	1720,00 A4-88
M 16 x 90	S 25	1870,00 A4-88
M 16 x 100	S 25	2020,00 A4-88
M 16 x 110	S 25	2170,00 A4-88
M 16 x 120	S 25	2320,00 A4-88
M 16 x 130	S 25	2460,00 A4-88
M 16 x 140	S 25	2650,00 A4-88
M 16 x 150	S 25	2800,00 A4-88
M 16 x 160	S 25	2950,00 A4-88
M 16 x 180	S 25	4000,00 A4-88
M 16 x 200	S 25	4300,00 A4-88
M 18 x 90	S 10	3100,00 A4-88
M 18 x 100	S 10	3300,00 A4-88
M 18 x 120	S 10	3700,00 A4-88
M 18 x 140	S 10	4050,00 A4-88

Dimensions	PU Pieces	€.
M 20 x 70	S 10	2850,00 A4-88
M 20 x 75	S 10	2950,00 A4-88
M 20 x 80	S 10	3000,00 A4-88
M 20 x 90	S 10	3300,00 A4-88
M 20 x 100	S 10	3550,00 A4-88
M 20 x 110	S 10	3800,00 A4-88
M 20 x 120	S 10	4050,00 A4-88
M 20 x 130	S 10	4250,00 A4-88
M 20 x 140	S 10	4500,00 A4-88
M 20 x 150	S 10	4800,00 A4-88
M 20 x 160	S 10	5100,00 A4-88
M 20 x 180	S 10	5600,00 A4-88
M 20 x 200	S 10	6100,00 A4-88
M 24 x 75	S 10	4400,00 A4-88
M 24 x 80	S 10	4550,00 A4-88
M 24 x 90	S 10	4900,00 A4-88
M 24 x 100	S 10	5300,00 A4-88
M 24 x 110	S 10	5600,00 A4-88
M 24 x 120	S 10	6000,00 A4-88
M 24 x 130	S 10	6300,00 A4-88
M 24 x 140	S 10	6700,00 A4-88
M 24 x 150	S 10	7200,00 A4-88
M 24 x 160	S 10	7500,00 A4-88
M 24 x 180	S 10	8200,00 A4-88
M 24 x 200	S 10	10100,00 A4-88
M 27 x 100	S 10	19900,00 A4-88
M 27 x 110	S 10	20300,00 A4-88
M 27 x 120	S 10	20800,00 A4-88
M 27 x 130	S 10	21100,00 A4-88
M 27 x 140	S 10	21600,00 A4-88
M 27 x 150	S 10	22000,00 A4-88
M 27 x 160	S 10	22500,00 A4-88
M 27 x 180	S 10	23500,00 A4-88
M 27 x 200	S 10	24400,00 A4-88
M 30 x 80	S 10	17700,00 A4-88
M 30 x 90	S 10	18300,00 A4-88
M 30 x 100	S 10	18700,00 A4-88
M 30 x 110	S 10	19400,00 A4-88
M 30 x 120	S 10	19800,00 A4-88
M 30 x 130	S 10	20200,00 A4-88
M 30 x 140	S 10	20800,00 A4-88
M 30 x 150	S 10	21300,00 A4-88
M 30 x 160	S 10	21900,00 A4-88
M 30 x 180	S 10	23100,00 A4-88
M 30 x 200	S 10	24200,00 A4-88
M 36 x 100	S 10	38300,00 A4-88
M 36 x 120	S 10	40500,00 A4-88
M 36 x 140	S 10	43200,00 A4-88
M 36 x 160	S 10	45900,00 A4-88
M 36 x 200	S 10	51100,00 A4-88

Dimensions	PU Pieces	€.
M 6 x 60	S 100	220,00 A4-109
M 6 x 70	S 100	244,00 A4-109
M 6 x 80	S 100	270,00 A4-109
M 8 x 40	S 50	260,00 A4-109
M 8 x 45	S 50	275,00 A4-109
M 8 x 50	S 50	300,00 A4-109
M 8 x 55	S 50	315,00 A4-109
M 8 x 60	S 50	335,00 A4-109
M 8 x 70	S 50	375,00 A4-109
M 8 x 80	S 50	410,00 A4-109
M 10 x 45	S 50	540,00 A4-109
M 10 x 50	S 50	570,00 A4-109
M 10 x 55	S 50	590,00 A4-109
M 10 x 60	S 50	620,00 A4-109
M 10 x 65	S 50	650,00 A4-109
M 10 x 70	S 50	680,00 A4-109
M 10 x 80	S 50	740,00 A4-109
M 10 x 90	S 50	800,00 A4-109
M 10 x 100	S 50	860,00 A4-109
M 12 x 45	S 25	730,00 A4-109
M 12 x 50	S 25	770,00 A4-109
M 12 x 55	S 25	820,00 A4-109
M 12 x 60	S 25	860,00 A4-109
M 12 x 70	S 25	950,00 A4-109
M 12 x 80	S 25	1040,00 A4-109
M 12 x 90	S 25	1130,00 A4-109
M 12 x 100	S 25	1220,00 A4-109
M 12 x 120	S 25	1400,00 A4-109
M 16 x 70	S 25	1710,00 A4-109
M 16 x 80	S 25	1870,00 A4-109
M 16 x 90	S 25	2030,00 A4-109
M 16 x 100	S 25	2200,00 A4-109
M 16 x 120	S 25	2550,00 A4-109

ISO	04014.950	RAZ 403
4014	1.4571 (A 5)	



Hexagon head bolts with shank

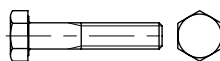
Short dimensions in part thread up to head

Dimensions → **TI-15** Tightening torque → **TI-235**
 Mech. properties → **TI-224** Standard conversion → **TI-6**

Steel → **S. 224**
 Brass → **S. 588**

ISO 4014 → replaces DIN 931

ISO	04014.942	RAZ 2010
4014	A 4 BUMAX109*	



Hexagon head bolts with shank

Dimensions → **TI-15** Tightening torque → **TI-236**
 Mech. properties → **TI-225**

Steel → **S. 224**
 Brass → **S. 588**

*Mechanical properties ~ Class 10.9

M 6 x 35	S 100	162,00 A4-109
M 6 x 40	S 100	174,00 A4-109
M 6 x 45	S 100	186,00 A4-109
M 6 x 50	S 100	197,00 A4-109
M 6 x 55	S 100	209,00 A4-109

M 16 x 55	S 1	620,00 A5
M 16 x 60	S 1	640,00 A5
M 16 x 65	S 1	660,00 A5
M 16 x 70	S 1	680,00 A5
M 16 x 80	S 1	710,00 A5
M 16 x 90	S 1	750,00 A5
M 16 x 100	S 1	780,00 A5
M 20 x 65	S 1	920,00 A5
M 20 x 70	S 1	940,00 A5
M 20 x 80	S 1	1000,00 A5
M 20 x 85	S 1	1030,00 A5
M 20 x 90	S 1	1130,00 A5
M 20 x 100	S 1	1160,00 A5
M 20 x 110	S 1	1180,00 A5
M 20 x 120	S 1	1230,00 A5
M 20 x 140	S 1	1340,00 A5



ISO 4017

Dimensions	PU Pieces	€.
ISO	04.017.920	**

4017 A 2 - 70



Hexagon head screws with thread up to head

**M 10/12/14/22= RAZ 3220 other Ø = RAZ 401

Dimensions → TI-15 Tightening torque → TI-235
Mech. properties → TI-224 Standard conversion → TI-6

Steel → S. 240-241

Brass → S. 588

ISO 4017 → replaces DIN 933

*Prop. class for dimensions different depending on production

M 3	x	6*	S	100	8,15 A 2
M 3	x	8*	S	100	5,85 A 2
M 3	x	10*	S	100	5,60 A 2
M 3	x	12*	S	100	5,20 A 2
M 3	x	14*	S	100	6,90 A 2
M 3	x	16*	S	100	5,20 A 2
M 3	x	20*	S	100	5,85 A 2
M 3	x	25*	S	100	6,30 A 2
M 3	x	30*	S	100	7,60 A 2
M 3	x	35*	S	100	10,90 A 2
M 3	x	40*	S	100	16,30 A 2
M 4	x	6*	S	200	8,15 A 2
M 4	x	8*	S	200	5,85 A 2
M 4	x	10*	S	200	5,60 A 2
M 4	x	12*	S	200	5,20 A 2
M 4	x	14*	S	100	6,90 A 2
M 4	x	16*	S	200	4,25 A 2
M 4	x	18*	S	100	5,60 A 2
M 4	x	20*	S	200	4,60 A 2
M 4	x	22*	S	100	6,40 A 2
M 4	x	25*	S	200	5,30 A 2
M 4	x	30*	S	200	5,95 A 2
M 4	x	35*	S	200	10,20 A 2
M 4	x	40*	S	200	12,20 A 2
M 4	x	45*	S	100	15,50 A 2
M 4	x	50*	S	100	18,40 A 2
M 4	x	60*	S	100	56,20 A 2
M 5	x	6*	S	100	17,30 A 2
M 5	x	8*	S	100	5,85 A 2
M 5	x	10*	S	500	5,60 A 2
M 5	x	10*	K	100	7,70 A 2
M 5	x	12*	S	500	5,20 A 2
M 5	x	12*	K	100	7,25 A 2
M 5	x	14*	S	500	6,90 A 2
M 5	x	14*	K	100	9,40 A 2
M 5	x	16*	S	500	4,25 A 2
M 5	x	16*	K	100	6,30 A 2
M 5	x	18*	S	500	5,60 A 2
M 5	x	18*	K	100	8,10 A 2
M 5	x	20*	S	500	4,60 A 2
M 5	x	20*	K	100	6,65 A 2
M 5	x	22*	S	200	6,40 A 2
M 5	x	25*	S	200	6,10 A 2
M 5	x	25*	K	100	8,20 A 2
M 5	x	30*	S	200	6,85 A 2
M 5	x	30*	K	100	8,90 A 2
M 5	x	35*	S	200	8,05 A 2
M 5	x	40*	S	200	11,60 A 2
M 5	x	45*	S	200	15,50 A 2
M 5	x	50*	S	200	18,40 A 2
M 5	x	55*	S	200	21,70 A 2
M 5	x	60*	S	200	23,50 A 2
M 5	x	70*	S	100	61,80 A 2

Dimensions	PU Pieces	€.			
M 5	x	80*	S	100	208,00 A 2
M 6	x	6*	S	100	67,00 A 2
M 6	x	8*	S	100	8,15 A 2
M 6	x	10*	S	500	6,90 A 2
M 6	x	10*	K	100	8,95 A 2
M 6	x	12*	S	500	6,90 A 2
M 6	x	12*	K	100	8,95 A 2
M 6	x	14*	S	500	8,20 A 2
M 6	x	14*	K	100	10,70 A 2
M 6	x	16*	S	200	4,90 A 2
M 6	x	16*	K	100	7,00 A 2
M 6	x	18*	S	200	7,00 A 2
M 6	x	20*	S	200	5,60 A 2
M 6	x	20*	K	100	7,70 A 2
M 6	x	22*	S	200	7,80 A 2
M 6	x	25*	S	200	6,25 A 2
M 6	x	25*	K	100	8,30 A 2
M 6	x	30*	S	200	7,25 A 2
M 6	x	30*	K	100	9,30 A 2
M 6	x	35*	S	200	7,90 A 2
M 6	x	35*	K	100	10,00 A 2
M 6	x	40*	S	200	8,85 A 2
M 6	x	40*	K	100	10,90 A 2
M 6	x	45*	S	100	13,80 A 2
M 6	x	50*	S	100	15,00 A 2
M 6	x	55*	S	100	19,10 A 2
M 6	x	60*	S	100	21,70 A 2
M 6	x	65*	S	100	30,00 A 2
M 6	x	70*	S	100	30,00 A 2
M 6	x	75*	S	100	44,60 A 2
M 6	x	80*	S	100	35,80 A 2
M 6	x	90*	S	100	51,10 A 2
M 6	x	100*	S	100	58,70 A 2
M 6	x	110*	S	100	228,00 A 2
M 6	x	120*	S	100	267,00 A 2
M 8	x	8*	S	100	77,30 A 2
M 8	x	10*	S	200	16,10 A 2
M 8	x	10*	K	100	18,15 A 2
M 8	x	12*	S	200	15,00 A 2
M 8	x	12*	K	100	17,10 A 2
M 8	x	14*	S	200	17,80 A 2
M 8	x	16*	S	200	10,20 A 2
M 8	x	16*	K	100	12,30 A 2
M 8	x	18*	S	200	12,70 A 2
M 8	x	20*	S	200	10,20 A 2
M 8	x	20*	K	100	12,80 A 2
M 8	x	22*	S	200	15,20 A 2
M 8	x	25*	S	200	12,10 A 2
M 8	x	25*	K	100	14,20 A 2
M 8	x	30*	S	200	12,80 A 2
M 8	x	30*	K	100	14,90 A 2
M 8	x	35*	S	200	15,90 A 2
M 8	x	35*	K	100	21,00 A 2
M 8	x	40*	S	200	15,10 A 2
M 8	x	40*	K	100	17,20 A 2
M 8	x	45*	S	200	16,80 A 2
M 8	x	45*	K	100	19,00 A 2
M 8	x	50*	S	200	17,80 A 2
M 8	x	50*	K	100	20,10 A 2
M 8	x	55*	S	100	27,00 A 2
M 8	x	60*	S	200	28,60 A 2
M 8	x	60*	K	100	31,00 A 2
M 8	x	65*	S	50	35,70 A 2
M 8	x	70*	S	50	42,40 A 2
M 8	x	75*	S	50	66,90 A 2
M 8	x	80*	S	50	53,60 A 2
M 8	x	85*	S	50	86,00 A 2
M 8	x	90*	S	50	68,50 A 2
M 8	x	100*	S	50	77,20 A 2
M 8	x	110*	S	50	116,00 A 2
M 8	x	120*	S	50	136,00 A 2
M 8	x	130*	S	50	171,00 A 2
M 8	x	140*	S	50	206,00 A 2
M 8	x	150*	S	50	240,00 A 2
M 8	x	160*	S	50	275,00 A 2

Dimensions	PU Pieces	€.			
M 8	x	170*	S	50	343,00 A 2
M 8	x	180*	S	50	343,00 A 2
M 8	x	190*	S	50	650,00 A 2
M 8	x	200*	S	50	860,00 A 2
M 10	x	10*	S	100	129,00 A 2
M 10	x	12*	S	100	41,50 A 2
M 10	x	14*	S	100	49,00 A 2
M 10	x	16	S	100	30,00 A 2
M 10	x	18	S	100	33,20 A 2
M 10	x	20	S	100	21,80 A 2
M 10	x	22	S	100	25,80 A 2
M 10	x	25	S	100	20,70 A 2
M 10	x	30	S	100	23,00 A 2
M 10	x	35	S	100	25,50 A 2
M 10	x	40	S	100	27,50 A 2
M 10	x	45	S	100	29,50 A 2
M 10	x	50	S	100	31,50 A 2
M 10	x	55	S	100	44,00 A 2
M 10	x	60	S	100	47,00 A 2
M 10	x	65	S	100	53,00 A 2
M 10	x	70	S	100	56,00 A 2
M 10	x	75	S	50	89,00 A 2
M 10	x	80	S	50	67,00 A 2
M 10	x	85	S	50	115,00 A 2
M 10	x	90	S	50	90,00 A 2
M 10	x	100	S	50	115,00 A 2
M 10	x	110	S	50	170,00 A 2
M 10	x	120	S	50	187,00 A 2
M 10	x	130	S	1	233,00 A 2
M 10	x	140	S	1	275,00 A 2
M 10	x	150	S	1	315,00 A 2
M 10	x	160*	S	1	357,00 A 2
M 10	x	170*	S	1	439,00 A 2
M 10	x	180*	S	1	439,00 A 2
M 10	x	190*	S	1	695,00 A 2
M 10	x	200*	S	1	766,00 A 2
M 12	x	16	S	100	62,00 A 2
M 12	x	20	S	100	42,00 A 2
M 12	x	22	S	100	50,10 A 2
M 12	x	25	S	100	31,50 A 2
M 12	x	30	S	100	33,00 A 2
M 12	x	35	S	100	36,00 A 2
M 12	x	40	S	100	39,00 A 2
M 12	x	45	S	100	41,50 A 2
M 12	x	50	S	50	44,50 A 2
M 12	x	55	S	50	48,00 A 2
M 12	x	60	S	50	51,00 A 2
M 12	x	65	S	50	73,00 A 2
M 12	x	70	S	50	78,00 A 2
M 12	x	75	S	50	114,00 A 2
M 12	x	80	S	50	94,00 A 2
M 12	x	85	S	50	164,00 A 2
M 12	x	90	S	50	122,00 A 2
M 12	x	95	S	50	179,00 A 2
M 12	x	100	S	50	146,00 A 2
M 12	x	110*	S	25	173,00 A 2
M 12	x	120	S	25	232,00 A 2
M 12	x	130	S	1	275,00 A 2



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Dimensions	PU Pieces	€.
M 12 x 140	S 1	323,00 A2
M 12 x 150*	S 1	549,60 A2
M 12 x 160*	S 1	419,00 A2
M 12 x 170*	S 1	515,00 A2
M 12 x 180*	S 1	515,00 A2
M 12 x 190*	S 1	843,00 A2
M 12 x 200*	S 1	945,00 A2
M 14 x 20	S 50	116,00 A2
M 14 x 25	S 50	82,00 A2
M 14 x 30	S 50	59,00 A2
M 14 x 35	S 50	61,00 A2
M 14 x 40	S 50	63,00 A2
M 14 x 45	S 50	67,00 A2
M 14 x 50	S 50	71,00 A2
M 14 x 55	S 50	80,00 A2
M 14 x 60	S 50	83,00 A2
M 14 x 65	S 50	91,00 A2
M 14 x 70	S 50	116,00 A2
M 14 x 75	S 50	158,00 A2
M 14 x 80	S 50	131,00 A2
M 14 x 90	S 50	214,00 A2
M 14 x 100	S 50	245,00 A2
M 14 x 110*	S 25	302,00 A2
M 14 x 120*	S 25	340,00 A2
M 14 x 130*	S 25	404,00 A2
M 14 x 140*	S 25	455,00 A2
M 14 x 150*	S 25	498,00 A2
M 16 x 20*	S 50	115,00 A2
M 16 x 25*	S 50	95,60 A2
M 16 x 30*	S 50	69,50 A2
M 16 x 35*	S 50	69,50 A2
M 16 x 40*	S 50	74,10 A2
M 16 x 45*	S 50	79,70 A2
M 16 x 50*	S 50	84,30 A2
M 16 x 55*	S 25	89,90 A2
M 16 x 60*	S 25	96,10 A2
M 16 x 65*	S 25	103,00 A2
M 16 x 70*	S 25	107,00 A2
M 16 x 75*	S 25	127,00 A2
M 16 x 80*	S 25	127,00 A2
M 16 x 85*	S 25	261,00 A2
M 16 x 90*	S 25	214,00 A2
M 16 x 100*	S 25	245,00 A2
M 16 x 110*	S 25	302,00 A2
M 16 x 120*	S 25	340,00 A2
M 16 x 130*	S 25	404,00 A2
M 16 x 140*	S 25	455,00 A2
M 16 x 150*	S 25	498,00 A2
M 16 x 160*	S 25	888,00 A2
M 16 x 170*	S 25	916,00 A2
M 16 x 180*	S 25	916,00 A2
M 16 x 190*	S 10	1012,00 A2
M 16 x 200*	S 10	1012,00 A2
M 18 x 30*	S 25	262,00 A2
M 18 x 35*	S 25	213,00 A2
M 18 x 40*	S 25	196,00 A2
M 18 x 45*	S 25	209,00 A2
M 18 x 50*	S 25	223,00 A2
M 18 x 55*	S 25	243,00 A2
M 18 x 60*	S 25	246,00 A2
M 18 x 65*	S 25	274,00 A2
M 18 x 70*	S 25	282,00 A2
M 18 x 75*	S 25	323,00 A2
M 18 x 80*	S 25	323,00 A2
M 18 x 90*	S 25	529,00 A2
M 18 x 100*	S 25	600,00 A2
M 18 x 110*	S 1	685,00 A2
M 18 x 120*	S 1	759,00 A2
M 18 x 130*	S 1	915,00 A2
M 18 x 140*	S 1	997,00 A2
M 18 x 150*	S 1	1119,00 A2
M 20 x 30*	S 25	174,00 A2
M 20 x 35*	S 25	142,00 A2
M 20 x 40*	S 25	131,00 A2
M 20 x 45*	S 25	139,00 A2

Dimensions	PU Pieces	€.
M 20 x 50*	S 25	149,00 A2
M 20 x 55*	S 25	162,00 A2
M 20 x 60*	S 25	164,00 A2
M 20 x 65*	S 25	183,00 A2
M 20 x 70*	S 25	188,00 A2
M 20 x 75*	S 25	215,00 A2
M 20 x 80*	S 25	215,00 A2
M 20 x 85*	S 25	440,00 A2
M 20 x 90*	S 25	352,00 A2
M 20 x 95*	S 10	352,00 A2
M 20 x 100*	S 10	401,00 A2
M 20 x 110*	S 10	457,00 A2
M 20 x 120*	S 10	506,00 A2
M 20 x 130*	S 10	610,00 A2
M 20 x 140*	S 10	662,00 A2
M 20 x 150*	S 10	721,00 A2
M 20 x 160*	S 10	1124,00 A2
M 20 x 170*	S 10	1164,00 A2
M 20 x 180*	S 10	1164,00 A2
M 20 x 200*	S 10	1271,00 A2
M 20 x 220*	S 10	1540,00 A2
M 22 x 30*	S 25	715,00 A2
M 22 x 35*	S 25	715,00 A2
M 22 x 40*	S 25	715,00 A2
M 22 x 50*	S 25	443,00 A2
M 22 x 55*	S 1	465,00 A2
M 22 x 60	S 10	760,00 A2
M 22 x 65	S 10	830,00 A2
M 22 x 70	S 10	850,00 A2
M 22 x 80*	S 1	564,00 A2
M 22 x 90*	S 1	695,00 A2
M 22 x 100	S 10	1390,00 A2
M 22 x 110*	S 1	1226,00 A2
M 22 x 120	S 10	1690,00 A2
M 22 x 130*	S 1	1282,00 A2
M 22 x 140*	S 1	1304,00 A2
M 24 x 40*	S 1	562,00 A2
M 24 x 45*	S 20	562,00 A2
M 24 x 50*	S 20	296,00 A2
M 24 x 55*	S 10	309,00 A2
M 24 x 60*	S 10	322,00 A2
M 24 x 65*	S 10	333,00 A2
M 24 x 70*	S 10	351,00 A2
M 24 x 80*	S 10	377,00 A2
M 24 x 90*	S 1	533,00 A2
M 24 x 100*	S 1	641,00 A2
M 24 x 110*	S 1	755,00 A2
M 24 x 120*	S 1	833,00 A2
M 24 x 130*	S 1	901,00 A2
M 24 x 140*	S 1	996,00 A2
M 24 x 150*	S 1	1073,00 A2
M 24 x 160*	S 1	1552,00 A2
M 24 x 170*	S 1	1586,00 A2
M 24 x 180*	S 1	1586,00 A2
M 24 x 190*	S 1	1653,00 A2
M 24 x 200*	S 1	1653,00 A2
M 27 x 50*	S 1	558,00 A2
M 27 x 55*	S 1	608,00 A2
M 27 x 60*	S 1	618,00 A2
M 27 x 65*	S 1	669,00 A2
M 27 x 70*	S 1	669,00 A2
M 27 x 80*	S 1	721,00 A2
M 27 x 90*	S 1	773,00 A2
M 27 x 100*	S 1	824,00 A2
M 27 x 110*	S 1	938,00 A2
M 27 x 120*	S 1	997,00 A2
M 27 x 130*	S 1	1073,00 A2
M 27 x 140*	S 1	1134,00 A2
M 27 x 150*	S 1	1202,00 A2
M 30 x 60*	S 1	824,00 A2
M 30 x 65*	S 1	893,00 A2
M 30 x 70*	S 1	930,00 A2
M 30 x 80*	S 1	987,00 A2
M 30 x 90*	S 1	1073,00 A2
M 30 x 100*	S 1	1168,00 A2

Dimensions	PU Pieces	€.
M 30 x 110*	S 1	1288,00 A2
M 30 x 120*	S 1	1365,00 A2
M 30 x 130*	S 1	1486,00 A2
M 30 x 140*	S 1	1589,00 A2
M 30 x 150*	S 1	1674,00 A2
M 33 x 70*	S 1	1204,00 A2
M 33 x 80*	S 1	1303,00 A2
M 33 x 90*	S 1	1395,00 A2
M 33 x 100*	S 1	1487,00 A2
M 33 x 110*	S 1	1656,00 A2
M 33 x 120*	S 1	1756,00 A2
M 33 x 130*	S 1	1840,00 A2
M 33 x 140*	S 1	1940,00 A2
M 33 x 150*	S 1	2047,00 A2
M 36 x 80*	S 1	1671,00 A2
M 36 x 90*	S 1	1794,00 A2
M 36 x 100*	S 1	1927,00 A2
M 36 x 110*	S 1	2126,00 A2
M 36 x 120*	S 1	2234,00 A2
M 36 x 130*	S 1	2262,00 A2
M 36 x 140*	S 1	2385,00 A2
M 36 x 150*	S 1	2495,00 A2

ISO	04017.927	*
4017	A 2 - 70	AD W2



Hexagon head screws with thread up to head

For pressure vessel const. as per AD regulations, products with renunciation of inspection certificate, *M 10/12= RAZ 3223 other Ø = RAZ 403

Dimensions → **TI-15** Tightening torque → **TI-235**
 Mech. properties → **TI-224** Standard conversion → **TI-6**

Steel → **S. 240-241**
 Brass → **S. 588**

ISO 4017 → replaces DIN 933

M 10 x 16	S 100	31,00 A 2-70
M 10 x 20	S 100	22,50 A 2-70
M 10 x 25	S 100	21,50 A 2-70
M 10 x 30	S 100	23,80 A 2-70
M 10 x 35	S 100	26,00 A 2-70
M 10 x 40	S 100	28,00 A 2-70
M 10 x 45	S 100	30,00 A 2-70
M 10 x 50	S 100	32,00 A 2-70
M 12 x 20	S 50	41,95 A 2-70
M 12 x 25	S 50	31,20 A 2-70
M 12 x 30	S 50	32,75 A 2-70
M 12 x 35	S 50	35,80 A 2-70
M 12 x 40	S 50	38,85 A 2-70
M 12 x 45	S 50	41,45 A 2-70
M 12 x 50	S 50	44,50 A 2-70
M 12 x 55	S 50	47,55 A 2-70
M 12 x 60	S 50	50,10 A 2-70
M 12 x 65	S 50	72,60 A 2-70
M 12 x 70	S 50	77,20 A 2-70
M 12 x 75	S 25	114,00 A 2-70
M 12 x 80	S 25	93,60 A 2-70
M 16 x 30	S 25	69,05 A 2-70
M 16 x 35	S 25	69,05 A 2-70
M 16 x 40	S 25	73,65 A 2-70
M 16 x 45	S 25	79,25 A 2-70
M 16 x 50	S 25	83,85 A 2-70
M 16 x 55	S 25	89,50 A 2-70
M 16 x 60	S 25	95,65 A 2-70
M 16 x 65	S 25	103,00 A 2-70



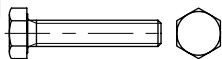
ISO 4017

Dimensions	PU	Pieces	€.
M 16 x 70	S	25	108,00 A2-70
M 16 x 75	S	25	149,00 A2-70
M 16 x 80	S	25	127,00 A2-70
M 16 x 85	S	25	263,00 A2-70
M 16 x 110	S	25	305,00 A2-70
M 16 x 120	S	25	343,00 A2-70
M 20 x 30	S	25	177,00 A2-70
M 20 x 35	S	25	144,00 A2-70
M 20 x 40	S	25	133,00 A2-70
M 20 x 45	S	25	141,00 A2-70
M 20 x 50	S	25	156,00 A2-70
M 20 x 55	S	25	164,00 A2-70
M 20 x 60	S	25	164,00 A2-70
M 20 x 65	S	25	185,00 A2-70
M 20 x 70	S	25	190,00 A2-70
M 20 x 75	S	25	218,00 A2-70
M 20 x 80	S	25	218,00 A2-70
M 20 x 90	S	25	355,00 A2-70
M 20 x 120	S	10	508,00 A2-70

Dimensions	PU	Pieces	€.
M 5 x 14*	S	500	7,70 A4
M 5 x 14*	K	100	10,20 A4
M 5 x 16*	S	500	5,75 A4
M 5 x 16*	K	100	8,25 A4
M 5 x 18*	S	500	7,70 A4
M 5 x 18*	K	100	10,20 A4
M 5 x 20*	S	500	6,35 A4
M 5 x 20*	K	100	8,85 A4
M 5 x 22*	S	200	9,10 A4
M 5 x 25*	S	200	7,30 A4
M 5 x 30*	S	200	8,50 A4
M 5 x 35*	S	200	12,30 A4
M 5 x 40*	S	200	15,30 A4
M 5 x 45*	S	200	20,40 A4
M 5 x 50*	S	200	21,90 A4
M 5 x 55*	S	200	29,60 A4
M 5 x 60*	S	200	31,70 A4
M 5 x 70*	S	100	72,60 A4
M 5 x 80*	S	100	222,00 A4
M 6 x 8*	S	100	11,10 A4
M 6 x 10*	S	500	10,10 A4
M 6 x 10*	K	100	12,60 A4
M 6 x 12*	S	500	9,30 A4
M 6 x 12*	K	100	11,80 A4
M 6 x 14*	S	500	10,80 A4
M 6 x 14*	K	100	13,30 A4
M 6 x 16*	S	200	7,30 A4
M 6 x 20*	S	200	7,90 A4
M 6 x 22*	S	200	10,90 A4
M 6 x 25*	S	200	8,70 A4
M 6 x 30*	S	200	9,95 A4
M 6 x 35*	S	200	11,70 A4
M 6 x 40*	S	200	13,20 A4
M 6 x 45*	S	100	17,80 A4
M 6 x 50*	S	100	20,70 A4
M 6 x 55*	S	100	27,60 A4
M 6 x 60*	S	100	29,60 A4
M 6 x 65*	S	50	47,00 A4
M 6 x 70*	S	50	47,00 A4
M 6 x 75*	S	50	71,00 A4
M 6 x 80*	S	50	57,20 A4
M 6 x 90*	S	50	79,70 A4
M 6 x 100*	S	50	91,50 A4
M 6 x 110*	S	50	273,00 A4
M 6 x 120*	S	50	330,00 A4
M 8 x 8*	S	100	43,00 A4
M 8 x 10*	S	200	21,90 A4
M 8 x 12*	S	200	21,40 A4
M 8 x 14*	S	200	25,50 A4
M 8 x 16*	S	200	16,90 A4
M 8 x 18*	S	200	21,50 A4
M 8 x 20*	S	200	16,90 A4
M 8 x 22*	S	200	21,50 A4
M 8 x 25*	S	200	17,10 A4
M 8 x 30*	S	200	18,10 A4
M 8 x 35*	S	200	20,10 A4
M 8 x 40*	S	100	21,20 A4
M 8 x 45*	S	100	25,00 A4
M 8 x 50*	S	100	26,70 A4
M 8 x 55*	S	100	35,20 A4
M 8 x 60*	S	100	37,80 A4
M 8 x 65*	S	50	51,10 A4
M 8 x 70*	S	50	54,10 A4
M 8 x 75*	S	50	82,80 A4
M 8 x 80*	S	50	66,40 A4
M 8 x 90*	S	50	95,10 A4
M 8 x 100*	S	50	108,00 A4
M 8 x 110*	S	1	141,00 A4
M 8 x 120*	S	1	164,00 A4
M 8 x 130*	S	1	212,00 A4
M 8 x 140*	S	1	257,00 A4
M 8 x 150*	S	1	302,00 A4
M 8 x 160*	S	1	347,00 A4
M 8 x 170*	S	1	437,00 A4
M 8 x 180*	S	1	437,00 A4

Dimensions	PU	Pieces	€.
M 8 x 200*	S	1	655,00 A4
M 10 x 10*	S	100	116,00 A4
M 10 x 12*	S	100	67,00 A4
M 10 x 14*	S	100	66,00 A4
M 10 x 16	S	100	39,50 A4
M 10 x 20	S	100	31,00 A4
M 10 x 22	S	100	37,30 A4
M 10 x 25	S	100	30,00 A4
M 10 x 30	S	100	32,00 A4
M 10 x 35	S	100	33,50 A4
M 10 x 40	S	100	36,50 A4
M 10 x 45	S	100	40,00 A4
M 10 x 50	S	100	43,50 A4
M 10 x 55	S	100	56,00 A4
M 10 x 60	S	100	59,00 A4
M 10 x 65	S	100	71,00 A4
M 10 x 70	S	100	75,00 A4
M 10 x 75	S	100	117,00 A4
M 10 x 80	S	50	92,00 A4
M 10 x 85	S	50	145,00 A4
M 10 x 90	S	50	119,00 A4
M 10 x 95	S	50	223,00 A4
M 10 x 100	S	50	189,00 A4
M 10 x 110*	S	50	219,00 A4
M 10 x 120*	S	50	270,00 A4
M 10 x 130*	S	1	351,00 A4
M 10 x 140*	S	1	414,00 A4
M 10 x 150*	S	1	482,00 A4
M 10 x 160*	S	1	547,00 A4
M 10 x 170*	S	1	629,00 A4
M 10 x 180*	S	1	675,00 A4
M 10 x 200*	S	1	869,00 A4
M 12 x 16	S	100	74,00 A4
M 12 x 18*	S	100	69,00 A4
M 12 x 20	S	100	56,00 A4
M 12 x 22	S	100	65,40 A4
M 12 x 25	S	100	47,00 A4
M 12 x 30	S	100	47,00 A4
M 12 x 35	S	100	51,00 A4
M 12 x 40	S	100	52,00 A4
M 12 x 45	S	100	56,00 A4
M 12 x 50	S	50	60,00 A4
M 12 x 55	S	50	73,00 A4
M 12 x 60	S	50	74,00 A4
M 12 x 65	S	50	94,00 A4
M 12 x 70	S	50	98,00 A4
M 12 x 75	S	50	140,00 A4
M 12 x 80	S	50	113,00 A4
M 12 x 85	S	50	180,00 A4
M 12 x 90	S	50	154,00 A4
M 12 x 95	S	1	299,00 A4
M 12 x 100	S	50	164,00 A4
M 12 x 110	S	1	285,00 A4
M 12 x 120	S	50	295,00 A4
M 12 x 130*	S	1	286,00 A4
M 12 x 140	S	1	463,00 A4
M 12 x 150*	S	1	540,00 A4
M 12 x 160*	S	1	618,00 A4
M 12 x 170*	S	1	748,00 A4
M 12 x 180*	S	1	772,00 A4
M 12 x 190*	S	1	971,00 A4
M 12 x 200*	S	1	1124,00 A4
M 14 x 20*	S	50	149,00 A4
M 14 x 25	S	50	139,00 A4
M 14 x 30	S	50	119,00 A4
M 14 x 35	S	50	119,00 A4
M 14 x 40	S	50	119,00 A4
M 14 x 45	S	50	121,00 A4
M 14 x 50	S	50	128,00 A4
M 14 x 55	S	50	142,00 A4
M 14 x 60	S	50	145,00 A4
M 14 x 65	S	50	168,00 A4
M 14 x 70	S	50	173,00 A4
M 14 x 75	S	50	236,00 A4
M 14 x 80	S	50	196,00 A4

ISO 04017.940 **
4017 A 4 - 70



Hexagon head screws with thread up to head

**M 10/12/14/22= RAZ 3220 other Ø = RAZ 401

Dimensions → TI-15 Tightening torque → TI-235
 Mech. properties → TI-224 Standard conversion → TI-6

Steel → S. 240-241
 Brass → S. 588

ISO 4017 → replaces DIN 933

*Prop. class for dimensions different depending on production

M 3 x 5*	S	100	10,70 A4
M 3 x 6*	S	100	8,65 A4
M 3 x 8*	S	100	7,15 A4
M 3 x 10*	S	100	6,90 A4
M 3 x 12*	S	100	6,45 A4
M 3 x 16*	S	100	6,45 A4
M 3 x 18*	S	100	8,90 A4
M 3 x 20*	S	100	7,05 A4
M 3 x 25*	S	100	7,90 A4
M 3 x 30*	S	100	9,15 A4
M 3 x 35*	S	100	14,10 A4
M 3 x 40*	S	100	19,90 A4
M 4 x 6*	S	200	8,65 A4
M 4 x 8*	S	200	7,15 A4
M 4 x 10*	S	200	6,90 A4
M 4 x 12*	S	200	6,45 A4
M 4 x 14*	S	200	7,70 A4
M 4 x 16*	S	200	5,25 A4
M 4 x 18*	S	200	6,95 A4
M 4 x 20*	S	200	5,55 A4
M 4 x 25*	S	200	6,80 A4
M 4 x 30*	S	200	7,70 A4
M 4 x 35*	S	200	13,20 A4
M 4 x 40*	S	200	17,30 A4
M 4 x 45*	S	200	20,40 A4
M 4 x 50*	S	200	21,90 A4
M 4 x 60*	S	100	66,90 A4
M 5 x 6*	S	100	21,90 A4
M 5 x 8*	S	100	7,15 A4
M 5 x 10*	S	500	6,90 A4
M 5 x 10*	K	100	9,40 A4
M 5 x 12*	S	500	6,45 A4
M 5 x 12*	K	100	8,95 A4



ISO 4017

Dimensions	PU	Pieces	€.
M 14 x 90	S	50	285,00 A4
M 14 x 100	S	50	330,00 A4
M 14 x 110	S	25	425,00 A4
M 14 x 120	S	25	485,00 A4
M 14 x 130	S	25	550,00 A4
M 14 x 140	S	25	610,00 A4
M 14 x 150*	S	1	669,00 A4
M 14 x 160*	S	1	1248,00 A4
M 16 x 20*	S	50	149,00 A4
M 16 x 25*	S	50	138,00 A4
M 16 x 30*	S	50	118,00 A4
M 16 x 35*	S	50	118,00 A4
M 16 x 40*	S	50	118,00 A4
M 16 x 45*	S	50	120,00 A4
M 16 x 50*	S	50	127,00 A4
M 16 x 55*	S	25	141,00 A4
M 16 x 60*	S	25	144,00 A4
M 16 x 65*	S	25	167,00 A4
M 16 x 70*	S	25	172,00 A4
M 16 x 75*	S	25	195,00 A4
M 16 x 80*	S	25	195,00 A4
M 16 x 90*	S	25	278,00 A4
M 16 x 100*	S	25	327,00 A4
M 16 x 110*	S	1	423,00 A4
M 16 x 120*	S	1	481,00 A4
M 16 x 130*	S	1	547,00 A4
M 16 x 140*	S	1	603,00 A4
M 16 x 150*	S	1	669,00 A4
M 16 x 160*	S	1	1220,00 A4
M 16 x 170*	S	1	1287,00 A4
M 16 x 180*	S	1	1287,00 A4
M 16 x 190*	S	1	1338,00 A4
M 16 x 200*	S	1	1338,00 A4
M 18 x 30*	S	1	373,00 A4
M 18 x 35*	S	1	334,00 A4
M 18 x 40*	S	1	334,00 A4
M 18 x 45*	S	1	334,00 A4
M 18 x 50*	S	1	349,00 A4
M 18 x 55*	S	1	376,00 A4
M 18 x 60*	S	1	380,00 A4
M 18 x 65*	S	1	423,00 A4
M 18 x 70*	S	1	436,00 A4
M 18 x 75*	S	1	482,00 A4
M 18 x 80*	S	1	482,00 A4
M 18 x 90*	S	1	697,00 A4
M 18 x 100*	S	1	822,00 A4
M 18 x 110*	S	1	1000,00 A4
M 18 x 120*	S	1	1088,00 A4
M 18 x 130*	S	1	1277,00 A4
M 18 x 150*	S	1	1513,00 A4
M 20 x 20*	S	25	338,00 A4
M 20 x 30*	S	25	248,00 A4
M 20 x 35*	S	25	223,00 A4
M 20 x 40*	S	25	223,00 A4
M 20 x 45*	S	25	223,00 A4
M 20 x 50*	S	25	233,00 A4
M 20 x 55*	S	25	251,00 A4
M 20 x 60*	S	25	254,00 A4
M 20 x 65*	S	25	282,00 A4
M 20 x 70*	S	25	290,00 A4
M 20 x 75*	S	25	321,00 A4
M 20 x 80*	S	25	321,00 A4
M 20 x 90*	S	1	465,00 A4
M 20 x 100*	S	1	548,00 A4
M 20 x 110*	S	1	667,00 A4
M 20 x 120*	S	1	725,00 A4
M 20 x 130*	S	1	851,00 A4
M 20 x 140*	S	1	914,00 A4
M 20 x 150*	S	1	1008,00 A4
M 20 x 160*	S	1	1816,00 A4
M 20 x 170*	S	1	1855,00 A4
M 20 x 180*	S	1	1855,00 A4
M 20 x 190*	S	1	1968,00 A4
M 20 x 200*	S	1	1968,00 A4
M 22 x 30*	S	1	1073,00 A4

Dimensions	PU	Pieces	€.
M 22 x 40*	S	1	1073,00 A4
M 22 x 45*	S	1	1073,00 A4
M 22 x 50*	S	1	875,00 A4
M 22 x 55*	S	1	892,00 A4
M 22 x 60	S	10	920,00 A4
M 22 x 65*	S	1	948,00 A4
M 22 x 70	S	10	1000,00 A4
M 22 x 75*	S	1	1084,00 A4
M 22 x 80	S	10	1090,00 A4
M 22 x 90	S	10	1390,00 A4
M 22 x 100	S	10	1690,00 A4
M 22 x 110	S	10	1870,00 A4
M 22 x 120	S	10	2050,00 A4
M 22 x 130	S	10	2240,00 A4
M 22 x 140	S	10	2400,00 A4
M 22 x 150	S	10	2650,00 A4
M 24 x 30*	S	1	962,00 A4
M 24 x 35*	S	1	962,00 A4
M 24 x 40*	S	1	805,00 A4
M 24 x 45*	S	1	805,00 A4
M 24 x 50*	S	1	547,00 A4
M 24 x 55*	S	1	557,00 A4
M 24 x 60*	S	1	572,00 A4
M 24 x 65*	S	1	593,00 A4
M 24 x 70*	S	1	623,00 A4
M 24 x 75*	S	1	677,00 A4
M 24 x 80*	S	1	677,00 A4
M 24 x 90*	S	1	925,00 A4
M 24 x 100*	S	1	1006,00 A4
M 24 x 110*	S	1	1167,00 A4
M 24 x 120*	S	1	1274,00 A4
M 24 x 130*	S	1	1397,00 A4
M 24 x 140*	S	1	1501,00 A4
M 24 x 150*	S	1	1631,00 A4
M 24 x 160*	S	1	2443,00 A4
M 24 x 170*	S	1	2489,00 A4
M 24 x 180*	S	1	2489,00 A4
M 24 x 190*	S	1	2551,00 A4
M 24 x 200*	S	1	2551,00 A4
M 27 x 50*	S	1	997,00 A4
M 27 x 55*	S	1	1055,00 A4
M 27 x 60*	S	1	1106,00 A4
M 27 x 65*	S	1	1150,00 A4
M 27 x 70*	S	1	1209,00 A4
M 27 x 80*	S	1	1303,00 A4
M 27 x 90*	S	1	1413,00 A4
M 27 x 100*	S	1	1508,00 A4
M 27 x 110*	S	1	1702,00 A4
M 27 x 120*	S	1	1802,00 A4
M 27 x 130*	S	1	1866,00 A4
M 27 x 140*	S	1	1968,00 A4
M 27 x 150*	S	1	2034,00 A4
M 30 x 40*	S	1	2400,00 A4
M 30 x 50*	S	1	1748,00 A4
M 30 x 60*	S	1	1360,00 A4
M 30 x 65*	S	1	1416,00 A4
M 30 x 70*	S	1	1472,00 A4
M 30 x 80*	S	1	1587,00 A4
M 30 x 90*	S	1	1707,00 A4
M 30 x 100*	S	1	1902,00 A4
M 30 x 110*	S	1	2167,00 A4
M 30 x 120*	S	1	2305,00 A4
M 30 x 130*	S	1	2397,00 A4
M 30 x 140*	S	1	2479,00 A4
M 30 x 150*	S	1	2525,00 A4
M 33 x 70*	S	1	1983,00 A4
M 33 x 80*	S	1	2152,00 A4
M 33 x 90*	S	1	2305,00 A4
M 33 x 120*	S	1	2888,00 A4
M 33 x 130*	S	1	2985,00 A4
M 33 x 140*	S	1	3026,00 A4
M 33 x 150*	S	1	3062,00 A4
M 36 x 80*	S	1	2658,00 A4
M 36 x 90*	S	1	2842,00 A4
M 36 x 100*	S	1	3195,00 A4

Dimensions	PU	Pieces	€.
M 36 x 110*	S	1	3359,00 A4
M 36 x 120*	S	1	3527,00 A4
M 36 x 130*	S	1	3604,00 A4
M 36 x 140*	S	1	3676,00 A4
M 36 x 150*	S	1	3752,00 A4

ISO	04017.947	*
4017	A 4 - 70	AD W2



Hexagon head screws with thread up to head

For pressure vessel const. as per AD regulations,
products with renunciation of inspection
certificate, *M 10/12= RAZ 3223 other \varnothing = RAZ 403

Dimensions → **TI-15** Tightening torque → **TI-235**
Mech. properties → **TI-224** Standard conversion → **TI-6**

Steel → **S. 240-241**

Brass → **S. 588**

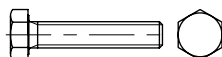
ISO 4017 → replaces DIN 933

M 5 x 10	S	100	6,90 A4-70
M 5 x 12	S	100	6,45 A4-70
M 5 x 16	S	100	5,75 A4-70
M 5 x 20	S	100	6,50 A4-70
M 6 x 8	S	200	11,80 A4-70
M 6 x 10	S	200	10,30 A4-70
M 6 x 12	S	200	9,50 A4-70
M 6 x 16	S	200	7,30 A4-70
M 6 x 20	S	200	7,90 A4-70
M 6 x 25	S	200	8,70 A4-70
M 6 x 30	S	100	9,95 A4-70
M 8 x 12	S	200	21,40 A4-70
M 8 x 16	S	200	16,90 A4-70
M 8 x 20	S	200	16,90 A4-70
M 8 x 25	S	200	17,10 A4-70
M 8 x 30	S	200	18,10 A4-70
M 8 x 35	S	200	20,10 A4-70
M 8 x 40	S	100	21,20 A4-70
M 8 x 45	S	100	26,00 A4-70
M 10 x 16	S	100	40,60 A4-70
M 10 x 20	S	100	30,60 A4-70
M 10 x 25	S	100	29,60 A4-70
M 10 x 30	S	100	31,60 A4-70
M 10 x 35	S	100	33,20 A4-70
M 10 x 40	S	100	36,30 A4-70
M 10 x 45	S	100	40,60 A4-70
M 10 x 50	S	100	44,30 A4-70
M 10 x 55	S	50	57,00 A4-70
M 10 x 60	S	100	58,20 A4-70
M 10 x 70	S	50	75,00 A4-70
M 10 x 80	S	50	93,00 A4-70
M 12 x 16	S	50	72,00 A4-70
M 12 x 20	S	50	55,25 A4-70
M 12 x 25	S	50	46,55 A4-70
M 12 x 30	S	50	46,55 A4-70
M 12 x 35	S	50	50,10 A4-70
M 12 x 40	S	50	51,65 A4-70
M 12 x 45	S	50	55,75 A4-70
M 12 x 50	S	50	59,85 A4-70
M 12 x 55	S	50	72,10 A4-70
M 12 x 60	S	50	73,15 A4-70
M 12 x 65	S	50	93,60 A4-70
M 12 x 70	S	50	97,15 A4-70
M 12 x 75	S	50	141,00 A4-70
M 12 x 80	S	25	113,00 A4-70
M 12 x 90	S	50	141,00 A4-70

ISO 4017

Dimensions	PU Pieces	€.
M 16 x 20	S 50	151,00 A 4-70
M 16 x 25	S 25	139,00 A 4-70
M 16 x 30	S 25	119,00 A 4-70
M 16 x 35	S 25	119,00 A 4-70
M 16 x 40	S 25	119,00 A 4-70
M 16 x 45	S 25	121,00 A 4-70
M 16 x 50	S 25	128,00 A 4-70
M 16 x 55	S 25	144,00 A 4-70
M 16 x 60	S 25	146,00 A 4-70
M 16 x 65	S 25	169,00 A 4-70
M 16 x 70	S 25	174,00 A 4-70
M 16 x 75	S 25	225,00 A 4-70
M 16 x 80	S 25	197,00 A 4-70
M 16 x 90	S 50	282,00 A 4-70
M 16 x 100	S 25	335,00 A 4-70
M 20 x 30	S 25	251,00 A 4-70
M 20 x 35	S 25	225,00 A 4-70
M 20 x 40	S 25	225,00 A 4-70
M 20 x 45	S 25	225,00 A 4-70
M 20 x 50	S 25	236,00 A 4-70
M 20 x 55	S 25	254,00 A 4-70
M 20 x 60	S 25	256,00 A 4-70
M 20 x 65	S 25	287,00 A 4-70
M 20 x 70	S 25	292,00 A 4-70
M 20 x 75	S 25	312,00 A 4-70
M 20 x 80	S 25	323,00 A 4-70
M 20 x 90	S 10	471,00 A 4-70
M 20 x 100	S 10	565,00 A 4-70
M 20 x 120	S 1	728,00 A 4-70
M 20 x 160	S 1	1850,00 A 4-70
M 24 x 110	S 1	1170,00 A 4-70
M 24 x 130	S 1	1400,00 A 4-70

ISO	04017.948	RAZ 403
4017	A 4 - 80	



Hexagon head screws with thread up to head

High strength (strongly cold worked)

Dimensions → **TI-15** Tightening torque → **TI-235**
 Mech. properties → **TI-224** Standard conversion → **TI-6**

Steel → **S. 240-241**
 Brass → **S. 588**

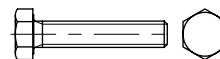
ISO 4017 → replaces DIN 933

M 6 x 10	S 100	25,50 A 4-80
M 6 x 12	S 100	23,20 A 4-80
M 6 x 16	S 100	18,30 A 4-80
M 6 x 20	S 100	19,90 A 4-80
M 6 x 25	S 100	21,90 A 4-80
M 6 x 30	S 100	25,00 A 4-80
M 6 x 35	S 100	29,50 A 4-80
M 6 x 40	S 100	33,50 A 4-80
M 6 x 45	S 100	45,00 A 4-80
M 6 x 50	S 100	52,00 A 4-80
M 6 x 55	S 100	68,00 A 4-80
M 6 x 60	S 100	73,00 A 4-80
M 8 x 10	S 100	55,00 A 4-80
M 8 x 12	S 100	54,00 A 4-80
M 8 x 16	S 100	43,00 A 4-80
M 8 x 20	S 100	43,00 A 4-80
M 8 x 25	S 100	43,00 A 4-80
M 8 x 30	S 100	45,50 A 4-80
M 8 x 35	S 100	51,00 A 4-80
M 8 x 40	S 100	54,00 A 4-80

Dimensions	PU Pieces	€.
M 8 x 45	S 100	63,00 A 4-80
M 8 x 50	S 100	68,00 A 4-80
M 8 x 55	S 100	89,00 A 4-80
M 8 x 60	S 100	94,00 A 4-80
M 10 x 16	S 100	99,00 A 4-80
M 10 x 20	S 100	77,00 A 4-80
M 10 x 25	S 100	75,00 A 4-80
M 10 x 30	S 100	80,00 A 4-80
M 10 x 35	S 100	84,00 A 4-80
M 10 x 40	S 100	91,00 A 4-80
M 10 x 45	S 100	100,00 A 4-80
M 10 x 50	S 100	109,00 A 4-80
M 10 x 55	S 100	140,00 A 4-80
M 10 x 60	S 100	146,00 A 4-80
M 10 x 65	S 100	177,00 A 4-80
M 10 x 70	S 100	186,00 A 4-80
M 10 x 75	S 50	295,00 A 4-80
M 10 x 80	S 50	229,00 A 4-80
M 12 x 20	S 100	139,00 A 4-80
M 12 x 25	S 100	117,00 A 4-80
M 12 x 30	S 100	117,00 A 4-80
M 12 x 35	S 100	126,00 A 4-80
M 12 x 40	S 100	130,00 A 4-80
M 12 x 45	S 50	140,00 A 4-80
M 12 x 50	S 50	150,00 A 4-80
M 12 x 55	S 50	181,00 A 4-80
M 12 x 60	S 50	183,00 A 4-80
M 12 x 65	S 50	234,00 A 4-80
M 12 x 70	S 50	243,00 A 4-80
M 12 x 75	S 50	355,00 A 4-80
M 12 x 80	S 50	285,00 A 4-80
M 14 x 25	S 50	350,00 A 4-80
M 14 x 30	S 50	300,00 A 4-80
M 14 x 35	S 50	300,00 A 4-80
M 14 x 40	S 50	300,00 A 4-80
M 14 x 45	S 50	305,00 A 4-80
M 14 x 50	S 50	320,00 A 4-80
M 14 x 55	S 50	360,00 A 4-80
M 14 x 60	S 50	365,00 A 4-80
M 14 x 65	S 50	425,00 A 4-80
M 14 x 80	S 1	495,00 A 4-80
M 16 x 25	S 50	350,00 A 4-80
M 16 x 30	S 50	300,00 A 4-80
M 16 x 35	S 50	300,00 A 4-80
M 16 x 40	S 50	300,00 A 4-80
M 16 x 45	S 50	305,00 A 4-80
M 16 x 50	S 25	320,00 A 4-80
M 16 x 55	S 25	360,00 A 4-80
M 16 x 60	S 25	365,00 A 4-80
M 16 x 65	S 25	425,00 A 4-80
M 16 x 70	S 25	435,00 A 4-80
M 16 x 75	S 25	570,00 A 4-80
M 16 x 80	S 25	495,00 A 4-80
M 16 x 90	S 25	710,00 A 4-80
M 16 x 100	S 25	820,00 A 4-80
M 20 x 30	S 25	630,00 A 4-80
M 20 x 35	S 25	680,00 A 4-80
M 20 x 40	S 25	570,00 A 4-80
M 20 x 45	S 25	570,00 A 4-80
M 20 x 50	S 25	590,00 A 4-80
M 20 x 55	S 25	640,00 A 4-80
M 20 x 60	S 25	640,00 A 4-80
M 20 x 65	S 25	720,00 A 4-80
M 20 x 70	S 25	730,00 A 4-80
M 20 x 75	S 25	780,00 A 4-80
M 20 x 80	S 25	810,00 A 4-80

Dimensions	PU Pieces	€.
ISO	04017.941	RAZ 2010

4017 A 4 BUMAX88*



Hexagon head screws with thread up to head

Dimension from M 6 and length L > 3xd,
 approved for use acc. to pressure equipment
 directive → cert. 3.1 on request

Dimensions → **TI-15** Tightening torque → **TI-236**
 Mech. properties → **TI-225**

Steel → **S. 240-241**
 Brass → **S. 588**

*Mechanical properties ~ Class 8.8



M 4 x 10	S 200	73,00 A 4-88
M 4 x 12	S 200	74,00 A 4-88
M 4 x 16	S 200	79,00 A 4-88
M 4 x 20	S 200	82,00 A 4-88
M 4 x 25	S 200	86,00 A 4-88
M 4 x 30	S 200	90,00 A 4-88
M 5 x 10	S 100	83,00 A 4-88
M 5 x 12	S 100	85,00 A 4-88
M 5 x 16	S 100	90,00 A 4-88
M 5 x 20	S 100	93,00 A 4-88
M 5 x 25	S 100	99,00 A 4-88
M 5 x 30	S 100	104,00 A 4-88
M 5 x 35	S 100	109,00 A 4-88
M 5 x 40	S 100	114,00 A 4-88
M 5 x 45	S 100	120,00 A 4-88
M 5 x 50	S 100	125,00 A 4-88
M 6 x 10	S 100	79,00 A 4-88
M 6 x 12	S 100	81,00 A 4-88
M 6 x 16	S 100	87,00 A 4-88
M 6 x 20	S 100	93,00 A 4-88
M 6 x 25	S 100	101,00 A 4-88
M 6 x 30	S 100	109,00 A 4-88
M 6 x 35	S 100	117,00 A 4-88
M 6 x 40	S 100	125,00 A 4-88
M 6 x 45	S 100	133,00 A 4-88
M 6 x 50	S 100	142,00 A 4-88
M 6 x 60	S 100	157,00 A 4-88
M 6 x 70	S 100	730,00 A 4-88
M 6 x 80	S 100	750,00 A 4-88
M 8 x 10	S 50	129,00 A 4-88
M 8 x 12	S 50	134,00 A 4-88
M 8 x 14	S 50	140,00 A 4-88
M 8 x 16	S 50	146,00 A 4-88
M 8 x 20	S 50	157,00 A 4-88
M 8 x 25	S 50	172,00 A 4-88
M 8 x 30	S 50	186,00 A 4-88
M 8 x 35	S 50	201,00 A 4-88
M 8 x 40	S 50	216,00 A 4-88
M 8 x 45	S 50	230,00 A 4-88
M 8 x 50	S 50	244,00 A 4-88
M 8 x 60	S 50	275,00 A 4-88
M 8 x 70	S 50	870,00 A 4-88
M 8 x 80	S 50	910,00 A 4-88
M 10 x 16	S 50	260,00 A 4-88
M 10 x 20	S 50	295,00 A 4-88
M 10 x 25	S 50	340,00 A 4-88
M 10 x 30	S 50	360,00 A 4-88
M 10 x 35	S 50	385,00 A 4-88
M 10 x 40	S 50	420,00 A 4-88

ISO 4026

Dimensions	PU	Pieces	€.
M 10 x 45	S	50	455,00 A 4-88
M 10 x 50	S	50	465,00 A 4-88
M 10 x 60	S	50	510,00 A 4-88
M 10 x 70	S	50	560,00 A 4-88
M 10 x 80	S	50	620,00 A 4-88
M 10 x 90	S	50	660,00 A 4-88
M 10 x 100	S	50	710,00 A 4-88
M 10 x 110	S	50	860,00 A 4-88
M 10 x 120	S	50	900,00 A 4-88
M 10 x 130	S	50	980,00 A 4-88
M 12 x 20	S	25	430,00 A 4-88
M 12 x 25	S	25	460,00 A 4-88
M 12 x 30	S	25	485,00 A 4-88
M 12 x 35	S	25	520,00 A 4-88
M 12 x 40	S	25	560,00 A 4-88
M 12 x 45	S	25	600,00 A 4-88
M 12 x 50	S	25	630,00 A 4-88
M 12 x 60	S	25	700,00 A 4-88
M 12 x 70	S	25	760,00 A 4-88
M 12 x 80	S	25	850,00 A 4-88
M 12 x 90	S	25	910,00 A 4-88
M 12 x 100	S	25	1100,00 A 4-88
M 14 x 30	S	25	1100,00 A 4-88
M 14 x 40	S	25	1180,00 A 4-88
M 14 x 50	S	25	1260,00 A 4-88
M 14 x 60	S	25	1350,00 A 4-88
M 14 x 70	S	25	1350,00 A 4-88
M 16 x 25	S	25	890,00 A 4-88
M 16 x 30	S	25	950,00 A 4-88
M 16 x 35	S	25	1010,00 A 4-88
M 16 x 40	S	25	1080,00 A 4-88
M 16 x 45	S	25	1140,00 A 4-88
M 16 x 50	S	25	1200,00 A 4-88
M 16 x 60	S	25	1330,00 A 4-88
M 16 x 70	S	25	1460,00 A 4-88
M 16 x 80	S	25	1620,00 A 4-88
M 16 x 120	S	25	2700,00 A 4-88
M 18 x 40	S	10	1810,00 A 4-88
M 18 x 50	S	10	1980,00 A 4-88
M 18 x 60	S	10	2140,00 A 4-88
M 18 x 70	S	10	2300,00 A 4-88
M 18 x 80	S	10	2460,00 A 4-88
M 20 x 35	S	10	2190,00 A 4-88
M 20 x 40	S	10	2290,00 A 4-88
M 20 x 45	S	10	2390,00 A 4-88
M 20 x 50	S	10	2490,00 A 4-88
M 20 x 55	S	10	2550,00 A 4-88
M 20 x 60	S	10	2650,00 A 4-88
M 20 x 65	S	10	2800,00 A 4-88
M 20 x 70	S	10	2900,00 A 4-88
M 20 x 75	S	10	3000,00 A 4-88
M 20 x 80	S	10	3100,00 A 4-88
M 20 x 100	S	10	3500,00 A 4-88
M 24 x 40	S	10	3350,00 A 4-88
M 24 x 45	S	10	3450,00 A 4-88
M 24 x 50	S	10	3600,00 A 4-88
M 24 x 60	S	10	3900,00 A 4-88
M 24 x 65	S	10	4050,00 A 4-88
M 24 x 70	S	10	4200,00 A 4-88
M 24 x 80	S	10	4500,00 A 4-88
M 24 x 90	S	10	5100,00 A 4-88
M 24 x 100	S	10	5300,00 A 4-88
M 24 x 120	S	10	6100,00 A 4-88
M 27 x 50	S	10	18000,00 A 4-88
M 27 x 60	S	10	18400,00 A 4-88
M 27 x 70	S	10	18700,00 A 4-88
M 27 x 80	S	10	19100,00 A 4-88
M 27 x 90	S	10	19500,00 A 4-88
M 27 x 100	S	10	19900,00 A 4-88
M 27 x 120	S	10	20700,00 A 4-88
M 27 x 130	S	10	21100,00 A 4-88
M 27 x 140	S	10	21400,00 A 4-88
M 30 x 60	S	10	16800,00 A 4-88
M 30 x 70	S	10	17300,00 A 4-88
M 30 x 80	S	10	17700,00 A 4-88

Dimensions	PU	Pieces	€.
M 30 x 90	S	10	18200,00 A 4-88
M 30 x 100	S	10	18700,00 A 4-88
M 36 x 80	S	10	36000,00 A 4-88
M 36 x 90	S	10	37100,00 A 4-88
M 36 x 100	S	10	38300,00 A 4-88
M 36 x 120	S	10	40500,00 A 4-88
M 36 x 130	S	10	41700,00 A 4-88
M 36 x 140	S	10	42900,00 A 4-88
M 36 x 150	S	10	43800,00 A 4-88

ISO	04017.942	RAZ 2010
4017	A 4 BUMAX109*	



Hexagon head screws with thread up to head

Dimensions	→ TI-15	Tightening torque	→ TI-236
Mech. properties	→ TI-225		
Steel	→ S. 240-241		
Brass	→ S. 588		

*Mechanical properties ~ Class 10.9

M 4 x 16	S	200	120,00 A 4-109
M 4 x 20	S	200	103,00 A 4-109
M 6 x 16	S	100	119,00 A 4-109
M 6 x 20	S	100	124,00 A 4-109
M 6 x 25	S	100	145,00 A 4-109
M 6 x 30	S	100	144,00 A 4-109
M 8 x 20	S	50	179,00 A 4-109
M 8 x 25	S	50	189,00 A 4-109
M 8 x 30	S	50	211,00 A 4-109
M 8 x 35	S	50	228,00 A 4-109
M 8 x 40	S	50	315,00 A 4-109
M 8 x 45	S	50	325,00 A 4-109
M 8 x 50	S	50	350,00 A 4-109
M 8 x 55	S	50	405,00 A 4-109
M 8 x 60	S	50	440,00 A 4-109
M 8 x 65	S	50	460,00 A 4-109
M 8 x 70	S	50	660,00 A 4-109
M 10 x 20	S	50	400,00 A 4-109
M 10 x 25	S	50	520,00 A 4-109
M 10 x 30	S	50	450,00 A 4-109
M 10 x 40	S	50	495,00 A 4-109
M 10 x 100	S	50	1180,00 A 4-109
M 10 x 110	S	50	1230,00 A 4-109
M 10 x 120	S	50	1400,00 A 4-109
M 12 x 20	S	25	530,00 A 4-109
M 12 x 25	S	25	540,00 A 4-109
M 12 x 30	S	25	580,00 A 4-109
M 12 x 40	S	25	660,00 A 4-109
M 12 x 90	S	25	1080,00 A 4-109
M 12 x 110	S	25	1390,00 A 4-109
M 12 x 120	S	25	1540,00 A 4-109
M 12 x 130	S	25	1900,00 A 4-109
M 12 x 140	S	25	2110,00 A 4-109
M 12 x 150	S	25	2340,00 A 4-109
M 12 x 160	S	25	2600,00 A 4-109
M 12 x 170	S	25	2900,00 A 4-109
M 16 x 30	S	25	1070,00 A 4-109
M 16 x 40	S	25	1210,00 A 4-109
M 16 x 50	S	25	1350,00 A 4-109
M 16 x 60	S	25	1490,00 A 4-109
M 20 x 40	S	10	2220,00 A 4-109
M 20 x 50	S	10	2950,00 A 4-109
M 20 x 60	S	10	3200,00 A 4-109
M 20 x 70	S	10	3500,00 A 4-109
M 20 x 80	S	10	4000,00 A 4-109

ISO	04017.950	*
4017	1.4571 (A 5)	



Hexagon head screws with thread up to head

*M 10/12 = RAZ 3220 other Ø = RAZ 403

Dimensions	→ TI-15	Tightening torque	→ TI-235
Mech. properties	→ TI-224	Standard conversion	→ TI-6

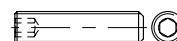
Steel → S. 240-241

Brass, plastic → S. 588

ISO 4017 → replaces DIN 933

M 10 x 20	S	1	405,00 A 5
M 10 x 25	S	1	410,00 A 5
M 10 x 30	S	1	415,00 A 5
M 10 x 35	S	1	425,00 A 5
M 10 x 40	S	1	435,00 A 5
M 10 x 45	S	1	445,00 A 5
M 10 x 50	S	1	530,00 A 5
M 12 x 25	S	1	415,00 A 5
M 12 x 30	S	1	425,00 A 5
M 12 x 35	S	1	435,00 A 5
M 12 x 40	S	1	445,00 A 5
M 12 x 45	S	1	455,00 A 5
M 12 x 50	S	1	540,00 A 5
M 16 x 30	S	1	600,00 A 5
M 16 x 35	S	1	620,00 A 5
M 16 x 40	S	1	640,00 A 5
M 16 x 45	S	1	650,00 A 5
M 16 x 50	S	1	670,00 A 5
M 16 x 55	S	1	950,00 A 5
M 16 x 60	S	1	1000,00 A 5
M 16 x 65	S	1	1100,00 A 5
M 20 x 40	S	1	1190,00 A 5
M 20 x 45	S	1	1220,00 A 5
M 20 x 50	S	1	1240,00 A 5
M 20 x 60	S	1	1390,00 A 5

ISO	04026.910	RAZ 370
4026	A 1/A 2	



Hexagon socket set screws with flat point

Dimensions	→ TI-20	Standard conversion	→ TI-6
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Steel → S. 257

ISO 4026 → replaces DIN 913

M 2 x 2	S	50	85,00 A 1/A 2
M 2 x 3	S	50	59,00 A 1/A 2
M 2 x 4	S	50	60,00 A 1/A 2
M 2 x 5	S	50	60,00 A 1/A 2
M 2 x 6	S	50	60,00 A 1/A 2
M 2 x 8	S	50	61,00 A 1/A 2
M 2,5 x 3	S	50	46,50 A 1/A 2
M 2,5 x 4	S	50	45,00 A 1/A 2



ISO 4026

Dimensions	PU	Pieces	€.
M 2,5 x 5	S	50	45,00 A 1/A 2
M 2,5 x 6	S	50	45,00 A 1/A 2
M 3 x 2	S	50	45,60 A 1/A 2
M 3 x 3	S	50	22,80 A 1/A 2
M 3 x 4	S	50	24,80 A 1/A 2
M 3 x 5	S	50	24,50 A 1/A 2
M 3 x 6	S	50	26,50 A 1/A 2
M 3 x 8	S	50	27,50 A 1/A 2
M 3 x 10	S	50	28,50 A 1/A 2
M 3 x 12	S	50	31,50 A 1/A 2
M 3 x 16	S	50	23,40 A 1/A 2
M 3 x 20	S	50	30,50 A 1/A 2
M 3 x 25	S	50	52,00 A 1/A 2
M 4 x 4	S	50	17,40 A 1/A 2
M 4 x 5	S	50	17,40 A 1/A 2
M 4 x 6	S	50	17,70 A 1/A 2
M 4 x 8	S	50	18,20 A 1/A 2
M 4 x 10	S	50	19,30 A 1/A 2
M 4 x 12	S	50	20,50 A 1/A 2
M 4 x 16	S	50	22,30 A 1/A 2
M 4 x 20	S	25	24,00 A 1/A 2
M 4 x 25	S	25	41,00 A 1/A 2
M 4 x 30	S	25	45,00 A 1/A 2
M 5 x 4	S	50	19,00 A 1/A 2
M 5 x 5	S	50	19,30 A 1/A 2
M 5 x 6	S	50	19,70 A 1/A 2
M 5 x 8	S	50	20,20 A 1/A 2
M 5 x 10	S	50	20,70 A 1/A 2
M 5 x 12	S	50	21,70 A 1/A 2
M 5 x 16	S	50	24,00 A 1/A 2
M 5 x 20	S	25	28,50 A 1/A 2
M 5 x 25	S	25	31,50 A 1/A 2
M 5 x 30	S	25	55,00 A 1/A 2
M 5 x 35	S	25	78,50 A 1/A 2
M 5 x 40	S	25	80,00 A 1/A 2
M 5 x 45	S	25	85,00 A 1/A 2
M 6 x 5	S	25	22,40 A 1/A 2
M 6 x 6	S	25	22,40 A 1/A 2
M 6 x 8	S	25	23,40 A 1/A 2
M 6 x 10	S	25	23,90 A 1/A 2
M 6 x 12	S	25	25,00 A 1/A 2
M 6 x 16	S	25	28,50 A 1/A 2
M 6 x 20	S	25	32,50 A 1/A 2
M 6 x 25	S	25	37,00 A 1/A 2
M 6 x 30	S	25	43,00 A 1/A 2
M 6 x 35	S	25	53,00 A 1/A 2
M 6 x 40	S	25	58,00 A 1/A 2
M 6 x 45	S	25	134,00 A 1/A 2
M 6 x 50	S	25	156,00 A 1/A 2
M 6 x 60	S	25	178,00 A 1/A 2
M 8 x 6	S	25	48,00 A 1/A 2
M 8 x 8	S	25	32,50 A 1/A 2
M 8 x 10	S	25	32,50 A 1/A 2
M 8 x 12	S	25	35,50 A 1/A 2
M 8 x 16	S	25	39,00 A 1/A 2
M 8 x 20	S	25	46,00 A 1/A 2
M 8 x 25	S	25	53,00 A 1/A 2
M 8 x 30	S	25	61,00 A 1/A 2
M 8 x 35	S	25	74,00 A 1/A 2
M 8 x 40	S	25	86,00 A 1/A 2
M 8 x 45	S	25	94,00 A 1/A 2
M 8 x 50	S	10	118,00 A 1/A 2
M 8 x 60	S	10	212,00 A 1/A 2
M 8 x 70	S	10	270,00 A 1/A 2
M 8 x 80	S	10	328,00 A 1/A 2
M 8 x 100	S	10	388,00 A 1/A 2
M 10 x 10	S	25	48,00 A 1/A 2
M 10 x 12	S	25	49,00 A 1/A 2
M 10 x 16	S	25	52,00 A 1/A 2
M 10 x 18	S	25	60,00 A 1/A 2
M 10 x 20	S	25	63,00 A 1/A 2
M 10 x 25	S	25	75,00 A 1/A 2
M 10 x 30	S	10	87,00 A 1/A 2
M 10 x 35	S	10	106,00 A 1/A 2
M 10 x 40	S	10	112,00 A 1/A 2

Dimensions	PU	Pieces	€.
M 10 x 45	S	10	119,00 A 1/A 2
M 10 x 50	S	10	130,00 A 1/A 2
M 10 x 60	S	10	181,00 A 1/A 2
M 10 x 70	S	10	232,00 A 1/A 2
M 10 x 80	S	10	283,00 A 1/A 2
M 10 x 100	S	10	345,00 A 1/A 2
M 12 x 10	S	10	100,00 A 1/A 2
M 12 x 12	S	10	101,00 A 1/A 2
M 12 x 16	S	10	101,00 A 1/A 2
M 12 x 20	S	10	115,00 A 1/A 2
M 12 x 25	S	10	126,00 A 1/A 2
M 12 x 30	S	10	137,00 A 1/A 2
M 12 x 35	S	10	148,00 A 1/A 2
M 12 x 40	S	10	164,00 A 1/A 2
M 12 x 45	S	10	186,00 A 1/A 2
M 12 x 50	S	10	202,00 A 1/A 2
M 12 x 60	S	10	295,00 A 1/A 2
M 12 x 70	S	10	547,00 A 1/A 2
M 12 x 80	S	10	566,00 A 1/A 2
M 12 x 90	S	10	635,00 A 1/A 2
M 16 x 16	S	10	221,00 A 1/A 2
M 16 x 20	S	10	321,00 A 1/A 2
M 16 x 25	S	10	596,00 A 1/A 2
M 16 x 30	S	10	348,00 A 1/A 2
M 16 x 40	S	10	564,00 A 1/A 2
M 16 x 50	S	10	964,00 A 1/A 2
M 16 x 60	S	10	1020,00 A 1/A 2
M 16 x 70	S	10	1200,00 A 1/A 2
M 16 x 80	S	10	1430,00 A 1/A 2
M 16 x 90	S	10	1545,00 A 1/A 2
M 16 x 100	S	10	1730,00 A 1/A 2
M 20 x 20	S	10	981,00 A 1/A 2
M 20 x 25	S	10	1020,00 A 1/A 2
M 20 x 30	S	10	1200,00 A 1/A 2
M 20 x 35	S	10	1510,00 A 1/A 2
M 20 x 40	S	10	1580,00 A 1/A 2
M 20 x 50	S	10	1660,00 A 1/A 2
M 20 x 60	S	10	2050,00 A 1/A 2
M 20 x 70	S	10	2150,00 A 1/A 2
M 20 x 80	S	10	2360,00 A 1/A 2
M 20 x 90	S	10	2600,00 A 1/A 2
M 20 x 100	S	10	2825,00 A 1/A 2

ISO 04026.940 RAZ 370

4026 A 4



Hexagon socket set screws with flat point

Dimensions → TI-20 Standard conversion → TI-6

Steel → S. 257

ISO 4026 → replaces DIN 913

M 3 x 4	S	50	40,00 A 4
M 3 x 5	S	50	42,00 A 4
M 3 x 6	S	50	46,50 A 4
M 3 x 8	S	50	53,00 A 4
M 4 x 5	S	50	52,00 A 4
M 4 x 6	S	50	54,00 A 4
M 4 x 8	S	50	57,00 A 4
M 4 x 10	S	50	60,00 A 4
M 4 x 12	S	50	64,00 A 4
M 4 x 16	S	25	74,00 A 4
M 4 x 20	S	25	78,00 A 4
M 5 x 5	S	50	61,00 A 4
M 5 x 6	S	50	61,00 A 4

Dimensions	PU	Pieces	€.
M 5 x 8	S	50	62,00 A 4
M 5 x 10	S	50	67,00 A 4
M 5 x 12	S	25	73,00 A 4
M 5 x 16	S	25	78,00 A 4
M 5 x 20	S	25	88,00 A 4
M 5 x 25	S	25	92,00 A 4
M 5 x 30	S	25	100,00 A 4
M 6 x 6	S	25	68,00 A 4
M 6 x 8	S	25	69,00 A 4
M 6 x 10	S	25	73,00 A 4
M 6 x 12	S	25	77,00 A 4
M 6 x 16	S	25	88,00 A 4
M 6 x 20	S	25	99,00 A 4
M 6 x 25	S	25	118,00 A 4
M 6 x 30	S	25	129,00 A 4
M 6 x 35	S	25	137,00 A 4
M 6 x 40	S	25	149,00 A 4
M 6 x 45	S	25	160,00 A 4
M 6 x 50	S	25	182,00 A 4
M 8 x 8	S	25	94,00 A 4
M 8 x 10	S	25	94,00 A 4
M 8 x 12	S	25	105,00 A 4
M 8 x 16	S	25	116,00 A 4
M 8 x 20	S	25	139,00 A 4
M 8 x 25	S	25	170,00 A 4
M 8 x 30	S	25	185,00 A 4
M 8 x 35	S	10	207,00 A 4
M 8 x 40	S	10	222,00 A 4
M 8 x 50	S	10	275,00 A 4
M 8 x 60	S	10	320,00 A 4
M 10 x 10	S	25	149,00 A 4
M 10 x 12	S	25	149,00 A 4
M 10 x 16	S	25	160,00 A 4
M 10 x 20	S	10	205,00 A 4
M 10 x 25	S	10	235,00 A 4
M 10 x 30	S	10	220,00 A 4
M 10 x 35	S	10	235,00 A 4
M 10 x 40	S	10	249,00 A 4
M 10 x 45	S	10	270,00 A 4
M 10 x 50	S	10	305,00 A 4
M 10 x 60	S	10	395,00 A 4
M 10 x 70	S	10	485,00 A 4
M 12 x 12	S	10	170,00 A 4
M 12 x 16	S	10	170,00 A 4
M 12 x 20	S	10	210,00 A 4
M 12 x 25	S	10	235,00 A 4
M 12 x 30	S	10	255,00 A 4
M 12 x 35	S	10	285,00 A 4
M 12 x 40	S	10	305,00 A 4
M 12 x 45	S	10	330,00 A 4
M 12 x 50	S	10	355,00 A 4
M 12 x 60	S	10	475,00 A 4
M 16 x 16	S	10	710,00 A 4
M 16 x 20	S	10	1150,00 A 4
M 16 x 25	S	10	355,00 A 4
M 16 x 30	S	10	415,00 A 4
M 16 x 35	S	10	460,00 A 4
M 16 x 40	S	10	480,00 A 4
M 16 x 50	S	10	1910,00 A 4
M 20 x 20	S	10	1850,00 A 4
M 20 x 25	S	10	2000,00 A 4
M 20 x 30	S	10	2150,00 A 4
M 20 x 35	S	10	2400,00 A 4
M 20 x 40	S	10	2750,00 A 4
M 20 x 50	S	10	3250,00 A 4
M 24 x 25	S	10	3075,00 A 4
M 24 x 30	S	10	3250,00 A 4
M 24 x 35	S	10	3600,00 A 4
M 24 x 40	S	10	3750,00 A 4
M 24 x 45	S	10	3900,00 A 4
M 24 x 50	S	10	4150,00 A 4



ISO 4028

Dimensions PU Pieces €.

ISO	04027.910	RAZ 370
4027 A 1/A 2		



Hexagon socket set screws with cone point

Dimensions → TI-20 Standard conversion → TI-6

Steel → S. 259

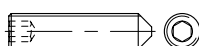
ISO 4027 → replaces DIN 914

M 2	x	2	S	50	75,00 A 1/A 2
M 2	x	3	S	50	57,00 A 1/A 2
M 2	x	4	S	50	57,00 A 1/A 2
M 2	x	5	S	50	58,00 A 1/A 2
M 2	x	6	S	50	58,00 A 1/A 2
M 2	x	8	S	50	58,00 A 1/A 2
M 2,5	x		S	50	43,50 A 1/A 2
M 2,5	x		S	50	44,00 A 1/A 2
M 2,5	x	6	S	50	44,00 A 1/A 2
M 3	x	3	S	50	29,00 A 1/A 2
M 3	x	4	S	50	24,00 A 1/A 2
M 3	x	5	S	50	23,70 A 1/A 2
M 3	x	6	S	50	25,50 A 1/A 2
M 3	x	8	S	50	26,50 A 1/A 2
M 3	x	10	S	50	28,00 A 1/A 2
M 3	x	12	S	50	31,00 A 1/A 2
M 3	x	16	S	50	34,00 A 1/A 2
M 4	x	4	S	50	24,20 A 1/A 2
M 4	x	5	S	50	22,40 A 1/A 2
M 4	x	6	S	50	22,80 A 1/A 2
M 4	x	8	S	50	23,10 A 1/A 2
M 4	x	10	S	50	24,80 A 1/A 2
M 4	x	12	S	50	26,50 A 1/A 2
M 4	x	16	S	50	29,00 A 1/A 2
M 4	x	20	S	25	34,50 A 1/A 2
M 4	x	25	S	25	53,00 A 1/A 2
M 4	x	30	S	25	58,00 A 1/A 2
M 5	x	5	S	50	30,00 A 1/A 2
M 5	x	6	S	50	28,00 A 1/A 2
M 5	x	8	S	50	28,50 A 1/A 2
M 5	x	10	S	50	29,50 A 1/A 2
M 5	x	12	S	50	31,00 A 1/A 2
M 5	x	16	S	50	34,00 A 1/A 2
M 5	x	20	S	25	40,50 A 1/A 2
M 5	x	25	S	25	44,50 A 1/A 2
M 5	x	30	S	25	78,00 A 1/A 2
M 6	x	6	S	25	31,00 A 1/A 2
M 6	x	8	S	25	30,50 A 1/A 2
M 6	x	10	S	25	31,00 A 1/A 2
M 6	x	12	S	25	32,50 A 1/A 2
M 6	x	16	S	25	37,00 A 1/A 2
M 6	x	20	S	25	42,00 A 1/A 2
M 6	x	25	S	25	47,00 A 1/A 2
M 6	x	30	S	25	55,00 A 1/A 2
M 6	x	35	S	25	67,00 A 1/A 2
M 6	x	40	S	25	75,00 A 1/A 2
M 6	x	45	S	25	172,00 A 1/A 2
M 6	x	50	S	25	201,00 A 1/A 2
M 8	x	8	S	25	45,00 A 1/A 2
M 8	x	10	S	25	41,50 A 1/A 2
M 8	x	12	S	25	45,50 A 1/A 2
M 8	x	16	S	25	50,00 A 1/A 2
M 8	x	20	S	25	59,00 A 1/A 2
M 8	x	25	S	25	68,00 A 1/A 2
M 8	x	30	S	25	78,00 A 1/A 2
M 8	x	35	S	25	95,00 A 1/A 2

Dimensions PU Pieces €.

M 8	x	40	S	25	110,00 A 1/A 2
M 8	x	45	S	25	120,00 A 1/A 2
M 8	x	50	S	10	151,00 A 1/A 2
M 8	x	60	S	10	275,00 A 1/A 2
M 10	x	10	S	25	67,00 A 1/A 2
M 10	x	12	S	25	63,00 A 1/A 2
M 10	x	16	S	25	67,00 A 1/A 2
M 10	x	20	S	25	81,00 A 1/A 2
M 10	x	25	S	10	107,00 A 1/A 2
M 10	x	30	S	10	112,00 A 1/A 2
M 10	x	35	S	10	136,00 A 1/A 2
M 10	x	40	S	10	143,00 A 1/A 2
M 10	x	50	S	10	167,00 A 1/A 2
M 10	x	60	S	10	232,00 A 1/A 2
M 12	x	16	S	10	109,00 A 1/A 2
M 12	x	20	S	10	124,00 A 1/A 2
M 12	x	25	S	10	136,00 A 1/A 2
M 12	x	30	S	10	147,00 A 1/A 2
M 12	x	35	S	10	159,00 A 1/A 2
M 12	x	40	S	10	177,00 A 1/A 2
M 12	x	50	S	10	218,00 A 1/A 2
M 12	x	60	S	10	285,00 A 1/A 2

ISO	04027.940	RAZ 370
4027 A 4		



Hexagon socket set screws with cone point

Dimensions → TI-20 Standard conversion → TI-6

Steel → S. 259

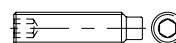
ISO 4027 → replaces DIN 914

M 2,5	x	8	S	50	114,00 A 4
M 3	x	4	S	50	35,00 A 4
M 3	x	5	S	50	44,00 A 4
M 3	x	6	S	50	44,00 A 4
M 3	x	8	S	50	50,00 A 4
M 3	x	10	S	50	56,00 A 4
M 4	x	4	S	50	49,50 A 4
M 4	x	5	S	50	49,50 A 4
M 4	x	6	S	50	51,00 A 4
M 4	x	8	S	50	54,00 A 4
M 4	x	10	S	50	57,00 A 4
M 4	x	12	S	50	61,00 A 4
M 4	x	16	S	25	70,00 A 4
M 4	x	20	S	25	74,00 A 4
M 5	x	5	S	50	58,00 A 4
M 5	x	6	S	50	58,00 A 4
M 5	x	8	S	50	59,00 A 4
M 5	x	10	S	50	63,00 A 4
M 5	x	12	S	25	69,00 A 4
M 5	x	16	S	25	74,00 A 4
M 5	x	20	S	25	84,00 A 4
M 5	x	25	S	25	87,00 A 4
M 5	x	30	S	25	95,00 A 4
M 6	x	6	S	25	64,00 A 4
M 6	x	8	S	25	65,00 A 4
M 6	x	10	S	25	69,00 A 4
M 6	x	12	S	25	73,00 A 4
M 6	x	16	S	25	83,00 A 4
M 6	x	20	S	25	94,00 A 4
M 6	x	25	S	25	112,00 A 4
M 6	x	30	S	25	123,00 A 4
M 6	x	35	S	25	130,00 A 4
M 6	x	45	S	25	152,00 A 4

Dimensions PU Pieces €.

M 6	x	50	S	25	173,00 A 4
M 8	x	8	S	25	90,00 A 4
M 8	x	10	S	25	90,00 A 4
M 8	x	12	S	25	100,00 A 4
M 8	x	16	S	25	110,00 A 4
M 8	x	20	S	25	132,00 A 4
M 8	x	25	S	25	161,00 A 4
M 8	x	30	S	25	175,00 A 4
M 8	x	35	S	10	197,00 A 4
M 8	x	40	S	10	211,00 A 4
M 8	x	45	S	10	233,00 A 4
M 8	x	50	S	10	265,00 A 4
M 8	x	60	S	10	305,00 A 4
M 10	x	10	S	25	141,00 A 4
M 10	x	12	S	25	141,00 A 4
M 10	x	16	S	25	152,00 A 4
M 10	x	20	S	10	195,00 A 4
M 10	x	25	S	10	223,00 A 4
M 10	x	30	S	10	250,00 A 4
M 10	x	35	S	10	270,00 A 4
M 10	x	40	S	10	285,00 A 4
M 10	x	45	S	10	310,00 A 4
M 10	x	50	S	10	350,00 A 4
M 10	x	60	S	10	450,00 A 4
M 12	x	12	S	10	194,00 A 4
M 12	x	16	S	10	194,00 A 4
M 12	x	20	S	10	239,00 A 4
M 12	x	25	S	10	270,00 A 4
M 12	x	30	S	10	290,00 A 4
M 12	x	35	S	10	325,00 A 4
M 12	x	40	S	10	350,00 A 4
M 12	x	45	S	10	375,00 A 4
M 12	x	50	S	10	405,00 A 4
M 12	x	60	S	10	540,00 A 4
M 16	x	25	S	10	405,00 A 4
M 16	x	30	S	10	475,00 A 4
M 16	x	40	S	10	550,00 A 4
M 16	x	50	S	10	560,00 A 4
M 16	x	60	S	10	580,00 A 4

ISO	04028.910	RAZ 370
4028 A 1/A 2		



Hexagon socket set screws with full dog point

Dimensions → TI-20 Standard conversion → TI-6

Steel → S. 260

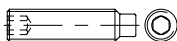
ISO 4028 → replaces DIN 915

M 2	x	6	S	50	45,00 A 1/A 2
M 2	x	10	S	50	58,00 A 1/A 2
M 3	x	4	S	50	31,00 A 1/A 2
M 3	x	5	S	50	31,00 A 1/A 2
M 3	x	6	S	50	32,00 A 1/A 2
M 3	x	8	S	50	37,00 A 1/A 2
M 3	x	10	S	50	38,00 A 1/A 2
M 3	x	12	S	50	41,00 A 1/A 2
M 4	x	5	S	50	23,80 A 1/A 2
M 4	x	6	S	50	24,20 A 1/A 2
M 4	x	8	S	50	24,50 A 1/A 2
M 4	x	10	S	50	26,50 A 1/A 2
M 4	x	12	S	50	28,00 A 1/A 2
M 4	x	16	S	50	30,50 A 1/A 2
M 4	x	20	S	25	36,50 A 1/A 2
M 4	x	25	S	25	56,00 A 1/A 2

ISO 4028

Dimensions	PU Pieces	€.
M 5 x 5	S 50	31,50 A 1/A 2
M 5 x 6	S 50	30,00 A 1/A 2
M 5 x 8	S 50	30,50 A 1/A 2
M 5 x 10	S 50	31,50 A 1/A 2
M 5 x 12	S 50	33,00 A 1/A 2
M 5 x 16	S 50	36,00 A 1/A 2
M 5 x 20	S 25	43,00 A 1/A 2
M 5 x 25	S 25	47,00 A 1/A 2
M 5 x 30	S 25	82,00 A 1/A 2
M 5 x 35	S 25	85,00 A 1/A 2
M 6 x 6	S 25	33,00 A 1/A 2
M 6 x 8	S 25	32,00 A 1/A 2
M 6 x 10	S 25	33,00 A 1/A 2
M 6 x 12	S 25	34,50 A 1/A 2
M 6 x 16	S 25	39,00 A 1/A 2
M 6 x 20	S 25	44,50 A 1/A 2
M 6 x 25	S 25	50,00 A 1/A 2
M 6 x 30	S 25	59,00 A 1/A 2
M 6 x 35	S 25	72,00 A 1/A 2
M 6 x 40	S 25	80,00 A 1/A 2
M 6 x 50	S 25	213,00 A 1/A 2
M 8 x 8	S 25	47,50 A 1/A 2
M 8 x 10	S 25	44,50 A 1/A 2
M 8 x 12	S 25	48,50 A 1/A 2
M 8 x 16	S 25	53,00 A 1/A 2
M 8 x 20	S 25	63,00 A 1/A 2
M 8 x 25	S 25	72,00 A 1/A 2
M 8 x 30	S 25	83,00 A 1/A 2
M 8 x 35	S 25	101,00 A 1/A 2
M 8 x 40	S 25	117,00 A 1/A 2
M 8 x 45	S 25	128,00 A 1/A 2
M 8 x 60	S 10	290,00 A 1/A 2
M 10 x 10	S 25	72,00 A 1/A 2
M 10 x 12	S 25	67,00 A 1/A 2
M 10 x 16	S 25	71,00 A 1/A 2
M 10 x 20	S 25	86,00 A 1/A 2
M 10 x 25	S 25	103,00 A 1/A 2
M 10 x 30	S 10	119,00 A 1/A 2
M 10 x 35	S 10	144,00 A 1/A 2
M 10 x 40	S 10	152,00 A 1/A 2
M 10 x 45	S 10	162,00 A 1/A 2
M 10 x 50	S 10	178,00 A 1/A 2
M 10 x 60	S 10	247,00 A 1/A 2
M 12 x 16	S 10	115,00 A 1/A 2
M 12 x 20	S 10	132,00 A 1/A 2
M 12 x 25	S 10	144,00 A 1/A 2
M 12 x 30	S 10	157,00 A 1/A 2
M 12 x 40	S 10	188,00 A 1/A 2
M 12 x 50	S 10	231,00 A 1/A 2
M 12 x 60	S 10	305,00 A 1/A 2

ISO	04028.940	RAZ 370
4028 A 4		



Hexagon socket set screws with full dog point

Dimensions → **TI-20** Standard conversion → **TI-6**

Steel → **S. 260**

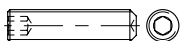
ISO 4028 → replaces DIN 915

M 4 x 6	S 50	48,50 A 4
M 4 x 8	S 50	51,00 A 4
M 4 x 10	S 50	55,00 A 4
M 4 x 16	S 25	67,00 A 4
M 4 x 20	S 25	71,00 A 4
M 5 x 6	S 50	55,00 A 4

Dimensions	PU Pieces	€.
M 5 x 8	S 50	56,00 A 4
M 5 x 10	S 50	61,00 A 4
M 5 x 12	S 25	66,00 A 4
M 5 x 16	S 25	71,00 A 4
M 5 x 20	S 25	80,00 A 4
M 5 x 25	S 25	84,00 A 4
M 6 x 6	S 25	62,00 A 4
M 6 x 8	S 25	63,00 A 4
M 6 x 10	S 25	66,00 A 4
M 6 x 12	S 25	70,00 A 4
M 6 x 16	S 25	80,00 A 4
M 6 x 20	S 25	90,00 A 4
M 6 x 30	S 25	117,00 A 4
M 6 x 35	S 25	125,00 A 4
M 6 x 40	S 25	135,00 A 4
M 6 x 45	S 25	145,00 A 4
M 6 x 50	S 25	165,00 A 4
M 8 x 8	S 25	86,00 A 4
M 8 x 10	S 25	86,00 A 4
M 8 x 12	S 25	95,00 A 4
M 8 x 16	S 25	105,00 A 4
M 8 x 20	S 25	126,00 A 4
M 8 x 25	S 25	154,00 A 4
M 8 x 30	S 25	168,00 A 4
M 8 x 40	S 10	201,00 A 4
M 8 x 50	S 10	250,00 A 4
M 10 x 10	S 25	162,00 A 4
M 10 x 12	S 25	162,00 A 4
M 10 x 16	S 25	145,00 A 4
M 10 x 20	S 10	186,00 A 4
M 10 x 25	S 10	213,00 A 4
M 10 x 30	S 10	239,00 A 4
M 10 x 40	S 10	275,00 A 4
M 12 x 12	S 10	226,00 A 4
M 12 x 16	S 10	185,00 A 4
M 12 x 20	S 10	229,00 A 4
M 12 x 25	S 10	260,00 A 4
M 12 x 30	S 10	280,00 A 4
M 12 x 35	S 10	310,00 A 4
M 12 x 40	S 10	335,00 A 4
M 12 x 50	S 10	390,00 A 4
M 12 x 60	S 10	600,00 A 4
M 16 x 25	S 10	390,00 A 4
M 16 x 30	S 10	455,00 A 4
M 16 x 35	S 10	500,00 A 4
M 16 x 40	S 10	530,00 A 4

ISO	04029.910	RAZ 370
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4029 A 1/A 2



Hexagon socket set screws with cup point

Dimensions → **TI-21** Standard conversion → **TI-6**

Steel → **S. 262**

ISO 4029 → replaces DIN 916

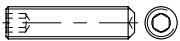
M 2 x 2	S 50	74,00 A 1/A 2
M 2 x 3	S 50	60,00 A 1/A 2
M 2 x 4	S 50	61,00 A 1/A 2
M 2 x 5	S 50	61,00 A 1/A 2
M 2 x 6	S 50	61,00 A 1/A 2
M 3 x 4	S 50	25,50 A 1/A 2
M 3 x 5	S 50	24,90 A 1/A 2
M 3 x 6	S 50	27,00 A 1/A 2
M 3 x 8	S 50	28,00 A 1/A 2
M 3 x 10	S 50	29,00 A 1/A 2

Dimensions	PU Pieces	€.
M 3 x 12	S 50	32,00 A 1/A 2
M 3 x 16	S 50	63,00 A 1/A 2
M 3 x 20	S 50	69,00 A 1/A 2
M 4 x 3	S 50	17,70 A 1/A 2
M 4 x 4	S 50	17,70 A 1/A 2
M 4 x 5	S 50	17,70 A 1/A 2
M 4 x 6	S 50	18,00 A 1/A 2
M 4 x 8	S 50	18,50 A 1/A 2
M 4 x 10	S 50	19,60 A 1/A 2
M 4 x 12	S 50	20,80 A 1/A 2
M 4 x 16	S 50	22,60 A 1/A 2
M 4 x 20	S 25	27,00 A 1/A 2
M 4 x 25	S 25	42,00 A 1/A 2
M 4 x 30	S 25	46,00 A 1/A 2
M 5 x 5	S 50	19,60 A 1/A 2
M 5 x 6	S 50	20,00 A 1/A 2
M 5 x 8	S 50	20,50 A 1/A 2
M 5 x 10	S 50	21,10 A 1/A 2
M 5 x 12	S 50	22,10 A 1/A 2
M 5 x 16	S 50	24,30 A 1/A 2
M 5 x 20	S 25	29,00 A 1/A 2
M 5 x 25	S 25	32,00 A 1/A 2
M 5 x 30	S 25	56,00 A 1/A 2
M 6 x 6	S 25	22,80 A 1/A 2
M 6 x 8	S 25	23,80 A 1/A 2
M 6 x 10	S 25	24,20 A 1/A 2
M 6 x 12	S 25	25,50 A 1/A 2
M 6 x 16	S 25	29,00 A 1/A 2
M 6 x 20	S 25	33,00 A 1/A 2
M 6 x 25	S 25	37,50 A 1/A 2
M 6 x 30	S 25	43,50 A 1/A 2
M 6 x 35	S 25	53,00 A 1/A 2
M 6 x 40	S 25	59,00 A 1/A 2
M 6 x 45	S 25	136,00 A 1/A 2
M 6 x 50	S 25	159,00 A 1/A 2
M 6 x 60	S 25	182,00 A 1/A 2
M 8 x 8	S 25	33,00 A 1/A 2
M 8 x 10	S 25	33,00 A 1/A 2
M 8 x 12	S 25	36,00 A 1/A 2
M 8 x 16	S 25	39,50 A 1/A 2
M 8 x 20	S 25	46,50 A 1/A 2
M 8 x 25	S 25	54,00 A 1/A 2
M 8 x 30	S 25	62,00 A 1/A 2
M 8 x 35	S 25	75,00 A 1/A 2
M 8 x 40	S 25	87,00 A 1/A 2
M 8 x 45	S 25	95,00 A 1/A 2
M 8 x 50	S 10	119,00 A 1/A 2
M 8 x 60	S 10	215,00 A 1/A 2
M 8 x 70	S 10	220,00 A 1/A 2
M 10 x 10	S 25	49,00 A 1/A 2
M 10 x 12	S 25	49,50 A 1/A 2
M 10 x 16	S 25	53,00 A 1/A 2
M 10 x 20	S 25	64,00 A 1/A 2
M 10 x 25	S 25	76,00 A 1/A 2
M 10 x 30	S 10	89,00 A 1/A 2
M 10 x 35	S 10	107,00 A 1/A 2
M 10 x 40	S 10	113,00 A 1/A 2
M 10 x 45	S 10	121,00 A 1/A 2
M 10 x 50	S 10	132,00 A 1/A 2
M 10 x 60	S 10	184,00 A 1/A 2
M 12 x 12	S 10	168,00 A 1/A 2
M 12 x 16	S 10	102,00 A 1/A 2
M 12 x 20	S 10	117,00 A 1/A 2
M 12 x 25	S 10	128,00 A 1/A 2
M 12 x 30	S 10	139,00 A 1/A 2
M 12 x 35	S 10	150,00 A 1/A 2
M 12 x 40	S 10	167,00 A 1/A 2
M 12 x 50	S 10	205,00 A 1/A 2
M 12 x 60	S 10	270,00 A 1/A 2
M 16 x 16	S 10	437,50 A 1/A 2
M 16 x 20	S 10	340,00 A 1/A 2
M 16 x 25	S 10	410,00 A 1/A 2
M 16 x 30	S 10	495,00 A 1/A 2
M 16 x 40	S 10	630,00 A 1/A 2
M 16 x 50	S 10	785,00 A 1/A 2

ISO 4032

Dimensions	PU	Pieces	€.
M 16 x 60	S	10	950,00 A 1/A 2
M 20 x 25	S	10	1500,00 A 1/A 2
M 20 x 30	S	10	1600,00 A 1/A 2
M 20 x 35	S	10	1700,00 A 1/A 2
M 20 x 50	S	10	1800,00 A 1/A 2

ISO	04029.940	RAZ 370
4029	A 4	



Hexagon socket set screws with cup point

Dimensions → **TI-21** Standard conversion → **TI-6**

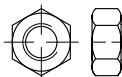
Steel → **S. 262**

ISO 4029 → replaces DIN 916

M 2 x 2	S	50	136,00 A 4
M 2 x 4	S	50	146,00 A 4
M 2 x 5	S	50	155,00 A 4
M 2 x 6	S	50	159,00 A 4
M 3 x 5	S	50	59,00 A 4
M 3 x 6	S	50	68,00 A 4
M 3 x 8	S	50	80,00 A 4
M 3 x 10	S	50	96,00 A 4
M 3 x 12	S	50	105,00 A 4
M 3 x 16	S	50	113,00 A 4
M 3 x 20	S	50	127,00 A 4
M 4 x 5	S	50	49,00 A 4
M 4 x 6	S	50	51,00 A 4
M 4 x 8	S	50	53,00 A 4
M 4 x 10	S	50	57,00 A 4
M 4 x 12	S	50	61,00 A 4
M 4 x 16	S	25	69,00 A 4
M 4 x 20	S	25	74,00 A 4
M 5 x 5	S	50	57,00 A 4
M 5 x 6	S	50	57,00 A 4
M 5 x 8	S	50	59,00 A 4
M 5 x 10	S	50	63,00 A 4
M 5 x 12	S	25	69,00 A 4
M 5 x 16	S	25	74,00 A 4
M 5 x 20	S	25	83,00 A 4
M 5 x 25	S	25	87,00 A 4
M 5 x 30	S	25	94,00 A 4
M 6 x 6	S	25	64,00 A 4
M 6 x 8	S	25	65,00 A 4
M 6 x 10	S	25	69,00 A 4
M 6 x 12	S	25	73,00 A 4
M 6 x 16	S	25	83,00 A 4
M 6 x 20	S	25	93,00 A 4
M 6 x 25	S	25	111,00 A 4
M 6 x 30	S	25	122,00 A 4
M 6 x 35	S	25	129,00 A 4
M 6 x 40	S	25	140,00 A 4
M 6 x 50	S	25	171,00 A 4
M 8 x 8	S	25	89,00 A 4
M 8 x 10	S	25	89,00 A 4
M 8 x 12	S	25	99,00 A 4
M 8 x 16	S	25	109,00 A 4
M 8 x 20	S	25	130,00 A 4
M 8 x 25	S	25	160,00 A 4
M 8 x 30	S	25	174,00 A 4
M 8 x 35	S	10	195,00 A 4
M 8 x 40	S	10	209,00 A 4
M 8 x 50	S	10	260,00 A 4
M 8 x 60	S	10	305,00 A 4
M 10 x 8	S	25	208,00 A 4
M 10 x 10	S	25	140,00 A 4

Dimensions	PU	Pieces	€.
M 10 x 12	S	25	140,00 A 4
M 10 x 16	S	25	151,00 A 4
M 10 x 20	S	10	193,00 A 4
M 10 x 25	S	10	221,00 A 4
M 10 x 30	S	10	248,00 A 4
M 10 x 35	S	10	265,00 A 4
M 10 x 40	S	10	285,00 A 4
M 10 x 50	S	10	345,00 A 4
M 10 x 60	S	10	445,00 A 4
M 12 x 16	S	10	192,00 A 4
M 12 x 20	S	10	237,00 A 4
M 12 x 25	S	10	265,00 A 4
M 12 x 30	S	10	290,00 A 4
M 12 x 35	S	10	325,00 A 4
M 12 x 40	S	10	345,00 A 4
M 12 x 50	S	10	400,00 A 4
M 12 x 60	S	10	540,00 A 4
M 16 x 16	S	10	480,00 A 4
M 16 x 20	S	10	525,00 A 4
M 16 x 25	S	10	450,00 A 4
M 16 x 30	S	10	470,00 A 4
M 16 x 35	S	10	520,00 A 4
M 16 x 40	S	10	540,00 A 4

ISO	04032.910	RAZ 410
4032	A 1	turned



Hexagon nuts, ISO type 1

Dimensions → **TI-61** Mech. properties → **TI-224**

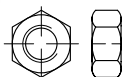
Steel → **S. 263**

Brass, aluminium, titanium, copper → **S. 589**

ISO 4032 → replaces DIN 934

M 1,6	S	500	21,50 A 1
M 2	S	500	15,10 A 1
M 2	K	100	19,70 A 1
M 2,3	S	500	19,95 A 1
M 2,3	K	100	23,00 A 1
M 2,5	S	500	13,80 A 1
M 2,5	K	100	16,65 A 1
M 2,6	S	500	27,10 A 1
M 2,6	K	100	31,70 A 1

ISO	04032.920	**
4032	A 2 - 70	



Hexagon nuts, ISO type 1

**M 5 - M 39 = RAZ 3310 other Ø = RAZ 410

Dimensions → **TI-61**

Steel → **S. 263**

Brass, aluminium, titanium, copper → **S. 589**

ISO 4032 → replaces DIN 934

*Prop. class for dimensions different depending on production

M 3*	S	1000	5,55 A 2
M 3*	K	100	8,85 A 2
M 3,5*	K	100	23,55 A 2
M 4*	S	1000	6,30 A 2

Dimensions	PU	Pieces	€.
M 4*	K	100	9,20 A 2
M 5	S	1000	7,40 A 2
M 6	S	1000	11,20 A 2
M 7*	S	100	18,40 A 2
M 8	S	500	20,60 A 2
M 10	S	250	44,00 A 2
M 12	S	250	63,00 A 2
M 14	S	25	111,00 A 2
M 16	S	50	111,00 A 2
M 18	S	10	285,00 A 2
M 20	S	25	285,00 A 2
M 22	S	10	640,00 A 2
M 24	S	25	640,00 A 2
M 30*	S	1	2500,00 A 2
M 33*	S	1	2900,00 A 2
M 36*	S	5	2460,00 A 2
M 42*	S	1	3580,00 A 2
M 48*	S	1	5931,00 A 2

ISO	04032.926	RAZ 409
4032	A 2 - 70	AD W2



Hexagon nuts

For pressure vessel const. as per AD regulations, products with renunciation of inspection certificate

Dimensions → **TI-61** Standard conversion → **TI-7**
Mech. properties → **TI-224**

Steel → **S. 263**

Brass, aluminium, titanium, copper → **S. 589**

ISO 4032 → replaces DIN 934

M 10	S	100	385,00 A 2-70
M 12	S	100	440,00 A 2-70
M 14	S	25	540,00 A 2-70
M 16	S	50	610,00 A 2-70
M 20	S	25	820,00 A 2-70
M 24	S	25	1150,00 A 2-70
M 27	S	1	1800,00 A 2-70
M 30	S	1	2100,00 A 2-70
M 33	S	1	2500,00 A 2-70

ISO	04032.940	**
4032	A 4 - 70	



Hexagon nuts, ISO type 1

**M 5 - M 39 = RAZ 3310 other Ø = RAZ 410

Dimensions → **TI-61** Mech. properties → **TI-224**

Steel → **S. 263**

Brass, aluminium, titanium, copper → **S. 589**

ISO 4032 → replaces DIN 934

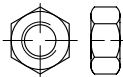
*Prop. class for dimensions different depending on production

M 2*	S	1000	17,90 A 4
M 2*	K	100	20,70 A 4
M 2,5*	S	500	17,40 A 4
M 2,5*	K	100	19,95 A 4
M 3*	S	1000	7,20 A 4
M 3*	K	100	10,40 A 4

ISO 4032

Dimensions	PU Pieces	€.
M 4*	S 1000	8,15 A4
M 4*	K 100	12,00 A4
M 5	S 1000	8,80 A4
M 6	S 1000	13,50 A4
M 7*	S 100	24,55 A4
M 8	S 500	26,00 A4
M 10	S 250	56,00 A4
M 12	S 250	77,00 A4
M 14	S 25	158,00 A4
M 16	S 50	158,00 A4
M 18	S 10	390,00 A4
M 20	S 25	390,00 A4
M 22	S 10	790,00 A4
M 24	S 10	790,00 A4
M 27*	S 10	1490,00 A4
M 30*	S 10	1990,00 A4
M 33*	S 10	2550,00 A4
M 36*	S 5	3100,00 A4
M 39*	S 5	6300,00 A4
M 42*	S 1	4346,00 A4
M 48*	S 1	8300,00 A4

ISO	04032.947	RAZ 409
4032	A 4 - 70	AD W2



Hexagon nuts, ISO type 1

For pressure vessel const. as per AD regulations, products with renunciation of inspection certificate

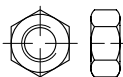
Dimensions → **TI-61** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

Steel → **S. 263**
 Brass, aluminium, titanium, copper → **S. 589**

ISO 4032 → replaces DIN 934

M 8	S 500	430,00 A4-70
M 10	S 100	450,00 A4-70
M 12	S 100	490,00 A4-70
M 14	S 25	560,00 A4-70
M 16	S 50	670,00 A4-70
M 20	S 25	920,00 A4-70
M 24	S 25	1280,00 A4-70
M 27	S 1	2000,00 A4-70
M 30	S 1	2300,00 A4-70

ISO	04032.948	RAZ 3310
4032	A 4 - 80	



Hexagon nuts, ISO type 1

High strength (strongly cold worked)

Dimensions → **TI-61** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

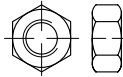
Steel → **S. 263**
 Brass, aluminium, titanium, copper → **S. 589**

ISO 4032 → replaces DIN 934

M 6	S 200	10,25 A4-80
M 8	S 200	12,80 A4-80
M 10	S 100	25,60 A4-80

Dimensions	PU Pieces	€.
M 12	S 100	33,25 A4-80
M 14	S 100	56,25 A4-80
M 16	S 50	71,60 A4-80
M 18	S 50	103,00 A4-80
M 20	S 50	116,00 A4-80
M 24	S 25	350,00 A4-80

ISO	04032.941	RAZ 2011
4032	A 4 BUMAX88*	



Hexagon nuts, ISO type 1

Dimension from M 6 approved for use acc. to pressure equipment directive, → certificate 3.1 on request

Dimensions → **TI-61** Mech. properties → **TI-225**

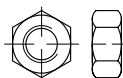
Steel → **S. 263**
 Brass, aluminium, titanium, copper → **S. 589**

*Mechanical properties ~ Class 8



M 6	S 100	47,25 A4-88
M 8	S 100	80,00 A4-88
M 10	S 50	190,00 A4-88
M 12	S 50	320,00 A4-88
M 14	S 50	750,00 A4-88
M 16	S 25	830,00 A4-88
M 18	S 25	4800,00 A4-88
M 20	S 25	1360,00 A4-88
M 24	S 10	6500,00 A4-88
M 27	S 10	12200,00 A4-88
M 30	S 10	13100,00 A4-88
M 36	S 10	32900,00 A4-88

ISO	04032.942	RAZ 2011
4032	A 4 BUMAX109	



Hexagon nuts, ISO type 1

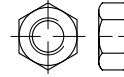
Dimensions → **TI-61** Mech. properties → **TI-225**

Steel → **S. 263**
 Brass, aluminium, titanium, copper → **S. 589**

*Mechanical properties ~ Class 10

M 6	S 100	116,00 A4-109
M 8	S 100	214,00 A4-109
M 10	S 50	270,00 A4-109
M 12	S 50	370,00 A4-109
M 16	S 25	1320,00 A4-109
M 20	S 25	1800,00 A4-109

Dimensions	PU Pieces	€.
ISO	04032.950	RAZ 3300
4032	1.4571 (A 5)	



Hexagon nuts, ISO type 1

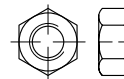
Dimensions → **TI-61** Mech. properties → **TI-224**

Steel → **S. 263**
 Brass, aluminium, titanium, copper → **S. 589**

ISO 4032 → replaces DIN 934

M 6	S 100	102,00 A5
M 8	S 100	111,00 A5
M 10	S 100	118,00 A5
M 12	S 50	149,00 A5
M 16	S 25	255,00 A5
M 20	S 25	510,00 A5
M 24	S 10	900,00 A5
M 27	S 10	1420,00 A5
M 30	S 10	1950,00 A5

ISO	04032.924	RAZ 3310
4032	A 2	left



Hexagon nuts, ISO type 1, with metric left hand thread

Dimensions → **TI-61** Mech. properties → **TI-224**

Steel → **S. 265**

ISO 4032 → replaces DIN 934

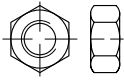
M 5	S 100	20,50 A2
M 6	S 100	31,00 A2
M 8	S 100	49,50 A2
M 10	S 50	95,00 A2
M 12	S 25	129,00 A2
M 14	S 25	242,00 A2
M 16	S 25	242,00 A2
M 18	S 25	300,00 A2
M 20	S 10	370,00 A2
M 22	S 10	520,00 A2
M 24	S 10	1030,00 A2
M 27	S 1	1080,00 A2
M 30	S 1	1250,00 A2



ISO 4762

Dimensions PU Pieces €.

ISO	04032.944	RAZ 3310
4032	A 4	left



Hexagon nuts, ISO type 1, with metric left hand thread

Dimensions → TI-61 Mech. properties → TI-224

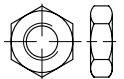
Steel → S. 265

ISO 4032 → replaces DIN 934

M 5	S	100	26,00 A4
M 6	S	100	36,00 A4
M 8	S	100	55,00 A4
M 10	S	50	103,00 A4
M 12	S	25	139,00 A4
M 14	S	25	260,00 A4
M 16	S	25	270,00 A4
M 18	S	25	370,00 A4
M 20	S	10	450,00 A4
M 22	S	10	720,00 A4
M 24	S	10	1130,00 A4
M 27	S	1	1400,00 A4
M 30	S	1	1640,00 A4

ISO 04035.920 *

4035	A 2
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Hexagon nuts, shallow pattern with chamfers

*M 5-M 39 = RAZ 3370 other Ø = RAZ 170

Dimensions → TI-62 Mech. properties → TI-224

Steel → S. 268

Brass → S. 590

ISO 4035 → replaces DIN 439 type B

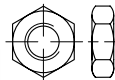
M 2	S	100	20,00 A2
M 2,5	S	100	17,40 A2
M 3	S	1000	12,80 A2
M 3	K	100	14,90 A2
M 4	S	1000	12,30 A2
M 4	K	100	14,40 A2
M 5	S	1000	12,30 A2
M 5	K	100	14,40 A2
M 6	S	1000	17,70 A2
M 6	K	100	19,70 A2
M 8	S	1000	32,50 A2
M 8	K	100	35,00 A2
M 10	S	100	69,00 A2
M 12	S	50	77,00 A2
M 14	S	25	208,00 A2
M 16	S	100	255,00 A2
M 16	K	25	260,00 A2
M 18	S	10	365,00 A2
M 20	S	10	465,00 A2
M 22	S	10	590,00 A2
M 24	S	10	790,00 A2

Dimensions PU Pieces €.

M 27	S	10	1070,00 A2
M 30	S	10	1490,00 A2
M 36	S	1	2650,00 A2

ISO 04035.940 *

4035	A 4
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Hexagon nuts, shallow pattern with chamfers

*M 5-M 39 = RAZ 3370 other Ø = RAZ 170

Dimensions → TI-62 Mech. properties → TI-224

Steel → S. 268

Brass → S. 590

ISO 4035 → replaces DIN 439 type B

M 2	S	100	30,00 A4
M 2,5	S	100	30,00 A4
M 3	S	100	17,40 A4
M 4	S	100	16,90 A4
M 5	S	100	19,50 A4
M 6	S	100	22,50 A4
M 8	S	100	42,00 A4
M 10	S	100	79,00 A4
M 12	S	50	169,00 A4
M 14	S	25	249,00 A4
M 16	S	25	320,00 A4
M 18	S	10	440,00 A4
M 20	S	10	580,00 A4
M 24	S	10	970,00 A4
M 27	S	10	1340,00 A4
M 30	S	10	1860,00 A4
M 36	S	1	3350,00 A4
M 42	S	1	5300,00 A4

ISO 04762.920 RAZ 360

4762	A 2 - 70
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Hexagon socket head cap screws

Dimensions → TI-12 Tightening torque → TI-235

Mech. properties → TI-224 Standard conversion → TI-6

Steel → S. 270

ISO 4762 → replaces DIN 912 (compatible)

*Prop. class for dimensions different depending on production

M 1,6	x	4*	S	100	85,80 A2
M 1,6	x	5*	S	100	92,00 A2
M 1,6	x	6*	S	100	98,10 A2
M 1,6	x	8*	S	100	106,00 A2
M 2	x	3*	S	100	42,40 A2
M 2	x	4*	S	100	26,50 A2
M 2	x	5*	S	100	26,50 A2
M 2	x	6*	S	100	26,50 A2
M 2	x	8*	S	100	26,50 A2
M 2	x	10*	S	100	27,60 A2
M 2	x	12*	S	100	29,10 A2
M 2	x	16*	S	100	33,20 A2
M 2	x	20*	S	100	39,80 A2

Dimensions PU Pieces €.

M 2,5	x	4*	S	100	26,50 A2
M 2,5	x	5*	S	100	26,50 A2
M 2,5	x	6*	S	100	26,50 A2
M 2,5	x	8*	S	100	26,50 A2
M 2,5	x	10*	S	100	27,60 A2
M 2,5	x	12*	S	100	29,10 A2
M 2,5	x	14*	S	100	41,40 A2
M 2,5	x	16*	S	100	33,20 A2
M 2,5	x	20*	S	100	39,80 A2
M 2,5	x	25*	S	100	53,10 A2
M 3	x	4*	S	100	19,90 A2
M 3	x	5*	S	100	16,30 A2
M 3	x	6*	S	100	12,20 A2
M 3	x	8*	S	100	10,70 A2
M 3	x	10*	S	100	9,20 A2
M 3	x	12*	S	100	9,20 A2
M 3	x	14*	S	100	7,75 A2
M 3	x	16*	S	100	6,15 A2
M 3	x	18*	S	100	8,40 A2
M 3	x	20*	S	100	6,70 A2
M 3	x	22*	S	100	8,75 A2
M 3	x	25*	S	100	7,05 A2
M 3	x	30*	S	100	9,10 A2
M 3	x	35*	S	100	10,70 A2
M 3	x	40*	S	100	11,70 A2
M 3	x	45*	S	100	20,90 A2
M 3	x	50*	S	100	20,90 A2
M 4	x	5*	S	100	19,40 A2
M 4	x	6*	S	200	13,20 A2
M 4	x	8*	S	500	10,70 A2
M 4	x	8*	K	200	11,95 A2
M 4	x	10*	S	500	9,95 A2
M 4	x	10*	K	200	12,00 A2
M 4	x	12*	S	500	9,95 A2
M 4	x	12*	K	200	12,00 A2
M 4	x	14*	S	500	7,75 A2
M 4	x	14*	K	200	9,00 A2
M 4	x	16*	S	500	6,15 A2
M 4	x	16*	K	200	8,20 A2
M 4	x	18*	S	500	8,40 A2
M 4	x	18*	K	200	9,65 A2
M 4	x	20*	S	500	6,70 A2
M 4	x	20*	K	200	8,80 A2
M 4	x	22*	S	500	8,75 A2
M 4	x	22*	K	200	10,00 A2
M 4	x	25*	S	500	7,05 A2
M 4	x	25*	K	200	8,30 A2
M 4	x	30*	S	500	9,10 A2
M 4	x	30*	K	200	10,35 A2
M 4	x	35*	S	500	9,40 A2
M 4	x	35*	K	200	10,65 A2
M 4	x	40*	S	500	10,50 A2
M 4	x	40*	K	200	11,75 A2
M 4	x	45*	S	200	20,90 A2
M 4	x	50*	S	200	20,90 A2
M 4	x	55*	S	200	124,00 A2
M 4	x	60*	S	200	136,00 A2
M 4	x	70*	S	200	177,00 A2
M 4	x	80*	S	200	450,00 A2
M 5	x	6*	S	100	23,50 A2
M 5	x	8*	S	100	10,70 A2
M 5	x	10*	S	500	9,95 A2
M 5	x	10*	K	100	12,00 A2
M 5	x	12*	S	500	9,95 A2
M 5	x	12*	K	100	12,00 A2
M 5	x	14*	S	500	8,85 A2
M 5	x	14*	K	100	11,35 A2
M 5	x	16*	S	500	6,95 A2
M 5	x	16*	K	100	9,00 A2
M 5	x	18*	S	500	8,70 A2
M 5	x	18*	K	100	11,20 A2
M 5	x	20*	S	500	7,15 A2
M 5	x	20*	K	100	9,20 A2
M 5	x	22*	S	500	9,80 A2
M 5	x	22*	K	100	12,30 A2



ISO 4762

Dimensions	PU	Pieces	€.	Dimensions	PU	Pieces	€.	Dimensions	PU	Pieces	€.
M 5 x 25*	S	500	7,75 A2	M 8 x 25*	K	100	17,60 A2	M 12 x 170*	S	1	1175,00 A2
M 5 x 25*	K	100	9,80 A2	M 8 x 30*	S	200	17,30 A2	M 12 x 180*	S	1	1431,00 A2
M 5 x 30*	S	500	9,10 A2	M 8 x 30*	K	100	19,40 A2	M 14 x 20*	S	50	460,00 A2
M 5 x 30*	K	100	11,20 A2	M 8 x 35*	S	200	18,90 A2	M 14 x 25*	S	50	327,00 A2
M 5 x 35*	S	500	10,10 A2	M 8 x 35*	K	100	21,00 A2	M 14 x 30*	S	50	243,00 A2
M 5 x 35*	K	100	12,60 A2	M 8 x 40*	S	200	20,70 A2	M 14 x 35*	S	50	243,00 A2
M 5 x 40*	S	500	11,00 A2	M 8 x 40*	K	100	22,80 A2	M 14 x 40*	S	50	243,00 A2
M 5 x 40*	K	100	13,50 A2	M 8 x 45*	S	200	23,50 A2	M 14 x 45*	S	50	255,00 A2
M 5 x 45*	S	100	14,70 A2	M 8 x 50*	S	200	25,50 A2	M 14 x 50*	S	50	279,00 A2
M 5 x 50*	S	100	16,30 A2	M 8 x 55*	S	200	34,50 A2	M 14 x 55*	S	50	325,00 A2
M 5 x 55*	S	100	23,50 A2	M 8 x 60*	S	200	35,50 A2	M 14 x 60*	S	50	337,00 A2
M 5 x 60*	S	100	30,60 A2	M 8 x 65*	S	200	72,00 A2	M 14 x 65*	S	50	472,00 A2
M 5 x 65*	S	100	43,90 A2	M 8 x 70*	S	200	54,70 A2	M 14 x 70*	S	50	472,00 A2
M 5 x 70*	S	100	35,20 A2	M 8 x 75*	S	200	107,00 A2	M 14 x 80*	S	50	485,00 A2
M 5 x 75*	S	100	94,10 A2	M 8 x 80*	S	200	71,00 A2	M 14 x 90*	S	1	547,00 A2
M 5 x 80*	S	100	72,00 A2	M 8 x 85*	S	100	135,00 A2	M 14 x 100*	S	1	644,00 A2
M 5 x 90*	S	100	246,00 A2	M 8 x 90*	S	200	78,20 A2	M 14 x 110*	S	1	1018,00 A2
M 5 x 100*	S	100	363,00 A2	M 8 x 100*	S	200	87,40 A2	M 14 x 120*	S	1	1150,00 A2
M 6 x 6*	S	100	24,50 A2	M 8 x 110*	S	50	117,00 A2	M 14 x 130*	S	1	1334,00 A2
M 6 x 8*	S	100	13,80 A2	M 8 x 120*	S	50	138,00 A2	M 14 x 140*	S	1	1518,00 A2
M 6 x 10*	S	500	12,20 A2	M 8 x 130*	S	50	153,00 A2	M 14 x 150*	S	1	1702,00 A2
M 6 x 10*	K	100	14,30 A2	M 8 x 140*	S	50	168,00 A2	M 16 x 20*	S	50	291,00 A2
M 6 x 12*	S	500	12,20 A2	M 8 x 150*	S	50	184,00 A2	M 16 x 25*	S	25	181,00 A2
M 6 x 12*	K	100	14,30 A2	M 8 x 160*	S	50	485,00 A2	M 16 x 30*	S	25	135,00 A2
M 6 x 14*	S	500	12,30 A2	M 8 x 170*	S	50	639,00 A2	M 16 x 35*	S	25	135,00 A2
M 6 x 14*	K	100	14,80 A2	M 8 x 180*	S	50	894,00 A2	M 16 x 40*	S	25	135,00 A2
M 6 x 16*	S	500	8,60 A2	M 10 x 12*	S	100	65,40 A2	M 16 x 45*	S	25	142,00 A2
M 6 x 16*	K	100	10,70 A2	M 10 x 16*	S	100	36,80 A2	M 16 x 50*	S	25	155,00 A2
M 6 x 18*	S	500	11,70 A2	M 10 x 18*	S	100	43,90 A2	M 16 x 55*	S	25	180,00 A2
M 6 x 18*	K	100	14,20 A2	M 10 x 20*	S	100	28,80 A2	M 16 x 60*	S	25	187,00 A2
M 6 x 20*	S	500	9,55 A2	M 10 x 25*	S	100	26,30 A2	M 16 x 65*	S	25	262,00 A2
M 6 x 20*	K	100	11,60 A2	M 10 x 30*	S	100	27,80 A2	M 16 x 70*	S	25	262,00 A2
M 6 x 22*	S	100	12,20 A2	M 10 x 35*	S	100	28,60 A2	M 16 x 75*	S	25	388,00 A2
M 6 x 25*	S	500	10,30 A2	M 10 x 40*	S	100	31,10 A2	M 16 x 80*	S	25	269,00 A2
M 6 x 25*	K	100	12,40 A2	M 10 x 45*	S	100	37,30 A2	M 16 x 90*	S	25	304,00 A2
M 6 x 30*	S	500	11,10 A2	M 10 x 50*	S	100	39,30 A2	M 16 x 100*	S	25	359,00 A2
M 6 x 30*	K	100	13,20 A2	M 10 x 55*	S	100	51,60 A2	M 16 x 110*	S	25	566,00 A2
M 6 x 35*	S	500	12,60 A2	M 10 x 60*	S	100	55,20 A2	M 16 x 120*	S	25	639,00 A2
M 6 x 35*	K	100	14,70 A2	M 10 x 65*	S	100	81,80 A2	M 16 x 130*	S	25	741,00 A2
M 6 x 40*	S	500	13,70 A2	M 10 x 70*	S	100	65,40 A2	M 16 x 140*	S	1	843,00 A2
M 6 x 40*	K	100	15,80 A2	M 10 x 75*	S	100	120,00 A2	M 16 x 150*	S	1	945,00 A2
M 6 x 45*	S	500	18,40 A2	M 10 x 80*	S	100	80,20 A2	M 16 x 160*	S	1	1942,00 A2
M 6 x 45*	K	100	20,90 A2	M 10 x 90*	S	100	91,00 A2	M 16 x 170*	S	1	2096,00 A2
M 6 x 50*	S	500	21,90 A2	M 10 x 100*	S	100	111,00 A2	M 16 x 180*	S	1	2249,00 A2
M 6 x 50*	K	100	24,40 A2	M 10 x 110*	S	50	153,00 A2	M 16 x 190*	S	1	2403,00 A2
M 6 x 55*	S	500	26,30 A2	M 10 x 120*	S	50	168,00 A2	M 16 x 200*	S	1	2709,00 A2
M 6 x 55*	K	100	28,80 A2	M 10 x 130*	S	50	204,00 A2	M 20 x 30*	S	10	480,00 A2
M 6 x 60*	S	500	28,60 A2	M 10 x 140*	S	50	245,00 A2	M 20 x 35*	S	25	480,00 A2
M 6 x 60*	K	100	31,10 A2	M 10 x 150*	S	50	276,00 A2	M 20 x 40*	S	25	311,00 A2
M 6 x 65*	S	500	46,50 A2	M 10 x 160*	S	50	818,00 A2	M 20 x 45*	S	25	311,00 A2
M 6 x 65*	K	100	49,00 A2	M 10 x 170*	S	50	920,00 A2	M 20 x 50*	S	25	311,00 A2
M 6 x 70*	S	500	37,30 A2	M 10 x 180*	S	50	1175,00 A2	M 20 x 55*	S	25	343,00 A2
M 6 x 70*	K	100	39,80 A2	M 12 x 16*	S	100	93,50 A2	M 20 x 60*	S	25	352,00 A2
M 6 x 75*	S	100	64,40 A2	M 12 x 20*	S	100	46,00 A2	M 20 x 65*	S	25	488,00 A2
M 6 x 80*	S	100	51,10 A2	M 12 x 25*	S	100	43,40 A2	M 20 x 70*	S	25	399,00 A2
M 6 x 85*	S	100	333,00 A2	M 12 x 30*	S	100	40,30 A2	M 20 x 75*	S	25	560,00 A2
M 6 x 90*	S	100	86,90 A2	M 12 x 35*	S	100	42,90 A2	M 20 x 80*	S	1	455,00 A2
M 6 x 95*	S	100	369,00 A2	M 12 x 40*	S	100	46,50 A2	M 20 x 90*	S	1	614,00 A2
M 6 x 100*	S	100	97,10 A2	M 12 x 45*	S	100	51,60 A2	M 20 x 100*	S	1	711,00 A2
M 6 x 110*	S	100	107,00 A2	M 12 x 50*	S	100	55,70 A2	M 20 x 110*	S	1	1095,00 A2
M 6 x 120*	S	100	127,00 A2	M 12 x 55*	S	100	73,10 A2	M 20 x 120*	S	1	1248,00 A2
M 6 x 130*	S	50	138,00 A2	M 12 x 60*	S	100	75,60 A2	M 20 x 130*	S	1	1559,00 A2
M 6 x 140*	S	50	158,00 A2	M 12 x 65*	S	100	120,00 A2	M 20 x 140*	S	1	1758,00 A2
M 6 x 150*	S	50	178,00 A2	M 12 x 70*	S	100	96,10 A2	M 20 x 150*	S	1	1994,00 A2
M 8 x 8*	S	100	102,00 A2	M 12 x 75*	S	100	184,00 A2	M 20 x 160*	S	1	2965,00 A2
M 8 x 10*	S	100	24,00 A2	M 12 x 80*	S	100	100,00 A2	M 20 x 170*	S	1	3170,00 A2
M 8 x 12*	S	200	22,40 A2	M 12 x 85*	S	100	317,00 A2	M 20 x 180*	S	1	3425,00 A2
M 8 x 14*	S	200	27,00 A2	M 12 x 90*	S	100	125,00 A2	M 20 x 190*	S	1	3681,00 A2
M 8 x 16*	S	200	19,40 A2	M 12 x 100*	S	100	144,00 A2	M 20 x 200*	S	1	3936,00 A2
M 8 x 16*	K	100	21,50 A2	M 12 x 110*	S	10	214,00 A2	M 24 x 40*	S	1	1406,00 A2
M 8 x 18*	S	200	22,40 A2	M 12 x 120*	S	10	235,00 A2	M 24 x 45*	S	1	1406,00 A2
M 8 x 20*	S	200	16,60 A2	M 12 x 130*	S	10	276,00 A2	M 24 x 50*	S	1	1098,00 A2
M 8 x 20*	K	100	18,70 A2	M 12 x 140*	S	1	332,00 A2	M 24 x 55*	S	1	1585,00 A2
M 8 x 22*	S	200	19,90 A2	M 12 x 150*	S	1	373,00 A2	M 24 x 60*	S	1	1149,00 A2
M 8 x 25*	S	200	15,50 A2	M 12 x 160*	S	1	1073,00 A2	M 24 x 65*	S	1	1641,00 A2



Dimensions	PU	Pieces	€.
M 24 x 70*	S	1	1171,00 A2
M 24 x 75*	S	1	1712,00 A2
M 24 x 80*	S	1	1262,00 A2
M 24 x 90*	S	1	1416,00 A2
M 24 x 100*	S	1	1518,00 A2
M 24 x 110*	S	1	1825,00 A2
M 24 x 120*	S	1	1994,00 A2
M 24 x 130*	S	1	2147,00 A2
M 24 x 140*	S	1	2300,00 A2
M 24 x 150*	S	1	2454,00 A2
M 24 x 160*	S	1	3834,00 A2
M 24 x 170*	S	1	4141,00 A2
M 24 x 180*	S	1	4397,00 A2
M 24 x 200*	S	1	4908,00 A2
M 30 x 50*	S	1	2965,00 A2
M 30 x 60*	S	1	3016,00 A2
M 30 x 70*	S	1	3221,00 A2
M 30 x 80*	S	1	3374,00 A2
M 30 x 90*	S	1	3579,00 A2
M 30 x 100*	S	1	3732,00 A2
M 30 x 110*	S	1	3936,00 A2
M 30 x 120*	S	1	4090,00 A2
M 30 x 130*	S	1	4294,00 A2
M 30 x 140*	S	1	4448,00 A2
M 30 x 150*	S	1	4652,00 A2

ISO 04762.940 RAZ 360

4762 A 4 - 70



Hexagon socket head cap screws

Dimensions → **TI-12** Tightening torque → **TI-235**
 Mech. properties → **TI-224** Standard conversion → **TI-6**

Steel → **S. 270**

ISO 4762 → replaces DIN 912 (compatible)

*Prop. class for dimensions different depending on production

M 2 x 3*	S	100	55,20 A4
M 2 x 4*	S	100	30,60 A4
M 2 x 5*	S	100	30,60 A4
M 2 x 6*	S	100	30,60 A4
M 2 x 8*	S	100	30,60 A4
M 2 x 10*	S	100	32,20 A4
M 2 x 12*	S	100	33,70 A4
M 2 x 16*	S	100	38,30 A4
M 2,5 x 4*	S	100	30,60 A4
M 2,5 x 5*	S	100	30,60 A4
M 2,5 x 6*	S	100	30,60 A4
M 2,5 x 8*	S	100	30,60 A4
M 2,5 x 10*	S	100	32,20 A4
M 2,5 x 12*	S	100	33,70 A4
M 2,5 x 14*	S	100	47,00 A4
M 2,5 x 16*	S	100	38,30 A4
M 2,5 x 20*	S	100	47,50 A4
M 3 x 4*	S	100	24,50 A4
M 3 x 5*	S	100	23,50 A4
M 3 x 6*	S	100	17,80 A4
M 3 x 8*	S	100	14,80 A4
M 3 x 10*	S	100	12,70 A4
M 3 x 12*	S	100	12,70 A4
M 3 x 14*	S	100	12,70 A4
M 3 x 16*	S	100	8,70 A4
M 3 x 18*	S	100	11,20 A4
M 3 x 20*	S	100	9,20 A4
M 3 x 22*	S	100	11,80 A4
M 3 x 25*	S	100	9,80 A4
M 3 x 30*	S	100	11,40 A4
M 3 x 35*	S	100	15,30 A4

Dimensions	PU	Pieces	€.
M 3 x 40*	S	100	16,80 A4
M 3 x 45*	S	100	29,60 A4
M 3 x 50*	S	100	29,60 A4
M 4 x 5*	S	100	31,10 A4
M 4 x 6*	S	200	18,40 A4
M 4 x 8*	S	500	14,80 A4
M 4 x 8*	K	200	16,05 A4
M 4 x 10*	S	500	13,60 A4
M 4 x 10*	K	200	14,85 A4
M 4 x 12*	S	500	13,60 A4
M 4 x 12*	K	200	14,85 A4
M 4 x 14*	S	500	13,60 A4
M 4 x 14*	K	200	14,85 A4
M 4 x 16*	S	500	8,70 A4
M 4 x 16*	K	200	9,95 A4
M 4 x 18*	S	500	11,20 A4
M 4 x 18*	K	200	12,45 A4
M 4 x 20*	S	500	9,20 A4
M 4 x 20*	K	200	10,45 A4
M 4 x 22*	S	500	11,80 A4
M 4 x 25*	S	500	9,80 A4
M 4 x 25*	K	200	11,05 A4
M 4 x 30*	S	500	11,40 A4
M 4 x 30*	K	200	12,65 A4
M 4 x 35*	S	500	15,20 A4
M 4 x 35*	K	200	16,45 A4
M 4 x 40*	S	500	18,20 A4
M 4 x 40*	K	200	19,45 A4
M 4 x 45*	S	200	29,60 A4
M 4 x 50*	S	200	29,60 A4
M 4 x 55*	S	200	111,00 A4
M 4 x 60*	S	200	146,00 A4
M 4 x 70*	S	200	187,00 A4
M 5 x 6*	S	100	30,60 A4
M 5 x 8*	S	100	17,60 A4
M 5 x 10*	S	500	13,60 A4
M 5 x 10*	K	100	16,10 A4
M 5 x 12*	S	500	13,60 A4
M 5 x 12*	K	100	16,10 A4
M 5 x 14*	S	500	13,60 A4
M 5 x 14*	K	100	16,10 A4
M 5 x 16*	S	500	9,55 A4
M 5 x 16*	K	100	12,05 A4
M 5 x 18*	S	500	13,20 A4
M 5 x 18*	K	100	15,70 A4
M 5 x 20*	S	500	10,40 A4
M 5 x 20*	K	100	12,90 A4
M 5 x 22*	S	500	13,60 A4
M 5 x 22*	K	100	16,10 A4
M 5 x 25*	S	500	10,60 A4
M 5 x 25*	K	100	13,10 A4
M 5 x 30*	S	500	12,70 A4
M 5 x 30*	K	100	15,20 A4
M 5 x 35*	S	500	15,80 A4
M 5 x 35*	K	100	18,30 A4
M 5 x 40*	S	500	17,30 A4
M 5 x 40*	K	100	19,80 A4
M 5 x 45*	S	100	18,90 A4
M 5 x 50*	S	100	21,40 A4
M 5 x 55*	S	100	29,60 A4
M 5 x 60*	S	100	37,80 A4
M 5 x 70*	S	100	44,90 A4
M 5 x 80*	S	100	101,00 A4
M 5 x 90*	S	100	276,00 A4
M 5 x 100*	S	100	483,00 A4
M 6 x 8*	S	100	17,60 A4
M 6 x 10*	S	500	15,80 A4
M 6 x 10*	K	100	18,30 A4
M 6 x 12*	S	500	16,10 A4
M 6 x 12*	K	100	18,60 A4
M 6 x 14*	S	500	17,60 A4
M 6 x 14*	K	100	20,10 A4
M 6 x 16*	S	500	11,90 A4
M 6 x 16*	K	100	14,40 A4
M 6 x 18*	S	500	16,00 A4

Dimensions	PU	Pieces	€.
M 6 x 18*	K	100	18,50 A4
M 6 x 20*	S	500	12,80 A4
M 6 x 20*	K	100	15,30 A4
M 6 x 22*	S	500	17,20 A4
M 6 x 22*	K	100	19,70 A4
M 6 x 25*	S	500	14,10 A4
M 6 x 25*	K	100	16,60 A4
M 6 x 30*	S	500	15,10 A4
M 6 x 30*	K	100	17,60 A4
M 6 x 35*	S	500	15,90 A4
M 6 x 35*	K	100	18,40 A4
M 6 x 40*	S	500	18,30 A4
M 6 x 40*	K	100	20,80 A4
M 6 x 45*	S	500	24,10 A4
M 6 x 45*	K	100	26,60 A4
M 6 x 50*	S	500	27,60 A4
M 6 x 50*	K	100	30,10 A4
M 6 x 55*	S	500	34,20 A4
M 6 x 60*	S	500	35,70 A4
M 6 x 60*	K	100	38,20 A4
M 6 x 65*	S	500	61,30 A4
M 6 x 65*	K	100	63,80 A4
M 6 x 70*	S	500	41,40 A4
M 6 x 70*	K	100	43,90 A4
M 6 x 75*	S	100	74,60 A4
M 6 x 80*	S	100	64,90 A4
M 6 x 90*	S	100	132,00 A4
M 6 x 100*	S	100	148,00 A4
M 6 x 110*	S	100	161,00 A4
M 6 x 120*	S	100	191,00 A4
M 6 x 130*	S	100	219,00 A4
M 6 x 140*	S	100	250,00 A4
M 6 x 150*	S	100	281,00 A4
M 8 x 10*	S	100	29,10 A4
M 8 x 12*	S	200	27,30 A4
M 8 x 14*	S	200	31,90 A4
M 8 x 16*	S	200	23,70 A4
M 8 x 18*	S	200	26,80 A4
M 8 x 20*	S	200	18,40 A4
M 8 x 22*	S	200	25,00 A4
M 8 x 25*	S	200	19,90 A4
M 8 x 30*	S	200	20,90 A4
M 8 x 35*	S	200	23,00 A4
M 8 x 40*	S	200	29,10 A4
M 8 x 45*	S	200	34,20 A4
M 8 x 50*	S	200	38,80 A4
M 8 x 55*	S	200	43,90 A4
M 8 x 60*	S	200	46,00 A4
M 8 x 65*	S	200	89,90 A4
M 8 x 70*	S	200	72,00 A4
M 8 x 75*	S	200	138,00 A4
M 8 x 80*	S	200	89,90 A4
M 8 x 90*	S	200	102,00 A4
M 8 x 100*	S	200	115,00 A4
M 8 x 110*	S	50	184,00 A4
M 8 x 120*	S	50	214,00 A4
M 8 x 130*	S	50	235,00 A4
M 8 x 140*	S	50	265,00 A4
M 8 x 150*	S	50	296,00 A4
M 8 x 160*	S	50	728,00 A4
M 8 x 170*	S	50	920,00 A4
M 8 x 180*	S	50	1227,00 A4
M 10 x 10*	S	100	225,00 A4
M 10 x 12*	S	100	72,00 A4
M 10 x 16*	S	100	43,40 A4
M 10 x 18*	S	100	57,20 A4
M 10 x 20*	S	100	34,70 A4
M 10 x 25*	S	100	33,20 A4
M 10 x 30*	S	100	34,70 A4
M 10 x 35*	S	100	37,30 A4
M 10 x 40*	S	100	39,80 A4
M 10 x 45*	S	100	47,50 A4
M 10 x 50*	S	100	53,60 A4
M 10 x 55*	S	100	63,40 A4
M 10 x 60*	S	100	68,50 A4



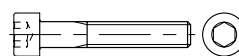
ISO 4762

Dimensions	PU	Pieces	€.
M 10 x 65*	S	100	98,60 A4
M 10 x 70*	S	100	79,20 A4
M 10 x 75*	S	100	139,00 A4
M 10 x 80*	S	100	93,50 A4
M 10 x 90*	S	100	115,00 A4
M 10 x 100*	S	100	141,00 A4
M 10 x 110*	S	50	245,00 A4
M 10 x 120*	S	50	265,00 A4
M 10 x 130*	S	1	317,00 A4
M 10 x 140*	S	1	383,00 A4
M 10 x 150*	S	1	424,00 A4
M 10 x 160*	S	1	1145,00 A4
M 10 x 170*	S	1	1288,00 A4
M 10 x 180*	S	1	1636,00 A4
M 12 x 16*	S	100	104,00 A4
M 12 x 20*	S	100	73,60 A4
M 12 x 25*	S	100	70,50 A4
M 12 x 30*	S	100	53,10 A4
M 12 x 35*	S	100	57,20 A4
M 12 x 40*	S	100	61,30 A4
M 12 x 45*	S	100	69,50 A4
M 12 x 50*	S	100	74,60 A4
M 12 x 55*	S	100	93,50 A4
M 12 x 60*	S	100	100,00 A4
M 12 x 65*	S	100	133,00 A4
M 12 x 70*	S	100	111,00 A4
M 12 x 75*	S	100	199,00 A4
M 12 x 80*	S	100	134,00 A4
M 12 x 90*	S	100	156,00 A4
M 12 x 100*	S	100	184,00 A4
M 12 x 110*	S	10	332,00 A4
M 12 x 120*	S	10	363,00 A4
M 12 x 130*	S	10	434,00 A4
M 12 x 140*	S	1	511,00 A4
M 12 x 150*	S	1	587,00 A4
M 12 x 160*	S	1	1431,00 A4
M 12 x 170*	S	1	1533,00 A4
M 12 x 180*	S	1	1661,00 A4
M 14 x 20*	S	50	541,00 A4
M 14 x 25*	S	50	403,00 A4
M 14 x 30*	S	50	353,00 A4
M 14 x 35*	S	50	353,00 A4
M 14 x 40*	S	50	353,00 A4
M 14 x 45*	S	50	386,00 A4
M 14 x 50*	S	50	407,00 A4
M 14 x 55*	S	50	467,00 A4
M 14 x 60*	S	50	522,00 A4
M 14 x 65*	S	50	681,00 A4
M 14 x 70*	S	1	570,00 A4
M 14 x 80*	S	1	784,00 A4
M 14 x 90*	S	1	889,00 A4
M 14 x 100*	S	1	1007,00 A4
M 14 x 110*	S	1	1564,00 A4
M 14 x 120*	S	1	1840,00 A4
M 14 x 130*	S	1	2116,00 A4
M 14 x 140*	S	1	2392,00 A4
M 14 x 150*	S	1	2760,00 A4
M 16 x 20*	S	50	331,00 A4
M 16 x 25*	S	25	224,00 A4
M 16 x 30*	S	25	196,00 A4
M 16 x 35*	S	25	196,00 A4
M 16 x 40*	S	25	196,00 A4
M 16 x 45*	S	25	214,00 A4
M 16 x 50*	S	25	226,00 A4
M 16 x 55*	S	25	259,00 A4
M 16 x 60*	S	25	290,00 A4
M 16 x 65*	S	25	378,00 A4
M 16 x 70*	S	25	317,00 A4
M 16 x 75*	S	1	613,00 A4
M 16 x 80*	S	25	436,00 A4
M 16 x 90*	S	25	494,00 A4
M 16 x 100*	S	25	560,00 A4
M 16 x 110*	S	1	869,00 A4
M 16 x 120*	S	1	1022,00 A4
M 16 x 130*	S	1	1175,00 A4

Dimensions	PU	Pieces	€.
M 16 x 140*	S	1	1329,00 A4
M 16 x 150*	S	1	1533,00 A4
M 16 x 160*	S	1	2198,00 A4
M 16 x 170*	S	1	2351,00 A4
M 16 x 180*	S	1	2505,00 A4
M 16 x 190*	S	1	2658,00 A4
M 16 x 200*	S	1	2863,00 A4
M 16 x 220*	S	1	4450,00 A4
M 16 x 240*	S	1	5250,00 A4
M 16 x 250*	S	1	5750,00 A4
M 16 x 260*	S	1	6400,00 A4
M 16 x 280*	S	1	7700,00 A4
M 16 x 300*	S	1	9250,00 A4
M 18 x 40*	S	1	935,00 A4
M 18 x 45*	S	100	935,00 A4
M 18 x 50*	S	1	1058,00 A4
M 18 x 55*	S	1	1140,00 A4
M 18 x 60*	S	1	1232,00 A4
M 18 x 65*	S	1	1595,00 A4
M 18 x 70*	S	1	1339,00 A4
M 18 x 75*	S	1	2060,00 A4
M 18 x 80*	S	1	1717,00 A4
M 18 x 90*	S	1	1968,00 A4
M 18 x 100*	S	1	2208,00 A4
M 18 x 110*	S	1	3420,00 A4
M 18 x 120*	S	1	3844,00 A4
M 20 x 30*	S	1	766,00 A4
M 20 x 35*	S	1	766,00 A4
M 20 x 40*	S	10	495,00 A4
M 20 x 45*	S	10	536,00 A4
M 20 x 50*	S	10	572,00 A4
M 20 x 55*	S	1	608,00 A4
M 20 x 60*	S	1	659,00 A4
M 20 x 65*	S	1	1073,00 A4
M 20 x 70*	S	1	710,00 A4
M 20 x 75*	S	1	1329,00 A4
M 20 x 80*	S	1	920,00 A4
M 20 x 90*	S	1	1073,00 A4
M 20 x 100*	S	1	1227,00 A4
M 20 x 110*	S	1	1789,00 A4
M 20 x 120*	S	1	1942,00 A4
M 20 x 130*	S	1	2403,00 A4
M 20 x 140*	S	1	2709,00 A4
M 20 x 150*	S	1	3067,00 A4
M 20 x 160*	S	1	3323,00 A4
M 20 x 170*	S	1	3476,00 A4
M 20 x 180*	S	1	3630,00 A4
M 20 x 190*	S	1	3834,00 A4
M 20 x 200*	S	1	4090,00 A4
M 24 x 40*	S	1	2045,00 A4
M 24 x 45*	S	1	2045,00 A4
M 24 x 50*	S	1	1789,00 A4
M 24 x 55*	S	1	2351,00 A4
M 24 x 60*	S	1	1789,00 A4
M 24 x 65*	S	1	2454,00 A4
M 24 x 70*	S	1	1994,00 A4
M 24 x 75*	S	1	2607,00 A4
M 24 x 80*	S	1	2147,00 A4
M 24 x 90*	S	1	2300,00 A4
M 24 x 100*	S	1	2556,00 A4
M 24 x 110*	S	1	2812,00 A4
M 24 x 120*	S	1	3067,00 A4
M 24 x 130*	S	1	3323,00 A4
M 24 x 140*	S	1	3579,00 A4
M 24 x 150*	S	1	3834,00 A4
M 24 x 160*	S	1	4141,00 A4
M 24 x 180*	S	1	4550,00 A4
M 24 x 190*	S	1	4806,00 A4
M 24 x 200*	S	1	5010,00 A4
M 24 x 210*	S	1	7900,00 A4
M 24 x 220*	S	1	8700,00 A4
M 24 x 230*	S	1	9800,00 A4
M 24 x 240*	S	1	11300,00 A4
M 30 x 50*	S	1	3374,00 A4
M 30 x 60*	S	1	3425,00 A4

Dimensions	PU	Pieces	€.
M 30 x 70*	S	1	3681,00 A4
M 30 x 80*	S	1	3885,00 A4
M 30 x 90*	S	1	4090,00 A4
M 30 x 100*	S	1	4294,00 A4
M 30 x 110*	S	1	4499,00 A4
M 30 x 120*	S	1	4703,00 A4
M 30 x 130*	S	1	4908,00 A4
M 30 x 140*	S	1	5112,00 A4
M 30 x 150*	S	1	5317,00 A4
M 30 x 160*	S	1	6800,00 A4
M 30 x 170*	S	1	8300,00 A4
M 30 x 180*	S	1	10200,00 A4
M 30 x 200*	S	1	13100,00 A4

ISO 04762.948 RAZ 361
4762 A 4 - 80



Hexagon socket head cap screws

High strength (strongly cold worked)

Dimensions → TI-12 Tightening torque → TI-235
 Mech. properties → TI-224 Standard conversion → TI-6

Steel → S. 270

ISO 4762 → replaces DIN 912 (compatible)

M 6 x 8	S	100	59,00 A4-80
M 6 x 10	S	100	59,00 A4-80
M 6 x 12	S	100	48,50 A4-80
M 6 x 14	S	100	60,00 A4-80
M 6 x 16	S	100	36,00 A4-80
M 6 x 20	S	100	39,50 A4-80
M 6 x 25	S	100	43,00 A4-80
M 6 x 30	S	100	46,50 A4-80
M 6 x 35	S	100	48,50 A4-80
M 6 x 40	S	100	56,00 A4-80
M 6 x 45	S	100	89,00 A4-80
M 6 x 50	S	100	83,00 A4-80
M 6 x 55	S	100	103,00 A4-80
M 6 x 60	S	100	108,00 A4-80
M 6 x 70	S	100	125,00 A4-80
M 8 x 10	S	100	99,00 A4-80
M 8 x 12	S	100	116,00 A4-80
M 8 x 16	S	100	72,00 A4-80
M 8 x 20	S	100	56,00 A4-80
M 8 x 25	S	100	60,00 A4-80
M 8 x 30	S	100	63,00 A4-80
M 8 x 35	S	100	70,00 A4-80
M 8 x 40	S	100	88,00 A4-80
M 8 x 45	S	100	103,00 A4-80
M 8 x 50	S	100	117,00 A4-80
M 8 x 55	S	100	132,00 A4-80
M 8 x 60	S	100	139,00 A4-80
M 8 x 70	S	100	217,00 A4-80
M 8 x 80	S	50	270,00 A4-80
M 8 x 90	S	50	310,00 A4-80
M 8 x 100	S	50	350,00 A4-80
M 10 x 16	S	100	131,00 A4-80
M 10 x 20	S	100	132,00 A4-80
M 10 x 25	S	100	100,00 A4-80
M 10 x 30	S	100	105,00 A4-80
M 10 x 35	S	100	114,00 A4-80
M 10 x 40	S	100	120,00 A4-80
M 10 x 45	S	100	143,00 A4-80
M 10 x 50	S	100	162,00 A4-80
M 10 x 55	S	50	191,00 A4-80
M 10 x 60	S	50	206,00 A4-80



Dimensions	PU	Pieces	€.
M 10 x 70	S	50	238,00 A4-80
M 10 x 80	S	50	285,00 A4-80
M 10 x 90	S	50	350,00 A4-80
M 10 x 100	S	50	430,00 A4-80
M 12 x 20	S	100	221,00 A4-80
M 12 x 25	S	100	212,00 A4-80
M 12 x 30	S	100	160,00 A4-80
M 12 x 35	S	50	172,00 A4-80
M 12 x 40	S	50	185,00 A4-80
M 12 x 45	S	50	209,00 A4-80
M 12 x 50	S	50	224,00 A4-80
M 12 x 55	S	50	285,00 A4-80
M 12 x 60	S	50	305,00 A4-80
M 12 x 70	S	50	335,00 A4-80
M 12 x 80	S	50	410,00 A4-80
M 12 x 90	S	50	480,00 A4-80
M 12 x 100	S	50	560,00 A4-80
M 16 x 20	S	50	1450,00 A4-80
M 16 x 25	S	50	680,00 A4-80
M 16 x 30	S	50	600,00 A4-80
M 16 x 35	S	50	600,00 A4-80
M 16 x 40	S	50	600,00 A4-80
M 16 x 45	S	50	650,00 A4-80
M 16 x 50	S	50	690,00 A4-80
M 16 x 55	S	25	790,00 A4-80
M 16 x 60	S	25	880,00 A4-80
M 16 x 70	S	25	960,00 A4-80
M 16 x 80	S	1	1320,00 A4-80
M 16 x 90	S	1	1490,00 A4-80
M 16 x 100	S	1	1690,00 A4-80
M 20 x 30	S	1	2310,00 A4-80
M 20 x 35	S	1	2030,00 A4-80
M 20 x 40	S	1	1490,00 A4-80
M 20 x 45	S	1	1620,00 A4-80
M 20 x 50	S	1	1720,00 A4-80
M 20 x 60	S	1	1980,00 A4-80
M 20 x 70	S	1	2140,00 A4-80
M 20 x 80	S	1	2800,00 A4-80
M 20 x 90	S	1	3250,00 A4-80
M 20 x 100	S	1	3700,00 A4-80

ISO	04762.941	RAZ 2010
4762	A 4 BUMAX88*	



Hexagon socket head cap screws

Dimension from M 8 and lenght L > 3xd
approved for use acc. to pressure equipment
directive → certificate 3.1 on request

Dimensions → **TI-12** Tightening torque → **TI-236**
Mech. properties → **TI-225**

Steel → **S. 270**

*Mechanical properties ~ Class 8.8

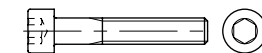


M 3 x 6	S	500	49,20 A4-88
M 3 x 8	S	500	52,00 A4-88
M 3 x 10	S	500	60,00 A4-88
M 3 x 12	S	500	60,00 A4-88
M 3 x 16	S	500	62,00 A4-88
M 3 x 20	S	500	63,00 A4-88
M 3 x 25	S	500	66,00 A4-88
M 3 x 30	S	500	115,00 A4-88
M 4 x 6	S	200	55,00 A4-88
M 4 x 8	S	200	58,00 A4-88

Dimensions	PU	Pieces	€.
M 4 x 10	S	200	60,00 A4-88
M 4 x 12	S	200	62,00 A4-88
M 4 x 16	S	200	66,00 A4-88
M 4 x 20	S	200	69,00 A4-88
M 4 x 25	S	200	74,00 A4-88
M 4 x 30	S	200	91,00 A4-88
M 4 x 35	S	200	118,00 A4-88
M 4 x 40	S	200	123,00 A4-88
M 4 x 50	S	200	133,00 A4-88
M 5 x 10	S	100	89,00 A4-88
M 5 x 12	S	100	92,00 A4-88
M 5 x 16	S	100	96,00 A4-88
M 5 x 20	S	100	100,00 A4-88
M 5 x 25	S	100	107,00 A4-88
M 5 x 30	S	100	148,00 A4-88
M 5 x 35	S	100	154,00 A4-88
M 5 x 40	S	100	161,00 A4-88
M 5 x 45	S	100	168,00 A4-88
M 5 x 50	S	100	174,00 A4-88
M 5 x 60	S	100	345,00 A4-88
M 5 x 70	S	100	435,00 A4-88
M 6 x 12	S	100	102,00 A4-88
M 6 x 14	S	100	105,00 A4-88
M 6 x 16	S	100	107,00 A4-88
M 6 x 20	S	100	113,00 A4-88
M 6 x 25	S	100	120,00 A4-88
M 6 x 30	S	100	129,00 A4-88
M 6 x 35	S	100	174,00 A4-88
M 6 x 40	S	100	183,00 A4-88
M 6 x 45	S	100	191,00 A4-88
M 6 x 50	S	100	201,00 A4-88
M 6 x 60	S	100	219,00 A4-88
M 6 x 70	S	100	236,00 A4-88
M 6 x 80	S	100	405,00 A4-88
M 6 x 90	S	100	415,00 A4-88
M 8 x 16	S	50	160,00 A4-88
M 8 x 20	S	50	172,00 A4-88
M 8 x 25	S	50	186,00 A4-88
M 8 x 30	S	50	204,00 A4-88
M 8 x 35	S	50	222,00 A4-88
M 8 x 40	S	50	240,00 A4-88
M 8 x 45	S	50	260,00 A4-88
M 8 x 50	S	50	280,00 A4-88
M 8 x 60	S	50	315,00 A4-88
M 8 x 70	S	50	360,00 A4-88
M 8 x 80	S	50	690,00 A4-88
M 10 x 16	S	50	380,00 A4-88
M 10 x 20	S	50	340,00 A4-88
M 10 x 25	S	50	360,00 A4-88
M 10 x 30	S	50	385,00 A4-88
M 10 x 35	S	50	415,00 A4-88
M 10 x 40	S	50	435,00 A4-88
M 10 x 45	S	50	600,00 A4-88
M 10 x 50	S	50	630,00 A4-88
M 10 x 55	S	50	680,00 A4-88
M 10 x 60	S	50	690,00 A4-88
M 10 x 65	S	50	710,00 A4-88
M 10 x 70	S	50	740,00 A4-88
M 10 x 75	S	50	820,00 A4-88
M 10 x 80	S	50	840,00 A4-88
M 10 x 90	S	50	900,00 A4-88
M 10 x 100	S	50	960,00 A4-88
M 10 x 120	S	50	1410,00 A4-88
M 12 x 20	S	25	455,00 A4-88
M 12 x 25	S	25	485,00 A4-88
M 12 x 30	S	25	520,00 A4-88
M 12 x 35	S	25	550,00 A4-88
M 12 x 40	S	25	580,00 A4-88
M 12 x 45	S	25	620,00 A4-88
M 12 x 50	S	25	660,00 A4-88
M 12 x 60	S	25	780,00 A4-88
M 12 x 70	S	25	850,00 A4-88
M 12 x 80	S	25	980,00 A4-88
M 12 x 90	S	25	1090,00 A4-88
M 12 x 100	S	25	1180,00 A4-88

Dimensions	PU	Pieces	€.
M 12 x 120	S	25	1350,00 A4-88
M 16 x 30	S	25	900,00 A4-88
M 16 x 35	S	25	960,00 A4-88
M 16 x 40	S	25	1010,00 A4-88
M 16 x 45	S	25	1090,00 A4-88
M 16 x 50	S	25	1150,00 A4-88
M 16 x 55	S	25	1240,00 A4-88
M 16 x 60	S	25	1320,00 A4-88
M 16 x 80	S	25	1750,00 A4-88
M 16 x 90	S	25	1950,00 A4-88
M 16 x 100	S	25	2060,00 A4-88
M 16 x 110	S	25	2220,00 A4-88
M 16 x 120	S	25	2370,00 A4-88
M 20 x 30	S	10	2390,00 A4-88
M 20 x 40	S	10	2410,00 A4-88
M 20 x 45	S	10	2550,00 A4-88
M 20 x 50	S	10	2650,00 A4-88
M 20 x 60	S	10	2850,00 A4-88
M 20 x 70	S	10	3050,00 A4-88
M 20 x 80	S	10	3350,00 A4-88
M 20 x 90	S	10	3600,00 A4-88
M 20 x 100	S	10	3800,00 A4-88
M 24 x 50	S	10	3900,00 A4-88
M 24 x 60	S	10	4200,00 A4-88
M 24 x 70	S	10	4500,00 A4-88
M 24 x 80	S	10	4600,00 A4-88
M 24 x 90	S	10	5200,00 A4-88
M 24 x 100	S	10	5400,00 A4-88
M 24 x 120	S	10	6300,00 A4-88
M 24 x 140	S	10	6900,00 A4-88
M 24 x 150	S	10	7500,00 A4-88

ISO	04762.942	RAZ 2010
4762	A 4 BUMAX109*	



Hexagon socket head cap screws

Dimensions → **TI-12** Tightening torque → **TI-236**
Mech. properties → **TI-225**

Steel → **S. 270**

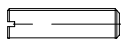
*Mechanical properties ~ Class 10.9

M 4 x 12	S	200	740,00 A4-109
M 4 x 20	S	200	106,00 A4-109
M 6 x 20	S	100	185,00 A4-109
M 6 x 30	S	100	206,00 A4-109
M 6 x 40	S	100	270,00 A4-109
M 6 x 50	S	100	290,00 A4-109
M 6 x 60	S	100	315,00 A4-109
M 6 x 70	S	100	335,00 A4-109
M 6 x 80	S	100	1230,00 A4-109
M 8 x 20	S	50	240,00 A4-109
M 8 x 30	S	50	275,00 A4-109
M 8 x 40	S	50	310,00 A4-109
M 8 x 50	S	50	350,00 A4-109
M 8 x 60	S	50	350,00 A4-109
M 8 x 70	S	50	425,00 A4-109
M 8 x 80	S	50	630,00 A4-109
M 8 x 90	S	50	970,00 A4-109
M 10 x 20	S	50	430,00 A4-109
M 10 x 30	S	50	495,00 A4-109
M 10 x 40	S	50	530,00 A4-109
M 10 x 50	S	50	790,00 A4-109
M 10 x 60	S	50	870,00 A4-109
M 10 x 70	S	50	850,00 A4-109
M 10 x 80	S	50	1010,00 A4-109
M 10 x 90	S	50	1070,00 A4-109

ISO 4762

Dimensions	PU Pieces	€.
M 10 x 100	S 50	1120,00 A4-109
M 12 x 30	S 25	710,00 A4-109
M 12 x 40	S 25	780,00 A4-109
M 12 x 50	S 25	860,00 A4-109
M 12 x 60	S 25	990,00 A4-109
M 12 x 70	S 25	1060,00 A4-109
M 12 x 80	S 25	1180,00 A4-109
M 12 x 90	S 25	1290,00 A4-109
M 12 x 100	S 25	1390,00 A4-109
M 12 x 120	S 25	1580,00 A4-109
M 16 x 25	S 25	2800,00 A4-109
M 16 x 30	S 25	3000,00 A4-109
M 16 x 40	S 25	1300,00 A4-109
M 16 x 50	S 25	1390,00 A4-109
M 16 x 60	S 25	1510,00 A4-109
M 16 x 80	S 25	1980,00 A4-109
M 16 x 90	S 25	2200,00 A4-109
M 16 x 100	S 25	2310,00 A4-109
M 16 x 130	S 25	2850,00 A4-109
M 16 x 140	S 25	2950,00 A4-109

ISO	04766.910	RAZ 230
4766	A 1	



Slotted grub screws with flat point

Dimensions → TI-19

Steel → S. 287

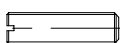
Brass, plastic → S. 590

ISO 4766 → replaces DIN 551 (compatible)

M 3 x 3	S 50	15,00 A1
M 3 x 4	S 50	15,20 A1
M 3 x 5	S 50	16,00 A1
M 3 x 6	S 50	17,10 A1
M 3 x 8	S 50	18,00 A1
M 3 x 10	S 50	18,80 A1
M 4 x 4	S 50	16,60 A1
M 4 x 5	S 50	16,60 A1
M 4 x 6	S 50	17,40 A1
M 4 x 8	S 50	18,50 A1
M 4 x 10	S 50	19,50 A1
M 4 x 12	S 50	20,50 A1
M 4 x 16	S 50	21,70 A1
M 5 x 5	S 50	18,00 A1
M 5 x 6	S 50	19,00 A1
M 5 x 8	S 50	20,30 A1
M 5 x 10	S 50	21,40 A1
M 5 x 12	S 50	22,70 A1
M 5 x 16	S 50	24,90 A1
M 5 x 20	S 25	32,50 A1
M 5 x 25	S 25	38,00 A1
M 6 x 6	S 25	22,80 A1
M 6 x 8	S 25	23,80 A1
M 6 x 10	S 25	25,50 A1
M 6 x 12	S 25	27,50 A1
M 6 x 16	S 25	29,00 A1
M 6 x 20	S 25	33,00 A1
M 6 x 25	S 25	38,00 A1
M 6 x 30	S 25	44,50 A1
M 6 x 40	S 25	51,00 A1
M 8 x 8	S 50	30,00 A1
M 8 x 10	S 25	36,50 A1
M 8 x 12	S 25	40,00 A1
M 8 x 16	S 25	44,50 A1

Dimensions	PU Pieces	€.
M 8 x 20	S 25	53,00 A1
M 8 x 25	S 25	63,00 A1
M 8 x 30	S 25	69,00 A1
M 8 x 35	S 25	73,00 A1
M 8 x 40	S 25	79,00 A1
M 10 x 10	S 10	64,00 A1
M 10 x 12	S 10	64,00 A1
M 10 x 16	S 10	68,00 A1
M 10 x 20	S 10	84,00 A1
M 10 x 25	S 10	95,00 A1
M 10 x 30	S 10	101,00 A1
M 10 x 35	S 10	108,00 A1
M 10 x 40	S 10	114,00 A1

ISO	04766.940	RAZ 230
4766	A 4	



Slotted grub screws with flat point

Dimensions → TI-19

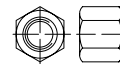
Steel → S. 287

Brass, plastic → S. 590

ISO 4766 → replaces DIN 551 (compatible)

M 3 x 4	S 50	59,00 A4
M 3 x 6	S 50	67,00 A4
M 3 x 8	S 50	70,00 A4
M 3 x 10	S 50	74,00 A4
M 4 x 5	S 50	41,50 A4
M 4 x 6	S 50	43,50 A4
M 4 x 10	S 50	49,00 A4
M 4 x 16	S 50	55,00 A4
M 4 x 20	S 50	64,00 A4
M 4 x 25	S 50	77,00 A4
M 4 x 30	S 50	88,00 A4
M 5 x 5	S 50	166,00 A4
M 5 x 6	S 50	47,50 A4
M 5 x 8	S 50	51,00 A4
M 5 x 10	S 50	54,00 A4
M 5 x 12	S 25	62,00 A4
M 5 x 16	S 25	67,00 A4
M 5 x 20	S 25	80,00 A4
M 6 x 5	S 25	52,00 A4
M 6 x 6	S 25	56,00 A4
M 6 x 8	S 25	58,00 A4
M 6 x 10	S 25	62,00 A4
M 6 x 12	S 25	67,00 A4
M 6 x 16	S 25	71,00 A4
M 6 x 20	S 25	82,00 A4
M 6 x 25	S 25	95,00 A4
M 6 x 30	S 25	111,00 A4
M 8 x 6	S 25	80,00 A4
M 8 x 8	S 25	80,00 A4
M 8 x 10	S 25	91,00 A4
M 8 x 12	S 25	100,00 A4
M 8 x 16	S 25	111,00 A4
M 8 x 20	S 25	132,00 A4
M 8 x 30	S 25	174,00 A4
M 8 x 40	S 25	200,00 A4

Dimensions	PU Pieces	€.
DIN 06330.942	RAZ 570	
6330	A 4	type B



Hexagon nuts with a height of 1,5 d, B = with one spherical bearing face

Dimensions → TI-62 Mech. properties → TI-224

Steel → S. 291

Thread - wrench size

BM 6 SW 10	S 25	150,00 A4
BM 8 SW 13	S 25	184,00 A4
BM 10 SW 17	S 25	265,00 A4
BM 12 SW 19	S 25	340,00 A4
BM 16 SW 24	S 10	610,00 A4
BM 20 SW 30	S 10	1020,00 A4
BM 24 SW 36	S 10	1750,00 A4

DIN	06331.940	RAZ 570
6331	A 4	



Hexagon nuts with collar with a height of 1,5 d

Dimensions → TI-63 Mech. properties → TI-224

Steel → S. 291

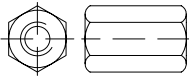
Thread - wrench size

M 8 SW 13	S 10	330,00 A4
M 10 SW 16	S 10	465,00 A4
M 12 SW 18	S 10	610,00 A4
M 16 SW 24	S 10	1070,00 A4
M 20 SW 30	S 10	1880,00 A4
M 24 SW 36	S 10	3400,00 A4



~DIN 6798

Dimensions	PU Pieces	€.
DIN	06334.940	RAZ 570
6334	A 4	



Hexagon nuts with a height of 3 d

Dimensions → TI-63 Mech. properties → TI-224

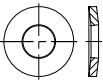
Steel → S. 292

Round and hexagon couplings → article 88088/88087

internal thread - wrench size

M 6 SW10	S 10	720,00 A4
M 8 SW13	S 10	720,00 A4
M 10 SW17	S 10	1260,00 A4
M 12 SW19	S 10	1750,00 A4
M 16 SW24	S 10	2900,00 A4
M 20 SW30	S 10	4200,00 A4
M 24 SW36	S 10	6100,00 A4

~DIN	06796.(*)	RAZ 580
6796	1.4310/A 2*	



Conical spring washers for screwed fastenings

*F Ø 8 = 1.4310 = (960), > Ø 8 = A 2 = (920)

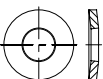
Caution! Reduced spring load.

Spring steel → S. 293

Nominal Ø x outside Ø x thickness

4	x	9	x	1	S 1000	15,40
5	x	11	x	1,2	S 1000	17,90
6	x	14	x	1,5	S 1000	33,50
8	x	1	x	2	S 500	40,50
10	x	23	x	2,5	S 500	46,50
12	x	29	x	3	S 250	52,50

~DIN	06796.940	RAZ 580
6796	A 4	



Conical spring washers for screwed fastenings

Caution! Reduced spring load.

Spring steel → S. 293

Nominal Ø x outside Ø x thickness

5	x	11	x	1,2	S 100	33,00 A4
6	x	14	x	1,5	S 100	128,00 A4
8	x	1	x	2	S 100	140,00 A4
10	x	23	x	2,5	S 100	221,00 A4

Dimensions	PU Pieces	€.
12 x 29 x 3	S 100	365,00 A4
16 x 39 x 4	S 50	1070,00 A4
20 x 45 x 5	S 25	1940,00 A4

~DIN	06797.961	RAZ 580
6797	1.4310	type A



Toothed lock washers, A = external teeth

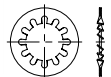
Caution! Reduced spring load.

Dimensions → TI-99

Spring steel → S. 293

A 3,2	S 2000	2,00
A 3,2	K 100	4,35
A 4,3	S 1000	2,40
A 4,3	K 100	4,75
A 5,3	S 1000	3,15
A 5,3	K 100	5,60
A 6,4	S 1000	3,75
A 6,4	K 100	6,10
A 8,4	S 1000	6,80
A 8,4	K 100	9,10
A 10,5	S 1000	10,30
A 10,5	K 100	12,70
A 13	S 100	11,90
A 17	S 50	26,00

~DIN	06797.964	RAZ 580
6797	1.4310	type I



Toothed lock washers, I = internal teeth

Caution! Reduced spring load.

Dimensions → TI-99

Spring steel → S. 294

I 3,2	S 2000	2,05
I 4,3	S 1000	2,45
I 5,3	S 1000	3,30
I 6,4	S 1000	3,90
I 8,4	S 1000	7,00
I 10,5	S 1000	14,40
I 12,5	S 500	21,40

Dimensions	PU Pieces	€.
~DIN	06798.961	RAZ 580
6798	1.4310	type A



Serrated lock washers, A = external teeth

Caution! Reduced spring load.

Dimensions → TI-99

Spring steel → S. 294

Bronze → S. 591

A 2,2	K 1000	2,80
A 3,2	S 2000	2,20
A 3,2	K 100	4,15
A 4,3	S 1000	2,60
A 4,3	K 100	4,60
A 5,3	S 1000	3,90
A 5,3	K 100	5,80
A 6,4	S 1000	4,40
A 6,4	K 100	6,40
A 8,4	S 1000	7,50
A 8,4	K 100	9,40
A 10,5	S 1000	10,80
A 10,5	K 100	12,70
A 13	S 100	13,30
A 17	S 50	33,50
A 21	S 50	45,50
A 25	S 50	59,00

~DIN	06798.964	RAZ 580
6798	1.4310	type I



Serrated lock washers, I = internal teeth

Caution! Reduced spring load.

Dimensions → TI-99

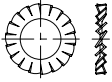
Spring steel → S. 295

I 3,2	S 2000	2,70
I 4,3	S 1000	3,25
I 5,3	S 1000	4,75
I 6,4	S 1000	5,50
I 8,4	S 1000	9,20



~DIN 6798

Dimensions	PU Pieces	€.
~DIN	06798.944	RAZ 580
6798	A 4	type A
	unmagnetic*	



**Serrated lock washers,
A = external teeth**

*Permeability μ F 1,1 H/m

Caution! Reduced spring load.

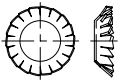
Dimensions → **TI-99**

Spring steel → **S. 294**

Bronze → **S. 591**

A 3,2	S 2000	8,80 A4
A 4,3	S 1000	9,70 A4
A 5,3	S 1000	12,90 A4
A 6,4	S 1000	14,60 A4
A 8,4	S 1000	24,50 A4
A 10,5	S 1000	38,50 A4
A 13	S 100	42,10 A4
A 17	S 50	46,50 A4

~DIN	06798.965	RAZ 580
6798	1.4310	type V



**Serrated lock washers,
V = countersunk**

Caution! Reduced spring load.

Dimensions → **TI-99**

Spring steel → **S. 295**

V 3,2	S 1000	5,20
V 4,3	S 1000	5,90
V 5,3	S 1000	8,60
V 6,4	S 1000	12,40
V 8,4	S 1000	20,00
V 10,5	S 1000	26,00
V 13	S 100	38,00

~DIN	06799.300	RAZ 580
6799	1.4122	



Retaining rings for shafts

Caution! Reduced spring load.

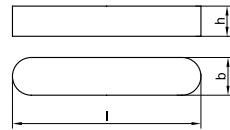
Dimensions → **TI-100**

Nominal size = slot \varnothing

1,5	S 250	8,30
1,9	S 250	8,10
2,3	S 250	9,50

Dimensions	PU Pieces	€.
3,2	S 250	10,80
4	S 250	13,00
5	S 250	16,90
6	S 100	19,20
7	S 100	29,50
8	S 100	37,00
9	S 100	51,00
10	S 100	66,00
12	S 100	94,00
15	S 100	219,00
19	S 50	245,00

DIN	06885.941	RAZ 590
6885	A 4	type A



**Parallel keys, deep pattern,
A = round-ended (without holes)**

Dimensions → **TI-135**

Steel → **S. 296**

Width b x height h x length l

A 3	x	3	x	10	S 100	36,00 A4
A 3	x	3	x	12	S 100	36,50 A4
A 3	x	3	x	16	S 100	36,50 A4
A 3	x	3	x	20	S 100	38,50 A4
A 4	x	4	x	10	S 100	41,00 A4
A 4	x	4	x	12	S 100	42,50 A4
A 4	x	4	x	14	S 100	43,00 A4
A 4	x	4	x	16	S 100	43,00 A4
A 4	x	4	x	18	S 100	46,50 A4
A 4	x	4	x	20	S 100	46,50 A4
A 4	x	4	x	22	S 100	50,00 A4
A 5	x	5	x	10	S 100	36,00 A4
A 5	x	5	x	12	S 100	36,00 A4
A 5	x	5	x	14	S 50	36,50 A4
A 5	x	5	x	16	S 50	37,50 A4
A 5	x	5	x	18	S 50	39,00 A4
A 5	x	5	x	20	S 50	40,00 A4
A 5	x	5	x	22	S 50	41,50 A4
A 5	x	5	x	25	S 50	43,50 A4
A 5	x	5	x	28	S 50	48,50 A4
A 5	x	5	x	30	S 50	48,50 A4
A 5	x	5	x	32	S 50	66,00 A4
A 5	x	5	x	36	S 50	70,20 A4
A 5	x	5	x	40	S 50	74,00 A4
A 5	x	5	x	45	S 50	79,00 A4
A 5	x	5	x	50	S 50	83,25 A4
A 6	x	6	x	12	S 25	46,00 A4
A 6	x	6	x	14	S 50	46,00 A4
A 6	x	6	x	16	S 25	46,00 A4
A 6	x	6	x	18	S 25	48,00 A4
A 6	x	6	x	20	S 25	49,50 A4
A 6	x	6	x	22	S 25	52,00 A4
A 6	x	6	x	25	S 25	55,00 A4
A 6	x	6	x	28	S 25	58,00 A4
A 6	x	6	x	30	S 25	62,00 A4
A 6	x	6	x	32	S 25	62,00 A4
A 6	x	6	x	36	S 25	66,00 A4
A 6	x	6	x	40	S 25	70,00 A4
A 6	x	6	x	50	S 25	82,00 A4
A 6	x	6	x	56	S 25	85,00 A4
A 6	x	6	x	60	S 25	95,00 A4
A 6	x	6	x	63	S 25	108,00 A4
A 6	x	6	x	70	S 25	110,00 A4
A 6	x	6	x	80	S 25	125,00 A4

Dimensions	PU Pieces	€.				
A 8	x	7	x	16	S 10	72,00 A4
A 8	x	7	x	18	S 10	72,00 A4
A 8	x	7	x	20	S 10	72,00 A4
A 8	x	7	x	22	S 10	79,00 A4
A 8	x	7	x	25	S 10	79,00 A4
A 8	x	7	x	28	S 10	84,00 A4
A 8	x	7	x	30	S 10	90,00 A4
A 8	x	7	x	32	S 10	90,00 A4
A 8	x	7	x	36	S 10	96,00 A4
A 8	x	7	x	40	S 10	103,00 A4
A 8	x	5	x	40	S 10	103,00 A4
A 8	x	7	x	45	S 10	151,00 A4
A 8	x	5	x	45	S 10	151,00 A4
A 8	x	7	x	50	S 10	160,00 A4
A 8	x	7	x	56	S 10	180,00 A4
A 8	x	7	x	60	S 10	190,00 A4
A 8	x	7	x	63	S 10	198,00 A4
A 8	x	7	x	70	S 10	205,00 A4
A 8	x	7	x	80	S 10	226,00 A4
A 8	x	7	x	90	S 10	240,00 A4
A 8	x	7	x	100	S 10	285,00 A4
A 10	x	8	x	20	S 10	102,00 A4
A 10	x	8	x	22	S 10	104,00 A4
A 10	x	8	x	25	S 10	104,00 A4
A 10	x	8	x	28	S 10	111,00 A4
A 10	x	8	x	30	S 10	121,00 A4
A 10	x	8	x	32	S 10	121,00 A4
A 10	x	8	x	36	S 10	130,00 A4
A 10	x	8	x	40	S 10	139,00 A4
A 10	x	8	x	45	S 10	151,00 A4
A 10	x	8	x	50	S 10	162,00 A4
A 10	x	8	x	56	S 10	176,00 A4
A 10	x	8	x	60	S 10	193,00 A4
A 10	x	8	x	63	S 10	265,00 A4
A 10	x	8	x	70	S 10	290,00 A4
A 10	x	8	x	80	S 10	325,00 A4
A 10	x	8	x	90	S 10	370,00 A4
A 10	x	8	x	100	S 10	395,00 A4
A 10	x	8	x	110	S 10	430,00 A4
A 10	x	8	x	120	S 10	460,00 A4
A 12	x	8	x	28	S 10	140,00 A4
A 12	x	8	x	30	S 10	140,00 A4
A 12	x	8	x	32	S 10	140,00 A4
A 12	x	8	x	36	S 10	150,00 A4
A 12	x	8	x	40	S 10	161,00 A4
A 12	x	8	x	45	S 10	176,00 A4
A 12	x	8	x	50	S 10	189,00 A4
A 12	x	8	x	56	S 10	207,00 A4
A 12	x	8	x	60	S 10	227,00 A4
A 12	x	8	x	63	S 10	227,00 A4
A 12	x	8	x	70	S 10	250,00 A4
A 12	x	8	x	80	S 10	285,00 A4
A 12	x	8	x	90	S 10	310,00 A4
A 12	x	8	x	100	S 10	350,00 A4
A 14	x	9	x	32	S 10	235,00 A4
A 14	x	9	x	40	S 10	246,00 A4
A 14	x	9	x	45	S 10	260,00 A4
A 14	x	9	x	50	S 10	260,00 A4
A 14	x	9	x	56	S 5	270,00 A4
A 14	x	9	x	60	S 5	295,00 A4
A 14	x	9	x	63	S 5	310,00 A4
A 14	x	9	x	70	S 5	325,00 A4
A 14	x	9	x	80	S 5	370,00 A4
A 14	x	9	x	100	S 5	455,00 A4
A 14	x	9	x	125	S 5	560,00 A4
A 16	x	10	x	30	S 5	635,00 A4
A 16	x	10	x	40	S 5	635,00 A4
A 16	x	10	x	50	S 5	635,00 A4
A 16	x	10	x	63	S 5	765,00 A4
A 16	x	10	x	70	S 5	805,00 A4
A 16	x	10	x	80	S 5	905,00 A4
A 16	x	10	x	90	S 5	980,00 A4
A 16	x	10	x	100	S 5	980,00 A4

Dimensions PU Pieces €.

DIN	06912.920	RAZ 600
6912 A 2		



Hexagon socket head cap screws, low head, with centre

Length F100 mm sometimes thread up to head

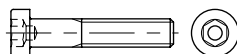
Dimensions → **TI-12** Tightening torque → **TI-235**
 Mech. properties → **TI-224**
 Steel → **S. 298**

M 4	x	6	S	200	48,60 A2
M 4	x	8	S	200	40,90 A2
M 4	x	10	S	200	34,25 A2
M 4	x	12	S	200	40,40 A2
M 4	x	16	S	200	28,65 A2
M 4	x	20	S	200	30,20 A2
M 4	x	25	S	200	31,45 A2
M 4	x	30	S	200	36,85 A2
M 4	x	35	S	200	38,85 A2
M 4	x	40	S	200	41,70 A2
M 5	x	6	S	100	56,75 A2
M 5	x	8	S	100	49,10 A2
M 5	x	10	S	100	46,55 A2
M 5	x	12	S	100	40,40 A2
M 5	x	14	S	100	40,40 A2
M 5	x	16	S	100	31,70 A2
M 5	x	20	S	100	33,75 A2
M 5	x	25	S	100	35,80 A2
M 5	x	30	S	100	41,95 A2
M 5	x	35	S	100	48,10 A2
M 5	x	40	S	100	50,65 A2
M 5	x	45	S	100	55,75 A2
M 5	x	50	S	100	61,35 A2
M 6	x	8	S	100	52,15 A2
M 6	x	10	S	100	45,00 A2
M 6	x	12	S	100	50,10 A2
M 6	x	14	S	100	50,11 A2
M 6	x	16	S	100	39,90 A2
M 6	x	20	S	100	42,95 A2
M 6	x	25	S	100	45,00 A2
M 6	x	30	S	100	49,10 A2
M 6	x	35	S	100	55,75 A2
M 6	x	40	S	100	52,15 A2
M 6	x	45	S	100	55,75 A2
M 6	x	50	S	100	55,75 A2
M 6	x	55	S	100	69,05 A2
M 6	x	60	S	100	76,20 A2
M 6	x	70	S	100	102,00 A2
M 6	x	80	S	100	135,00 A2
M 8	x	10	S	100	82,85 A2
M 8	x	12	S	100	89,50 A2
M 8	x	16	S	100	80,30 A2
M 8	x	20	S	100	69,05 A2
M 8	x	25	S	100	65,45 A2
M 8	x	30	S	100	69,05 A2
M 8	x	35	S	100	77,75 A2
M 8	x	40	S	100	84,90 A2
M 8	x	45	S	100	102,00 A2
M 8	x	50	S	100	112,00 A2
M 8	x	55	S	100	124,00 A2
M 8	x	60	S	100	133,00 A2
M 8	x	65	S	100	171,00 A2
M 8	x	70	S	50	171,00 A2
M 8	x	80	S	50	206,00 A2

Dimensions PU Pieces €.

M 8	x	90	S	50	226,00 A2
M 8	x	100	S	50	257,00 A2
M 10	x	16	S	100	155,00 A2
M 10	x	20	S	100	141,00 A2
M 10	x	25	S	100	133,00 A2
M 10	x	30	S	100	144,00 A2
M 10	x	35	S	100	151,00 A2
M 10	x	40	S	100	162,00 A2
M 10	x	45	S	100	179,00 A2
M 10	x	50	S	100	202,00 A2
M 10	x	55	S	50	223,00 A2
M 10	x	60	S	50	231,00 A2
M 10	x	70	S	50	269,00 A2
M 10	x	80	S	50	300,00 A2
M 10	x	90	S	50	372,00 A2
M 10	x	100	S	50	438,00 A2
M 12	x	20	S	50	218,00 A2
M 12	x	25	S	50	202,00 A2
M 12	x	30	S	50	205,00 A2
M 12	x	35	S	50	218,00 A2
M 12	x	40	S	50	238,00 A2
M 12	x	45	S	50	259,00 A2
M 12	x	50	S	50	287,00 A2
M 12	x	55	S	50	310,00 A2
M 12	x	60	S	50	320,00 A2
M 12	x	70	S	50	369,00 A2
M 12	x	80	S	25	415,00 A2
M 12	x	90	S	25	517,00 A2
M 12	x	100	S	25	594,00 A2
M 16	x	25	S	1	834,00 A2
M 16	x	30	S	1	645,00 A2
M 16	x	35	S	1	660,00 A2
M 16	x	40	S	1	681,00 A2
M 16	x	45	S	1	711,00 A2
M 16	x	50	S	1	737,00 A2
M 16	x	55	S	1	798,00 A2
M 16	x	60	S	1	824,00 A2
M 16	x	70	S	1	893,00 A2
M 16	x	80	S	1	967,00 A2
M 16	x	90	S	1	1074,00 A2
M 16	x	100	S	1	1228,00 A2
M 20	x	35	S	1	1279,00 A2
M 20	x	40	S	1	1355,00 A2
M 20	x	45	S	1	1381,00 A2
M 20	x	50	S	1	1417,00 A2
M 20	x	60	S	1	1560,00 A2
M 20	x	70	S	1	1688,00 A2
M 20	x	80	S	1	2097,00 A2
M 20	x	90	S	1	2404,00 A2
M 20	x	100	S	1	2813,00 A2

DIN	06912.940	RAZ 600
6912 A 4		



Hexagon socket head cap screws, low head, with centre

Length F100 mm sometimes thread up to head

Dimensions → **TI-12** Tightening torque → **TI-235**
 Mech. properties → **TI-224**
 Steel → **S. 298**

M 4	x	6	S	100	58,30 A4
M 4	x	8	S	100	49,10 A4
M 4	x	10	S	200	42,95 A4

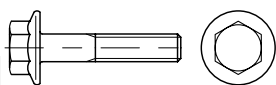
Dimensions PU Pieces €.

M 4	x	12	S	200	40,90 A4
M 4	x	16	S	200	29,15 A4
M 4	x	20	S	200	31,20 A4
M 4	x	25	S	200	33,25 A4
M 4	x	30	S	200	37,35 A4
M 4	x	35	S	200	44,00 A4
M 4	x	40	S	200	47,55 A4
M 5	x	6	S	100	61,90 A4
M 5	x	8	S	100	52,70 A4
M 5	x	10	S	100	63,40 A4
M 5	x	12	S	100	55,25 A4
M 5	x	16	S	100	39,90 A4
M 5	x	20	S	100	42,95 A4
M 5	x	25	S	100	45,00 A4
M 5	x	30	S	100	52,70 A4
M 5	x	35	S	100	58,80 A4
M 5	x	40	S	100	64,45 A4
M 5	x	50	S	100	96,15 A4
M 6	x	8	S	100	72,60 A4
M 6	x	10	S	100	65,45 A4
M 6	x	12	S	100	63,95 A4
M 6	x	16	S	100	50,65 A4
M 6	x	20	S	100	53,20 A4
M 6	x	25	S	100	60,35 A4
M 6	x	30	S	100	63,40 A4
M 6	x	35	S	100	67,50 A4
M 6	x	40	S	100	76,70 A4
M 6	x	45	S	100	92,05 A4
M 6	x	50	S	100	106,00 A4
M 6	x	55	S	100	133,00 A4
M 6	x	60	S	100	144,00 A4
M 6	x	70	S	100	169,00 A4
M 6	x	80	S	100	200,00 A4
M 8	x	10	S	100	92,05 A4
M 8	x	12	S	100	92,05 A4
M 8	x	16	S	100	95,10 A4
M 8	x	20	S	100	78,25 A4
M 8	x	25	S	100	81,80 A4
M 8	x	30	S	100	85,90 A4
M 8	x	35	S	100	95,10 A4
M 8	x	40	S	100	120,00 A4
M 8	x	45	S	100	133,00 A4
M 8	x	50	S	100	151,00 A4
M 8	x	55	S	100	164,00 A4
M 8	x	60	S	100	174,00 A4
M 8	x	70	S	50	292,00 A4
M 8	x	80	S	50	364,00 A4
M 8	x	90	S	50	502,00 A4
M 10	x	16	S	100	187,00 A4
M 10	x	20	S	100	182,00 A4
M 10	x	25	S	100	172,00 A4
M 10	x	30	S	100	174,00 A4
M 10	x	35	S	100	185,00 A4
M 10	x	40	S	100	202,00 A4
M 10	x	45	S	100	225,00 A4
M 10	x	50	S	100	246,00 A4
M 10	x	55	S	50	282,00 A4
M 10	x	60	S	50	297,00 A4
M 10	x	70	S	50	338,00 A4
M 10	x	80	S	50	404,00 A4
M 10	x	90	S	50	507,00 A4
M 10	x	100	S	50	609,00 A4
M 12	x	16	S	50	307,00 A4
M 12	x	20	S	50	317,00 A4
M 12	x	25	S	50	302,00 A4
M 12	x	30	S	50	277,00 A4
M 12	x	35	S	50	292,00 A4
M 12	x	40	S	50	312,00 A4
M 12	x	45	S	50	348,00 A4
M 12	x	50	S	50	369,00 A4
M 12	x	55	S	50	420,00 A4
M 12	x	60	S	50	435,00 A4
M 12	x	70	S	25	476,00 A4
M 12	x	80	S	25	583,00 A4
M 12	x	90	S	1	660,00 A4

DIN 6912

Dimensions	PU Pieces	€.
M 12 x 100	S 1	660,00 A 4
M 16 x 25	S 1	967,00 A 4
M 16 x 30	S 1	757,00 A 4
M 16 x 35	S 1	778,00 A 4
M 16 x 40	S 1	798,00 A 4
M 16 x 45	S 1	839,00 A 4
M 16 x 50	S 1	870,00 A 4
M 16 x 55	S 1	962,00 A 4
M 16 x 60	S 1	982,00 A 4
M 16 x 65	S 1	1023,00 A 4
M 16 x 70	S 1	1049,00 A 4
M 16 x 80	S 1	1381,00 A 4
M 16 x 90	S 1	1637,00 A 4
M 16 x 100	S 1	1637,00 A 4
M 16 x 110	S 1	2813,00 A 4
M 16 x 120	S 1	2889,00 A 4
M 16 x 130	S 1	2940,00 A 4
M 16 x 140	S 1	3017,00 A 4
M 20 x 30	S 1	1713,00 A 4
M 20 x 35	S 1	1739,00 A 4
M 20 x 40	S 1	1688,00 A 4
M 20 x 45	S 1	1739,00 A 4
M 20 x 50	S 1	1841,00 A 4
M 20 x 60	S 1	2046,00 A 4
M 20 x 70	S 1	2250,00 A 4
M 20 x 80	S 1	2813,00 A 4
M 20 x 90	S 1	3886,00 A 4
M 20 x 100	S 1	3989,00 A 4
M 20 x 110	S 1	5165,00 A 4
M 20 x 120	S 1	5216,00 A 4
M 20 x 130	S 1	5267,00 A 4
M 20 x 150	S 1	5420,00 A 4
M 24 x 50	S 1	2864,00 A 4
M 24 x 55	S 1	2864,00 A 4
M 24 x 60	S 1	2864,00 A 4
M 24 x 65	S 1	3017,00 A 4
M 24 x 70	S 1	3017,00 A 4
M 24 x 80	S 1	3580,00 A 4
M 24 x 90	S 1	4653,00 A 4
M 24 x 110	S 1	5931,00 A 4
M 24 x 120	S 1	5983,00 A 4
M 24 x 130	S 1	6034,00 A 4
M 24 x 150	S 1	6187,00 A 4

DIN	06921.920	RAZ 401
6921	A 2	



Hexagon flange bolts

Dimensions → TI-17 Standard conversion → TI-6
Mech. properties → TI-224

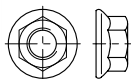
Steel → S. 302

DIN 6921 → replaced by EN 1665

M 5 x 10	S 200	17,60
M 5 x 12	S 200	18,00
M 5 x 16	S 200	18,80
M 5 x 20	S 200	19,50
M 5 x 25	S 200	20,70
M 5 x 30	S 200	22,30
M 6 x 10	S 200	22,30
M 6 x 12	S 200	23,10
M 6 x 16	S 200	24,40
M 6 x 20	S 200	25,50
M 6 x 25	S 200	28,00
M 6 x 30	S 200	29,00
M 6 x 35	S 200	31,50

Dimensions	PU Pieces	€.
M 6 x 40	S 200	33,00
M 6 x 45	S 200	34,50
M 8 x 16	S 200	43,50
M 8 x 20	S 200	45,00
M 8 x 25	S 200	48,00
M 8 x 30	S 200	52,00
M 8 x 35	S 200	55,00
M 8 x 40	S 200	58,00
M 8 x 45	S 200	61,00
M 8 x 50	S 200	65,00
M 10 x 20	S 100	65,00
M 10 x 25	S 100	70,00
M 10 x 30	S 100	74,00
M 10 x 35	S 100	79,00
M 10 x 40	S 100	85,00
M 10 x 45	S 100	90,00
M 10 x 50	S 100	95,00
M 10 x 60	S 100	105,00

DIN	06923.920	RAZ 615
6923	A 2	



Hexagon flange nuts

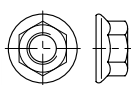
Dimensions → TI-63 Mech. properties → TI-224

Steel → S. 303

DIN 6923 → replaced by EN 1661

M 4	S 1000	8,50 A 2
M 5	S 1000	12,80 A 2
M 6	S 1000	20,50 A 2
M 8	S 1000	26,00 A 2
M 10	S 500	38,50 A 2
M 12	S 250	80,00 A 2

DIN	06923.940	RAZ 615
6923	A 4	



Hexagon flange nuts

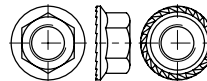
Dimensions → TI-63 Mech. properties → TI-224

Steel → S. 303

DIN 6923 → replaced by EN 1661

M 5	S 1000	26,00 A 4
M 6	S 1000	33,50 A 4
M 8	S 1000	38,50 A 4
M 10	S 500	90,00 A 4

Dimensions	PU Pieces	€.
DIN	06923.924	RAZ 615
6923	A 2	locking



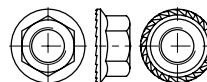
Hexagon locking nuts with flange

Dimensions → TI-63 Mech. properties → TI-224

Steel → S. 303

M 4	S 500	9,00 A 2
M 5	S 500	13,50 A 2
M 6	S 1000	21,50 A 2
M 8	S 1000	27,00 A 2
M 10	S 500	40,00 A 2
M 12	S 200	84,00 A 2

DIN	06923.944	RAZ 615
6923	A 4	locking



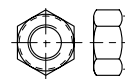
Hexagon locking nuts with flange

Dimensions → TI-63 Mech. properties → TI-224

Steel → S. 303

M 4	S 500	15,00 A 4
M 5	S 500	27,00 A 4
M 6	S 500	35,00 A 4
M 8	S 500	40,00 A 4
M 10	S 200	95,00 A 4
M 12	S 100	120,00 A 4

~DIN	06924.920	RAZ 480
6924	A 2	



Prevailing torque type hexagon nuts with non-metallic insert, high type

For use under temperatures from -50 to +120 °C

Caution! Risk of cold shut. Please note the technical advice given in the information box.

Dimensions → TI-66 Standard conversion → TI-7
Mech. properties → TI-224

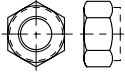
Steel → S. 303

DIN 6924 coarse pitch thread
→ replaced by ISO 7040 (compatible)

M 5	S 1000	40,00 A 2
M 6	S 1000	46,50 A 2
M 8	S 500	59,00 A 2
M 16	S 100	219,00 A 2
M 20	S 25	415,00 A 2



Dimensions	PU Pieces	€.
~DIN	06924.940	RAZ 480
6924 A 4		



Prevailing torque type hexagon nuts with non-metallic insert, high type

For use under temperatures from -50 to +120 °C

Caution! Risk of cold shut. Please note the technical advice given in the information box.

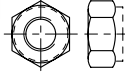
Dimensions → **TI-66** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

Steel → **S. 303**

DIN 6924 coarse pitch thread
 → replaced by ISO 7040 (compatible)

M 5	S 100	55,00 A4
M 6	S 100	63,00 A4
M 8	S 100	83,00 A4
M 16	S 25	365,00 A4
M 20	S 25	1500,00 A4
M 24	S 25	1700,00 A4

Dimensions	PU Pieces	€.
~ISO	07040.920	*
7040 A 2		



Prevailing torque type hexagon nuts with non-metallic insert, high type

For use under temperatures from -50 to +120 °C,
 *M 10/12 RAZ = 3395, other Ø RAZ = 480

Caution! Risk of cold shut. Please note the technical advice given in the information box.

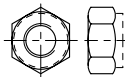
Dimensions → **TI-66** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

Steel → **S. 305**

ISO 7040 → replaces DIN 982 and 6924

M 5	S 1000	40,00 A2
M 8	S 500	59,00 A2
M 10	S 500	102,00 A2
M 12	S 250	127,00 A2
M 16	S 100	219,00 A2
M 20	S 25	415,00 A2

ISO	07040.924	RAZ 3395
7040 A 2 - 70 HS		



Prevailing torque type hexagon nuts with non-metallic insert, high type, with heat-stabilised polyamide locking ring

For use under temperatures up to ~ +150/180 °C
 (DB 205107-03)

Caution! Risk of cold shut. Please note the technical advice given in the information box.

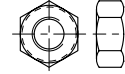
Dimensions → **TI-66** Mech. properties → **TI-224**

Steel → **S. 305**

ISO 7040 → replaces DIN 982 and 6924

M 3	S 1000	465,00 A2
M 4	S 100	85,00 A2
M 5	S 500	87,00 A2
M 5	K 100	89,00 A2
M 6	S 500	131,00 A2
M 6	K 100	133,00 A2
M 8	S 500	182,00 A2
M 8	K 100	184,00 A2
M 10	S 500	320,00 A2
M 10	K 100	325,00 A2
M 12	S 100	405,00 A2
M 16	S 25	810,00 A2

Dimensions	PU Pieces	€.
ISO	07040.940	*
7040 A 4		



Prevailing torque type hexagon nuts with non-metallic insert, high type

For use under temperatures from -50 to +120 °C,
 *M 10/12 RAZ = 3395, other Ø RAZ = 480

Caution! Risk of cold shut. Please note the technical advice given in the information box.

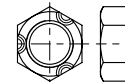
Dimensions → **TI-66** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

Steel → **S. 305**

ISO 7040 → replaces DIN 982 and 6924

M 5	S 100	55,00 A4
M 6	S 100	63,00 A4
M 8	S 100	83,00 A4
M 10	S 100	165,00 A4
M 12	S 50	210,00 A4
M 16	S 25	365,00 A4
M 20	S 25	1500,00 A4
M 24	S 25	1700,00 A4

ISO	07042.920	*
7042 A 2		



Prevailing torque type hexagon nuts (all metal nuts)

*M 10/12/14 RAZ = 3395, other Ø RAZ = 480

Caution! Risk of cold shut. Please note the technical advice given in the information box.

Dimensions → **TI-66** Standard conversion → **TI-7**
 Mech. properties → **TI-224**

ISO 7042 → replaces DIN 980 and 6925

M 3	S 1000	12,30 A2
M 4	S 1000	24,60 A2
M 5	S 1000	28,00 A2
M 8	S 500	43,00 A2
M 10	S 500	59,00 A2
M 12	S 250	71,00 A2
M 14	S 100	154,00 A2
M 16	S 100	163,00 A2
M 18	S 50	178,00 A2
M 20	S 25	185,00 A2
M 24	S 25	215,00 A2

Important Note!

The current standards for prevailing torque type hexagon nuts apply for steel in the property classes 5, (6), 8, 10 and 12. The use of nuts from other materials (e. g. stainless steel, brass, aluminium) is carried out at your own risk. Nuts made from these softer materials sometimes tend to seize up because of the high flank pressure during forming of the bolt thread in the locking ring. The use of lubricant usually helps in such cases. The changes of the friction coefficient when tightening the fastener must be taken into account.



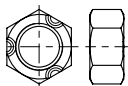


ISO 7042

Dimensions PU Pieces €.

ISO 07042.940 *

7042 A 4



Prevailing torque type hexagon nuts (all metal nuts)

*M 10/12/14 RAZ = 3395, other Ø RAZ = 480

Caution! Risk of cold shut. Please note the technical advice given in the information box.

Dimensions → TI-66 Standard conversion → TI-7
Mech. properties → TI-224

ISO 7042 → replaces DIN 980 and 6925

Dimensions	PU Pieces	€.
M 3	S 1000	80,00 A4
M 4	S 100	99,00 A4
M 5	S 1000	109,00 A4
M 6	S 1000	112,00 A4
M 8	S 500	118,00 A4
M 10	S 500	176,00 A4
M 12	S 250	270,00 A4
M 14	S 100	325,00 A4
M 16	S 100	440,00 A4
M 18	S 50	465,00 A4
M 20	S 25	590,00 A4
M 24	S 25	1110,00 A4
M 30	S 10	1610,00 A4

Important Note!

The current standards for prevailing torque type hexagon nuts apply for steel in the property classes 5, (6), 8, 10 and 12.

The use of nuts from other materials

(e.g. stainless steel, brass, aluminium) is carried out at your own risk. Nuts made from these softer materials sometimes tend to seize up because of the high flank pressure during forming of the bolt thread in the locking ring. The use of lubricant usually helps in such cases. The changes of the friction coefficient when tightening the fastener must be taken into account.

Dimensions PU Pieces €.

ISO 07045.925 RAZ 710

7045 A 2 H



Cheese head screws with Phillips cross recess H

Dimensions → TI-40 Standard conversion → TI-11

Steel → S. 306

ISO 7045 → replaces DIN 7985 (compatible)

Dimensions	PU Pieces	€.
M 1,6 x 2 -H	S 1000	20,00 A2
M 1,6 x 3 -H	S 1000	17,80 A2
M 1,6 x 4 -H	S 1000	16,60 A2
M 1,6 x 5 -H	S 1000	16,60 A2
M 1,6 x 6 -H	S 1000	16,60 A2
M 1,6 x 8 -H	S 1000	17,10 A2
M 1,6 x 10 -H	S 1000	18,40 A2
M 1,6 x 12 -H	S 1000	20,90 A2
M 1,6 x 16 -H	S 1000	25,00 A2
M 2 x 2 -H	S 1000	18,00 A2
M 2 x 3 -H	S 1000	10,40 A2
M 2 x 4 -H	S 1000	7,05 A2
M 2 x 4 -H	K 200	8,05 A2
M 2 x 5 -H	S 1000	5,80 A2
M 2 x 5 -H	K 200	6,80 A2
M 2 x 6 -H	S 1000	5,80 A2
M 2 x 6 -H	K 200	6,80 A2
M 2 x 8 -H	S 1000	5,80 A2
M 2 x 8 -H	K 200	6,80 A2
M 2 x 10 -H	S 1000	5,80 A2
M 2 x 10 -H	K 200	6,80 A2
M 2 x 12 -H	S 1000	6,30 A2
M 2 x 12 -H	K 200	7,30 A2
M 2 x 14 -H	S 1000	8,85 A2
M 2 x 16 -H	S 1000	6,70 A2
M 2 x 16 -H	K 200	7,70 A2
M 2 x 18 -H	S 1000	9,45 A2
M 2 x 20 -H	S 1000	7,75 A2
M 2 x 20 -H	K 200	8,75 A2
M 2,5 x 3 -H	S 1000	11,00 A2
M 2,5 x 4 -H	S 1000	7,05 A2
M 2,5 x 4 -H	K 200	8,05 A2
M 2,5 x 5 -H	S 1000	7,20 A2
M 2,5 x 5 -H	K 200	8,20 A2
M 2,5 x 6 -H	S 1000	5,80 A2
M 2,5 x 6 -H	K 200	6,80 A2
M 2,5 x 8 -H	S 1000	5,80 A2
M 2,5 x 8 -H	K 200	6,80 A2
M 2,5 x 10 -H	S 1000	5,80 A2
M 2,5 x 10 -H	K 200	6,80 A2
M 2,5 x 12 -H	S 1000	6,30 A2
M 2,5 x 12 -H	K 200	7,30 A2
M 2,5 x 14 -H	S 1000	8,85 A2
M 2,5 x 16 -H	S 1000	6,70 A2
M 2,5 x 18 -H	S 1000	9,45 A2
M 2,5 x 20 -H	S 1000	7,75 A2
M 2,5 x 25 -H	S 1000	12,30 A2
M 2,5 x 30 -H	S 1000	18,00 A2
M 3 x 4 -H	S 1000	6,60 A2
M 3 x 5 -H	S 1000	5,60 A2
M 3 x 6 -H	S 1000	3,70 A2
M 3 x 6 -H	K 200	4,70 A2
M 3 x 8 -H	S 1000	3,95 A2
M 3 x 8 -H	K 200	4,95 A2
M 3 x 10 -H	S 1000	4,20 A2
M 3 x 10 -H	K 200	5,20 A2

Dimensions PU Pieces €.

Dimensions	PU Pieces	€.
M 3 x 12 -H	S 1000	4,45 A2
M 3 x 12 -H	K 200	5,45 A2
M 3 x 14 -H	S 1000	6,35 A2
M 3 x 16 -H	S 1000	5,85 A2
M 3 x 16 -H	K 200	7,95 A2
M 3 x 18 -H	S 1000	7,40 A2
M 3 x 20 -H	S 1000	5,55 A2
M 3 x 20 -H	K 200	6,55 A2
M 3 x 22 -H	S 1000	7,90 A2
M 3 x 25 -H	S 1000	6,05 A2
M 3 x 30 -H	S 1000	8,90 A2
M 3 x 35 -H	S 1000	16,30 A2
M 3 x 40 -H	S 1000	18,40 A2
M 3 x 45 -H	S 500	27,00 A2
M 3 x 50 -H	S 500	27,00 A2
M 4 x 4 -H	S 1000	9,90 A2
M 4 x 5 -H	S 1000	7,55 A2
M 4 x 6 -H	S 1000	5,95 A2
M 4 x 6 -H	K 200	6,95 A2
M 4 x 8 -H	S 1000	5,95 A2
M 4 x 8 -H	K 200	6,95 A2
M 4 x 10 -H	S 1000	6,20 A2
M 4 x 10 -H	K 200	7,20 A2
M 4 x 12 -H	S 1000	6,55 A2
M 4 x 12 -H	K 200	7,55 A2
M 4 x 14 -H	S 1000	9,70 A2
M 4 x 16 -H	S 1000	8,40 A2
M 4 x 16 -H	K 200	9,45 A2
M 4 x 18 -H	S 1000	10,70 A2
M 4 x 20 -H	S 1000	8,15 A2
M 4 x 20 -H	K 200	9,15 A2
M 4 x 22 -H	S 1000	12,50 A2
M 4 x 25 -H	S 1000	9,50 A2
M 4 x 25 -H	K 200	10,50 A2
M 4 x 30 -H	S 1000	11,10 A2
M 4 x 30 -H	K 200	12,10 A2
M 4 x 35 -H	S 500	14,00 A2
M 4 x 40 -H	S 500	15,00 A2
M 4 x 45 -H	S 500	17,60 A2
M 4 x 50 -H	S 200	34,20 A2
M 4 x 60 -H	S 200	40,60 A2
M 5 x 6 -H	S 500	14,80 A2
M 5 x 8 -H	S 500	10,60 A2
M 5 x 8 -H	K 200	11,60 A2
M 5 x 10 -H	S 500	10,50 A2
M 5 x 10 -H	K 200	11,50 A2
M 5 x 12 -H	S 500	10,60 A2
M 5 x 12 -H	K 200	11,60 A2
M 5 x 14 -H	S 500	15,50 A2
M 5 x 16 -H	S 500	11,80 A2
M 5 x 16 -H	K 200	12,80 A2
M 5 x 18 -H	S 500	17,30 A2
M 5 x 20 -H	S 500	13,20 A2
M 5 x 20 -H	K 200	14,20 A2
M 5 x 22 -H	S 500	19,60 A2
M 5 x 25 -H	S 500	15,10 A2
M 5 x 25 -H	K 200	16,10 A2
M 5 x 30 -H	S 500	17,60 A2
M 5 x 30 -H	K 200	18,60 A2
M 5 x 35 -H	S 500	19,90 A2
M 5 x 35 -H	K 200	20,90 A2
M 5 x 40 -H	S 500	23,20 A2
M 5 x 40 -H	K 200	24,20 A2
M 5 x 45 -H	S 200	26,10 A2
M 5 x 50 -H	S 200	27,70 A2
M 5 x 55 -H	S 200	32,00 A2
M 5 x 60 -H	S 200	32,70 A2
M 5 x 70 -H	S 100	50,60 A2
M 5 x 80 -H	S 100	59,30 A2
M 5 x 90 -H	S 100	72,00 A2
M 6 x 8 -H	S 200	13,10 A2
M 6 x 10 -H	S 200	13,20 A2
M 6 x 12 -H	S 200	13,90 A2
M 6 x 14 -H	S 200	20,70 A2
M 6 x 16 -H	S 200	15,80 A2



ISO 7045

Dimensions	PU	Pieces	€.
M 6 x 18 -H	S	200	21,00 A2
M 6 x 20 -H	S	200	17,10 A2
M 6 x 25 -H	S	200	19,10 A2
M 6 x 30 -H	S	200	22,40 A2
M 6 x 35 -H	S	200	24,70 A2
M 6 x 40 -H	S	200	28,10 A2
M 6 x 45 -H	S	200	31,40 A2
M 6 x 50 -H	S	200	32,30 A2
M 6 x 55 -H	S	200	36,40 A2
M 6 x 60 -H	S	100	36,40 A2
M 6 x 70 -H	S	100	60,30 A2
M 6 x 80 -H	S	100	69,50 A2
M 6 x 90 -H	S	100	85,30 A2
M 8 x 10 -H	S	100	29,30 A2
M 8 x 12 -H	S	100	24,50 A2
M 8 x 16 -H	S	100	28,50 A2
M 8 x 20 -H	S	100	30,60 A2
M 8 x 25 -H	S	100	31,90 A2
M 8 x 30 -H	S	100	34,30 A2
M 8 x 35 -H	S	100	34,90 A2
M 8 x 40 -H	S	100	36,80 A2
M 8 x 45 -H	S	100	37,70 A2
M 8 x 50 -H	S	100	38,60 A2
M 8 x 55 -H	S	100	46,90 A2
M 8 x 60 -H	S	100	46,90 A2
M 10 x 12 -H	S	100	175,00 A2
M 10 x 16 -H	S	100	160,00 A2
M 10 x 20 -H	S	100	170,00 A2
M 10 x 25 -H	S	100	190,00 A2
M 10 x 30 -H	S	100	205,00 A2
M 10 x 35 -H	S	100	225,00 A2
M 10 x 40 -H	S	100	245,00 A2
M 10 x 45 -H	S	100	275,00 A2
M 10 x 50 -H	S	100	275,00 A2
M 10 x 55 -H	S	100	295,00 A2
M 10 x 60 -H	S	100	310,00 A2

ISO	07045.926	RAZ 710
7045	A 2	Z



Cheese head screws with Pozidriv cross recess Z

Dimensions → TI-40 Standard conversion → TI-11

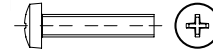
Steel → S. 308

ISO 7045 → replaces DIN 7985 (compatible)

M 1,6 x 3 -Z	S	1000	25,00 A2
M 1,6 x 4 -Z	S	1000	24,00 A2
M 1,6 x 5 -Z	S	1000	24,50 A2
M 1,6 x 6 -Z	S	1000	25,00 A2
M 1,6 x 8 -Z	S	1000	27,00 A2
M 1,6 x 12 -Z	S	1000	35,00 A2
M 1,6 x 16 -Z	S	1000	42,00 A2
M 2 x 3 -Z	S	1000	10,40 A2
M 2 x 5 -Z	S	1000	5,80 A2
M 2 x 6 -Z	S	1000	5,80 A2
M 2 x 8 -Z	S	1000	5,80 A2
M 2 x 10 -Z	S	1000	5,80 A2
M 2 x 12 -Z	S	1000	6,30 A2
M 2 x 16 -Z	S	1000	6,70 A2
M 2,5 x 4 -Z	S	1000	7,05 A2
M 2,5 x 6 -Z	S	1000	5,80 A2
M 2,5 x 8 -Z	S	1000	5,80 A2
M 2,5 x 10 -Z	S	1000	5,80 A2
M 2,5 x 12 -Z	S	1000	6,30 A2

Dimensions	PU	Pieces	€.
M 2,5 x 16 -Z	S	1000	6,70 A2
M 2,5 x 18 -Z	S	1000	7,75 A2
M 2,5 x 20 -Z	S	1000	7,75 A2
M 2,5 x 25 -Z	S	1000	12,30 A2
M 2,5 x 30 -Z	S	1000	16,00 A2
M 3 x 4 -Z	S	1000	6,60 A2
M 3 x 5 -Z	S	1000	5,60 A2
M 3 x 6 -Z	S	1000	3,70 A2
M 3 x 8 -Z	S	1000	3,95 A2
M 3 x 10 -Z	S	1000	4,20 A2
M 3 x 12 -Z	S	1000	4,45 A2
M 3 x 14 -Z	S	1000	7,20 A2
M 3 x 16 -Z	S	1000	5,85 A2
M 3 x 18 -Z	S	1000	5,42 A2
M 3 x 20 -Z	S	1000	5,55 A2
M 3 x 25 -Z	S	1000	6,05 A2
M 3 x 30 -Z	S	1000	8,90 A2
M 3 x 35 -Z	S	1000	16,30 A2
M 4 x 5 -Z	S	1000	7,55 A2
M 4 x 6 -Z	S	1000	5,95 A2
M 4 x 8 -Z	S	1000	5,95 A2
M 4 x 10 -Z	S	1000	6,20 A2
M 4 x 12 -Z	S	1000	6,55 A2
M 4 x 14 -Z	S	1000	8,40 A2
M 4 x 16 -Z	S	1000	8,40 A2
M 4 x 18 -Z	S	1000	9,40 A2
M 4 x 20 -Z	S	1000	8,15 A2
M 4 x 30 -Z	S	1000	11,10 A2
M 4 x 35 -Z	S	500	14,00 A2
M 4 x 40 -Z	S	500	15,00 A2
M 4 x 45 -Z	S	500	17,60 A2
M 4 x 50 -Z	S	200	34,20 A2
M 4 x 60 -Z	S	200	40,60 A2
M 4 x 70 -Z	S	200	58,00 A2
M 5 x 6 -Z	S	500	14,80 A2
M 5 x 8 -Z	S	500	10,60 A2
M 5 x 10 -Z	S	500	10,50 A2
M 5 x 12 -Z	S	500	10,60 A2
M 5 x 14 -Z	S	500	11,80 A2
M 5 x 16 -Z	S	500	11,80 A2
M 5 x 18 -Z	S	500	13,20 A2
M 5 x 20 -Z	S	500	13,20 A2
M 5 x 25 -Z	S	500	15,10 A2
M 5 x 30 -Z	S	500	17,60 A2
M 5 x 35 -Z	S	500	19,90 A2
M 5 x 40 -Z	S	500	23,20 A2
M 5 x 45 -Z	S	200	26,10 A2
M 5 x 50 -Z	S	200	27,70 A2
M 6 x 8 -Z	S	200	13,10 A2
M 6 x 10 -Z	S	200	13,20 A2
M 6 x 12 -Z	S	200	13,90 A2
M 6 x 16 -Z	S	1000	15,80 A2
M 6 x 20 -Z	S	200	17,10 A2
M 6 x 25 -Z	S	200	19,10 A2
M 6 x 30 -Z	S	200	22,40 A2
M 6 x 40 -Z	S	200	28,10 A2
M 6 x 45 -Z	S	200	31,40 A2
M 6 x 50 -Z	S	200	32,30 A2
M 6 x 55 -Z	S	200	36,40 A2
M 6 x 60 -Z	S	100	36,40 A2
M 8 x 10 -Z	S	200	110,00 A2
M 8 x 12 -Z	S	200	95,00 A2
M 8 x 16 -Z	S	200	105,00 A2
M 8 x 20 -Z	S	200	113,00 A2
M 8 x 25 -Z	S	200	125,00 A2
M 8 x 30 -Z	S	200	136,00 A2
M 8 x 50 -Z	S	200	182,00 A2
M 10 x 30 -Z	S	100	205,00 A2

Dimensions	PU	Pieces	€.
ISO	07045.944	RAZ 710	
7045	A 4	H	



Cheese head screws with Phillips cross recess H

Dimensions → TI-40 Standard conversion → TI-11

Steel → S. 306

ISO 7045 → replaces DIN 7985 (compatible)

M 1,6 x 3 -H	S	1000	25,00 A2
M 1,6 x 4 -H	S	1000	23,20 A2
M 1,6 x 5 -H	S	1000	23,20 A2
M 1,6 x 6 -H	S	1000	23,20 A2
M 1,6 x 8 -H	S	1000	23,70 A2
M 1,6 x 10 -H	S	1000	25,50 A2
M 2 x 4 -H	S	1000	11,20 A2
M 2 x 6 -H	S	1000	9,30 A2
M 2 x 8 -H	S	1000	9,30 A2
M 2 x 10 -H	S	1000	9,30 A2
M 2 x 12 -H	S	1000	10,10 A2
M 2 x 16 -H	S	1000	10,70 A2
M 2 x 20 -H	S	1000	12,40 A2
M 2,5 x 4 -H	S	1000	11,20 A2
M 2,5 x 5 -H	S	1000	9,30 A2
M 2,5 x 6 -H	S	1000	9,30 A2
M 2,5 x 8 -H	S	1000	9,30 A2
M 2,5 x 10 -H	S	1000	9,30 A2
M 2,5 x 12 -H	S	1000	10,10 A2
M 2,5 x 14 -H	S	1000	13,40 A2
M 2,5 x 16 -H	S	1000	10,70 A2
M 2,5 x 20 -H	S	1000	12,40 A2
M 3 x 4 -H	S	1000	10,60 A2
M 3 x 5 -H	S	1000	8,95 A2
M 3 x 6 -H	S	1000	5,90 A2
M 3 x 8 -H	S	1000	5,80 A2
M 3 x 10 -H	S	1000	6,35 A2
M 3 x 12 -H	S	1000	6,85 A2
M 3 x 14 -H	S	1000	10,20 A2
M 3 x 16 -H	S	1000	7,40 A2
M 3 x 20 -H	S	1000	8,25 A2
M 3 x 25 -H	S	1000	9,70 A2
M 3 x 30 -H	S	1000	14,30 A2
M 3 x 35 -H	S	1000	26,10 A2
M 3 x 40 -H	S	1000	29,40 A2
M 3 x 50 -H	S	500	43,30 A2
M 4 x 5 -H	S	1000	12,10 A2
M 4 x 6 -H	S	1000	9,55 A2
M 4 x 10 -H	S	1000	9,20 A2
M 4 x 12 -H	S	1000	9,90 A2
M 4 x 14 -H	S	1000	15,50 A2
M 4 x 16 -H	S	1000	10,60 A2
M 4 x 18 -H	S	1000	17,10 A2
M 4 x 20 -H	S	1000	11,90 A2
M 4 x 22 -H	S	1000	20,00 A2
M 4 x 25 -H	S	1000	14,10 A2
M 4 x 30 -H	S	500	17,80 A2
M 4 x 35 -H	S	500	22,40 A2
M 4 x 40 -H	S	500	24,10 A2
M 4 x 45 -H	S	200	54,70 A2
M 4 x 50 -H	S	200	54,70 A2
M 5 x 6 -H	S	500	23,70 A2
M 5 x 8 -H	S	500	17,00 A2
M 5 x 10 -H	S	500	13,40 A2
M 5 x 12 -H	S	500	14,40 A2
M 5 x 14 -H	S	500	24,90 A2

ISO 7045

Dimensions	PU	Pieces	€.
M 5 x 16 -H	S	500	15,40 A2
M 5 x 18 -H	S	500	27,80 A2
M 5 x 20 -H	S	500	16,80 A2
M 5 x 22 -H	S	500	31,40 A2
M 5 x 25 -H	S	500	20,10 A2
M 5 x 30 -H	S	500	23,60 A2
M 5 x 35 -H	S	500	26,90 A2
M 5 x 40 -H	S	500	37,20 A2
M 5 x 45 -H	S	500	49,40 A2
M 5 x 50 -H	S	200	52,10 A2
M 5 x 60 -H	S	200	68,00 A2
M 6 x 8 -H	S	200	28,30 A2
M 6 x 10 -H	S	200	20,10 A2
M 6 x 12 -H	S	200	21,00 A2
M 6 x 16 -H	S	200	22,80 A2
M 6 x 20 -H	S	200	24,50 A2
M 6 x 25 -H	S	200	26,90 A2
M 6 x 30 -H	S	200	30,20 A2
M 6 x 35 -H	S	200	33,70 A2
M 6 x 40 -H	S	200	40,00 A2
M 6 x 45 -H	S	200	53,10 A2
M 6 x 50 -H	S	200	54,10 A2
M 6 x 60 -H	S	100	64,90 A2

ISO 07046.924 RAZ 460

7046-2 A 2 H



Countersunk head screws with Phillips cross recess H

Dimensions → TI-39 Standard conversion → TI-11

Steel → S. 308

ISO 7046 → replaces DIN 965 (compatible)

M 1,6 x 3 -H	S	2000	60,00 A2
M 1,6 x 3 -H	K	1000	65,00 A2
M 1,6 x 4 -H	S	2000	60,00 A2
M 1,6 x 4 -H	K	1000	65,00 A2
M 1,6 x 5 -H	S	2000	65,00 A2
M 1,6 x 5 -H	K	1000	70,00 A2
M 1,6 x 6 -H	S	2000	67,00 A2
M 1,6 x 6 -H	K	1000	72,00 A2
M 1,6 x 8 -H	S	2000	69,00 A2
M 1,6 x 8 -H	K	1000	74,00 A2
M 1,6 x 10 -H	S	2000	71,00 A2
M 1,6 x 10 -H	K	1000	76,00 A2
M 1,6 x 12 -H	S	2000	73,00 A2
M 1,6 x 12 -H	K	1000	78,00 A2
M 1,6 x 16 -H	S	2000	75,00 A2
M 1,6 x 16 -H	K	1000	80,00 A2
M 2 x 3 -H	S	1000	5,80 A2
M 2 x 4 -H	S	1000	5,80 A2
M 2 x 5 -H	S	1000	5,80 A2
M 2 x 6 -H	S	1000	5,80 A2
M 2 x 8 -H	S	1000	5,80 A2
M 2 x 10 -H	S	1000	5,80 A2
M 2 x 12 -H	S	1000	6,30 A2
M 2 x 14 -H	S	1000	12,00 A2
M 2 x 16 -H	S	1000	19,90 A2
M 2 x 20 -H	S	1000	22,00 A2
M 2,5 x 3 -H	S	1000	12,00 A2
M 2,5 x 4 -H	S	1000	12,00 A2
M 2,5 x 5 -H	S	1000	5,80 A2
M 2,5 x 6 -H	S	1000	5,80 A2
M 2,5 x 8 -H	S	1000	5,80 A2
M 2,5 x 10 -H	S	1000	5,80 A2

Dimensions	PU	Pieces	€.
M 2,5 x 12 -H	S	1000	6,00 A2
M 2,5 x 16 -H	S	1000	6,50 A2
M 2,5 x 20 -H	S	1000	7,00 A2
M 2,5 x 25 -H	S	1000	15,00 A2
M 3 x 4 -H	S	1000	6,60 A2
M 3 x 5 -H	S	1000	5,60 A2
M 3 x 5 -H	K	200	6,60 A2
M 3 x 6 -H	S	1000	3,70 A2
M 3 x 6 -H	K	200	4,70 A2
M 3 x 8 -H	S	1000	3,95 A2
M 3 x 8 -H	K	200	4,95 A2
M 3 x 10 -H	K	200	5,20 A2
M 3 x 12 -H	S	1000	4,45 A2
M 3 x 12 -H	K	200	5,45 A2
M 3 x 16 -H	S	1000	4,85 A2
M 3 x 16 -H	K	200	5,85 A2
M 3 x 20 -H	S	1000	5,55 A2
M 3 x 20 -H	K	200	6,55 A2
M 3 x 22 -H	S	1000	9,00 A2
M 3 x 25 -H	S	1000	6,05 A2
M 3 x 30 -H	S	1000	8,90 A2
M 3 x 35 -H	S	500	15,00 A2
M 3 x 40 -H	S	500	18,50 A2
M 3 x 45 -H	S	500	34,20 A2
M 3 x 50 -H	S	500	34,20 A2
M 4 x 5 -H	S	1000	7,55 A2
M 4 x 6 -H	S	1000	5,95 A2
M 4 x 6 -H	K	200	6,95 A2
M 4 x 8 -H	K	200	6,95 A2
M 4 x 10 -H	S	1000	6,20 A2
M 4 x 10 -H	K	200	7,20 A2
M 4 x 12 -H	S	1000	6,55 A2
M 4 x 12 -H	K	200	7,55 A2
M 4 x 14 -H	S	1000	7,40 A2
M 4 x 16 -H	S	1000	7,40 A2
M 4 x 16 -H	K	200	8,40 A2
M 4 x 18 -H	S	1000	8,25 A2
M 4 x 20 -H	S	1000	8,15 A2
M 4 x 20 -H	K	200	9,15 A2
M 4 x 25 -H	S	1000	9,50 A2
M 4 x 25 -H	K	200	10,50 A2
M 4 x 30 -H	S	1000	11,10 A2
M 4 x 30 -H	K	200	12,10 A2
M 4 x 35 -H	S	500	14,00 A2
M 4 x 35 -H	K	200	15,00 A2
M 4 x 40 -H	S	500	15,00 A2
M 4 x 40 -H	K	200	16,00 A2
M 4 x 45 -H	S	500	34,20 A2
M 4 x 50 -H	S	500	34,20 A2
M 4 x 60 -H	S	500	45,00 A2
M 5 x 6 -H	S	500	14,80 A2
M 5 x 8 -H	S	500	10,60 A2
M 5 x 8 -H	K	200	11,60 A2
M 5 x 10 -H	S	500	10,50 A2
M 5 x 10 -H	K	200	11,50 A2
M 5 x 12 -H	S	500	10,60 A2
M 5 x 12 -H	K	200	11,60 A2
M 5 x 14 -H	S	500	11,86 A2
M 5 x 16 -H	S	500	11,80 A2
M 5 x 16 -H	K	200	12,80 A2
M 5 x 18 -H	S	500	17,30 A2
M 5 x 20 -H	S	500	13,20 A2
M 5 x 20 -H	K	200	14,20 A2
M 5 x 25 -H	S	500	15,10 A2
M 5 x 25 -H	K	200	16,10 A2
M 5 x 30 -H	S	500	17,60 A2
M 5 x 30 -H	K	200	18,60 A2
M 5 x 35 -H	S	500	19,90 A2
M 5 x 35 -H	K	200	20,90 A2
M 5 x 40 -H	S	200	23,20 A2
M 5 x 45 -H	S	200	28,50 A2
M 5 x 50 -H	S	200	29,90 A2
M 5 x 55 -H	S	200	37,40 A2
M 5 x 60 -H	S	200	37,40 A2
M 5 x 70 -H	S	200	50,60 A2

Dimensions	PU	Pieces	€.
M 5 x 80 -H	S	200	59,30 A2
M 5 x 90 -H	S	200	70,00 A2
M 5 x 100 -H	S	200	85,00 A2
M 6 x 8 -H	S	200	17,60 A2
M 6 x 10 -H	S	200	13,20 A2
M 6 x 12 -H	S	200	13,90 A2
M 6 x 16 -H	S	200	15,80 A2
M 6 x 20 -H	S	200	17,10 A2
M 6 x 25 -H	S	200	19,10 A2
M 6 x 30 -H	S	200	22,40 A2
M 6 x 35 -H	S	200	24,70 A2
M 6 x 40 -H	S	200	28,10 A2
M 6 x 45 -H	S	200	31,30 A2
M 6 x 50 -H	S	200	35,60 A2
M 6 x 55 -H	S	200	40,30 A2
M 6 x 60 -H	S	200	40,30 A2
M 6 x 70 -H	S	100	60,30 A2
M 6 x 80 -H	S	100	69,50 A2
M 6 x 90 -H	S	100	79,00 A2
M 6 x 100 -H	S	100	88,50 A2
M 6 x 110 -H	S	100	185,00 A2
M 6 x 120 -H	S	100	225,00 A2
M 8 x 10 -H	S	100	75,50 A2
M 8 x 12 -H	S	100	28,60 A2
M 8 x 16 -H	S	100	30,80 A2
M 8 x 20 -H	S	100	34,70 A2
M 8 x 25 -H	S	100	40,30 A2
M 8 x 30 -H	S	100	41,90 A2
M 8 x 35 -H	S	100	43,90 A2
M 8 x 40 -H	S	100	47,70 A2
M 8 x 45 -H	S	100	51,00 A2
M 8 x 50 -H	S	100	57,70 A2
M 8 x 55 -H	S	100	64,40 A2
M 8 x 60 -H	S	100	64,40 A2
M 8 x 70 -H	S	100	75,60 A2
M 8 x 80 -H	S	100	87,90 A2
M 8 x 105 -H	S	100	73,20 A2
M 8 x 130 -H	S	100	108,00 A2
M 10 x 12 -H	S	100	125,00 A2
M 10 x 16 -H	S	100	145,00 A2
M 10 x 20 -H	S	100	160,00 A2
M 10 x 25 -H	S	100	190,00 A2
M 10 x 30 -H	S	100	220,00 A2
M 10 x 35 -H	S	100	240,00 A2
M 10 x 40 -H	S	100	261,00 A2
M 10 x 45 -H	S	100	290,00 A2
M 10 x 50 -H	S	100	315,00 A2
M 10 x 55 -H	S	100	345,00 A2
M 10 x 60 -H	S	100	365,00 A2

ISO 07046.927 RAZ 460

7046-2 A 2 Z



Countersunk head screws with Pozidriv cross recess Z

Dimensions → TI-39 Standard conversion → TI-11

Steel → S. 309

ISO 7046 → replaces DIN 965 (compatible)

M 2 x 3 -Z	S	1000	12,00 A2
M 2 x 4 -Z	S	1000	13,00 A2
M 2 x 5 -Z	S	1000	14,25 A2
M 2 x 6 -Z	S	1000	15,65 A2
M 2 x 10 -Z	S	1000	15,85 A2
M 2 x 12 -Z	S	1000	16,36 A2



ISO 7046-2

Dimensions	PU Pieces	€.
M 2 x 14 -Z	S 1000	19,90 A2
M 2 x 16 -Z	S 1000	19,90 A2
M 2 x 20 -Z	S 1000	22,00 A2
M 2,5 x 3 -Z	S 1000	12,00 A2
M 2,5 x 4 -Z	S 1000	12,00 A2
M 2,5 x 5 -Z	S 1000	5,80 A2
M 2,5 x 6 -Z	S 1000	5,80 A2
M 2,5 x 8 -Z	S 1000	5,80 A2
M 2,5 x 10 -Z	S 1000	5,80 A2
M 2,5 x 12 -Z	S 1000	6,00 A2
M 2,5 x 16 -Z	S 1000	6,50 A2
M 2,5 x 20 -Z	S 1000	7,00 A2
M 2,5 x 25 -Z	S 1000	15,00 A2
M 3 x 4 -Z	S 1000	6,60 A2
M 3 x 5 -Z	S 1000	5,60 A2
M 3 x 6 -Z	S 1000	3,70 A2
M 3 x 8 -Z	S 1000	3,95 A2
M 3 x 10 -Z	S 1000	4,20 A2
M 3 x 12 -Z	S 1000	4,45 A2
M 3 x 14 -Z	S 1000	4,40 A2
M 3 x 16 -Z	S 1000	4,85 A2
M 3 x 22 -Z	S 1000	6,05 A2
M 3 x 25 -Z	S 1000	6,05 A2
M 3 x 30 -Z	S 1000	8,90 A2
M 3 x 40 -Z	S 500	18,50 A2
M 3 x 50 -Z	S 500	34,20 A2
M 4 x 5 -Z	S 1000	7,55 A2
M 4 x 6 -Z	S 1000	5,95 A2
M 4 x 8 -Z	S 1000	5,95 A2
M 4 x 10 -Z	S 1000	6,20 A2
M 4 x 12 -Z	S 1000	6,55 A2
M 4 x 14 -Z	S 1000	7,40 A2
M 4 x 16 -Z	S 1000	7,40 A2
M 4 x 20 -Z	S 1000	8,15 A2
M 4 x 22 -Z	S 1000	9,50 A2
M 4 x 25 -Z	S 1000	9,50 A2
M 4 x 30 -Z	S 1000	11,10 A2
M 4 x 40 -Z	S 500	15,00 A2
M 4 x 45 -Z	S 500	34,20 A2
M 4 x 60 -Z	S 500	40,00 A2
M 5 x 8 -Z	S 500	10,60 A2
M 5 x 10 -Z	S 500	10,50 A2
M 5 x 12 -Z	S 500	10,60 A2
M 5 x 16 -Z	S 500	11,80 A2
M 5 x 18 -Z	S 500	14,27 A2
M 5 x 20 -Z	S 500	13,20 A2
M 5 x 25 -Z	S 500	15,10 A2
M 5 x 30 -Z	S 500	17,60 A2
M 5 x 35 -Z	S 500	19,90 A2
M 5 x 40 -Z	S 200	23,20 A2
M 5 x 45 -Z	S 200	29,90 A2
M 5 x 50 -Z	S 200	29,90 A2
M 5 x 55 -Z	S 200	37,40 A2
M 5 x 60 -Z	S 200	37,40 A2
M 5 x 70 -Z	S 200	50,60 A2
M 5 x 80 -Z	S 200	59,30 A2
M 5 x 90 -Z	S 200	70,00 A2
M 5 x 100 -Z	S 200	85,00 A2
M 6 x 8 -Z	S 200	17,60 A2
M 6 x 10 -Z	S 200	13,20 A2
M 6 x 12 -Z	S 200	13,90 A2
M 6 x 16 -Z	S 200	15,80 A2
M 6 x 20 -Z	S 200	17,10 A2
M 6 x 25 -Z	S 200	19,10 A2
M 6 x 30 -Z	S 200	22,40 A2
M 6 x 40 -Z	S 200	28,10 A2
M 6 x 50 -Z	S 200	35,60 A2
M 6 x 60 -Z	S 200	40,30 A2
M 6 x 70 -Z	S 100	90,00 A2
M 6 x 80 -Z	S 100	105,00 A2
M 6 x 90 -Z	S 100	125,00 A2
M 6 x 100 -Z	S 100	150,00 A2
M 6 x 110 -Z	S 100	185,00 A2
M 6 x 120 -Z	S 100	225,00 A2
M 8 x 10 -Z	S 100	75,50 A2

Dimensions	PU Pieces	€.
M 8 x 12 -Z	S 100	85,00 A2
M 8 x 16 -Z	S 100	100,00 A2
M 8 x 20 -Z	S 100	110,00 A2
M 8 x 25 -Z	S 100	130,00 A2
M 8 x 30 -Z	S 100	150,00 A2
M 8 x 40 -Z	S 100	180,00 A2
M 8 x 45 -Z	S 100	200,00 A2
M 8 x 50 -Z	S 100	215,00 A2
M 8 x 55 -Z	S 100	235,00 A2
M 8 x 60 -Z	S 100	250,00 A2
M 8 x 70 -Z	S 100	295,00 A2
M 8 x 80 -Z	S 100	350,00 A2
M 10 x 16 -Z	S 100	145,00 A2
M 10 x 25 -Z	S 100	190,00 A2
M 10 x 35 -Z	S 100	240,00 A2
M 10 x 40 -Z	S 100	261,00 A2

ISO	07046.945	RAZ 460
7046-2^{A 4}		H



Countersunk head screws with Phillips cross recess H

Dimensions → **TI-39** Standard conversion → **TI-11**

Steel → **S. 308**

ISO 7046 → replaces DIN 965 (compatible)

M 1,6 x 3 -H	S 1000	60,00 A4
M 1,6 x 4 -H	S 1000	60,00 A4
M 1,6 x 5 -H	S 1000	65,00 A4
M 1,6 x 10 -H	S 1000	71,00 A4
M 1,6 x 16 -H	S 1000	75,00 A4
M 2 x 3 -H	S 1000	16,00 A4
M 2 x 4 -H	S 1000	16,00 A4
M 2 x 5 -H	S 1000	17,25 A4
M 2 x 6 -H	S 1000	18,65 A4
M 2 x 8 -H	S 1000	20,00 A4
M 2 x 10 -H	S 1000	21,00 A4
M 2 x 12 -H	S 1000	22,50 A4
M 2 x 16 -H	S 1000	24,00 A4
M 2 x 20 -H	S 1000	27,00 A4
M 2,5 x 3 -H	S 1000	16,00 A4
M 2,5 x 4 -H	S 1000	16,00 A4
M 2,5 x 5 -H	S 1000	18,00 A4
M 2,5 x 6 -H	S 1000	19,00 A4
M 2,5 x 8 -H	S 1000	22,00 A4
M 2,5 x 10 -H	S 1000	24,00 A4
M 2,5 x 12 -H	S 1000	26,00 A4
M 2,5 x 14 -H	S 1000	29,50 A4
M 2,5 x 16 -H	S 1000	29,50 A4
M 2,5 x 20 -H	S 1000	35,00 A4
M 2,5 x 25 -H	S 1000	42,00 A4
M 3 x 4 -H	S 1000	20,00 A4
M 3 x 5 -H	S 1000	20,00 A4
M 3 x 6 -H	S 1000	5,90 A4
M 3 x 8 -H	S 1000	5,75 A4
M 3 x 10 -H	S 1000	6,35 A4
M 3 x 12 -H	S 1000	6,85 A4
M 3 x 14 -H	S 1000	7,40 A4
M 3 x 16 -H	S 1000	7,40 A4
M 3 x 20 -H	S 1000	8,25 A4
M 3 x 25 -H	S 1000	9,70 A4
M 3 x 30 -H	S 1000	14,30 A4
M 3 x 35 -H	S 1000	26,10 A4
M 3 x 40 -H	S 500	33,00 A4
M 4 x 5 -H	S 1000	13,50 A4

Dimensions	PU Pieces	€.
M 4 x 6 -H	S 1000	9,55 A4
M 4 x 8 -H	S 1000	8,60 A4
M 4 x 10 -H	S 1000	9,20 A4
M 4 x 12 -H	S 1000	9,90 A4
M 4 x 16 -H	S 1000	10,60 A4
M 4 x 18 -H	S 1000	12,00 A4
M 4 x 20 -H	S 1000	11,90 A4
M 4 x 25 -H	S 1000	14,10 A4
M 4 x 30 -H	S 1000	17,80 A4
M 4 x 35 -H	S 500	22,40 A4
M 4 x 40 -H	S 500	24,10 A4
M 4 x 45 -H	S 500	54,70 A4
M 4 x 50 -H	S 200	54,70 A4
M 4 x 55 -H	S 200	66,00 A4
M 4 x 60 -H	S 200	85,00 A4
M 5 x 6 -H	S 500	20,00 A4
M 5 x 8 -H	S 500	18,00 A4
M 5 x 10 -H	S 500	13,40 A4
M 5 x 12 -H	S 500	14,40 A4
M 5 x 16 -H	S 500	15,40 A4
M 5 x 20 -H	S 500	16,80 A4
M 5 x 25 -H	S 500	20,10 A4
M 5 x 30 -H	S 500	23,60 A4
M 5 x 35 -H	S 200	29,50 A4
M 5 x 40 -H	S 200	38,00 A4
M 5 x 45 -H	S 200	63,50 A4
M 5 x 50 -H	S 200	70,00 A4
M 5 x 55 -H	S 200	82,00 A4
M 5 x 60 -H	S 200	95,00 A4
M 6 x 8 -H	S 200	24,50 A4
M 6 x 10 -H	S 200	20,10 A4
M 6 x 12 -H	S 200	21,00 A4
M 6 x 16 -H	S 200	22,80 A4
M 6 x 20 -H	S 200	24,50 A4
M 6 x 25 -H	S 200	28,60 A4
M 6 x 30 -H	S 200	30,20 A4
M 6 x 35 -H	S 200	39,60 A4
M 6 x 40 -H	S 200	40,00 A4
M 6 x 45 -H	S 200	54,10 A4
M 6 x 50 -H	S 200	54,10 A4
M 6 x 55 -H	S 200	65,00 A4
M 6 x 60 -H	S 200	64,90 A4
M 6 x 70 -H	S 200	95,00 A4
M 6 x 80 -H	S 200	120,00 A4
M 6 x 90 -H	S 200	145,00 A4
M 8 x 10 -H	S 200	65,00 A4
M 8 x 12 -H	S 100	65,00 A4
M 8 x 16 -H	S 100	53,10 A4
M 8 x 20 -H	S 100	57,20 A4
M 8 x 25 -H	S 100	61,30 A4
M 8 x 30 -H	S 100	71,00 A4
M 8 x 35 -H	S 100	82,80 A4
M 8 x 40 -H	S 100	91,50 A4
M 8 x 45 -H	S 100	175,00 A4
M 8 x 50 -H	S 100	205,00 A4
M 8 x 55 -H	S 100	260,00 A4
M 8 x 60 -H	S 100	290,00 A4
M 8 x 70 -H	S 100	330,00 A4
M 8 x 80 -H	S 100	375,00 A4
M 8 x 90 -H	S 100	425,00 A4
M 10 x 16 -H	S 100	250,00 A4
M 10 x 20 -H	S 100	140,00 A4
M 10 x 25 -H	S 100	151,00 A4
M 10 x 30 -H	S 100	162,00 A4
M 10 x 35 -H	S 100	181,00 A4
M 10 x 40 -H	S 100	196,00 A4
M 10 x 45 -H	S 100	201,00 A4
M 10 x 50 -H	S 100	201,00 A4
M 10 x 55 -H	S 100	225,00 A4
M 10 x 60 -H	S 100	225,00 A4
M 10 x 70 -H	S 100	420,00 A4
M 10 x 80 -H	S 100	500,00 A4



ISO 7047

Dimensions PU Pieces €.

ISO 07047.924 RAZ 460

7047 A 2 H



Raised countersunk head screws with Phillips cross recess H

Dimensions → TI-39 Standard conversion → TI-11

Steel → S. 310

ISO 7047 → replaces DIN 966 (compatible)

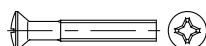
M 2,5 x 4 -H	S 1000	15,00 A2
M 2,5 x 5 -H	S 1000	13,50 A2
M 2,5 x 6 -H	S 1000	11,50 A2
M 2,5 x 8 -H	S 1000	6,95 A2
M 2,5 x 10 -H	S 1000	6,95 A2
M 2,5 x 12 -H	S 1000	8,50 A2
M 2,5 x 16 -H	S 1000	11,00 A2
M 2,5 x 20 -H	S 1000	16,00 A2
M 2,5 x 25 -H	S 1000	24,00 A2
M 3 x 4 -H	S 1000	10,00 A2
M 3 x 5 -H	S 1000	5,60 A2
M 3 x 6 -H	S 1000	3,70 A2
M 3 x 8 -H	S 1000	3,95 A2
M 3 x 10 -H	S 1000	4,20 A2
M 3 x 12 -H	S 1000	4,85 A2
M 3 x 16 -H	S 1000	4,85 A2
M 3 x 18 -H	S 1000	5,50 A2
M 3 x 20 -H	S 1000	5,55 A2
M 3 x 25 -H	S 1000	9,75 A2
M 3 x 30 -H	S 500	13,00 A2
M 3 x 35 -H	S 500	14,00 A2
M 3 x 45 -H	S 500	32,00 A2
M 3 x 50 -H	S 500	50,00 A2
M 4 x 5 -H	S 1000	12,00 A2
M 4 x 6 -H	S 1000	5,80 A2
M 4 x 8 -H	S 1000	5,95 A2
M 4 x 10 -H	S 1000	6,20 A2
M 4 x 12 -H	S 1000	6,55 A2
M 4 x 14 -H	S 1000	7,40 A2
M 4 x 16 -H	S 1000	7,40 A2
M 4 x 20 -H	S 1000	8,15 A2
M 4 x 25 -H	S 1000	9,50 A2
M 4 x 30 -H	S 500	11,10 A2
M 4 x 35 -H	S 500	14,00 A2
M 4 x 40 -H	S 500	15,00 A2
M 4 x 45 -H	S 500	35,00 A2
M 4 x 50 -H	S 500	58,00 A2
M 5 x 6 -H	S 500	16,00 A2
M 5 x 8 -H	S 500	10,60 A2
M 5 x 10 -H	S 500	10,50 A2
M 5 x 12 -H	S 500	10,60 A2
M 5 x 16 -H	S 500	11,80 A2
M 5 x 20 -H	S 500	13,20 A2
M 5 x 25 -H	S 500	15,10 A2
M 5 x 30 -H	S 500	17,60 A2
M 5 x 35 -H	S 500	19,90 A2
M 5 x 40 -H	S 200	23,20 A2
M 5 x 45 -H	S 200	30,90 A2
M 5 x 50 -H	S 200	32,70 A2
M 5 x 55 -H	S 200	45,00 A2
M 5 x 60 -H	S 200	42,40 A2
M 5 x 70 -H	S 200	60,00 A2
M 5 x 80 -H	S 200	85,00 A2
M 6 x 8 -H	S 200	20,00 A2
M 6 x 10 -H	S 200	20,00 A2
M 6 x 12 -H	S 200	13,90 A2

Dimensions PU Pieces €.

M 6 x 16 -H	S 200	15,80 A2
M 6 x 20 -H	S 200	17,10 A2
M 6 x 22 -H	S 200	66,47 A2
M 6 x 25 -H	S 200	19,10 A2
M 6 x 30 -H	S 200	22,40 A2
M 6 x 35 -H	S 200	24,70 A2
M 6 x 40 -H	S 200	28,10 A2
M 6 x 45 -H	S 200	33,20 A2
M 6 x 50 -H	S 200	33,70 A2
M 6 x 55 -H	S 200	40,60 A2
M 6 x 60 -H	S 200	40,60 A2
M 6 x 65 -H	S 200	75,00 A2
M 6 x 70 -H	S 200	88,00 A2
M 6 x 80 -H	S 200	110,00 A2
M 8 x 10 -H	S 200	30,00 A2
M 8 x 12 -H	S 200	30,00 A2
M 8 x 16 -H	S 200	23,60 A2
M 8 x 20 -H	S 200	25,00 A2
M 8 x 25 -H	S 200	30,70 A2
M 8 x 30 -H	S 200	33,60 A2
M 8 x 35 -H	S 100	37,20 A2
M 8 x 40 -H	S 100	39,20 A2
M 8 x 45 -H	S 100	79,70 A2
M 8 x 50 -H	S 100	79,70 A2
M 8 x 55 -H	S 100	86,00 A2
M 8 x 60 -H	S 100	92,00 A2

ISO 07047.944 RAZ 460

7047 A 4 H



Raised countersunk head screws with Phillips cross recess H

Dimensions → TI-39 Standard conversion → TI-11

Steel → S. 310

ISO 7047 → replaces DIN 966 (compatible)

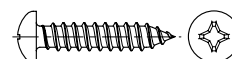
M 2,5 x 6 -H	S 1000	17,25 A4
M 2,5 x 8 -H	S 1000	10,50 A4
M 2,5 x 10 -H	S 1000	14,55 A4
M 2,5 x 12 -H	S 1000	12,75 A4
M 2,5 x 16 -H	S 1000	16,50 A4
M 2,5 x 20 -H	S 1000	24,00 A4
M 2,5 x 25 -H	S 1000	36,00 A4
M 3 x 4 -H	S 1000	15,00 A4
M 3 x 5 -H	S 1000	8,40 A4
M 3 x 6 -H	S 1000	5,75 A4
M 3 x 8 -H	S 1000	6,00 A4
M 3 x 10 -H	S 1000	6,35 A4
M 3 x 12 -H	S 1000	6,85 A4
M 3 x 16 -H	S 1000	7,40 A4
M 3 x 20 -H	S 1000	8,25 A4
M 3 x 25 -H	S 1000	9,70 A4
M 3 x 30 -H	S 1000	19,50 A4
M 4 x 6 -H	S 1000	8,70 A4
M 4 x 8 -H	S 1000	8,60 A4
M 4 x 10 -H	S 1000	9,20 A4
M 4 x 12 -H	S 1000	9,90 A4
M 4 x 16 -H	S 1000	10,60 A4
M 4 x 20 -H	S 1000	11,90 A4
M 4 x 25 -H	S 1000	14,10 A4
M 4 x 30 -H	S 1000	16,65 A4
M 4 x 35 -H	S 1000	21,00 A4
M 4 x 40 -H	S 1000	22,50 A4
M 5 x 6 -H	S 500	24,00 A4
M 5 x 8 -H	S 500	15,90 A4

Dimensions PU Pieces €.

M 5 x 10 -H	S 500	13,40 A4
M 5 x 12 -H	S 500	14,40 A4
M 5 x 16 -H	S 500	15,40 A4
M 5 x 20 -H	S 500	16,80 A4
M 5 x 25 -H	S 500	20,10 A4
M 5 x 30 -H	S 500	23,60 A4
M 5 x 35 -H	S 500	29,85 A4
M 5 x 40 -H	S 200	34,80 A4
M 5 x 45 -H	S 200	46,35 A4
M 5 x 50 -H	S 200	49,05 A4
M 6 x 8 -H	S 200	30,00 A4
M 6 x 10 -H	S 200	20,10 A4
M 6 x 12 -H	S 200	21,00 A4
M 6 x 16 -H	S 200	22,80 A4
M 6 x 20 -H	S 200	23,60 A4
M 6 x 25 -H	S 200	26,90 A4
M 6 x 30 -H	S 200	30,20 A4
M 6 x 35 -H	S 200	33,70 A4
M 6 x 40 -H	S 200	40,00 A4
M 6 x 45 -H	S 200	49,80 A4
M 6 x 50 -H	S 200	50,55 A4
M 6 x 55 -H	S 200	61,00 A4
M 6 x 60 -H	S 200	72,00 A4
M 8 x 10 -H	S 200	45,00 A4
M 8 x 16 -H	S 200	35,40 A4
M 8 x 20 -H	S 200	37,50 A4
M 8 x 25 -H	S 200	46,05 A4
M 8 x 30 -H	S 200	50,40 A4
M 8 x 35 -H	S 100	55,80 A4
M 8 x 40 -H	S 100	58,80 A4
M 8 x 45 -H	S 100	119,55 A4
M 8 x 50 -H	S 100	119,55 A4
M 8 x 55 -H	S 100	129,00 A4
M 8 x 60 -H	S 100	138,00 A4

ISO 07049.926 RAZ 690

7049 A 2 type C-H



Pan head tapping screws with Phillips cross recess H, C = with cone end

Nominal lengths from 60 mm with partial thread

Caution! Hardness only ~ 250 HV.

Dimensions → TI-46 Standard conversion → TI-11

Mounting instructions → TI-237

Steel → S. 310

ISO 7049 → replaces DIN 7981 (compatible)

C 2,2 x 4,5 -H	S 1000	6,00 A2
C 2,2 x 6,5 -H	S 1000	5,80 A2
C 2,2 x 6,5 -H	K 100	7,85 A2
C 2,2 x 9,5 -H	S 1000	4,55 A2
C 2,2 x 13 -H	S 1000	6,50 A2
C 2,2 x 16 -H	S 1000	7,50 A2
C 2,2 x 19 -H	S 1000	10,00 A2
C 2,9 x 6,5 -H	S 1000	3,75 A2
C 2,9 x 6,5 -H	K 100	5,80 A2
C 2,9 x 9,5 -H	S 1000	2,60 A2
C 2,9 x 9,5 -H	K 100	4,65 A2
C 2,9 x 13 -H	S 1000	2,70 A2
C 2,9 x 13 -H	K 100	4,75 A2
C 2,9 x 16 -H	S 1000	3,00 A2
C 2,9 x 16 -H	K 100	5,05 A2
C 2,9 x 19 -H	S 1000	3,20 A2
C 2,9 x 19 -H	K 100	5,25 A2

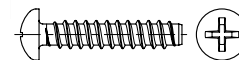


ISO 7049

Dimensions	PU	Pieces	€.
C 2,9 x 22 -H	S	1000	5,35 A 2
C 2,9 x 22 -H	K	100	7,40 A 2
C 2,9 x 25 -H	S	1000	5,60 A 2
C 2,9 x 25 -H	K	100	7,65 A 2
C 3,5 x 6,5 -H	S	1000	4,20 A 2
C 3,5 x 9,5 -H	S	1000	3,40 A 2
C 3,5 x 9,5 -H	K	100	5,45 A 2
C 3,5 x 13 -H	S	1000	3,60 A 2
C 3,5 x 13 -H	K	100	5,65 A 2
C 3,5 x 16 -H	S	1000	3,80 A 2
C 3,5 x 16 -H	K	100	5,85 A 2
C 3,5 x 19 -H	S	1000	4,20 A 2
C 3,5 x 19 -H	K	100	6,25 A 2
C 3,5 x 22 -H	S	1000	5,25 A 2
C 3,5 x 22 -H	K	100	7,30 A 2
C 3,5 x 25 -H	S	1000	5,45 A 2
C 3,5 x 25 -H	K	100	7,50 A 2
C 3,5 x 32 -H	S	1000	6,20 A 2
C 3,5 x 32 -H	K	100	8,25 A 2
C 3,5 x 38 -H	S	1000	6,95 A 2
C 3,5 x 38 -H	K	100	9,00 A 2
C 3,5 x 45 -H	S	1000	9,00 A 2
C 3,5 x 50 -H	S	1000	12,00 A 2
C 3,5 x 60 -H	S	500	16,50 A 2
C 3,9 x 9,5 -H	K	100	6,15 A 2
C 3,9 x 13 -H	S	1000	4,10 A 2
C 3,9 x 13 -H	K	100	6,15 A 2
C 3,9 x 16 -H	S	1000	4,40 A 2
C 3,9 x 16 -H	K	100	6,45 A 2
C 3,9 x 19 -H	S	1000	4,80 A 2
C 3,9 x 19 -H	K	100	6,85 A 2
C 3,9 x 22 -H	S	500	5,90 A 2
C 3,9 x 22 -H	K	100	7,95 A 2
C 3,9 x 25 -H	S	500	6,10 A 2
C 3,9 x 25 -H	K	100	8,15 A 2
C 3,9 x 32 -H	S	500	7,25 A 2
C 3,9 x 32 -H	K	100	9,30 A 2
C 3,9 x 38 -H	S	500	8,30 A 2
C 3,9 x 38 -H	K	100	10,35 A 2
C 3,9 x 45 -H	S	500	10,30 A 2
C 3,9 x 50 -H	S	500	12,35 A 2
C 4,2 x 9,5 -H	S	1000	4,60 A 2
C 4,2 x 9,5 -H	K	100	6,65 A 2
C 4,2 x 13 -H	S	1000	4,70 A 2
C 4,2 x 13 -H	K	100	6,75 A 2
C 4,2 x 16 -H	S	1000	5,25 A 2
C 4,2 x 16 -H	K	100	7,30 A 2
C 4,2 x 19 -H	S	500	5,75 A 2
C 4,2 x 19 -H	K	100	7,80 A 2
C 4,2 x 22 -H	S	500	6,50 A 2
C 4,2 x 22 -H	K	100	8,55 A 2
C 4,2 x 25 -H	S	500	6,70 A 2
C 4,2 x 25 -H	K	100	8,75 A 2
C 4,2 x 32 -H	S	500	8,30 A 2
C 4,2 x 32 -H	K	100	10,35 A 2
C 4,2 x 38 -H	S	500	9,45 A 2
C 4,2 x 38 -H	K	100	11,50 A 2
C 4,2 x 45 -H	S	500	13,70 A 2
C 4,2 x 45 -H	K	100	15,75 A 2
C 4,2 x 50 -H	S	500	15,50 A 2
C 4,2 x 50 -H	K	100	17,55 A 2
C 4,8 x 9,5 -H	S	500	5,80 A 2
C 4,8 x 9,5 -H	K	100	7,85 A 2
C 4,8 x 13 -H	S	500	6,00 A 2
C 4,8 x 13 -H	K	100	8,05 A 2
C 4,8 x 16 -H	S	500	6,50 A 2
C 4,8 x 16 -H	K	100	8,55 A 2
C 4,8 x 19 -H	S	500	7,25 A 2
C 4,8 x 19 -H	K	100	9,30 A 2
C 4,8 x 22 -H	S	500	8,30 A 2
C 4,8 x 22 -H	K	100	10,35 A 2
C 4,8 x 25 -H	S	500	8,50 A 2
C 4,8 x 25 -H	K	100	10,55 A 2
C 4,8 x 32 -H	S	250	10,80 A 2

Dimensions	PU	Pieces	€.
C 4,8 x 32 -H	K	100	12,90 A 2
C 4,8 x 38 -H	S	250	12,10 A 2
C 4,8 x 38 -H	K	100	14,15 A 2
C 4,8 x 45 -H	S	250	15,80 A 2
C 4,8 x 45 -H	K	100	17,85 A 2
C 4,8 x 50 -H	S	250	16,30 A 2
C 4,8 x 50 -H	K	100	18,35 A 2
C 4,8 x 60 -H	S	250	22,10 A 2
C 4,8 x 70 -H	S	250	29,00 A 2
C 4,8 x 80 -H	S	100	34,40 A 2
C 4,8 x 90 -H	S	100	44,40 A 2
C 4,8 x 100 -H	S	100	56,20 A 2
C 4,8 x 120 -H	S	100	75,00 A 2
C 5,5 x 13 -H	S	500	9,75 A 2
C 5,5 x 13 -H	K	100	11,80 A 2
C 5,5 x 16 -H	S	500	10,40 A 2
C 5,5 x 16 -H	K	100	12,45 A 2
C 5,5 x 19 -H	S	500	11,10 A 2
C 5,5 x 19 -H	K	100	13,15 A 2
C 5,5 x 22 -H	S	500	12,20 A 2
C 5,5 x 22 -H	K	100	14,25 A 2
C 5,5 x 25 -H	S	500	13,10 A 2
C 5,5 x 25 -H	K	100	15,15 A 2
C 5,5 x 32 -H	S	250	15,30 A 2
C 5,5 x 32 -H	K	100	17,35 A 2
C 5,5 x 38 -H	S	250	17,30 A 2
C 5,5 x 38 -H	K	100	19,35 A 2
C 5,5 x 45 -H	S	250	20,70 A 2
C 5,5 x 45 -H	K	100	22,75 A 2
C 5,5 x 50 -H	S	250	23,20 A 2
C 5,5 x 50 -H	K	100	25,25 A 2
C 5,5 x 60 -H	S	100	27,60 A 2
C 5,5 x 70 -H	S	100	32,00 A 2
C 5,5 x 80 -H	S	100	40,00 A 2
C 5,5 x 90 -H	S	100	55,00 A 2
C 5,5 x 100 -H	S	100	68,00 A 2
C 6,3 x 13 -H	S	250	13,30 A 2
C 6,3 x 13 -H	K	100	15,35 A 2
C 6,3 x 16 -H	S	500	11,20 A 2
C 6,3 x 16 -H	K	100	13,25 A 2
C 6,3 x 19 -H	S	250	12,00 A 2
C 6,3 x 19 -H	K	100	14,05 A 2
C 6,3 x 22 -H	S	250	13,20 A 2
C 6,3 x 22 -H	K	100	15,25 A 2
C 6,3 x 25 -H	S	250	14,00 A 2
C 6,3 x 25 -H	K	100	16,05 A 2
C 6,3 x 32 -H	S	250	16,80 A 2
C 6,3 x 32 -H	K	100	18,85 A 2
C 6,3 x 38 -H	S	250	18,60 A 2
C 6,3 x 38 -H	K	100	20,65 A 2
C 6,3 x 45 -H	S	250	22,20 A 2
C 6,3 x 45 -H	K	100	24,25 A 2
C 6,3 x 50 -H	S	250	27,60 A 2
C 6,3 x 50 -H	K	100	29,65 A 2
C 6,3 x 60 -H	K	100	31,50 A 2
C 6,3 x 70 -H	K	100	41,00 A 2
C 6,3 x 80 -H	K	100	54,00 A 2
C 6,3 x 90 -H	K	100	66,00 A 2
C 6,3 x 100 -H	K	100	80,00 A 2

Dimensions	PU	Pieces	€.
ISO	07049.925	RAZ 690	
7049	A 2	type F-H	



Pan head tapping screws with Phillips cross recess H, F = with flat end

Caution! Hardness only ~ 250 HV.

Dimensions → **TI-46** Standard conversion → **TI-11**

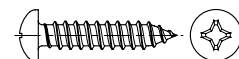
Mounting instructions → **TI-237**

Steel → **S. 311**

ISO 7049 → replaces DIN 7981 (compatible)

2,9 x 6,5 -F-H	S	1000	7,50 A 2
2,9 x 9,5 -F-H	S	1000	7,60 A 2
2,9 x 13 -F-H	S	1000	8,10 A 2
2,9 x 16 -F-H	S	1000	9,00 A 2
3,5 x 9,5 -F-H	S	1000	10,20 A 2
3,5 x 13 -F-H	S	1000	10,80 A 2
3,5 x 16 -F-H	S	1000	11,40 A 2
3,9 x 9,5 -F-H	S	1000	12,30 A 2
3,9 x 13 -F-H	S	1000	12,30 A 2
4,2 x 9,5 -F-H	S	1000	13,80 A 2

Dimensions	PU	Pieces	€.
ISO	07049.944	RAZ 690	
7049	A 4	type C-H	



Pan head tapping screws with Phillips cross recess H, C = with cone end

Caution! Hardness only ~ 250 HV.

Dimensions → **TI-46** Standard conversion → **TI-11**

Mounting instructions → **TI-237**

Steel → **S. 310**

ISO 7049 → replaces DIN 7981 (compatible)

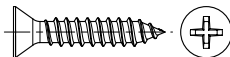
C 2,2 x 4,5 -H	S	1000	12,00 A 4
C 2,2 x 6,5 -H	S	1000	11,60 A 4
C 2,2 x 9,5 -H	S	1000	9,10 A 4
C 2,2 x 13 -H	S	1000	13,00 A 4
C 2,2 x 16 -H	S	1000	15,00 A 4
C 2,2 x 19 -H	S	1000	18,00 A 4
C 2,9 x 6,5 -H	S	1000	2,33 A 4
C 2,9 x 9,5 -H	S	1000	5,20 A 4
C 2,9 x 13 -H	S	1000	5,40 A 4
C 2,9 x 16 -H	S	1000	6,00 A 4
C 2,9 x 19 -H	S	1000	6,40 A 4
C 2,9 x 22 -H	S	1000	10,70 A 4
C 2,9 x 25 -H	S	1000	11,20 A 4
C 3,5 x 6,5 -H	S	1000	7,00 A 4
C 3,5 x 6,5 -H	K	100	10,50 A 4
C 3,5 x 9,5 -H	S	1000	6,80 A 4
C 3,5 x 13 -H	S	1000	6,35 A 4
C 3,5 x 16 -H	S	1000	6,55 A 4
C 3,5 x 19 -H	S	1000	8,40 A 4
C 3,5 x 22 -H	S	1000	11,00 A 4



ISO 7049

Dimensions	PU	Pieces	€.
C3,5 x 25 -H	S	1000	12,00 A4
C3,5 x 32 -H	S	1000	13,00 A4
C3,5 x 38 -H	S	1000	15,00 A4
C3,9 x 9,5 -H	S	1000	8,20 A4
C3,9 x 13 -H	S	1000	6,75 A4
C3,9 x 16 -H	S	1000	8,80 A4
C3,9 x 19 -H	S	1000	9,60 A4
C3,9 x 25 -H	S	500	12,20 A4
C3,9 x 32 -H	S	500	14,50 A4
C3,9 x 38 -H	S	500	16,60 A4
C3,9 x 45 -H	S	500	20,60 A4
C3,9 x 50 -H	S	500	24,70 A4
C4,2 x 9,5 -H	S	1000	9,20 A4
C4,2 x 13 -H	S	1000	8,70 A4
C4,2 x 16 -H	S	1000	9,55 A4
C4,2 x 19 -H	S	500	10,35 A4
C4,2 x 22 -H	S	500	13,00 A4
C4,2 x 25 -H	S	500	13,40 A4
C4,2 x 32 -H	S	500	16,60 A4
C4,2 x 38 -H	S	500	18,90 A4
C4,2 x 45 -H	S	500	27,40 A4
C4,8 x 9,5 -H	S	500	11,60 A4
C4,8 x 13 -H	S	100	12,00 A4
C4,8 x 16 -H	S	500	12,80 A4
C4,8 x 19 -H	S	500	13,05 A4
C4,8 x 22 -H	S	500	16,60 A4
C4,8 x 25 -H	S	500	15,75 A4
C4,8 x 32 -H	S	250	20,70 A4
C4,8 x 38 -H	S	250	24,20 A4
C4,8 x 45 -H	S	250	31,60 A4
C4,8 x 50 -H	S	250	32,60 A4
C4,8 x 60 -H	S	250	44,20 A4
C4,8 x 70 -H	S	250	58,00 A4
C4,8 x 90 -H	S	100	88,80 A4
C4,8 x 100 -H	S	100	112,40 A4
C5,5 x 13 -H	S	500	19,50 A4
C5,5 x 16 -H	S	500	20,80 A4
C5,5 x 19 -H	S	500	22,20 A4
C5,5 x 22 -H	S	500	24,40 A4
C5,5 x 25 -H	S	500	26,20 A4
C5,5 x 32 -H	S	250	30,60 A4
C5,5 x 38 -H	S	250	34,60 A4
C5,5 x 45 -H	S	250	41,40 A4
C5,5 x 50 -H	S	250	46,40 A4
C5,5 x 60 -H	S	100	55,20 A4
C6,3 x 13 -H	S	250	26,60 A4
C6,3 x 16 -H	S	500	22,40 A4
C6,3 x 19 -H	S	250	24,00 A4
C6,3 x 22 -H	S	250	26,40 A4
C6,3 x 25 -H	S	250	28,00 A4
C6,3 x 32 -H	S	250	33,60 A4
C6,3 x 38 -H	S	250	37,20 A4
C6,3 x 45 -H	S	250	44,40 A4
C6,3 x 50 -H	S	250	55,20 A4

Dimensions	PU	Pieces	€.
ISO	07050.924	RAZ	690
7050	A 2	type C-H	



Countersunk head tapping screws with Phillips cross recess H, C = with cone end

Nominal lengths from 60 mm with partial thread, countersunk $\sphericalangle = 80^\circ$

Caution! Hardness only ~ 250 HV.

Dimensions → **TI-47** Standard conversion → **TI-11**
Mounting instructions → **TI-237**

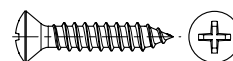
Steel → **S. 312**

ISO 7050 → replaces DIN 7982

2,2 x 6,5 -C-H	S	1000	7,50 A2
2,2 x 9,5 -C-H	S	1000	5,15 A2
2,2 x 13 -C-H	S	1000	9,85 A2
2,2 x 16 -C-H	S	1000	13,75 A2
2,2 x 19 -C-H	S	1000	19,65 A2
2,9 x 6,5 -C-H	S	1000	3,50 A2
2,9 x 9,5 -C-H	S	1000	2,60 A2
2,9 x 13 -C-H	S	1000	2,70 A2
2,9 x 16 -C-H	S	1000	3,00 A2
2,9 x 19 -C-H	S	1000	3,20 A2
2,9 x 22 -C-H	S	1000	5,35 A2
2,9 x 25 -C-H	S	1000	5,60 A2
3,5 x 9,5 -C-H	S	1000	3,40 A2
3,5 x 13 -C-H	S	1000	3,60 A2
3,5 x 16 -C-H	S	1000	3,80 A2
3,5 x 19 -C-H	S	1000	4,20 A2
3,5 x 22 -C-H	S	1000	5,25 A2
3,5 x 25 -C-H	S	1000	5,45 A2
3,5 x 32 -C-H	S	1000	6,20 A2
3,5 x 38 -C-H	S	1000	6,95 A2
3,5 x 45 -C-H	S	1000	9,00 A2
3,5 x 50 -C-H	S	1000	12,00 A2
3,5 x 60 -C-H	S	500	16,50 A2
4,2 x 9,5 -C-H	S	1000	4,60 A2
4,2 x 13 -C-H	S	1000	4,70 A2
4,2 x 16 -C-H	S	1000	5,25 A2
4,2 x 19 -C-H	S	500	5,75 A2
4,2 x 19 -C-H	S	500	6,50 A2
4,2 x 25 -C-H	S	500	6,70 A2
4,2 x 32 -C-H	S	500	8,30 A2
4,2 x 38 -C-H	S	500	9,45 A2
4,2 x 45 -C-H	S	500	13,70 A2
4,2 x 50 -C-H	S	500	15,50 A2
4,2 x 60 -C-H	S	250	27,50 A2
4,8 x 13 -C-H	S	500	6,00 A2
4,8 x 16 -C-H	S	500	6,50 A2
4,8 x 19 -C-H	S	500	7,25 A2
4,8 x 22 -C-H	S	500	8,30 A2
4,8 x 25 -C-H	S	500	8,50 A2
4,8 x 32 -C-H	S	250	10,80 A2
4,8 x 38 -C-H	S	250	12,10 A2
4,8 x 45 -C-H	S	250	15,80 A2
4,8 x 50 -C-H	S	250	16,30 A2
4,8 x 55 -C-H	S	250	34,50 A2
4,8 x 60 -C-H	S	250	22,10 A2
4,8 x 70 -C-H	S	250	29,00 A2
4,8 x 80 -C-H	S	250	34,40 A2
4,8 x 90 -C-H	S	100	44,40 A2
4,8 x 100 -C-H	S	100	56,20 A2
5,5 x 13 -C-H	S	500	9,75 A2
5,5 x 16 -C-H	S	500	10,40 A2

Dimensions	PU	Pieces	€.
5,5 x 19 -C-H	S	500	11,10 A2
5,5 x 22 -C-H	S	500	12,20 A2
5,5 x 25 -C-H	S	500	13,10 A2
5,5 x 32 -C-H	S	250	15,30 A2
5,5 x 38 -C-H	S	250	17,30 A2
5,5 x 45 -C-H	S	250	20,70 A2
5,5 x 50 -C-H	S	250	23,20 A2
5,5 x 60 -C-H	S	250	27,60 A2
6,3 x 16 -C-H	S	500	11,20 A2
6,3 x 19 -C-H	S	500	12,00 A2
6,3 x 22 -C-H	S	500	13,20 A2
6,3 x 25 -C-H	S	500	14,00 A2
6,3 x 32 -C-H	S	250	16,80 A2
6,3 x 38 -C-H	S	250	18,60 A2
6,3 x 45 -C-H	S	250	22,20 A2
6,3 x 50 -C-H	S	250	27,60 A2

Dimensions	PU	Pieces	€.
ISO	07051.924	RAZ	690
7051	A 2	type C-H	



Raised countersunk head tapping screws with Phillips cross recess H, C = with cone end

countersunk $\sphericalangle = 90^\circ$

Caution! Hardness only ~ 250 HV.

Dimensions → **TI-47** Standard conversion → **TI-11**
Mounting instructions → **TI-237**

Steel → **S. 313**

ISO 7051 → replaces DIN 7983

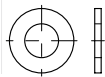
2,9 x 9,5 -C-H	S	1000	2,60 A2
2,9 x 13 -C-H	S	1000	2,70 A2
2,9 x 16 -C-H	S	1000	3,00 A2
2,9 x 19 -C-H	S	1000	3,20 A2
2,9 x 22 -C-H	S	1000	5,35 A2
2,9 x 25 -C-H	S	1000	5,60 A2
3,5 x 9,5 -C-H	S	1000	3,40 A2
3,5 x 13 -C-H	S	1000	3,60 A2
3,5 x 16 -C-H	S	1000	3,80 A2
3,5 x 19 -C-H	S	1000	4,20 A2
3,5 x 22 -C-H	S	1000	5,25 A2
3,5 x 25 -C-H	S	1000	5,45 A2
3,5 x 32 -C-H	S	1000	6,20 A2
3,5 x 38 -C-H	S	1000	6,95 A2
4,2 x 9,5 -C-H	S	1000	4,60 A2
4,2 x 13 -C-H	S	1000	4,70 A2
4,2 x 16 -C-H	S	1000	5,25 A2
4,2 x 19 -C-H	S	500	5,75 A2
4,2 x 19 -C-H	S	500	6,50 A2
4,2 x 25 -C-H	S	500	6,70 A2
4,2 x 32 -C-H	S	500	8,30 A2
4,2 x 38 -C-H	S	500	9,45 A2
4,2 x 45 -C-H	S	500	13,70 A2
4,2 x 50 -C-H	S	500	15,50 A2
4,2 x 60 -C-H	S	250	27,50 A2
4,2 x 22 -C-H	S	500	6,50 A2
4,2 x 25 -C-H	S	500	6,70 A2
4,2 x 32 -C-H	S	500	8,30 A2
4,2 x 38 -C-H	S	500	9,45 A2
4,2 x 45 -C-H	S	500	13,70 A2
4,2 x 50 -C-H	S	500	15,50 A2
4,2 x 60 -C-H	S	200	21,00 A2
4,8 x 13 -C-H	S	500	6,00 A2
4,8 x 16 -C-H	S	500	6,50 A2
4,8 x 19 -C-H	S	500	7,25 A2
4,8 x 22 -C-H	S	500	8,30 A2
4,8 x 25 -C-H	S	500	8,50 A2
4,8 x 32 -C-H	S	250	10,80 A2
4,8 x 38 -C-H	S	250	12,10 A2
4,8 x 45 -C-H	S	250	15,80 A2
4,8 x 50 -C-H	S	250	16,30 A2
4,8 x 60 -C-H	S	250	26,60 A2



ISO 7089

Dimensions	PU	Pieces	€.
5,5 x 13 -C-H	S	500	9,75 A 2
5,5 x 16 -C-H	S	500	10,40 A 2
5,5 x 19 -C-H	S	500	11,10 A 2
5,5 x 22 -C-H	S	500	12,20 A 2
5,5 x 25 -C-H	S	500	13,10 A 2
5,5 x 32 -C-H	S	250	15,30 A 2
5,5 x 38 -C-H	S	250	17,30 A 2
5,5 x 45 -C-H	S	250	20,70 A 2
5,5 x 50 -C-H	S	250	23,20 A 2
6,3 x 16 -C-H	S	500	11,20 A 2
6,3 x 19 -C-H	S	500	12,00 A 2
6,3 x 22 -C-H	S	500	13,20 A 2
6,3 x 25 -C-H	S	500	14,00 A 2
6,3 x 32 -C-H	S	250	16,80 A 2
6,3 x 38 -C-H	S	250	18,60 A 2
6,3 x 45 -C-H	S	250	22,20 A 2
6,3 x 50 -C-H	S	250	27,60 A 2

ISO	07089.924	RAZ 3380
7089	A 2	200 HV



Plain washers, normal series, product grade A, without chamfer

Dimensions → TI-84

Steel → S. 313

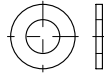
Brass, copper, plastic, aluminium → S. 591

ISO 7089 → replaces DIN 125 type A

For screws M

1,6	S	1000	14,40 A 2
2	S	1000	2,70 A 2
2,5	S	1000	2,70 A 2
3	S	1000	11,00 A 2
3	K	200	12,25 A 2
4	S	1000	11,60 A 2
4	K	200	12,80 A 2
5	S	1000	12,00 A 2
5	K	200	14,20 A 2
6	S	1000	17,80 A 2
6	K	200	20,30 A 2
8	S	1000	21,80 A 2
8	K	200	25,10 A 2
10	S	500	44,00 A 2
10	K	100	48,10 A 2
12	S	500	64,80 A 2
12	K	100	69,40 A 2
14	S	100	116,00 A 2
16	S	100	124,00 A 2
16	K	25	129,00 A 2
18	S	200	43,20 A 2
20	S	100	184,00 A 2
20	K	25	189,00 A 2
22	S	200	96,00 A 2
24	S	100	352,00 A 2
24	K	25	357,00 A 2
27	S	100	194,40 A 2
30	S	100	552,00 A 2
30	K	25	560,00 A 2
33	S	100	277,20 A 2
36	S	50	1420,00 A 2
39	S	10	408,00 A 2
42	S	10	1056,00 A 2
45	S	10	1680,00 A 2
48	S	1	3340,00 A 2
52	S	1	6240,00 A 2
56	S	1	10640,00 A 2

ISO	07089.944	RAZ 3380
7089	A 4	200 HV



Plain washers, normal series, product grade A, without chamfer

Dimensions → TI-84

Steel → S. 313

Brass, copper, plastic, aluminium → S. 591

ISO 7089 → replaces DIN 125 type A

For screws M

2	S	1000	7,06 A 4
2,5	S	1000	5,76 A 4
3	S	1000	1,15 A 4
4	S	1000	47,00 A 4
4	K	200	48,20 A 4
5	S	1000	50,00 A 4
5	K	200	52,20 A 4
6	S	1000	58,00 A 4
6	K	200	61,00 A 4
8	S	1000	66,50 A 4
8	K	200	69,40 A 4
10	S	500	148,50 A 4
10	K	100	152,70 A 4
12	S	500	161,00 A 4
12	K	100	165,60 A 4
14	S	500	35,50 A 4
16	S	100	365,00 A 4
16	K	25	375,00 A 4
18	S	200	61,20 A 4
20	S	100	398,00 A 4
20	K	25	408,00 A 4
22	S	200	122,00 A 4
24	S	100	756,00 A 4
24	K	25	766,00 A 4
27	S	100	261,60 A 4
30	S	100	788,00 A 4
30	K	25	798,00 A 4
33	S	10	462,00 A 4
36	S	10	420,00 A 4
39	S	10	984,00 A 4
42	S	10	1008,00 A 4

ISO	07089.941	RAZ 2012
7089	A 4 BUMAX88	200 HV



Plain washers, normal series, product grade A, without chamfer

Dimension from Ø 6 approved for use acc. to pressure equipment directive → certificate 3.1 on request

Dimensions → TI-84

Steel → S. 313

Brass, copper, plastic, aluminium → S. 591

For the use of bolts with property class BUMAX88

For screws M

5	S	200	56,00 A 4-88
6	S	200	59,00 A 4-88
8	S	100	76,00 A 4-88
10	S	100	159,00 A 4-88
12	S	100	240,00 A 4-88
14	S	100	580,00 A 4-88
16	S	100	460,00 A 4-88
18	S	100	700,00 A 4-88
20	S	100	620,00 A 4-88
22	S	100	760,00 A 4-88
24	S	50	1210,00 A 4-88
27	S	50	1730,00 A 4-88
30	S	50	2120,00 A 4-88
36	S	50	2470,00 A 4-88

ISO	07089.942	RAZ 2012
7089	A 4 BUMAX109	300 HV



Plain washers, normal series, product grade A, without chamfer

Dimensions → TI-84

Steel → S. 313

Brass, copper, plastic, aluminium → S. 591

For the use of bolts with property class BUMAX109

For screws M

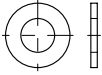
6	S	200	57,00 A 4-109
8	S	100	75,00 A 4-109
10	S	100	160,00 A 4-109
12	S	100	222,00 A 4-109
14	S	100	580,00 A 4-109
16	S	100	460,00 A 4-109
20	S	100	660,00 A 4-109



ISO 7089

Dimensions	PU Pieces	€.
ISO 07089.954	RAZ 3380	

7089 A 5 (1.4571) 200 HV



Plain washers, normal series, product grade A, without chamfer

Dimensions → TI-84

Steel → S. 313

Brass, copper, plastic, aluminium → S. 591

ISO 7089 → replaces DIN 125 type A

For screws M

6	S	100	54,00 A 5
8	S	100	59,40 A 5
10	S	100	114,00 A 5
12	S	50	128,40 A 5
16	S	50	186,00 A 5
20	S	25	276,00 A 5
24	S	25	1056,00 A 5
30	S	10	1260,00 A 5

ISO	07090.924	RAZ 3380
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7090 A 2 200 HV



Plain washers, normal series, with chamfer, product grade A

Dimensions → TI-84

Steel → S. 315

Brass → S. 592

ISO 7090 → replaces DIN 125 type B

For screws M

4	S	1000	27,00 A 2
5	S	1000	19,20 A 2
5	K	200	160,00 A 2
6	S	1000	25,60 A 2
6	K	200	187,00 A 2
8	S	500	36,00 A 2
8	K	100	200,00 A 2
10	S	250	54,00 A 2
10	K	50	323,00 A 2
12	S	250	74,00 A 2
12	K	50	403,00 A 2
16	S	100	120,00 A 2
16	K	25	900,00 A 2
20	S	50	192,00 A 2
20	K	10	924,00 A 2
24	S	50	480,00 A 2
24	K	10	954,00 A 2

Dimensions	PU Pieces	€.
ISO 07090.944	RAZ 3380	

7090 A 4 200 HV



Plain washers, normal series, with chamfer, product grade A

Dimensions → TI-84

Steel → S. 315

Brass → S. 592

ISO 7090 → replaces DIN 125 type B

For screws M

4	S	1000	28,00 A 4
5	S	1000	158,00 A 4
5	K	200	160,00 A 4
6	S	1000	185,00 A 4
6	K	200	187,00 A 4
8	S	500	198,00 A 4
8	K	100	200,00 A 4
10	S	250	320,00 A 4
10	K	100	322,00 A 4
12	S	250	400,00 A 4
12	K	100	402,00 A 4
16	S	100	896,00 A 4
16	K	25	900,00 A 4
18	S	50	96,00 A 4
20	S	50	920,00 A 4
20	K	10	922,00 A 4
24	S	50	950,00 A 4
27	S	25	276,00 A 4
30	S	25	342,00 A 4
33	S	25	984,00 A 4
36	S	10	2640,00 A 4
42	S	10	3540,00 A 4
45	S	10	5184,00 A 4
48	S	10	5880,00 A 4
52	S	1	6120,00 A 4
56	S	1	7080,00 A 4

ISO	07090.954	RAZ 3380
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7090 A 5 200 HV



Plain washers, normal series, with chamfer, product grade A

Dimensions → TI-84

Steel → S. 315

Brass → S. 592

ISO 7090 → replaces DIN 125 type B

For screws M

4	S	1000	28,00 A 5
5	S	1000	158,00 A 5
6	S	1000	185,00 A 5
8	S	500	198,00 A 5
10	S	250	320,00 A 5
12	S	250	400,00 A 5
16	S	100	896,00 A 5
20	S	50	920,00 A 5

Dimensions	PU Pieces	€.
24	S 50	950,00 A 5
30	S 25	342,00 A 5

ISO	07092.924	RAZ 3380
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7092 A 2 200 HV



Plain washers, small series, product grade A

Primarily for cap screws

Dimensions → TI-84

Steel → S. 317

Brass → S. 592

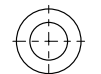
ISO 7092 → replaces DIN 433

For screws M

2	S	2000	3,40 A 2
2,5	S	2000	2,25 A 2
3	S	2000	1,10 A 2
4	S	2000	1,24 A 2
5	S	2000	1,75 A 2
6	S	1000	2,60 A 2
8	S	1000	5,20 A 2
10	S	1000	6,40 A 2
12	S	100	10,60 A 2
14	S	100	16,60 A 2
16	S	50	21,20 A 2

ISO	07092.944	RAZ 3380
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7092 A 4 200 HV



Plain washers, small series, product grade A

Primarily for cap screws

Dimensions → TI-84

Steel → S. 317

Brass → S. 592

ISO 7092 → replaces DIN 433

For screws M

3	S	2000	1,55 A 4
4	S	2000	2,05 A 4
5	S	2000	2,50 A 4
6	S	1000	3,85 A 4
8	S	1000	7,00 A 4
10	S	1000	9,50 A 4
12	S	100	17,20 A 4
16	S	50	30,50 A 4
20	S	25	44,50 A 4
24	S	25	178,00 A 4

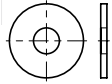


DIN 7343

Dimensions PU Pieces €.

ISO 07093.924 RAZ 3380

7093-1 A 2 200 HV



Plain washers, large series, product grade A

Dimensions → TI-85

Steel → S. 318

Brass → S. 593

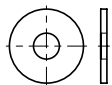
ISO 7093 → replaces DIN 9021

For screws M

3	S 1000	14,50 A 2
3	K 200	17,00 A 2
4	S 1000	17,00 A 2
4	K 200	19,00 A 2
5	S 1000	21,00 A 2
5	K 200	24,00 A 2
6	S 1000	24,00 A 2
6	K 200	28,00 A 2
8	S 500	27,00 A 2
8	K 100	31,00 A 2
10	S 250	30,00 A 2
10	K 50	37,00 A 2
12	S 250	98,00 A 2
12	K 50	118,00 A 2
14	S 100	81,00 A 2
16	S 100	119,00 A 2
16	K 25	139,00 A 2
18	S 100	155,00 A 2
20	S 50	350,00 A 2
20	K 10	400,00 A 2
24	S 25	450,00 A 2

ISO 07093.944 RAZ 750

7093-1 A 4 200 HV



Plain washers, large series, product grade A

Dimensions → TI-85

Steel → S. 318

Brass → S. 593

ISO 7093 → replaces DIN 9021

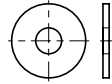
For screws M

3	S 1000	2,20 A 4
4	S 1000	2,90 A 4
5	S 100	29,00 A 4
6	S 100	60,00 A 4
8	S 100	75,00 A 4
10	S 100	95,00 A 4
12	S 100	225,00 A 4
14	S 100	340,00 A 4
16	S 100	432,00 A 4
18	S 50	1140,00 A 4
20	S 50	1200,00 A 4
22	S 10	1760,00 A 4
24	S 10	2280,00 A 4

Dimensions PU Pieces €.

ISO 07093.954 RAZ 750

7093-1 A 5 200 HV



Plain washers, large series, product grade A

Dimensions → TI-85

Steel → S. 318

Brass → S. 593

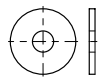
ISO 7093 → replaces DIN 9021

For screws M

5	S 100	29,00 A 5
6	S 100	60,00 A 5
8	S 100	75,00 A 5
10	S 100	95,00 A 5
12	S 100	225,00 A 5
16	S 100	432,00 A 5
20	S 50	1200,00 A 5
24	S 10	2280,00 A 5

ISO 07094.920 RAZ 170

7094 A 2 100 HV



Plain washers, extra large series, product grade C

Especially for wood constructions

Dimensions → TI-84

Steel → S. 318

ISO 7094 → replaces DIN 440 type R (compatible)

For screws M

5	S 100	8,00 A 2
6	S 100	11,00 A 2
8	S 100	26,00 A 2
10	S 50	38,00 A 2
12	S 50	84,00 A 2
16	S 50	160,00 A 2
20	S 50	335,00 A 2

Dimensions PU Pieces €.

ISO 07094.940 RAZ 170

7094 A 4 100 HV



Plain washers, extra large series, product grade C

especially for wood constructions

Dimensions → TI-84

Steel → S. 318

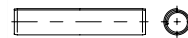
ISO 7094 → replaces DIN 440 type R (compatible)

For screws M

5	S 100	30,50 A 4
6	S 100	42,00 A 4
8	S 100	93,00 A 4
10	S 50	144,00 A 4
12	S 50	226,00 A 4
16	S 50	720,00 A 4
20	S 50	1060,00 A 4

DIN 07343.960 RAZ 623

7343 1.4310



Spring-type straight pins, coiled, standard duty

Caution! Reduced spring load.

Dimensions → TI-119

Spring steel → S. 319

DIN 7343 → replaced by ISO 8750 (compatible)

1	x	6	S 1000	7,90
1	x	8	S 1000	8,00
1	x	10	S 1000	8,50
1	x	12	S 1000	9,00
1,5	x	5	S 1000	7,70
1,5	x	6	S 1000	7,80
1,5	x	8	S 1000	8,00
1,5	x	10	S 1000	8,50
1,5	x	12	S 1000	9,00
2	x	4	S 1000	7,70
2	x	5	S 1000	8,00
2	x	6	S 1000	8,20
2	x	8	S 1000	8,50
2	x	10	S 1000	9,00
2	x	12	S 1000	9,20
2	x	14	S 1000	9,50
2	x	16	S 1000	10,10
2	x	18	S 1000	10,40
2	x	20	S 1000	11,10
2,5	x	5	S 1000	8,70
2,5	x	6	S 1000	9,00
2,5	x	8	S 1000	9,20
2,5	x	10	S 1000	9,50
2,5	x	12	S 1000	10,10
2,5	x	14	S 1000	10,40
2,5	x	16	S 1000	11,10
2,5	x	18	S 1000	12,20



DIN 7343

Dimensions	PU	Pieces	€.
2,5 x 20	S	1000	12,90
2,5 x 22	S	1000	13,40
2,5 x 24	S	1000	14,10
3 x 8	S	1000	12,20
3 x 10	S	1000	12,90
3 x 12	S	1000	13,80
3 x 14	S	1000	15,90
3 x 16	S	1000	16,60
3 x 18	S	1000	17,20
3 x 20	S	1000	17,80
3 x 22	S	1000	20,00
3 x 24	S	1000	20,80
3 x 26	S	1000	22,10
3 x 28	S	1000	23,00
3 x 30	S	1000	24,20
3 x 32	S	1000	24,90
4 x 8	S	500	16,50
4 x 10	S	500	16,70
4 x 12	S	500	19,00
4 x 14	S	500	21,30
4 x 16	S	500	23,40
4 x 18	S	500	24,80
4 x 20	S	500	28,00
4 x 22	S	500	29,50
4 x 24	S	500	31,50
4 x 26	S	500	33,00
4 x 28	S	500	34,50
4 x 30	S	500	36,00
4 x 32	S	500	38,50
4 x 35	S	500	41,00
4 x 40	S	500	46,50
4 x 45	S	500	53,00
4 x 50	S	500	58,00
5 x 12	S	500	26,00
5 x 14	S	500	28,50
5 x 16	S	500	31,50
5 x 18	S	500	34,50
5 x 20	S	500	37,00
5 x 22	S	500	40,00
5 x 24	S	500	43,00
5 x 26	S	500	46,00
5 x 28	S	500	48,50
5 x 30	S	500	53,00
5 x 32	S	500	55,00
5 x 35	S	500	61,00
5 x 40	S	500	66,00
5 x 45	S	500	73,00
5 x 50	S	250	80,00
6 x 12	S	500	33,50
6 x 14	S	500	36,50
6 x 16	S	500	40,50
6 x 18	S	500	44,00
6 x 20	S	500	47,00
6 x 22	S	500	52,00
6 x 24	S	500	55,00
6 x 26	S	500	59,00
6 x 28	S	500	62,00
6 x 30	S	500	68,00
6 x 32	S	500	70,00
6 x 35	S	500	78,00
6 x 40	S	250	85,00
6 x 45	S	250	94,00
6 x 50	S	250	103,00
8 x 16	S	500	49,00
8 x 18	S	500	54,00
8 x 20	S	500	59,00
8 x 22	S	500	64,00
8 x 24	S	500	68,00
8 x 26	S	500	73,00
8 x 28	S	500	78,00
8 x 30	S	500	83,00
8 x 32	S	500	88,00
8 x 35	S	500	98,00
8 x 40	S	250	108,00
8 x 45	S	250	121,00

Dimensions	PU	Pieces	€.
8 x 50	S	250	132,00

DIN	07349.920	RAZ 620
7349	A 2 100 HV	



Washers for screws with heavy spring-type straight pins

Dimensions → TI-85

Steel → S. 321

Inside Ø x outside Ø x thickness

3,2 x 9 x 1	S	100	7,20 A 2
4,3 x 12 x 1,6	S	100	7,60 A 2
5,3 x 15 x 2	S	100	12,30 A 2
6,4 x 17 x 3	S	100	22,90 A 2
8,4 x 21 x 4	S	100	41,50 A 2
10,5 x 25 x 4	S	100	59,00 A 2
13 x 30 x 6	S	50	140,00 A 2
17 x 40 x 6	S	50	208,00 A 2
21 x 44 x 8	S	25	385,00 A 2
25 x 50 x 10	S	25	592,00 A 2

DIN	07349.940	RAZ 620
7349	A 4 100 HV	



Washers for screws with heavy spring-type straight pins

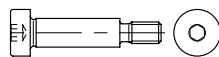
Dimensions → TI-85

Steel → S. 321

Inside Ø x outside Ø x thickness

8,4	S	100	48,50 A 4
10,5	S	50	69,00 A 4
13	S	50	170,00 A 4
17	S	50	240,00 A 4
21	S	25	420,00 A 4
25	S	10	890,00 A 4

~ISO	07379.920	RAZ 3400
7379	A 2	f9



Hex. socket head shoulder screws, outer nominal size = ISO 7379, tolerance of fit shank f9

Dimensions → TI-13 Mech. properties → TI-224

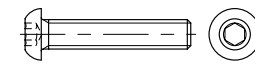
Steel → S. 322

Shank Ø/thread M x shank length

6 f9 M 5 x 10	S	50	335,00 A 2
6 f9 M 5 x 12	S	50	360,00 A 2
6 f9 M 5 x 16	S	50	400,00 A 2

Dimensions	PU	Pieces	€.
6 f9 M 5 x 20	S	50	425,00 A 2
6 f9 M 5 x 25	S	50	450,00 A 2
8 f9 M 6 x 12	S	50	450,00 A 2
8 f9 M 6 x 16	S	50	480,00 A 2
8 f9 M 6 x 20	S	50	510,00 A 2
8 f9 M 6 x 25	S	50	540,00 A 2
10 f9 M 8 x 16	S	50	710,00 A 2
10 f9 M 8 x 20	S	50	760,00 A 2
10 f9 M 8 x 25	S	50	830,00 A 2
10 f9 M 8 x 30	S	50	900,00 A 2
12 f9 M 10 x 20	S	50	1070,00 A 2
12 f9 M 10 x 25	S	50	1160,00 A 2
12 f9 M 10 x 30	S	50	1210,00 A 2
12 f9 M 10 x 40	S	50	1370,00 A 2
16 f9 M 12 x 30	S	25	2550,00 A 2
16 f9 M 12 x 40	S	25	2850,00 A 2
16 f9 M 12 x 50	S	25	3250,00 A 2

ISO	07380.920	RAZ 3500
7380-1	A 2	



Hexagon socket button head screws

Length F100 mm sometimes thread up to head

Caution! Screws have only a reduced loadability.

Dimensions → TI-14 Tightening torque → TI-235
Mech. properties → TI-235

Steel → S. 322

M 3 x 4	S	500	33,25 A 2
M 3 x 5	S	500	33,25 A 2
M 3 x 6	S	500	27,10 A 2
M 3 x 8	S	500	27,10 A 2
M 3 x 10	S	500	27,10 A 2
M 3 x 12	S	500	27,10 A 2
M 3 x 16	S	500	29,15 A 2
M 3 x 20	S	500	29,15 A 2
M 3 x 25	S	500	31,20 A 2
M 4 x 4	S	500	49,60 A 2
M 4 x 5	S	500	45,50 A 2
M 4 x 6	S	500	31,20 A 2
M 4 x 8	S	500	31,20 A 2
M 4 x 10	S	500	31,20 A 2
M 4 x 12	S	500	31,20 A 2
M 4 x 16	S	500	33,25 A 2
M 4 x 20	S	500	33,25 A 2
M 4 x 25	S	500	33,25 A 2
M 4 x 30	S	500	35,30 A 2
M 5 x 6	S	500	31,20 A 2
M 5 x 8	S	500	29,15 A 2
M 5 x 10	S	500	29,15 A 2
M 5 x 12	S	500	29,15 A 2
M 5 x 16	S	500	29,15 A 2
M 5 x 20	S	500	31,20 A 2
M 5 x 25	S	500	31,20 A 2
M 5 x 30	S	500	31,20 A 2
M 5 x 40	S	500	33,00 A 2
M 5 x 45	S	200	35,00 A 2
M 6 x 8	S	500	29,15 A 2
M 6 x 10	S	500	29,15 A 2
M 6 x 12	S	500	29,15 A 2
M 6 x 16	S	500	31,20 A 2
M 6 x 20	S	500	31,20 A 2
M 6 x 25	S	500	33,25 A 2
M 6 x 30	S	500	35,30 A 2



~DIN 7964

Dimensions	PU	Pieces	€.
M 6 x 35	S	200	59,85 A 2
M 6 x 40	S	200	67,00 A 2
M 6 x 45	S	200	79,50 A 2
M 6 x 50	S	200	88,50 A 2
M 6 x 60	S	200	110,00 A 2
M 8 x 10	S	200	49,60 A 2
M 8 x 12	S	200	49,60 A 2
M 8 x 16	S	200	49,60 A 2
M 8 x 20	S	200	53,70 A 2
M 8 x 25	S	200	55,75 A 2
M 8 x 30	S	200	72,10 A 2
M 8 x 35	S	200	82,35 A 2
M 8 x 40	S	200	88,45 A 2
M 8 x 45	S	200	89,25 A 2
M 8 x 50	S	200	92,00 A 2
M 8 x 60	S	200	94,00 A 2
M 10 x 16	S	200	81,00 A 2
M 10 x 20	S	200	81,80 A 2
M 10 x 25	S	200	92,05 A 2
M 10 x 30	S	200	103,00 A 2
M 10 x 40	S	100	105,00 A 2
M 10 x 50	S	100	118,00 A 2

ISO	07380.922	RAZ 3500
7380-2 A 2		



Hexagon socket button head screws with collar

Sometimes thread up to head

Caution! Screws have only a reduced loadability.

Dimensions → **TI-14** Tightening torque → **TI-235**
 Mech. properties → **TI-235**
 Steel → **S. 323**

M 3 x 6	S	500	64,00 A 2
M 3 x 8	S	500	73,00 A 2
M 3 x 10	S	500	78,00 A 2
M 4 x 6	S	500	82,00 A 2
M 4 x 8	S	500	82,00 A 2
M 4 x 10	S	500	73,50 A 2
M 4 x 12	S	500	75,00 A 2
M 4 x 16	S	500	78,00 A 2
M 4 x 20	S	500	86,00 A 2
M 4 x 25	S	500	94,00 A 2
M 5 x 6	S	500	85,00 A 2
M 5 x 8	S	500	85,00 A 2
M 5 x 10	S	500	78,25 A 2
M 5 x 12	S	500	80,30 A 2
M 5 x 16	S	500	87,95 A 2
M 5 x 20	S	500	97,15 A 2
M 5 x 25	S	500	102,00 A 2
M 6 x 8	S	500	78,00 A 2
M 6 x 10	S	500	81,00 A 2
M 6 x 12	S	500	90,00 A 2
M 6 x 16	S	500	102,00 A 2
M 6 x 20	S	500	115,00 A 2
M 6 x 25	S	500	130,00 A 2
M 6 x 30	S	500	147,00 A 2
M 6 x 35	S	200	161,00 A 2
M 6 x 40	S	200	172,00 A 2
M 6 x 45	S	200	183,00 A 2
M 8 x 10	S	200	158,00 A 2
M 8 x 12	S	200	151,00 A 2
M 8 x 16	S	200	164,00 A 2

Dimensions	PU	Pieces	€.
M 8 x 20	S	200	202,00 A 2
M 8 x 25	S	200	240,00 A 2

ISO	07434.910	RAZ 230
7434 A 1		



Slotted grub screws with cone point

Dimensions → **TI-19**

Steel → **S. 324**

Brass → **S. 593**

ISO 7434 → replaces DIN 553 (compatible)

M 2 x 3	S	50	15,10 A 1
M 2 x 4	S	50	15,90 A 1
M 2,5 x 5	S	50	16,50 A 1
M 2,5 x 6	S	50	17,00 A 1
M 2,5 x 8	S	50	17,40 A 1
M 3 x 4	S	50	15,70 A 1
M 3 x 5	S	50	16,50 A 1
M 3 x 6	S	50	17,70 A 1
M 3 x 8	S	50	18,60 A 1
M 4 x 5	S	50	17,20 A 1
M 4 x 6	S	50	18,00 A 1
M 4 x 8	S	50	19,10 A 1
M 4 x 10	S	50	20,20 A 1
M 4 x 12	S	50	21,20 A 1
M 4 x 16	S	50	22,40 A 1
M 5 x 5	S	50	18,60 A 1
M 5 x 6	S	50	19,60 A 1
M 5 x 8	S	50	21,00 A 1
M 5 x 10	S	50	22,10 A 1
M 5 x 12	S	50	23,50 A 1
M 5 x 16	S	50	26,00 A 1
M 6 x 6	S	25	23,60 A 1
M 6 x 8	S	25	24,50 A 1
M 6 x 10	S	25	26,50 A 1
M 6 x 12	S	25	28,00 A 1
M 6 x 16	S	25	30,00 A 1
M 6 x 20	S	25	34,00 A 1
M 6 x 25	S	25	39,50 A 1

ISO	07434.940	RAZ 230
7434 A 4		



Slotted grub screws with cone point

Dimensions → **TI-19**

Steel → **S. 324**

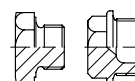
Brass → **S. 593**

ISO 7434 → replaces DIN 553 (compatible)

M 4 x 6	S	50	46,50 A 4
M 4 x 8	S	50	49,50 A 4
M 4 x 10	S	50	53,00 A 4
M 5 x 5	S	50	48,00 A 4
M 5 x 6	S	50	51,00 A 4
M 5 x 8	S	50	55,00 A 4
M 5 x 10	S	50	58,00 A 4

Dimensions	PU	Pieces	€.
M 5 x 16	S	25	72,00 A 4
M 6 x 6	S	25	60,00 A 4
M 6 x 8	S	25	62,00 A 4
M 6 x 10	S	25	67,00 A 4
M 6 x 12	S	25	72,00 A 4
M 6 x 16	S	25	76,00 A 4
M 8 x 12	S	25	108,00 A 4
M 8 x 16	S	25	119,00 A 4
M 8 x 20	S	25	142,00 A 4
M 8 x 25	S	25	169,00 A 4

DIN	07604.941	RAZ 640
7604 A 4 type A		



≤ M 16 ≥ M 18

Hexagon head screw plugs with collar, light type, A = short stud end, cylindrical fine pitch thread

Dimensions → **TI-24**

Steel → **S. 330**

AM 10 x 1	S	10	750,00 A 4
AM 12 x 1,5	S	10	1170,00 A 4
AM 14 x 1,5	S	10	1300,00 A 4
AM 16 x 1,5	S	1	1360,00 A 4
AM 18 x 1,5	S	1	3050,00 A 4
AM 22 x 1,5	S	1	3400,00 A 4

~DIN	07964.924	RAZ 401
7964 A 2 K-D1		



Hexagon head screws with waisted shank, short thread, wrench sizes acc. to ISO

Dimensions → **TI-17** Mech. properties → **TI-224**

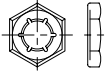
Thread Ø x length/thread length

M 8 x 20/10	S	100	169,00 A 2
M 8 x 30/10	S	100	172,00 A 2
M 10 x 25/12,5	S	50	221,00 A 2
M 10 x 35/12,5	S	50	228,00 A 2



~DIN 7967

Dimensions	PU Pieces	€.
~DIN 07967.960	RAZ 640	
7967	1.4310	



Self locking counter nuts

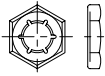
Caution! Reduced spring load.

Dimensions → **TI-67** Mech. properties → **TI-224**

Spring steel → **S. 331**

M 6	S 100	30,00
M 8	S 100	33,50
M 10	S 100	40,50
M 12	S 100	49,50
M 16	S 100	62,00
M 20	S 100	107,00
M 24	S 100	136,00
M 30	S 50	1660,00

Dimensions	PU Pieces	€.
~DIN 07967.940	RAZ 640	
7967	A 4	



Self locking counter nuts

Caution! Reduced spring load.

Dimensions → **TI-67**

Spring steel → **S. 331**

M 6	S 100	61,50 A 4
M 8	S 100	65,00 A 4
M 10	S 100	75,00 A 4
M 12	S 100	85,00 A 4
M 16	S 100	115,00 A 4
M 20	S 50	200,00 A 4
M 24	S 50	250,00 A 4
M 27	S 10	2500,00 A 4
M 30	S 10	3000,00 A 4

Article	PU Pieces	€.
88312	RAZ 660	
88312	A 2	type C



Cylindrical head tapping screws with hexagon socket C = with cone end

Caution! Hardness only ~ 250 HV.

Dimensions → **TI-50** Mounting instructions → **TI-237**

Head sizes acc. to DIN 912/ISO 4762

C 4,8	x 13	S 200	38,00 A 2
C 4,8	x 16	S 1000	38,50 A 2
C 4,8	x 19	S 1000	39,50 A 2

Dimensions	PU Pieces	€.	
C 4,8	x 22	S 200	43,50 A 2
C 4,8	x 25	S 1000	44,00 A 2
C 4,8	x 32	S 500	47,50 A 2
C 4,8	x 38	S 500	54,00 A 2
C 4,8	x 45	S 200	66,00 A 2
C 4,8	x 50	S 200	82,00 A 2
C 4,8	x 60	S 200	98,00 A 2
C 4,8	x 70	S 200	115,00 A 2
C 5,5	x 16	S 200	43,00 A 2
C 5,5	x 19	S 500	43,50 A 2
C 5,5	x 22	S 200	48,00 A 2
C 5,5	x 25	S 200	50,00 A 2
C 5,5	x 32	S 200	56,00 A 2
C 5,5	x 38	S 250	62,00 A 2
C 5,5	x 45	S 250	67,00 A 2
C 5,5	x 50	S 200	85,00 A 2
C 5,5	x 60	S 200	102,00 A 2
C 5,5	x 70	S 200	121,00 A 2
C 6,3	x 16	S 200	46,50 A 2
C 6,3	x 19	S 200	49,00 A 2
C 6,3	x 22	S 200	52,00 A 2
C 6,3	x 25	S 500	57,00 A 2
C 6,3	x 32	S 200	62,00 A 2
C 6,3	x 38	S 200	66,80 A 2
C 6,3	x 45	S 200	68,50 A 2
C 6,3	x 50	S 250	87,00 A 2
C 6,3	x 60	S 200	105,00 A 2
C 6,3	x 70	S 200	128,00 A 2

DIN	PU Pieces	€.
DIN 07976.923	RAZ 660	
7976	A 2	type C



Hexagon head tapping screws, C = with cone end

Caution! Hardness only ~ 250 HV.

Dimensions → **TI-46** Standard conversion → **TI-11**

Mounting instructions → **TI-237**

Steel → **S. 333**

DIN 7976 → replaced by ISO 1479

C 2,9	x 9,5	S 1000	5,40 A 2
C 2,9	x 13	S 1000	6,10 A 2
C 2,9	x 16	S 1000	6,40 A 2
C 2,9	x 22	S 1000	8,70 A 2
C 2,9	x 25	S 1000	9,80 A 2
C 2,9	x 32	S 1000	12,00 A 2
C 3,5	x 9,5	S 1000	6,60 A 2
C 3,5	x 13	S 1000	6,70 A 2
C 3,5	x 16	S 1000	7,10 A 2
C 3,5	x 19	S 1000	7,90 A 2
C 3,5	x 22	S 1000	9,30 A 2
C 3,5	x 25	S 1000	10,70 A 2
C 3,5	x 32	S 1000	12,80 A 2
C 3,5	x 38	S 1000	14,20 A 2
C 3,9	x 9,5	S 1000	7,70 A 2
C 3,9	x 13	S 1000	7,60 A 2
C 3,9	x 16	S 1000	8,00 A 2
C 3,9	x 19	S 1000	8,20 A 2
C 3,9	x 22	S 500	10,60 A 2
C 3,9	x 25	S 500	11,80 A 2
C 3,9	x 32	S 500	13,70 A 2
C 4,2	x 9,5	S 1000	8,40 A 2
C 4,2	x 13	S 1000	8,20 A 2
C 4,2	x 16	S 1000	8,50 A 2
C 4,2	x 19	S 1000	9,30 A 2

Dimensions	PU Pieces	€.	
C 4,2	x 22	S 500	11,90 A 2
C 4,2	x 25	S 500	12,20 A 2
C 4,2	x 32	S 500	14,80 A 2
C 4,2	x 38	S 500	16,90 A 2
C 4,2	x 45	S 500	20,60 A 2
C 4,2	x 50	S 500	24,10 A 2
C 4,8	x 13	S 1000	10,50 A 2
C 4,8	x 16	S 1000	11,30 A 2
C 4,8	x 19	S 1000	11,90 A 2
C 4,8	x 22	S 1000	13,30 A 2
C 4,8	x 25	S 1000	14,60 A 2
C 4,8	x 32	S 500	18,20 A 2
C 4,8	x 38	S 500	19,50 A 2
C 4,8	x 45	S 500	25,00 A 2
C 4,8	x 50	S 250	29,50 A 2
C 5,5	x 13	S 500	16,40 A 2
C 5,5	x 16	S 500	17,00 A 2
C 5,5	x 19	S 500	18,20 A 2
C 5,5	x 22	S 500	20,70 A 2
C 5,5	x 25	S 250	22,70 A 2
C 5,5	x 32	S 250	26,00 A 2
C 5,5	x 38	S 250	29,50 A 2
C 5,5	x 45	S 250	33,00 A 2
C 5,5	x 50	S 250	36,00 A 2
C 6,3	x 13	S 250	23,80 A 2
C 6,3	x 16	S 500	23,80 A 2
C 6,3	x 19	S 500	25,50 A 2
C 6,3	x 22	S 500	29,00 A 2
C 6,3	x 25	S 500	31,00 A 2
C 6,3	x 32	S 250	34,00 A 2
C 6,3	x 38	S 250	38,00 A 2
C 6,3	x 45	S 250	42,50 A 2
C 6,3	x 50	S 250	45,50 A 2
C 6,3	x 60	S 100	56,00 A 2
C 6,3	x 70	S 100	78,00 A 2
C 8	x 16	S 100	45,00 A 2
C 8	x 19	S 100	50,00 A 2
C 8,0	x 22	S 250	51,00 A 2
C 8	x 25	S 100	78,00 A 2
C 8,0	x 32	S 100	82,85 A 2
C 8	x 38	S 100	111,00 A 2
C 8	x 45	S 100	150,00 A 2
C 8	x 50	S 100	205,00 A 2
C 8	x 60	S 100	277,00 A 2

Dimensions	PU Pieces	€.
~DIN 07980.960	RAZ 680	
7980	1.4310	



Spring lock washers for cheese head screws

Caution! Reduced spring load.

Dimensions → **TI-100**

Spring steel → **S. 335**

3	S 1000	2,80
3	K 100	4,45
4	S 1000	3,05
4	K 100	4,70
5	S 1000	4,55
5	K 100	6,20
6	S 1000	5,30
6	K 100	6,90
8	S 1000	10,20
8	K 100	11,80
10	S 1000	17,70
10	K 100	19,30



DIN 7981

Dimensions	PU Pieces	€.
12	S 500	21,50
12	K 100	23,10
16	S 250	51,00
16	K 50	54,00

~DIN	07980.940	RAZ 680
7980	A 4	



Spring lock washers for cheese head screws

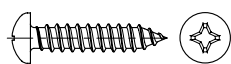
Caution! Reduced spring load.

Dimensions → **TI-100**

Spring steel → **S. 335**

4	S 1000	3,90 A4
4	K 100	5,60 A4
5	S 1000	5,50 A4
5	K 100	7,10 A4
6	S 1000	6,40 A4
6	K 100	8,00 A4
8	S 1000	14,20 A4
8	K 100	15,70 A4
10	S 1000	21,80 A4
10	K 100	23,50 A4
12	S 500	27,00 A4
12	K 100	28,50 A4
16	S 100	61,00 A4
16	K 50	62,50 A4
20	S 50	139,00 A4

DIN	07981.924	RAZ 690
7981	A 2	type C-H



Pan head tapping screws with Phillips cross recess H, C = with cone end

Nominal lengths from 60 mm with partial thread

Caution! Hardness only ~ 250 HV.

Dimensions → **TI-46** Standard conversion → **TI-11**

Mounting instructions → **TI-237**

Steel → **S. 335**

DIN 7981 → replaced by ISO 7049

C 2,2	x 4,5-H	S 1000	6,00 A2
C 2,2	x 6,5-H	S 1000	5,80 A2
C 2,2	x 6,5-H	K 100	7,85 A2
C 2,2	x 9,5-H	S 1000	4,55 A2
C 2,2	x 13 -H	S 1000	6,50 A2
C 2,2	x 16 -H	S 1000	7,50 A2
C 2,2	x 19 -H	S 1000	10,00 A2
C 2,9	x 6,5-H	S 1000	3,75 A2
C 2,9	x 6,5-H	K 100	5,80 A2
C 2,9	x 9,5-H	S 1000	2,60 A2
C 2,9	x 9,5-H	K 100	4,65 A2
C 2,9	x 13 -H	S 1000	2,70 A2
C 2,9	x 13 -H	K 100	4,75 A2

Dimensions	PU Pieces	€.	
C 2,9	x 16 -H	S 1000	3,00 A2
C 2,9	x 16 -H	K 100	5,05 A2
C 2,9	x 19 -H	S 1000	3,20 A2
C 2,9	x 19 -H	K 100	5,25 A2
C 2,9	x 22 -H	S 1000	5,35 A2
C 2,9	x 22 -H	K 100	7,40 A2
C 2,9	x 25 -H	S 1000	5,60 A2
C 2,9	x 25 -H	K 100	7,65 A2
C 3,5	x 6,5-H	S 1000	4,20 A2
C 3,5	x 9,5-H	S 1000	3,40 A2
C 3,5	x 9,5-H	K 100	5,45 A2
C 3,5	x 13 -H	S 1000	3,60 A2
C 3,5	x 13 -H	K 100	5,65 A2
C 3,5	x 16 -H	S 1000	3,80 A2
C 3,5	x 16 -H	K 100	5,85 A2
C 3,5	x 19 -H	S 1000	4,20 A2
C 3,5	x 19 -H	K 100	6,25 A2
C 3,5	x 22 -H	S 1000	5,25 A2
C 3,5	x 22 -H	K 100	7,30 A2
C 3,5	x 25 -H	S 1000	5,45 A2
C 3,5	x 25 -H	K 100	7,50 A2
C 3,5	x 32 -H	S 1000	6,20 A2
C 3,5	x 32 -H	K 100	8,25 A2
C 3,5	x 38 -H	S 1000	6,95 A2
C 3,5	x 38 -H	K 100	9,00 A2
C 3,5	x 45 -H	S 1000	9,00 A2
C 3,5	x 50 -H	S 1000	12,00 A2
C 3,5	x 60 -H	S 500	16,50 A2
C 3,9	x 9,5-H	S 1000	4,10 A2
C 3,9	x 9,5-H	K 100	6,15 A2
C 3,9	x 13 -H	S 1000	4,10 A2
C 3,9	x 13 -H	K 100	6,15 A2
C 3,9	x 16 -H	S 1000	4,40 A2
C 3,9	x 16 -H	K 100	6,45 A2
C 3,9	x 19 -H	S 1000	4,80 A2
C 3,9	x 19 -H	K 100	6,85 A2
C 3,9	x 22 -H	S 500	5,90 A2
C 3,9	x 22 -H	K 100	7,95 A2
C 3,9	x 25 -H	S 500	6,10 A2
C 3,9	x 25 -H	K 100	8,15 A2
C 3,9	x 32 -H	S 500	7,25 A2
C 3,9	x 32 -H	K 100	9,30 A2
C 3,9	x 38 -H	S 500	8,30 A2
C 3,9	x 38 -H	K 100	10,35 A2
C 3,9	x 45 -H	S 500	10,30 A2
C 3,9	x 50 -H	S 500	12,35 A2
C 4,2	x 9,5-H	S 1000	4,60 A2
C 4,2	x 9,5-H	K 100	6,65 A2
C 4,2	x 13 -H	S 1000	4,70 A2
C 4,2	x 13 -H	K 100	6,75 A2
C 4,2	x 16 -H	S 1000	5,25 A2
C 4,2	x 16 -H	K 100	7,30 A2
C 4,2	x 19 -H	S 500	5,75 A2
C 4,2	x 19 -H	K 100	7,80 A2
C 4,2	x 22 -H	S 500	6,50 A2
C 4,2	x 22 -H	K 100	8,55 A2
C 4,2	x 25 -H	S 500	6,70 A2
C 4,2	x 25 -H	K 100	8,75 A2
C 4,2	x 32 -H	S 500	8,30 A2
C 4,2	x 32 -H	K 100	10,35 A2
C 4,2	x 38 -H	S 500	9,45 A2
C 4,2	x 38 -H	K 100	11,50 A2
C 4,2	x 45 -H	S 500	13,70 A2
C 4,2	x 45 -H	K 100	15,75 A2
C 4,2	x 50 -H	S 500	15,50 A2
C 4,2	x 50 -H	K 100	17,55 A2
C 4,8	x 9,5-H	S 500	5,80 A2
C 4,8	x 9,5-H	K 100	7,85 A2
C 4,8	x 13 -H	S 500	6,00 A2
C 4,8	x 13 -H	K 100	8,05 A2
C 4,8	x 16 -H	S 500	6,50 A2
C 4,8	x 16 -H	K 100	8,55 A2
C 4,8	x 19 -H	S 500	7,25 A2
C 4,8	x 19 -H	K 100	9,30 A2
C 4,8	x 22 -H	S 500	8,30 A2

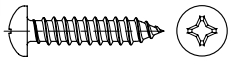
Dimensions	PU Pieces	€.	
C 4,8	x 22 -H	K 100	10,35 A2
C 4,8	x 25 -H	S 500	8,50 A2
C 4,8	x 25 -H	K 100	10,55 A2
C 4,8	x 32 -H	S 250	10,80 A2
C 4,8	x 32 -H	K 100	12,90 A2
C 4,8	x 38 -H	S 250	12,10 A2
C 4,8	x 38 -H	K 100	14,15 A2
C 4,8	x 45 -H	S 250	15,80 A2
C 4,8	x 45 -H	K 100	17,85 A2
C 4,8	x 50 -H	S 250	16,30 A2
C 4,8	x 50 -H	K 100	18,35 A2
C 4,8	x 60 -H	S 250	22,10 A2
C 4,8	x 70 -H	S 250	29,00 A2
C 4,8	x 80 -H	S 100	34,40 A2
C 4,8	x 90 -H	S 100	44,40 A2
C 4,8	x 100 -H	S 100	56,20 A2
C 4,8	x 120 -H	S 100	75,00 A2
C 5,5	x 13 -H	S 500	9,75 A2
C 5,5	x 13 -H	K 100	11,80 A2
C 5,5	x 16 -H	S 500	10,40 A2
C 5,5	x 16 -H	K 100	12,45 A2
C 5,5	x 19 -H	S 500	11,10 A2
C 5,5	x 19 -H	K 100	13,15 A2
C 5,5	x 22 -H	S 500	12,20 A2
C 5,5	x 22 -H	K 100	14,25 A2
C 5,5	x 25 -H	S 500	13,10 A2
C 5,5	x 25 -H	K 100	15,15 A2
C 5,5	x 32 -H	S 250	15,30 A2
C 5,5	x 32 -H	K 100	17,35 A2
C 5,5	x 38 -H	S 250	17,30 A2
C 5,5	x 38 -H	K 100	19,35 A2
C 5,5	x 45 -H	S 250	20,70 A2
C 5,5	x 45 -H	K 100	22,75 A2
C 5,5	x 50 -H	S 250	23,20 A2
C 5,5	x 50 -H	K 100	25,25 A2
C 5,5	x 60 -H	S 100	27,60 A2
C 5,5	x 70 -H	S 100	32,00 A2
C 5,5	x 80 -H	S 100	40,00 A2
C 5,5	x 90 -H	S 100	55,00 A2
C 5,5	x 100 -H	S 100	68,00 A2
C 6,3	x 13 -H	S 250	13,30 A2
C 6,3	x 13 -H	K 100	15,35 A2
C 6,3	x 16 -H	S 500	11,20 A2
C 6,3	x 16 -H	K 100	13,25 A2
C 6,3	x 19 -H	S 250	12,00 A2
C 6,3	x 19 -H	K 100	14,05 A2
C 6,3	x 22 -H	S 250	13,20 A2
C 6,3	x 22 -H	K 100	15,25 A2
C 6,3	x 25 -H	S 250	14,00 A2
C 6,3	x 25 -H	K 100	16,05 A2
C 6,3	x 32 -H	S 250	16,80 A2
C 6,3	x 32 -H	K 100	18,85 A2
C 6,3	x 38 -H	S 250	18,60 A2
C 6,3	x 38 -H	K 100	20,65 A2
C 6,3	x 45 -H	S 250	22,20 A2
C 6,3	x 45 -H	K 100	24,25 A2
C 6,3	x 50 -H	S 250	27,60 A2
C 6,3	x 50 -H	K 100	29,65 A2
C 6,3	x 60 -H	K 100	31,50 A2
C 6,3	x 70 -H	K 100	41,00 A2
C 6,3	x 80 -H	K 100	54,00 A2
C 6,3	x 90 -H	K 100	66,00 A2
C 6,3	x 100 -H	K 100	80,00 A2



DIN 7981

Dimensions PU Pieces €.

DIN	07981.944	RAZ 690
7981	A 4	type C-H



Pan head tapping screws with Phillips cross recess H, C = with cone end

Caution! Hardness only ~ 250 HV.

Dimensions → **TI-46** Standard conversion → **TI-11**
Mounting instructions → **TI-237**

Steel → **S. 335**

DIN 7981 → replaced by ISO 7049

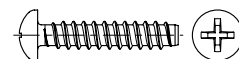
C 2,2	x	4,5-H	S	1000	12,00 A 4
C 2,2	x	6,5-H	S	1000	11,60 A 4
C 2,2	x	9,5-H	S	1000	9,10 A 4
C 2,2	x	13 -H	S	1000	13,00 A 4
C 2,2	x	16 -H	S	1000	15,00 A 4
C 2,2	x	19 -H	S	1000	18,00 A 4
C 2,9	x	6,5-H	S	1000	2,33 A 4
C 2,9	x	9,5-H	S	1000	5,20 A 4
C 2,9	x	13 -H	S	1000	5,40 A 4
C 2,9	x	16 -H	S	1000	6,00 A 4
C 2,9	x	19 -H	S	1000	6,40 A 4
C 2,9	x	22 -H	S	1000	10,70 A 4
C 2,9	x	25 -H	S	1000	11,20 A 4
C 3,5	x	6,5-H	S	1000	7,00 A 4
C 3,5	x	6,5-H	K	100	10,50 A 4
C 3,5	x	9,5-H	S	1000	6,80 A 4
C 3,5	x	13 -H	S	1000	6,35 A 4
C 3,5	x	16 -H	S	1000	6,55 A 4
C 3,5	x	19 -H	S	1000	8,40 A 4
C 3,5	x	22 -H	S	1000	11,00 A 4
C 3,5	x	25 -H	S	1000	12,00 A 4
C 3,5	x	32 -H	S	1000	13,00 A 4
C 3,5	x	38 -H	S	1000	15,00 A 4
C 3,9	x	9,5-H	S	1000	8,20 A 4
C 3,9	x	13 -H	S	1000	6,75 A 4
C 3,9	x	16 -H	S	1000	8,80 A 4
C 3,9	x	19 -H	S	1000	9,60 A 4
C 3,9	x	25 -H	S	500	12,20 A 4
C 3,9	x	32 -H	S	500	14,50 A 4
C 3,9	x	38 -H	S	500	16,60 A 4
C 3,9	x	45 -H	S	500	20,60 A 4
C 3,9	x	50 -H	S	500	24,70 A 4
C 4,2	x	9,5-H	S	1000	9,20 A 4
C 4,2	x	13 -H	S	1000	8,70 A 4
C 4,2	x	16 -H	S	1000	9,55 A 4
C 4,2	x	19 -H	S	500	10,35 A 4
C 4,2	x	22 -H	S	500	13,00 A 4
C 4,2	x	25 -H	S	500	13,40 A 4
C 4,2	x	32 -H	S	500	16,60 A 4
C 4,2	x	38 -H	S	500	18,90 A 4
C 4,2	x	45 -H	S	500	27,40 A 4
C 4,8	x	9,5-H	S	500	11,60 A 4
C 4,8	x	13 -H	S	100	12,00 A 4
C 4,8	x	16 -H	S	500	12,80 A 4
C 4,8	x	19 -H	S	500	13,05 A 4
C 4,8	x	22 -H	S	500	16,60 A 4
C 4,8	x	25 -H	S	500	15,75 A 4
C 4,8	x	32 -H	S	250	20,70 A 4
C 4,8	x	38 -H	S	250	24,20 A 4
C 4,8	x	45 -H	S	250	31,60 A 4
C 4,8	x	50 -H	S	250	32,60 A 4
C 4,8	x	60 -H	S	250	44,20 A 4
C 4,8	x	70 -H	S	250	58,00 A 4
C 4,8	x	90 -H	S	100	88,80 A 4

Dimensions PU Pieces €.

C 4,8	x	100 -H	S	100	112,40 A 4
C 5,5	x	13 -H	S	500	19,50 A 4
C 5,5	x	16 -H	S	500	20,80 A 4
C 5,5	x	19 -H	S	500	22,20 A 4
C 5,5	x	22 -H	S	500	24,40 A 4
C 5,5	x	25 -H	S	500	26,20 A 4
C 5,5	x	32 -H	S	250	30,60 A 4
C 5,5	x	38 -H	S	250	34,60 A 4
C 5,5	x	45 -H	S	250	41,40 A 4
C 5,5	x	50 -H	S	250	46,40 A 4
C 5,5	x	60 -H	S	100	55,20 A 4
C 6,3	x	13 -H	S	250	26,60 A 4
C 6,3	x	16 -H	S	500	22,40 A 4
C 6,3	x	19 -H	S	250	24,00 A 4
C 6,3	x	22 -H	S	250	26,40 A 4
C 6,3	x	25 -H	S	250	28,00 A 4
C 6,3	x	32 -H	S	250	33,60 A 4
C 6,3	x	38 -H	S	250	37,20 A 4
C 6,3	x	45 -H	S	250	44,40 A 4
C 6,3	x	50 -H	S	250	55,20 A 4

Dimensions PU Pieces €.

DIN	07981.927	RAZ 690
7981	A 2	type F-H



Pan head tapping screws with Phillips cross recess H, F = with flat end

Caution! Hardness only ~ 250 HV.

Dimensions → **TI-46** Standard conversion → **TI-11**
Mounting instructions → **TI-237**

Steel → **S. 337**

DIN 7981 → replaced by ISO 7049

2,9	x	6,5 -F-H	S	1000	7,50 A 2
2,9	x	9,5 -F-H	S	1000	7,60 A 2
2,9	x	13 -F-H	S	1000	8,10 A 2
2,9	x	16 -F-H	S	1000	9,00 A 2
3,5	x	9,5 -F-H	S	1000	10,20 A 2
3,5	x	13 -F-H	S	1000	10,80 A 2
3,5	x	16 -F-H	S	1000	11,40 A 2
3,9	x	9,5 -F-H	S	1000	12,30 A 2
3,9	x	13 -F-H	S	1000	12,30 A 2
4,2	x	9,5 -F-H	S	1000	13,80 A 2

Article 88981.920 RAZ 998

7981	A 2	article 88981
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Cap-head tapping screws with Phillips cross recess H type C = with cone point

Caution! Hardness only ~ 250 HV.

Matching decorative caps → Article 88003

Mounting instructions → **TI-237** Standard conversion → **TI-11**

3,9	x	9,5 -H	S	1000	16,50 A 2
3,9	x	13 -H	S	1000	16,10 A 2
3,9	x	16 -H	S	1000	10,80 A 2

Dimensions PU Pieces €.

3,9	x	19 -H	S	1000	17,50 A 2
3,9	x	22 -H	S	500	14,30 A 2
3,9	x	25 -H	S	500	21,00 A 2
3,9	x	32 -H	S	500	19,30 A 2
3,9	x	38 -H	S	500	29,50 A 2

Article 88003.* RAZ 800

88003	Plastic
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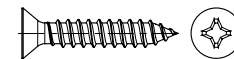
Decorative caps for cap screws article 88981 Ø 3.9

White RAL 9010 (*630), grey RAL 7035 (*640), black RAL 9005 (*650)

F. 3,9 S 1000 5,40

DIN 07982.924 RAZ 690

7982	A 2	type C-H
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Countersunk head tapping screws with Phillips cross recess H, C = with cone end

Nominal lengths from 60 mm with partial thread, countersunk $\alpha = 80^\circ$

Caution! Hardness only ~ 250 HV.

Dimensions → **TI-47** Standard conversion → **TI-11**

Steel → **S. 338**

DIN 7982 → replaced by ISO 7050

C 2,2	x	6,5-H	S	1000	7,50 A 2
C 2,2	x	9,5-H	S	1000	5,15 A 2
C 2,2	x	13 -H	S	1000	9,85 A 2
C 2,2	x	16 -H	S	1000	13,75 A 2
C 2,2	x	19 -H	S	1000	19,65 A 2
C 2,9	x	6,5-H	S	1000	3,50 A 2
C 2,9	x	9,5-H	S	1000	2,60 A 2
C 2,9	x	9,5-H	K	100	4,65 A 2
C 2,9	x	13 -H	S	1000	2,70 A 2
C 2,9	x	13 -H	K	100	4,75 A 2
C 2,9	x	16 -H	S	1000	3,00 A 2
C 2,9	x	16 -H	K	100	5,05 A 2
C 2,9	x	19 -H	S	1000	3,20 A 2
C 2,9	x	19 -H	K	100	5,25 A 2
C 2,9	x	22 -H	S	1000	5,35 A 2
C 2,9	x	22 -H	K	100	7,40 A 2
C 2,9	x	25 -H	S	1000	5,60 A 2
C 2,9	x	25 -H	K	100	7,65 A 2
C 3,5	x	9,5-H	S	1000	3,40 A 2
C 3,5	x	9,5-H	K	100	5,45 A 2
C 3,5	x	13 -H	S	1000	3,60 A 2
C 3,5	x	13 -H	K	100	5,65 A 2
C 3,5	x	16 -H	S	1000	3,80 A 2
C 3,5	x	16 -H	K	100	5,85 A 2
C 3,5	x	19 -H	S	1000	4,20 A 2
C 3,5	x	19 -H	K	100	6,25 A 2
C 3,5	x	22 -H	S	1000	5,25 A 2

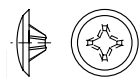


DIN 7983

Dimensions	PU	Pieces	€.
C 3,5 x 22 -H	K	100	7,30 A2
C 3,5 x 25 -H	S	1000	5,45 A2
C 3,5 x 25 -H	K	100	7,50 A2
C 3,5 x 32 -H	S	1000	6,20 A2
C 3,5 x 32 -H	K	100	8,25 A2
C 3,5 x 38 -H	S	1000	6,95 A2
C 3,5 x 38 -H	K	100	9,00 A2
C 3,5 x 45 -H	S	1000	9,00 A2
C 3,5 x 50 -H	S	1000	12,00 A2
C 3,5 x 60 -H	S	500	16,50 A2
C 3,9 x 9,5-H	S	1000	4,10 A2
C 3,9 x 9,5-H	K	100	6,15 A2
C 3,9 x 13 -H	S	1000	4,10 A2
C 3,9 x 13 -H	K	100	6,15 A2
C 3,9 x 16 -H	S	1000	4,40 A2
C 3,9 x 16 -H	K	100	6,45 A2
C 3,9 x 19 -H	S	1000	4,80 A2
C 3,9 x 19 -H	K	100	6,85 A2
C 3,9 x 22 -H	S	500	5,90 A2
C 3,9 x 22 -H	K	100	7,95 A2
C 3,9 x 25 -H	S	500	6,10 A2
C 3,9 x 25 -H	K	100	8,15 A2
C 3,9 x 32 -H	S	500	7,25 A2
C 3,9 x 32 -H	K	100	9,30 A2
C 3,9 x 38 -H	S	500	8,30 A2
C 3,9 x 38 -H	K	100	10,35 A2
C 3,9 x 45 -H	S	500	10,30 A2
C 3,9 x 50 -H	S	500	11,10 A2
C 3,9 x 60 -H	S	500	15,00 A2
C 4,2 x 9,5-H	S	1000	4,60 A2
C 4,2 x 9,5-H	K	100	6,65 A2
C 4,2 x 13 -H	S	1000	4,70 A2
C 4,2 x 13 -H	K	100	6,75 A2
C 4,2 x 16 -H	S	1000	5,25 A2
C 4,2 x 16 -H	K	100	7,30 A2
C 4,2 x 19 -H	S	500	5,75 A2
C 4,2 x 19 -H	K	100	7,80 A2
C 4,2 x 22 -H	S	500	6,50 A2
C 4,2 x 22 -H	K	100	8,55 A2
C 4,2 x 25 -H	S	500	6,70 A2
C 4,2 x 25 -H	K	100	8,75 A2
C 4,2 x 32 -H	S	500	8,30 A2
C 4,2 x 32 -H	K	100	10,35 A2
C 4,2 x 38 -H	S	500	9,45 A2
C 4,2 x 38 -H	K	100	11,50 A2
C 4,2 x 45 -H	S	500	13,70 A2
C 4,2 x 45 -H	K	100	15,75 A2
C 4,2 x 50 -H	S	500	15,50 A2
C 4,2 x 50 -H	K	100	17,55 A2
C 4,2 x 60 -H	S	250	27,50 A2
C 4,8 x 13 -H	S	500	6,00 A2
C 4,8 x 13 -H	K	100	8,05 A2
C 4,8 x 16 -H	S	500	6,50 A2
C 4,8 x 16 -H	K	100	8,55 A2
C 4,8 x 19 -H	S	500	7,25 A2
C 4,8 x 19 -H	K	100	9,30 A2
C 4,8 x 22 -H	S	500	8,30 A2
C 4,8 x 22 -H	K	100	10,35 A2
C 4,8 x 25 -H	S	500	8,50 A2
C 4,8 x 25 -H	K	100	10,55 A2
C 4,8 x 32 -H	S	250	10,80 A2
C 4,8 x 32 -H	K	100	12,85 A2
C 4,8 x 38 -H	S	250	12,10 A2
C 4,8 x 38 -H	K	100	14,15 A2
C 4,8 x 45 -H	S	250	15,80 A2
C 4,8 x 45 -H	K	100	17,85 A2
C 4,8 x 50 -H	S	250	16,30 A2
C 4,8 x 50 -H	K	100	18,35 A2
C 4,8 x 55 -H	S	250	34,50 A2
C 4,8 x 60 -H	S	250	22,10 A2
C 4,8 x 70 -H	S	250	29,00 A2
C 4,8 x 80 -H	S	250	34,40 A2
C 4,8 x 90 -H	S	100	44,40 A2
C 4,8 x 100 -H	S	100	56,20 A2
C 5,5 x 13 -H	S	500	9,75 A2

Dimensions	PU	Pieces	€.
C 5,5 x 13 -H	K	100	11,80 A2
C 5,5 x 16 -H	K	100	12,45 A2
C 5,5 x 19 -H	S	500	11,10 A2
C 5,5 x 19 -H	K	100	13,15 A2
C 5,5 x 22 -H	S	500	12,20 A2
C 5,5 x 22 -H	K	100	14,25 A2
C 5,5 x 25 -H	S	500	13,10 A2
C 5,5 x 25 -H	K	100	15,15 A2
C 5,5 x 32 -H	S	250	15,30 A2
C 5,5 x 32 -H	K	100	17,35 A2
C 5,5 x 38 -H	S	250	17,30 A2
C 5,5 x 38 -H	K	100	19,35 A2
C 5,5 x 45 -H	S	250	20,70 A2
C 5,5 x 45 -H	K	100	22,75 A2
C 5,5 x 50 -H	S	250	23,20 A2
C 5,5 x 50 -H	K	100	25,25 A2
C 5,5 x 60 -H	S	250	27,60 A2
C 6,3 x 16 -H	S	500	11,20 A2
C 6,3 x 16 -H	K	100	13,25 A2
C 6,3 x 19 -H	S	500	12,00 A2
C 6,3 x 19 -H	K	100	14,05 A2
C 6,3 x 22 -H	S	500	13,20 A2
C 6,3 x 22 -H	K	100	15,25 A2
C 6,3 x 25 -H	S	500	14,00 A2
C 6,3 x 25 -H	K	100	16,05 A2
C 6,3 x 32 -H	S	250	16,80 A2
C 6,3 x 32 -H	K	100	18,85 A2
C 6,3 x 38 -H	S	250	18,60 A2
C 6,3 x 38 -H	K	100	20,65 A2
C 6,3 x 45 -H	S	250	22,20 A2
C 6,3 x 45 -H	K	100	24,25 A2
C 6,3 x 50 -H	S	250	27,60 A2
C 6,3 x 50 -H	K	100	29,65 A2

Article	88004.(*)	RAZ 800
88004	Plastic	H



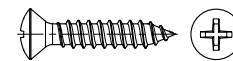
Caps for countersunk head screws with Phillips cross recess H

White RAL 9010 (*630),
light brown RAL 8001 (*640),
dark brown RAL 8014 (*650)

Cross recess no. x caps Ø/for screws Ø

2	x 12 / 3,5-5	S 1000	1,95 plastic
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Dimensions	PU Pieces	€.
DIN	07983.924	RAZ 690
7983	A 2	type C-H



Raised countersunk head tapping screws with Phillips cross recess H, C = with cone end

countersunk $\alpha = 80^\circ$

Caution! Hardness only ~ 250 HV.

Dimensions → **TI-47** Standard conversion → **TI-11**
Mounting instructions → **TI-237**

Steel → **S. 339**

DIN 7983 → replaced by ISO 7051

C 2,9 x 9,5-H	S	1000	2,60 A2
C 2,9 x 9,5-H	K	100	4,65 A2
C 2,9 x 13 -H	S	1000	2,70 A2
C 2,9 x 13 -H	K	100	4,75 A2
C 2,9 x 16 -H	S	1000	3,00 A2
C 2,9 x 16 -H	K	100	5,05 A2
C 2,9 x 19 -H	S	1000	3,20 A2
C 2,9 x 19 -H	K	100	5,25 A2
C 2,9 x 22 -H	S	1000	5,35 A2
C 2,9 x 22 -H	K	100	7,40 A2
C 2,9 x 25 -H	S	1000	5,60 A2
C 2,9 x 25 -H	K	100	7,65 A2
C 3,5 x 9,5-H	S	1000	3,40 A2
C 3,5 x 9,5-H	K	100	5,45 A2
C 3,5 x 13 -H	S	1000	3,60 A2
C 3,5 x 13 -H	K	100	5,65 A2
C 3,5 x 16 -H	S	1000	3,80 A2
C 3,5 x 16 -H	K	100	5,85 A2
C 3,5 x 19 -H	S	1000	4,20 A2
C 3,5 x 19 -H	K	100	6,25 A2
C 3,5 x 22 -H	S	1000	5,25 A2
C 3,5 x 22 -H	K	100	7,30 A2
C 3,5 x 25 -H	S	1000	5,45 A2
C 3,5 x 25 -H	K	100	7,50 A2
C 3,5 x 32 -H	S	1000	6,20 A2
C 3,5 x 32 -H	K	100	8,25 A2
C 3,5 x 38 -H	S	1000	6,95 A2
C 3,5 x 38 -H	K	100	9,00 A2
C 3,9 x 9,5-H	S	1000	4,10 A2
C 3,9 x 9,5-H	K	100	6,15 A2
C 3,9 x 13 -H	S	1000	4,10 A2
C 3,9 x 13 -H	K	100	6,15 A2
C 3,9 x 16 -H	S	1000	4,40 A2
C 3,9 x 16 -H	K	100	6,45 A2
C 3,9 x 19 -H	S	1000	4,80 A2
C 3,9 x 19 -H	K	100	6,85 A2
C 3,9 x 22 -H	S	500	5,90 A2
C 3,9 x 22 -H	K	100	7,95 A2
C 3,9 x 25 -H	S	500	6,10 A2
C 3,9 x 25 -H	K	100	8,15 A2
C 3,9 x 32 -H	S	500	7,25 A2
C 3,9 x 32 -H	K	100	9,30 A2
C 3,9 x 38 -H	S	500	8,30 A2
C 3,9 x 38 -H	K	100	10,35 A2
C 4,2 x 9,5-H	S	1000	4,60 A2
C 4,2 x 9,5-H	K	100	6,65 A2
C 4,2 x 13 -H	S	1000	4,70 A2
C 4,2 x 13 -H	K	100	6,75 A2
C 4,2 x 16 -H	S	1000	5,25 A2
C 4,2 x 16 -H	K	100	7,30 A2
C 4,2 x 19 -H	S	500	5,75 A2
C 4,2 x 19 -H	K	100	7,80 A2

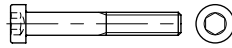


DIN 7983

Dimensions	PU Pieces	€.
C 4,2 x 22 -H S	500	6,50 A 2
C 4,2 x 22 -H K	100	8,55 A 2
C 4,2 x 25 -H S	500	6,70 A 2
C 4,2 x 25 -H K	100	8,75 A 2
C 4,2 x 32 -H S	500	8,30 A 2
C 4,2 x 32 -H K	100	10,35 A 2
C 4,2 x 38 -H S	500	9,45 A 2
C 4,2 x 38 -H K	100	11,50 A 2
C 4,2 x 45 -H S	500	13,70 A 2
C 4,2 x 45 -H K	100	15,75 A 2
C 4,2 x 50 -H S	500	15,50 A 2
C 4,2 x 50 -H K	100	17,55 A 2
C 4,2 x 60 -H S	200	21,00 A 2
C 4,8 x 13 -H S	500	6,00 A 2
C 4,8 x 13 -H K	100	8,05 A 2
C 4,8 x 16 -H S	500	6,50 A 2
C 4,8 x 16 -H K	100	8,55 A 2
C 4,8 x 19 -H S	500	7,25 A 2
C 4,8 x 19 -H K	100	9,30 A 2
C 4,8 x 22 -H S	500	8,30 A 2
C 4,8 x 22 -H K	100	10,35 A 2
C 4,8 x 25 -H S	500	8,50 A 2
C 4,8 x 25 -H K	100	10,55 A 2
C 4,8 x 32 -H S	250	10,80 A 2
C 4,8 x 32 -H K	100	12,85 A 2
C 4,8 x 38 -H S	250	12,10 A 2
C 4,8 x 38 -H K	100	14,15 A 2
C 4,8 x 45 -H S	250	15,80 A 2
C 4,8 x 45 -H K	100	17,85 A 2
C 4,8 x 50 -H S	250	16,30 A 2
C 4,8 x 50 -H K	100	18,35 A 2
C 4,8 x 60 -H S	250	26,60 A 2
C 5,5 x 13 -H S	500	9,75 A 2
C 5,5 x 13 -H K	100	11,80 A 2
C 5,5 x 16 -H S	500	10,40 A 2
C 5,5 x 16 -H K	100	12,45 A 2
C 5,5 x 19 -H S	500	11,10 A 2
C 5,5 x 19 -H K	100	13,15 A 2
C 5,5 x 22 -H S	100	14,25 A 2
C 5,5 x 25 -H S	100	15,15 A 2
C 5,5 x 32 -H S	250	15,30 A 2
C 5,5 x 32 -H K	100	17,35 A 2
C 5,5 x 38 -H S	250	17,30 A 2
C 5,5 x 38 -H K	100	19,35 A 2
C 5,5 x 45 -H S	250	20,70 A 2
C 5,5 x 45 -H K	100	22,75 A 2
C 5,5 x 50 -H S	250	23,20 A 2
C 5,5 x 50 -H K	100	25,25 A 2
C 6,3 x 16 -H S	100	13,25 A 2
C 6,3 x 19 -H S	100	14,05 A 2
C 6,3 x 22 -H S	500	13,20 A 2
C 6,3 x 22 -H K	100	15,25 A 2
C 6,3 x 25 -H S	500	14,00 A 2
C 6,3 x 25 -H K	100	16,05 A 2
C 6,3 x 32 -H S	100	18,85 A 2
C 6,3 x 38 -H S	100	20,65 A 2
C 6,3 x 45 -H S	100	24,25 A 2
C 6,3 x 50 -H S	250	27,60 A 2
C 6,3 x 50 -H K	100	29,65 A 2

Dimensions	PU Pieces	€.
DIN	07984.920	RAZ 700

7984 A 2



Hexagon socket head cap screws with low head

Length F 100 mm sometimes thread up to head

Caution! Screws have a reduced loadability.

Dimensions → TI-B Tightening torque → TI-235
Mech. properties → TI-224

Steel → S. 340

M 3 x 5 S	200	50,10 A 2
M 3 x 6 S	200	50,10 A 2
M 3 x 8 S	200	50,10 A 2
M 3 x 10 S	200	50,10 A 2
M 3 x 12 S	100	50,10 A 2
M 3 x 16 S	100	30,70 A 2
M 3 x 20 S	100	34,25 A 2
M 3 x 25 S	100	35,30 A 2
M 3 x 30 S	100	45,50 A 2
M 4 x 6 S	200	50,10 A 2
M 4 x 8 S	200	50,10 A 2
M 4 x 10 S	200	50,10 A 2
M 4 x 12 S	200	50,10 A 2
M 4 x 16 S	200	35,30 A 2
M 4 x 20 S	100	37,35 A 2
M 4 x 25 S	100	39,90 A 2
M 4 x 30 S	100	50,10 A 2
M 4 x 35 S	100	55,25 A 2
M 4 x 40 S	100	60,85 A 2
M 5 x 8 S	100	55,25 A 2
M 5 x 10 S	100	50,10 A 2
M 5 x 12 S	100	50,10 A 2
M 5 x 14 S	100	45,00 A 2
M 5 x 16 S	100	39,40 A 2
M 5 x 20 S	100	41,95 A 2
M 5 x 25 S	100	44,50 A 2
M 5 x 30 S	100	52,15 A 2
M 5 x 35 S	100	57,80 A 2
M 5 x 40 S	100	62,90 A 2
M 5 x 45 S	100	60,85 A 2
M 5 x 50 S	100	65,45 A 2
M 5 x 60 S	100	72,60 A 2
M 6 x 8 S	100	68,55 A 2
M 6 x 10 S	100	62,40 A 2
M 6 x 12 S	100	62,40 A 2
M 6 x 16 S	100	49,60 A 2
M 6 x 20 S	100	53,70 A 2
M 6 x 25 S	100	56,25 A 2
M 6 x 30 S	100	61,35 A 2
M 6 x 35 S	100	69,55 A 2
M 6 x 40 S	100	76,20 A 2
M 6 x 45 S	100	92,05 A 2
M 6 x 50 S	100	102,00 A 2
M 6 x 55 S	100	128,00 A 2
M 6 x 60 S	100	139,00 A 2
M 8 x 10 S	100	112,00 A 2
M 8 x 12 S	100	112,00 A 2
M 8 x 16 S	100	101,00 A 2
M 8 x 20 S	100	85,90 A 2
M 8 x 25 S	100	81,80 A 2
M 8 x 30 S	100	85,90 A 2
M 8 x 35 S	100	96,65 A 2
M 8 x 40 S	100	106,00 A 2

Dimensions	PU Pieces	€.
M 8 x 45 S	100	124,00 A 2
M 8 x 50 S	100	141,00 A 2
M 8 x 60 S	100	182,00 A 2
M 10 x 16 S	100	205,00 A 2
M 10 x 20 S	100	174,00 A 2
M 10 x 25 S	100	164,00 A 2
M 10 x 30 S	100	179,00 A 2
M 10 x 35 S	100	190,00 A 2
M 10 x 40 S	100	202,00 A 2
M 10 x 45 S	100	236,00 A 2
M 10 x 50 S	100	251,00 A 2
M 10 x 55 S	100	292,00 A 2
M 10 x 60 S	100	307,00 A 2
M 12 x 25 S	100	254,00 A 2
M 12 x 30 S	100	256,00 A 2
M 12 x 35 S	100	271,00 A 2
M 12 x 40 S	100	297,00 A 2
M 12 x 45 S	100	328,00 A 2
M 16 x 30 S	25	962,00 A 2
M 16 x 35 S	25	962,00 A 2
M 16 x 40 S	25	1003,00 A 2
M 16 x 45 S	25	1054,00 A 2
M 16 x 50 S	25	1095,00 A 2
M 16 x 55 S	25	1207,00 A 2
M 16 x 60 S	25	1238,00 A 2

Dimensions	PU Pieces	€.
DIN	07984.940	RAZ 700

7984 A 4



Hexagon socket head cap screws with low head

Length F 100 mm sometimes thread up to head

Caution! Screws have a reduced loadability.

Dimensions → TI-13 Tightening torque → TI-235
Mech. properties → TI-224

Steel → S. 340

M 4 x 6 S	200	105,00 A 4
M 4 x 8 S	200	88,45 A 4
M 4 x 10 S	200	72,10 A 4
M 4 x 12 S	200	72,10 A 4
M 4 x 16 S	200	57,80 A 4
M 5 x 10 S	100	78,25 A 4
M 5 x 12 S	100	68,00 A 4
M 5 x 16 S	100	49,60 A 4
M 5 x 20 S	100	53,70 A 4
M 6 x 10 S	100	93,60 A 4
M 6 x 12 S	100	79,25 A 4
M 6 x 16 S	100	62,40 A 4
M 6 x 20 S	100	65,95 A 4
M 6 x 25 S	100	75,70 A 4
M 6 x 30 S	100	78,75 A 4
M 6 x 35 S	100	84,40 A 4
M 6 x 40 S	100	95,65 A 4
M 8 x 12 S	100	156,00 A 4
M 8 x 16 S	100	119,00 A 4
M 8 x 20 S	100	97,15 A 4
M 8 x 25 S	100	102,00 A 4
M 8 x 30 S	100	108,00 A 4
M 8 x 35 S	100	119,00 A 4
M 8 x 40 S	100	151,00 A 4
M 8 x 50 S	100	190,00 A 4
M 10 x 20 S	100	225,00 A 4
M 10 x 25 S	100	213,00 A 4

DIN 7985

Dimensions	PU Pieces	€.
M 10 x 30	S 100	215,00 A4
M 10 x 35	S 100	228,00 A4
M 12 x 20	S 100	394,00 A4
M 12 x 25	S 50	374,00 A4
M 12 x 30	S 50	343,00 A4
M 12 x 35	S 50	364,00 A4
M 12 x 40	S 50	389,00 A4
M 16 x 30	S 25	1161,00 A4
M 16 x 35	S 25	1207,00 A4
M 16 x 40	S 25	1222,00 A4

DIN	07985.924	RAZ 710
7985	A 2	H



Cheese head screws with Phillips cross recess H

Dimensions → **TI-40** Standard conversion → **TI-11**

Steel → **S. 342**

DIN 7985 → replaced by ISO 7045

M 1,6 x 2-H	S 1000	20,00 A2
M 1,6 x 3-H	S 1000	17,80 A2
M 1,6 x 4-H	S 1000	16,60 A2
M 1,6 x 5-H	S 1000	16,60 A2
M 1,6 x 6-H	S 1000	16,60 A2
M 1,6 x 8-H	S 1000	17,10 A2
M 1,6 x 10-H	S 1000	18,40 A2
M 1,6 x 12-H	S 1000	20,90 A2
M 1,6 x 16-H	S 1000	25,00 A2
M 2 x 2-H	S 1000	18,00 A2
M 2 x 3-H	S 1000	10,40 A2
M 2 x 4-H	S 1000	7,05 A2
M 2 x 4-H	K 200	8,05 A2
M 2 x 5-H	S 1000	5,80 A2
M 2 x 5-H	K 200	6,80 A2
M 2 x 6-H	S 1000	5,80 A2
M 2 x 6-H	K 200	6,80 A2
M 2 x 8-H	S 1000	5,80 A2
M 2 x 8-H	K 200	6,80 A2
M 2 x 10-H	S 1000	5,80 A2
M 2 x 10-H	K 200	6,80 A2
M 2 x 12-H	S 1000	6,30 A2
M 2 x 12-H	K 200	7,30 A2
M 2 x 14-H	S 1000	8,85 A2
M 2 x 16-H	S 1000	6,70 A2
M 2 x 16-H	K 200	7,70 A2
M 2 x 18-H	S 1000	9,45 A2
M 2 x 20-H	S 1000	7,75 A2
M 2 x 20-H	K 200	8,75 A2
M 2,5 x 3-H	S 1000	11,00 A2
M 2,5 x 4-H	S 1000	7,05 A2
M 2,5 x 4-H	K 200	8,05 A2
M 2,5 x 5-H	S 1000	7,20 A2
M 2,5 x 5-H	K 200	8,20 A2
M 2,5 x 6-H	S 1000	5,80 A2
M 2,5 x 6-H	K 200	6,80 A2
M 2,5 x 8-H	S 1000	5,80 A2
M 2,5 x 8-H	K 200	6,80 A2
M 2,5 x 10-H	S 1000	5,80 A2
M 2,5 x 10-H	K 200	6,80 A2
M 2,5 x 12-H	S 1000	6,30 A2
M 2,5 x 12-H	K 200	7,30 A2
M 2,5 x 14-H	S 1000	8,85 A2
M 2,5 x 16-H	S 1000	6,70 A2
M 2,5 x 18-H	S 1000	9,45 A2

Dimensions	PU Pieces	€.
M 2,5 x 20-H	S 1000	7,75 A2
M 2,5 x 25-H	S 1000	12,30 A2
M 2,5 x 30-H	S 1000	18,00 A2
M 3 x 4-H	S 1000	6,60 A2
M 3 x 5-H	S 1000	5,60 A2
M 3 x 6-H	S 1000	3,70 A2
M 3 x 6-H	K 200	4,70 A2
M 3 x 8-H	S 1000	3,95 A2
M 3 x 8-H	K 200	4,95 A2
M 3 x 10-H	S 1000	4,20 A2
M 3 x 10-H	K 200	5,20 A2
M 3 x 12-H	S 1000	4,45 A2
M 3 x 12-H	K 200	5,45 A2
M 3 x 14-H	S 1000	6,35 A2
M 3 x 16-H	S 1000	5,85 A2
M 3 x 16-H	K 200	7,95 A2
M 3 x 18-H	S 1000	7,40 A2
M 3 x 20-H	S 1000	5,55 A2
M 3 x 20-H	K 200	6,55 A2
M 3 x 22-H	S 1000	7,90 A2
M 3 x 25-H	S 1000	6,05 A2
M 3 x 30-H	S 1000	8,90 A2
M 3 x 35-H	S 1000	16,30 A2
M 3 x 40-H	S 1000	18,40 A2
M 3 x 45-H	S 500	27,00 A2
M 3 x 50-H	S 500	27,00 A2
M 4 x 4-H	S 1000	9,90 A2
M 4 x 5-H	S 1000	7,55 A2
M 4 x 6-H	S 1000	5,95 A2
M 4 x 6-H	K 200	6,95 A2
M 4 x 8-H	S 1000	5,95 A2
M 4 x 8-H	K 200	6,95 A2
M 4 x 10-H	S 1000	6,20 A2
M 4 x 10-H	K 200	7,20 A2
M 4 x 12-H	S 1000	6,55 A2
M 4 x 12-H	K 200	7,55 A2
M 4 x 14-H	S 1000	9,70 A2
M 4 x 16-H	S 1000	8,40 A2
M 4 x 16-H	K 200	9,45 A2
M 4 x 18-H	S 1000	10,70 A2
M 4 x 20-H	S 1000	8,15 A2
M 4 x 20-H	K 200	9,15 A2
M 4 x 22-H	S 1000	12,50 A2
M 4 x 25-H	S 1000	9,50 A2
M 4 x 25-H	K 200	10,50 A2
M 4 x 30-H	S 1000	11,10 A2
M 4 x 30-H	K 200	12,10 A2
M 4 x 35-H	S 500	14,00 A2
M 4 x 40-H	S 500	15,00 A2
M 4 x 45-H	S 500	17,60 A2
M 4 x 50-H	S 200	34,20 A2
M 4 x 55-H	S 200	40,00 A2
M 4 x 60-H	S 200	40,60 A2
M 4 x 70-H	S 200	52,00 A2
M 5 x 6-H	S 500	14,80 A2
M 5 x 8-H	S 500	10,60 A2
M 5 x 8-H	K 200	11,60 A2
M 5 x 10-H	S 500	10,50 A2
M 5 x 10-H	K 200	11,50 A2
M 5 x 12-H	S 500	10,60 A2
M 5 x 12-H	K 200	11,60 A2
M 5 x 14-H	S 500	15,50 A2
M 5 x 16-H	S 500	11,80 A2
M 5 x 16-H	K 200	12,80 A2
M 5 x 18-H	S 500	17,30 A2
M 5 x 20-H	S 500	13,20 A2
M 5 x 20-H	K 200	14,20 A2
M 5 x 22-H	S 500	19,60 A2
M 5 x 25-H	S 500	15,10 A2
M 5 x 25-H	K 200	16,10 A2
M 5 x 30-H	S 500	17,60 A2
M 5 x 30-H	K 200	18,60 A2
M 5 x 35-H	S 500	19,90 A2
M 5 x 35-H	K 200	20,90 A2
M 5 x 40-H	S 500	23,20 A2

Dimensions	PU Pieces	€.
M 5 x 40-H	K 200	24,20 A2
M 5 x 45-H	S 200	26,10 A2
M 5 x 50-H	S 200	27,70 A2
M 5 x 55-H	S 200	32,00 A2
M 5 x 60-H	S 200	32,70 A2
M 5 x 70-H	S 100	50,60 A2
M 5 x 80-H	S 100	59,30 A2
M 5 x 90-H	S 100	72,00 A2
M 6 x 8-H	S 200	13,10 A2
M 6 x 10-H	S 200	13,20 A2
M 6 x 12-H	S 200	13,90 A2
M 6 x 14-H	S 200	20,70 A2
M 6 x 16-H	S 200	15,80 A2
M 6 x 18-H	S 200	21,00 A2
M 6 x 20-H	S 200	17,10 A2
M 6 x 25-H	S 200	19,10 A2
M 6 x 30-H	S 200	22,40 A2
M 6 x 35-H	S 200	24,70 A2
M 6 x 40-H	S 200	28,10 A2
M 6 x 45-H	S 200	31,40 A2
M 6 x 50-H	S 200	32,30 A2
M 6 x 55-H	S 200	36,40 A2
M 6 x 60-H	S 100	36,40 A2
M 6 x 70-H	S 100	60,30 A2
M 6 x 80-H	S 100	69,50 A2
M 6 x 90-H	S 100	85,30 A2
M 8 x 10-H	S 100	29,30 A2
M 8 x 12-H	S 100	24,50 A2
M 8 x 16-H	S 100	28,50 A2
M 8 x 20-H	S 100	30,60 A2
M 8 x 25-H	S 100	31,90 A2
M 8 x 30-H	S 100	34,30 A2
M 8 x 35-H	S 100	34,90 A2
M 8 x 40-H	S 100	36,80 A2
M 8 x 45-H	S 100	37,70 A2
M 8 x 50-H	S 100	38,60 A2
M 8 x 55-H	S 100	46,90 A2
M 8 x 60-H	S 100	46,90 A2
M 10 x 12-H	S 100	175,00 A2
M 10 x 16-H	S 100	160,00 A2
M 10 x 20-H	S 100	170,00 A2
M 10 x 25-H	S 100	190,00 A2
M 10 x 30-H	S 100	205,00 A2
M 10 x 35-H	S 100	225,00 A2
M 10 x 40-H	S 100	245,00 A2
M 10 x 45-H	S 100	275,00 A2
M 10 x 50-H	S 100	275,00 A2
M 10 x 55-H	S 100	295,00 A2
M 10 x 60-H	S 100	310,00 A2

DIN	07985.944	RAZ 710
7985	A 4	H



Cheese head screws with Phillips cross recess H

Dimensions → **TI-40** Standard conversion → **TI-11**

Steel → **S. 342**

DIN 7985 → replaced by ISO 7045

M 1,6 x 3-H	S 1000	25,00 A4
M 1,6 x 4-H	S 1000	23,20 A4
M 1,6 x 5-H	S 1000	23,20 A4
M 1,6 x 6-H	S 1000	23,20 A4
M 1,6 x 8-H	S 1000	23,70 A4
M 1,6 x 10-H	S 1000	25,50 A4

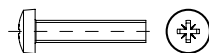


DIN 7985

Dimensions	PU	Pieces	€.
M 2 x 4 -H	S	1000	11,20 A4
M 2 x 6 -H	S	1000	9,30 A4
M 2 x 8 -H	S	1000	9,30 A4
M 2 x 10 -H	S	1000	9,30 A4
M 2 x 12 -H	S	1000	10,10 A4
M 2 x 16 -H	S	1000	10,70 A4
M 2 x 20 -H	S	1000	12,40 A4
M 2,5 x 4 -H	S	1000	11,20 A4
M 2,5 x 5 -H	S	1000	9,30 A4
M 2,5 x 6 -H	S	1000	9,30 A4
M 2,5 x 8 -H	S	1000	9,30 A4
M 2,5 x 10 -H	S	1000	9,30 A4
M 2,5 x 12 -H	S	1000	10,10 A4
M 2,5 x 14 -H	S	1000	13,40 A4
M 2,5 x 16 -H	S	1000	10,70 A4
M 2,5 x 20 -H	S	1000	12,40 A4
M 2,5 x 30 -H	S	500	25,00 A4
M 3 x 4 -H	S	1000	10,60 A4
M 3 x 5 -H	S	1000	8,95 A4
M 3 x 6 -H	S	1000	5,90 A4
M 3 x 8 -H	S	1000	5,80 A4
M 3 x 10 -H	S	1000	6,35 A4
M 3 x 12 -H	S	1000	6,85 A4
M 3 x 14 -H	S	1000	10,20 A4
M 3 x 16 -H	S	1000	7,40 A4
M 3 x 20 -H	S	1000	8,25 A4
M 3 x 25 -H	S	1000	9,70 A4
M 3 x 30 -H	S	1000	14,30 A4
M 3 x 35 -H	S	1000	26,10 A4
M 3 x 40 -H	S	1000	29,40 A4
M 3 x 50 -H	S	500	43,30 A4
M 4 x 5 -H	S	1000	12,10 A4
M 4 x 6 -H	S	1000	9,55 A4
M 4 x 8 -H	S	1000	8,60 A4
M 4 x 10 -H	S	1000	9,20 A4
M 4 x 12 -H	S	1000	9,90 A4
M 4 x 14 -H	S	1000	15,50 A4
M 4 x 16 -H	S	1000	10,60 A4
M 4 x 18 -H	S	1000	17,10 A4
M 4 x 20 -H	S	1000	11,90 A4
M 4 x 22 -H	S	1000	20,00 A4
M 4 x 25 -H	S	1000	14,10 A4
M 4 x 30 -H	S	500	17,80 A4
M 4 x 35 -H	S	500	22,40 A4
M 4 x 40 -H	S	500	24,10 A4
M 4 x 45 -H	S	200	54,70 A4
M 4 x 50 -H	S	200	54,70 A4
M 5 x 6 -H	S	500	23,70 A4
M 5 x 8 -H	S	500	17,00 A4
M 5 x 10 -H	S	500	13,40 A4
M 5 x 12 -H	S	500	14,40 A4
M 5 x 14 -H	S	500	24,90 A4
M 5 x 16 -H	S	500	15,40 A4
M 5 x 18 -H	S	500	27,80 A4
M 5 x 20 -H	S	500	16,80 A4
M 5 x 22 -H	S	500	31,40 A4
M 5 x 25 -H	S	500	20,10 A4
M 5 x 30 -H	S	500	23,60 A4
M 5 x 35 -H	S	500	26,90 A4
M 5 x 40 -H	S	500	37,20 A4
M 5 x 45 -H	S	500	49,40 A4
M 5 x 50 -H	S	200	52,10 A4
M 5 x 60 -H	S	200	68,00 A4
M 6 x 8 -H	S	200	28,30 A4
M 6 x 10 -H	S	200	20,10 A4
M 6 x 12 -H	S	200	21,00 A4
M 6 x 16 -H	S	200	22,80 A4
M 6 x 20 -H	S	200	24,50 A4
M 6 x 25 -H	S	200	26,90 A4
M 6 x 30 -H	S	200	30,20 A4
M 6 x 35 -H	S	200	33,70 A4
M 6 x 40 -H	S	200	40,00 A4
M 6 x 45 -H	S	200	53,10 A4
M 6 x 50 -H	S	200	54,10 A4
M 6 x 60 -H	S	100	64,90 A4

Dimensions PU Pieces €.

DIN	07985.925	RAZ 710
7985	A 2	Z



Cheese head screws with Pozidriv cross recess Z

Dimensions → TI-40 Standard conversion → TI-11

Steel → S. 343

DIN 7985 → replaced by ISO 7045

M 1,6 x 3 -Z	S	1000	25,00 A2
M 1,6 x 4 -Z	S	1000	24,00 A2
M 1,6 x 5 -Z	S	1000	24,50 A2
M 1,6 x 6 -Z	S	1000	25,00 A2
M 1,6 x 8 -Z	S	1000	27,00 A2
M 1,6 x 12 -Z	S	1000	35,00 A2
M 1,6 x 16 -Z	S	1000	42,00 A2
M 2 x 3 -Z	S	1000	10,40 A2
M 2 x 5 -Z	S	1000	5,80 A2
M 2 x 6 -Z	S	1000	5,80 A2
M 2 x 8 -Z	S	1000	5,80 A2
M 2 x 10 -Z	S	1000	5,80 A2
M 2 x 12 -Z	S	1000	6,30 A2
M 2 x 16 -Z	S	1000	6,70 A2
M 2,5 x 4 -Z	S	1000	7,05 A2
M 2,5 x 6 -Z	S	1000	5,80 A2
M 2,5 x 8 -Z	S	1000	5,80 A2
M 2,5 x 10 -Z	S	1000	5,80 A2
M 2,5 x 12 -Z	S	1000	6,30 A2
M 2,5 x 16 -Z	S	1000	6,70 A2
M 2,5 x 18 -Z	S	1000	7,75 A2
M 2,5 x 20 -Z	S	1000	7,75 A2
M 2,5 x 25 -Z	S	1000	12,30 A2
M 2,5 x 30 -Z	S	1000	16,00 A2
M 3 x 4 -Z	S	1000	6,60 A2
M 3 x 5 -Z	S	1000	5,60 A2
M 3 x 6 -Z	S	1000	3,70 A2
M 3 x 8 -Z	S	1000	3,95 A2
M 3 x 10 -Z	S	1000	4,20 A2
M 3 x 12 -Z	S	1000	4,45 A2
M 3 x 14 -Z	S	1000	7,20 A2
M 3 x 16 -Z	S	1000	5,85 A2
M 3 x 18 -Z	S	1000	5,42 A2
M 3 x 20 -Z	S	1000	5,55 A2
M 3 x 25 -Z	S	1000	6,05 A2
M 3 x 30 -Z	S	1000	8,90 A2
M 3 x 35 -Z	S	1000	16,30 A2
M 4 x 5 -Z	S	1000	7,55 A2
M 4 x 6 -Z	S	1000	5,95 A2
M 4 x 8 -Z	S	1000	5,95 A2
M 4 x 10 -Z	S	1000	6,20 A2
M 4 x 12 -Z	S	1000	6,55 A2
M 4 x 14 -Z	S	1000	8,40 A2
M 4 x 16 -Z	S	1000	8,40 A2
M 4 x 18 -Z	S	1000	9,40 A2
M 4 x 20 -Z	S	1000	8,15 A2
M 4 x 30 -Z	S	1000	11,10 A2
M 4 x 35 -Z	S	500	14,00 A2
M 4 x 40 -Z	S	500	15,00 A2
M 4 x 45 -Z	S	500	17,60 A2
M 4 x 50 -Z	S	200	34,20 A2
M 4 x 60 -Z	S	200	40,60 A2
M 4 x 70 -Z	S	200	58,00 A2
M 5 x 6 -Z	S	500	14,80 A2
M 5 x 8 -Z	S	500	10,60 A2
M 5 x 10 -Z	S	500	10,50 A2

Dimensions PU Pieces €.

M 5 x 12 -Z	S	500	10,60 A2
M 5 x 14 -Z	S	500	11,80 A2
M 5 x 16 -Z	S	500	11,80 A2
M 5 x 18 -Z	S	500	13,20 A2
M 5 x 20 -Z	S	500	13,20 A2
M 5 x 25 -Z	S	500	15,10 A2
M 5 x 30 -Z	S	500	17,60 A2
M 5 x 35 -Z	S	500	19,90 A2
M 5 x 40 -Z	S	500	23,20 A2
M 5 x 45 -Z	S	200	26,10 A2
M 5 x 50 -Z	S	200	27,70 A2
M 6 x 8 -Z	S	200	13,10 A2
M 6 x 10 -Z	S	200	13,20 A2
M 6 x 12 -Z	S	200	13,90 A2
M 6 x 16 -Z	S	1000	15,80 A2
M 6 x 20 -Z	S	200	17,10 A2
M 6 x 25 -Z	S	200	19,10 A2
M 6 x 30 -Z	S	200	22,40 A2
M 6 x 40 -Z	S	200	28,10 A2
M 6 x 45 -Z	S	200	31,40 A2
M 6 x 50 -Z	S	200	32,30 A2
M 6 x 55 -Z	S	200	36,40 A2
M 6 x 60 -Z	S	100	36,40 A2
M 8 x 10 -Z	S	200	110,00 A2
M 8 x 12 -Z	S	200	95,00 A2
M 8 x 16 -Z	S	200	105,00 A2
M 8 x 20 -Z	S	200	113,00 A2
M 8 x 25 -Z	S	200	125,00 A2
M 8 x 30 -Z	S	200	136,00 A2
M 8 x 50 -Z	S	200	182,00 A2
M10 x 30 -Z	S	100	205,00 A2

~DIN	07985.926	RAZ 710
7985	A 2	ISR



Cheese head screws, ISR = hexalobular socket

As per ISO 14583

Dimensions → TI-40 Standard conversion → TI-11

Steel → S. 344

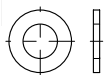
M 1,6 x 2 -T5	S	1000	30,00 A2
M 1,6 x 3 -T5	S	1000	25,00 A2
M 1,6 x 4 -T5	S	1000	24,00 A2
M 1,6 x 5 -T5	S	1000	24,50 A2
M 1,6 x 6 -T5	S	1000	25,00 A2
M 1,6 x 8 -T5	S	1000	27,00 A2
M 1,6 x 10 -T5	S	1000	30,00 A2
M 1,6 x 12 -T5	S	1000	35,00 A2
M 1,6 x 16 -T5	S	1000	42,00 A2
M 2 x 2 -T6	S	1000	30,00 A2
M 2 x 3 -T6	S	1000	25,00 A2
M 2 x 4 -T6	S	1000	24,00 A2
M 2 x 5 -T6	S	1000	24,50 A2
M 2 x 6 -T6	S	1000	25,00 A2
M 2 x 8 -T6	S	1000	27,00 A2
M 2 x 10 -T6	S	1000	30,00 A2
M 2 x 12 -T6	S	1000	35,00 A2
M 2 x 16 -T6	S	1000	42,00 A2
M 2 x 20 -T6	S	1000	50,00 A2
M 2,5 x 3 -T8	S	1000	15,00 A2
M 2,5 x 4 -T8	S	1000	10,60 A2
M 2,5 x 5 -T8	S	1000	10,80 A2
M 2,5 x 6 -T8	S	1000	8,60 A2
M 2,5 x 8 -T8	S	1000	8,70 A2



ISO 8675

Dimensions	PU Pieces	€.
M 2,5 x 10 -T8	S 1000	8,90 A2
M 2,5 x 12 -T8	S 1000	9,50 A2
M 2,5 x 16 -T8	S 1000	10,10 A2
M 2,5 x 20 -T8	S 1000	11,70 A2
M 2,5 x 25 -T8	S 1000	18,00 A2
M 3 x 4 -T10	S 1000	6,50 A2
M 3 x 5 -T10	S 1000	6,00 A2
M 3 x 6 -T10	S 1000	5,55 A2
M 3 x 8 -T10	S 1000	5,90 A2
M 3 x 10 -T10	S 1000	6,30 A2
M 3 x 12 -T10	S 1000	6,60 A2
M 3 x 16 -T10	S 1000	7,80 A2
M 3 x 20 -T10	S 1000	8,30 A2
M 3 x 25 -T10	S 1000	9,10 A2
M 3 x 30 -T10	S 1000	14,50 A2
M 4 x 5 -T20	S 1000	12,00 A2
M 4 x 6 -T20	S 1000	8,90 A2
M 4 x 8 -T20	S 1000	9,00 A2
M 4 x 10 -T20	S 1000	9,30 A2
M 4 x 12 -T20	S 1000	9,80 A2
M 4 x 16 -T20	S 1000	12,60 A2
M 4 x 20 -T20	S 1000	12,80 A2
M 4 x 25 -T20	S 1000	14,30 A2
M 4 x 30 -T20	S 1000	18,00 A2
M 4 x 35 -T20	S 500	24,75 A2
M 4 x 40 -T20	S 500	32,00 A2
M 5 x 6 -T25	S 500	22,20 A2
M 5 x 8 -T25	S 500	15,50 A2
M 5 x 10 -T25	S 500	15,80 A2
M 5 x 12 -T25	S 500	15,90 A2
M 5 x 16 -T25	S 500	17,70 A2
M 5 x 20 -T25	S 500	19,80 A2
M 5 x 25 -T25	S 500	22,70 A2
M 5 x 30 -T25	S 500	26,00 A2
M 5 x 35 -T25	S 500	29,50 A2
M 5 x 40 -T25	S 500	34,50 A2
M 5 x 45 -T25	S 500	42,25 A2
M 5 x 50 -T25	S 500	55,00 A2
M 6 x 8 -T30	S 200	19,60 A2
M 6 x 10 -T30	S 200	19,80 A2
M 6 x 12 -T30	S 500	20,80 A2
M 6 x 16 -T30	S 200	22,50 A2
M 6 x 20 -T30	S 200	25,50 A2
M 6 x 25 -T30	S 200	28,50 A2
M 6 x 30 -T30	S 200	33,50 A2
M 6 x 35 -T30	S 200	37,00 A2
M 6 x 40 -T30	S 200	42,00 A2
M 6 x 45 -T30	S 200	51,35 A2
M 6 x 50 -T30	S 200	65,00 A2
M 6 x 60 -T30	S 200	88,00 A2
M 8 x 10 -T45	S 500	110,00 A2
M 8 x 12 -T45	S 500	95,00 A2
M 8 x 16 -T45	S 500	105,00 A2
M 8 x 20 -T45	S 500	113,00 A2
M 8 x 25 -T45	S 500	125,00 A2
M 8 x 30 -T45	S 500	136,00 A2
M 8 x 35 -T45	S 500	147,00 A2
M 8 x 40 -T45	S 500	159,00 A2
M 8 x 45 -T45	S 200	170,00 A2
M 8 x 50 -T45	S 200	182,00 A2
M 8 x 55 -T45	S 200	195,00 A2
M 8 x 60 -T45	S 200	206,00 A2
M10 x 12 -T50	S 200	175,00 A2
M10 x 16 -T50	S 200	158,00 A2
M10 x 20 -T50	S 200	170,00 A2
M10 x 25 -T50	S 200	190,00 A2
M10 x 30 -T50	S 200	205,00 A2
M10 x 35 -T50	S 200	225,00 A2
M10 x 40 -T50	S 200	245,00 A2
M10 x 45 -T50	S 100	270,00 A2
M10 x 50 -T50	S 100	275,00 A2
M10 x 55 -T50	S 100	295,00 A2
M10 x 60 -T50	S 100	310,00 A2

Dimensions	PU Pieces	€.
DIN 07989.941	RAZ 720	
7989-1 A 4	PK C	



Washers for steel structures, product grade C (g)

Old: type A

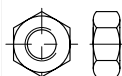
Dimensions → TI-85

Steel → S. 344

Nominal size/inside Ø x outside Ø x thckn.

10/11 x 20 x 8	S 100	365,00 A4
12/13,5 x 24 x 8	S 50	385,00 A4
16/17,5 x 30 x 8	S 50	440,00 A4
20/22 x 37 x 8	S 50	510,00 A4
22/24 x 39 x 8	S 100	570,00 A4
24/26 x 44 x 8	S 25	720,00 A4
27/30 x 50 x 8	S 50	740,00 A4
30/33 x 56 x 8	S 50	790,00 A4

ISO	08673.920	RAZ 3310
8673	A 2	



Hexagon nuts, ISO type 1, with metric fine pitch thread

*M 5-M 39 = RAZ 3310 other Ø/M = RAZ 410

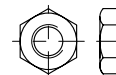
Dimensions → TI-61 Mech. properties → TI-224

Steel → S. 346
Brass → S. 594

ISO 8673 → replaces DIN 934 fine thread

M 6 x 0,75	S 100	80,00 A2
M 8 x 1	S 100	49,00 A2
M 10 x 1	S 50	67,00 A2
M 10 x 1,25	S 50	66,50 A2
M 12 x 1,25	S 50	117,00 A2
M 12 x 1,5	S 50	96,00 A2
M 14 x 1,5	S 25	131,00 A2
M 16 x 1,5	S 25	174,00 A2
M 18 x 1,5	S 10	322,11 A2
M 20 x 1,5	S 10	325,00 A2
M 24 x 1,5	S 10	750,00 A2
M 24 x 2	S 10	747,00 A2
M 30 x 1,5	S 10	1830,00 A2
M 30 x 2	S 1	1841,00 A2
M 36 x 1,5	S 5	3000,00 A2

Dimensions	PU Pieces	€.
ISO 08675.920		*
8675	A 2	



Hexagon thin nuts with chamfers, with metric fine pitch thread

*M 10/12/14/22 = RAZ 3370 other Ø = RAZ 170

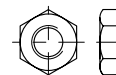
Dimensions → TI-62 Mech. properties → TI-224

Steel → S. 349
Brass → S. 594

ISO 8675 → replaces DIN 439 fine thread

M 8 x 1	S 100	68,00 A2
M 10 x 1	S 50	122,00 A2
M 10 x 1,25	S 50	122,00 A2
M 12 x 1,25	S 50	161,00 A2
M 12 x 1,5	S 50	161,00 A2
M 14 x 1,5	S 25	237,00 A2
M 16 x 1,5	S 25	295,00 A2
M 18 x 1	S 10	300,00 A2
M 18 x 1,5	S 10	415,00 A2
M 20 x 1,5	S 10	530,00 A2
M 22 x 1,5	S 10	390,00 A2
M 24 x 1,5	S 10	900,00 A2
M 30 x 1,5	S 10	1690,00 A2
M 30 x 2	S 10	1690,00 A2
M 36 x 1,5	S 1	3050,00 A2

ISO	08675.940	*
8675	A 4	



Hexagon thin nuts with chamfers, with metric fine pitch thread

*M 10/12/14/22 = RAZ 3370 other Ø = RAZ 170

Dimensions → TI-62 Mech. properties → TI-224

Steel → S. 349
Brass → S. 594

ISO 8675 → replaces DIN 439 fine thread

M 10 x 1	S 50	146,00 A4
M 10 x 1,25	S 50	146,00 A4
M 12 x 1,25	S 50	192,00 A4
M 12 x 1,5	S 50	192,00 A4
M 16 x 1,5	S 25	365,00 A4
M 18 x 1,5	S 10	495,00 A4
M 20 x 1,5	S 10	650,00 A4
M 22 x 1,5	S 10	940,00 A4
M 24 x 1,5	S 10	1100,00 A4
M 24 x 2	S 10	1100,00 A4
M 30 x 1,5	S 10	2120,00 A4
M 30 x 2	S 10	2120,00 A4
M 33 x 2	S 1	2750,00 A4
M 36 x 3	S 1	3380,00 A4



ISO 8738

Dimensions PU Pieces €.

ISO	08738.920	RAZ 490
8738	A 2 160 HV	



Washers for clevis pins, product grade

ISO 8738 = EN 28738, for pins acc. to ISO 2340 and ISO 2341

Dimensions → **TI-85** Standard conversion → **TI-10**

Steel → **S. 353**

ISO 8738 → replaces DIN 1440

Nominal diameter

5	S 50	38,40
6	S 50	46,80
8	S 50	78,00
10	S 50	106,80
12	S 25	148,80
14	S 25	211,20
16	S 25	217,20
20	S 10	312,00

ISO	08738.940	RAZ 490
8738	A 4 160 HV	



Washers for clevis pins, product grade

ISO 8738 = EN 28738, for pins acc. to ISO 2340 and ISO 2341

Dimensions → **TI-85** Standard conversion → **TI-10**

Steel → **S. 353**

ISO 8738 → replaces DIN 1440

Nominal diameter

5	S 50	45,60
6	S 50	53,40
8	S 50	92,40
10	S 50	134,40
12	S 25	198,00
14	S 25	273,60
16	S 25	279,60
18	S 10	378,00
20	S 10	414,00
30	S 1	1560,00
36	S 1	1836,00
40	S 1	2748,00
50	S 1	4080,00
60	S 1	5340,00

Dimensions PU Pieces €.

ISO	08740.910	RAZ 3650
8740	A 1	



Grooved pins, full length parallel grooved, with chamfers

Dimensions → **TI-117**

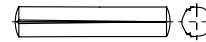
Steel → **S. 354**

ISO 8740 → replaces DIN 1473

2	x 8	S 100	9,70 A1
2	x 10	S 100	10,00 A1
2	x 12	S 100	10,30 A1
2	x 16	S 100	10,80 A1
2	x 18	S 100	11,20 A1
2	x 20	S 100	11,60 A1
3	x 8	S 100	12,70 A1
3	x 10	S 100	13,40 A1
3	x 12	S 100	13,40 A1
3	x 16	S 100	13,40 A1
3	x 18	S 100	13,90 A1
3	x 20	S 100	14,60 A1
3	x 24	S 100	15,70 A1
3	x 30	S 100	17,30 A1
4	x 8	S 100	14,60 A1
4	x 10	S 100	15,00 A1
4	x 12	S 100	15,00 A1
4	x 16	S 100	17,70 A1
4	x 18	S 100	17,70 A1
4	x 20	S 100	18,80 A1
4	x 24	S 100	21,20 A1
4	x 30	S 100	23,80 A1
4	x 35	S 100	26,50 A1
4	x 40	S 100	28,50 A1
5	x 8	S 100	18,30 A1
5	x 10	S 100	19,70 A1
5	x 12	S 100	19,80 A1
5	x 16	S 100	23,80 A1
5	x 18	S 100	24,90 A1
5	x 20	S 100	26,50 A1
5	x 24	S 100	30,50 A1
5	x 30	S 100	33,00 A1
5	x 35	S 100	37,00 A1
5	x 40	S 100	40,00 A1
6	x 10	S 100	33,00 A1
6	x 12	S 100	34,00 A1
6	x 16	S 100	37,50 A1
6	x 18	S 100	39,00 A1
6	x 20	S 100	40,50 A1
6	x 24	S 100	44,50 A1
6	x 30	S 100	49,50 A1
6	x 35	S 100	55,00 A1
6	x 40	S 100	59,00 A1
6	x 45	S 100	63,00 A1
6	x 50	S 100	67,00 A1
8	x 10	S 100	49,50 A1
8	x 12	S 100	52,00 A1
8	x 16	S 100	55,00 A1
8	x 20	S 100	61,00 A1
8	x 25	S 100	69,00 A1
8	x 30	S 100	74,00 A1
8	x 35	S 100	82,00 A1
8	x 40	S 100	87,00 A1
8	x 45	S 100	94,00 A1
8	x 50	S 100	101,00 A1
8	x 60	S 100	114,00 A1

Dimensions PU Pieces €.

ISO	08744.910	RAZ 3650
8744	A 1	



Grooved pins, full-length taper grooved

Dimensions → **TI-117**

Steel → **S. 356**

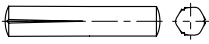
ISO 8744 → replaces DIN 1471

2	x 8	S 100	9,70 A1
2	x 10	S 100	10,00 A1
2	x 12	S 100	10,30 A1
2	x 16	S 100	10,80 A1
2	x 18	S 100	11,20 A1
2	x 20	S 100	11,60 A1
3	x 8	S 100	12,70 A1
3	x 10	S 100	13,40 A1
3	x 12	S 100	13,60 A1
3	x 16	S 100	13,70 A1
3	x 18	S 100	13,90 A1
3	x 20	S 100	14,60 A1
3	x 25	S 100	16,40 A1
4	x 8	S 100	14,60 A1
4	x 10	S 100	15,00 A1
4	x 12	S 100	15,30 A1
4	x 16	S 100	17,70 A1
4	x 18	S 100	18,30 A1
4	x 20	S 100	18,80 A1
4	x 25	S 100	21,90 A1
4	x 30	S 100	23,80 A1
4	x 35	S 100	26,50 A1
4	x 40	S 100	28,50 A1
5	x 8	S 100	18,30 A1
5	x 10	S 100	19,70 A1
5	x 12	S 100	19,80 A1
5	x 16	S 100	24,90 A1
5	x 20	S 100	26,50 A1
5	x 25	S 100	30,50 A1
5	x 30	S 100	33,00 A1
5	x 35	S 100	37,00 A1
5	x 40	S 100	40,00 A1
6	x 10	S 100	33,00 A1
6	x 12	S 100	34,00 A1
6	x 16	S 100	37,50 A1
6	x 18	S 100	39,00 A1
6	x 20	S 100	40,50 A1
6	x 25	S 100	46,00 A1
6	x 30	S 100	49,50 A1
6	x 40	S 100	59,00 A1
6	x 45	S 100	63,00 A1
6	x 50	S 100	67,00 A1
8	x 12	S 100	52,00 A1
8	x 16	S 100	55,00 A1
8	x 20	S 100	61,00 A1
8	x 25	S 100	69,00 A1
8	x 30	S 100	74,00 A1
8	x 35	S 100	82,00 A1
8	x 40	S 100	87,00 A1
8	x 45	S 100	94,00 A1
8	x 50	S 100	101,00 A1
8	x 60	S 100	114,00 A1



ISO 8750

Dimensions	PU Pieces	€.
ISO 08745.910	RAZ 3650	
8745	A 1	



Grooved pins, half-length taper grooved

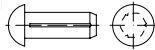
Dimensions → **TI-118**

Steel → **S. 356**

ISO 8745 → replaces DIN 1472

1,5	x	8	S 100	14,20 A1
1,5	x	10	S 100	14,40 A1
2	x	8	S 100	14,70 A1
2	x	10	S 100	15,10 A1
2	x	12	S 100	15,40 A1
2	x	14	S 100	15,60 A1
2	x	16	S 100	17,10 A1
2	x	18	S 100	17,40 A1
2	x	20	S 100	19,30 A1
3	x	6	S 100	15,30 A1
3	x	8	S 100	15,30 A1
3	x	10	S 100	15,60 A1
3	x	12	S 100	17,00 A1
3	x	14	S 100	17,20 A1
3	x	16	S 100	18,50 A1
3	x	18	S 100	19,00 A1
3	x	20	S 100	19,70 A1
3	x	25	S 100	20,10 A1
4	x	8	S 100	17,10 A1
4	x	10	S 100	17,50 A1
4	x	12	S 100	24,50 A1
4	x	14	S 100	25,30 A1
4	x	16	S 100	26,00 A1
4	x	18	S 100	27,50 A1
4	x	20	S 100	27,50 A1
4	x	25	S 100	30,00 A1
4	x	30	S 100	31,50 A1
4	x	40	S 100	33,50 A1
5	x	8	S 100	18,30 A1
5	x	10	S 100	19,70 A1
5	x	12	S 100	19,80 A1
5	x	16	S 100	23,80 A1
5	x	18	S 100	31,50 A1
5	x	20	S 100	34,00 A1
5	x	25	S 100	35,50 A1
5	x	30	S 100	36,00 A1
5	x	35	S 100	37,00 A1
5	x	40	S 100	40,00 A1
6	x	10	S 100	33,00 A1
6	x	18	S 100	39,00 A1
6	x	20	S 100	40,50 A1
6	x	25	S 100	46,00 A1
6	x	30	S 100	49,50 A1
6	x	35	S 100	55,00 A1
6	x	40	S 100	59,00 A1
6	x	45	S 100	63,00 A1
6	x	50	S 100	67,00 A1
8	x	12	S 100	52,00 A1
8	x	16	S 100	55,00 A1
8	x	18	S 100	58,00 A1
8	x	20	S 100	61,00 A1
8	x	25	S 100	69,00 A1
8	x	30	S 100	74,00 A1
8	x	35	S 100	82,00 A1
8	x	40	S 100	87,00 A1
8	x	45	S 100	94,00 A1
8	x	50	S 100	101,00 A1
8	x	60	S 100	114,00 A1

Dimensions	PU Pieces	€.
ISO 08746.920	RAZ 500	
8746	1.4303 (A 2)	type A



Grooved pins with round head, A = with chamfer

Dimensions → **TI-118** Standard conversion → **TI-10**

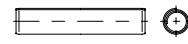
Steel → **S. 357**

Brass, aluminium → **S. 594**

ISO 8746 → replaces DIN 1476 (compatible)

1,4	x	3	S 100	7,90 A2
1,4	x	4	S 100	8,10 A2
1,4	x	5	S 100	8,20 A2
1,4	x	6	S 100	9,00 A2
1,6	x	3	S 100	8,10 A2
1,6	x	4	S 100	8,70 A2
1,6	x	5	S 100	8,90 A2
1,6	x	6	S 100	9,30 A2
2	x	3	S 100	10,80 A2
2	x	4	S 100	10,80 A2
2	x	5	S 100	10,80 A2
2	x	6	S 100	11,50 A2
2	x	8	S 100	12,20 A2
2	x	10	S 100	13,10 A2
2,5	x	4	S 100	11,20 A2
2,5	x	5	S 100	11,40 A2
2,5	x	6	S 100	11,50 A2
2,5	x	8	S 100	11,70 A2
2,5	x	10	S 100	13,50 A2
3	x	4	S 100	13,30 A2
3	x	5	S 100	14,20 A2
3	x	6	S 100	14,90 A2
3	x	8	S 100	18,30 A2
3	x	10	S 100	19,00 A2
3	x	12	S 100	21,90 A2
4	x	6	S 100	24,10 A2
4	x	8	S 100	27,00 A2
4	x	10	S 100	29,00 A2
4	x	12	S 100	33,00 A2
5	x	8	S 100	33,00 A2
5	x	10	S 100	36,00 A2
5	x	12	S 100	41,00 A2
5	x	16	S 100	43,50 A2
6	x	10	S 100	40,00 A2
6	x	12	S 100	44,00 A2

Dimensions	PU Pieces	€.
ISO 08750.960	RAZ 623	
8750	1.4310	



Spring-type straight pins, coiled, standard duty

Caution! Reduced spring load.

Dimensions → **TI-119**

Spring steel → **S. 358**

ISO 8750 → replaces DIN 7343 (compatible)

1	x	6	S 1000	7,90
1	x	8	S 1000	8,00
1	x	10	S 1000	8,50
1	x	12	S 1000	9,00
1,5	x	5	S 1000	7,70
1,5	x	6	S 1000	7,80
1,5	x	8	S 1000	8,00
1,5	x	10	S 1000	8,50
1,5	x	12	S 1000	9,00
2	x	4	S 1000	7,70
2	x	5	S 1000	8,00
2	x	6	S 1000	8,20
2	x	8	S 1000	8,50
2	x	10	S 1000	9,00
2	x	12	S 1000	9,20
2	x	14	S 1000	9,50
2	x	16	S 1000	10,10
2	x	18	S 1000	10,40
2	x	20	S 1000	11,10
2,5	x	5	S 1000	8,70
2,5	x	6	S 1000	9,00
2,5	x	8	S 1000	9,20
2,5	x	10	S 1000	9,50
2,5	x	12	S 1000	10,10
2,5	x	14	S 1000	10,40
2,5	x	16	S 1000	11,10
2,5	x	18	S 1000	12,20
2,5	x	20	S 1000	12,90
2,5	x	22	S 1000	13,40
2,5	x	24	S 1000	14,10
3	x	8	S 1000	12,20
3	x	10	S 1000	12,90
3	x	12	S 1000	13,80
3	x	14	S 1000	15,90
3	x	16	S 1000	16,60
3	x	18	S 1000	17,20
3	x	20	S 1000	17,80
3	x	22	S 1000	20,00
3	x	24	S 1000	20,80
3	x	26	S 1000	22,10
3	x	28	S 1000	23,00
3	x	30	S 1000	24,20
3	x	32	S 1000	24,90
4	x	8	S 500	16,50
4	x	10	S 500	16,70
4	x	12	S 500	19,00
4	x	14	S 500	21,30
4	x	16	S 500	23,40
4	x	18	S 500	24,80
4	x	20	S 500	28,00
4	x	22	S 500	29,50
4	x	24	S 500	31,50
4	x	26	S 500	33,00
4	x	28	S 500	34,50
4	x	30	S 500	36,00

ISO 8750

Dimensions	PU	Pieces	€.
4 x 32	S	500	38,50
4 x 35	S	500	41,00
4 x 40	S	500	46,50
4 x 45	S	500	53,00
4 x 50	S	500	58,00
5 x 12	S	500	26,00
5 x 14	S	500	28,50
5 x 16	S	500	31,50
5 x 18	S	500	34,50
5 x 20	S	500	37,00
5 x 22	S	500	40,00
5 x 24	S	500	43,00
5 x 26	S	500	46,00
5 x 28	S	500	48,50
5 x 30	S	500	53,00
5 x 32	S	500	55,00
5 x 35	S	500	61,00
5 x 40	S	500	66,00
5 x 45	S	500	73,00
5 x 50	S	250	80,00
6 x 12	S	500	33,50
6 x 14	S	500	36,50
6 x 16	S	500	40,50
6 x 18	S	500	44,00
6 x 20	S	500	47,00
6 x 22	S	500	52,00
6 x 24	S	500	55,00
6 x 26	S	500	59,00
6 x 28	S	500	62,00
6 x 30	S	500	68,00
6 x 32	S	500	70,00
6 x 35	S	500	78,00
6 x 40	S	250	85,00
6 x 45	S	250	94,00
6 x 50	S	250	103,00
8 x 16	S	500	49,00
8 x 18	S	500	54,00
8 x 20	S	500	59,00
8 x 22	S	500	64,00
8 x 24	S	500	68,00
8 x 26	S	500	73,00
8 x 28	S	500	78,00
8 x 30	S	500	83,00
8 x 32	S	500	88,00
8 x 35	S	500	98,00
8 x 40	S	250	108,00
8 x 45	S	250	121,00
8 x 50	S	250	132,00

ISO	08752.960	*
8752	1.4310	



Spring-type straight pins, slotted, heavy duty

Caution! Reduced spring load.

Dimensions → **TI-119**

Spring steel → **S. 358**

ISO 8752 → replaces DIN 1481

1 x 4	S	100	8,50
1 x 5	S	100	8,50
1 x 6	S	100	8,50
1 x 8	S	100	8,50
1 x 10	S	100	9,00
1 x 12	S	100	9,20

Dimensions	PU	Pieces	€.
1 x 14	S	100	9,50
1 x 16	S	100	9,80
1 x 18	S	100	10,10
1 x 20	S	100	10,50
1,5 x 5	S	100	8,30
1,5 x 6	S	100	8,50
1,5 x 8	S	100	8,50
1,5 x 10	S	100	9,00
1,5 x 12	S	100	9,20
1,5 x 14	S	100	9,50
1,5 x 16	S	100	9,80
1,5 x 18	S	100	10,10
1,5 x 20	S	100	10,80
2 x 4	S	100	8,50
2 x 5	S	100	8,50
2 x 6	S	100	8,50
2 x 8	S	100	9,00
2 x 10	S	100	9,30
2 x 12	S	100	9,70
2 x 14	S	100	10,10
2 x 16	S	100	10,60
2 x 18	S	100	11,00
2 x 20	S	100	11,60
2 x 22	S	100	12,20
2 x 24	S	100	12,70
2 x 26	S	100	13,30
2 x 28	S	100	14,00
2 x 30	S	100	14,70
2,5 x 4	S	100	8,70
2,5 x 5	S	100	9,20
2,5 x 6	S	100	9,20
2,5 x 8	S	100	9,50
2,5 x 10	S	100	10,10
2,5 x 12	S	100	10,40
2,5 x 14	S	100	11,00
2,5 x 16	S	100	11,50
2,5 x 18	S	100	12,20
2,5 x 20	S	100	13,00
2,5 x 22	S	100	13,60
2,5 x 24	S	100	14,40
2,5 x 26	S	100	15,10
2,5 x 28	S	100	16,00
2,5 x 30	S	100	16,90
3 x 4	S	100	9,50
3 x 5	S	100	10,10
3 x 6	S	100	11,00
3 x 8	S	100	12,20
3 x 10	S	100	13,10
3 x 12	S	100	14,20
3 x 14	S	100	16,00
3 x 16	S	100	16,60
3 x 18	S	100	17,20
3 x 20	S	100	17,90
3 x 22	S	100	19,70
3 x 24	S	50	21,50
3 x 26	S	50	22,40
3 x 28	S	50	23,50
3 x 30	S	50	24,60
3 x 32	S	50	25,50
3 x 36	S	50	27,00
3 x 40	S	50	28,50
3,5 x 6	S	100	14,70
3,5 x 10	S	100	16,50
3,5 x 12	S	100	18,70
3,5 x 14	S	100	21,00
3,5 x 16	S	100	22,80
3,5 x 18	S	100	24,20
3,5 x 20	S	100	27,00
3,5 x 22	S	100	28,00
3,5 x 24	S	100	30,50
3,5 x 26	S	100	31,00
3,5 x 28	S	100	33,00
3,5 x 30	S	100	34,50
3,5 x 32	S	100	36,50
3,5 x 36	S	100	39,50

Dimensions	PU	Pieces	€.
3,5 x 40	S	100	44,50
4 x 6	S	100	14,70
4 x 8	S	100	16,10
4 x 10	S	100	16,50
4 x 12	S	100	18,70
4 x 14	S	50	22,10
4 x 16	S	50	23,80
4 x 18	S	50	25,50
4 x 20	S	50	28,00
4 x 22	S	50	29,00
4 x 24	S	50	31,50
4 x 26	S	50	33,00
4 x 28	S	50	34,00
4 x 30	S	50	35,50
4 x 32	S	50	35,50
4 x 36	S	50	40,50
4 x 40	S	50	45,50
4 x 45	S	50	48,00
4 x 50	S	50	55,00
4,5 x 8	S	100	19,70
4,5 x 10	S	100	19,70
4,5 x 12	S	100	21,70
4,5 x 14	S	100	24,00
4,5 x 16	S	100	25,50
4,5 x 18	S	100	28,00
4,5 x 20	S	100	30,50
4,5 x 22	S	100	32,00
4,5 x 24	S	100	34,00
4,5 x 26	S	100	36,00
4,5 x 28	S	100	38,00
4,5 x 30	S	100	41,00
4,5 x 32	S	100	43,00
4,5 x 36	S	100	51,00
4,5 x 40	S	100	54,00
4,5 x 45	S	100	59,00
4,5 x 50	S	100	64,00
5 x 6	S	50	19,10
5 x 8	S	50	20,90
5 x 10	S	50	23,10
5 x 12	S	50	26,00
5 x 14	S	50	28,50
5 x 16	S	50	31,50
5 x 18	S	50	34,00
5 x 20	S	50	36,50
5 x 22	S	50	39,00
5 x 24	S	50	41,50
5 x 26	S	50	44,00
5 x 28	S	50	47,50
5 x 30	S	50	51,00
5 x 32	S	50	53,00
5 x 36	S	50	59,00
5 x 40	S	50	64,00
5 x 45	S	50	69,00
5 x 50	S	50	78,00
5 x 60	S	50	125,00
5 x 70	S	50	162,00
6 x 10	S	25	33,00
6 x 12	S	25	35,00
6 x 14	S	25	36,50
6 x 16	S	25	39,00
6 x 18	S	25	45,00
6 x 20	S	25	52,00
6 x 22	S	25	55,00
6 x 24	S	25	59,00
6 x 26	S	25	63,00
6 x 28	S	25	67,00
6 x 30	S	25	71,00
6 x 32	S	25	76,00
6 x 36	S	25	84,00
6 x 40	S	25	102,00
6 x 45	S	25	117,00
6 x 50	S	25	133,00
6 x 60	S	25	174,00
6 x 70	S	25	192,00
6 x 80	S	25	206,00



ISO 10511

Dimensions	PU	Pieces	€.
8 x 10	S	25	46,00
8 x 12	S	25	48,50
8 x 14	S	25	51,00
8 x 16	S	25	55,00
8 x 18	S	25	64,00
8 x 20	S	25	73,00
8 x 22	S	25	84,00
8 x 24	S	25	87,00
8 x 26	S	25	90,00
8 x 28	S	25	96,00
8 x 30	S	25	103,00
8 x 32	S	25	112,00
8 x 36	S	25	121,00
8 x 40	S	25	146,00
8 x 45	S	25	160,00
8 x 50	S	25	169,00
8 x 55	S	25	180,00
8 x 60	S	25	191,00
8 x 70	S	25	215,00
8 x 80	S	25	230,00
8 x 90	S	25	255,00
10 x 10	S	50	81,00
10 x 12	S	50	84,00
10 x 16	S	50	92,00
10 x 18	S	50	119,00
10 x 20	S	50	119,00
10 x 22	S	50	136,00
10 x 24	S	50	141,00
10 x 28	S	50	153,00
10 x 30	S	10	165,00
10 x 32	S	50	159,00
10 x 36	S	50	191,00
10 x 40	S	50	229,00
10 x 45	S	10	249,00
10 x 50	S	50	270,00
10 x 55	S	10	285,00
10 x 60	S	10	305,00
10 x 65	S	50	320,00
10 x 70	S	50	330,00
10 x 80	S	10	355,00
10 x 90	S	50	375,00
10 x 100	S	50	410,00

DIN	09021.920	RAZ 750
9021	A 2	



Washers, outside Ø R 3 x nom. thread Ø, product grade C

Dimensions → **TI-85**

Steel → **S. 364**

Brass, plastic → **S. 595**

DIN 9021 → replaced by ISO 7093

Inside Ø x outside Ø x thickness

3,2 x 9 x 0,8	S	1000	1,70 A2
3,2 x 9 x 0,8	K	100	3,25 A2
4,3 x 12 x 1	S	1000	2,25 A2
4,3 x 12 x 1	K	100	3,45 A2
5,3 x 15 x 1,2	S	1000	5,10 A2
5,3 x 15 x 1,2	K	100	6,60 A2
6,4 x 18 x 1,6	S	1000	6,70 A2
6,4 x 18 x 1,6	K	100	8,30 A2
8,4 x 24 x 2	S	1000	16,90 A2
8,4 x 24 x 2	K	100	18,40 A2
10,5 x 30 x 2,5	S	500	25,50 A2

Dimensions	PU	Pieces	€.
10,5 x 30 x 2,5	K	50	28,00 A2
13 x 37 x 3	S	250	62,00 A2
13 x 37 x 3	K	50	64,00 A2
15 x 44 x 3	S	100	81,00 A2
17 x 50 x 3	S	100	98,00 A2
17 x 50 x 3	K	25	103,00 A2
20 x 56 x 4	S	100	155,00 A2
22 x 60 x 4	S	100	169,00 A2
22 x 60 x 4	K	10	181,00 A2
26 x 72 x 5	S	25	450,00 A2

DIN	09021.940	RAZ 750
9021	A 4	



Washers, outside Ø R 3 x nom. thread Ø, product grade C

Dimensions → **TI-85**

Steel → **S. 364**

Brass, plastic → **S. 595**

DIN 9021 → replaced by ISO 7093

Inside Ø x outside Ø x thickness

3,2 x 9 x 0,8	S	1000	2,20 A4
3,2 x 9 x 0,8	K	100	4,15 A4
4,3 x 12 x 1	S	1000	2,90 A4
4,3 x 12 x 1	K	100	4,60 A4
5,3 x 15 x 1,2	S	1000	6,40 A4
5,3 x 15 x 1,2	K	100	8,70 A4
6,4 x 18 x 1,6	S	1000	8,90 A4
6,4 x 18 x 1,6	K	100	11,10 A4
8,4 x 24 x 2	S	1000	19,90 A4
8,4 x 24 x 2	K	100	22,60 A4
10,5 x 30 x 2,5	S	500	40,00 A4
10,5 x 30 x 2,5	K	50	45,50 A4
13 x 37 x 3	S	250	80,00 A4
13 x 37 x 3	K	50	85,00 A4
15 x 44 x 3	S	100	111,00 A4
17 x 50 x 3	S	100	143,00 A4
17 x 50 x 3	K	25	153,00 A4
20 x 56 x 4	S	100	214,00 A4
22 x 60 x 4	S	10	265,00 A4
26 x 72 x 5	S	10	316,00 A4

Important Note!

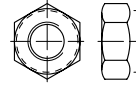
The current standards for prevailing torque type hexagon nuts apply for steel in the property classes 5, (6), 8, 10 and 12.

The use of nuts from other materials (e.g. stainless steel, brass, aluminium) is carried out at your own risk. Nuts made from these softer materials sometimes tend to seize up because of the high flank pressure during forming of the bolt thread in the locking ring. The use of lubricant usually helps in such cases. The changes of the friction coefficient when tightening the fastener must be taken into account.



Dimensions	PU	Pieces	€.
~ISO	10511.920		RAZ 3395

10511 A 2



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use under temperatures from -50 to +120 °C

Caution! Risk of cold shut. Please note the technical advice given in the information box.

Dimensions → **TI-67** Standard conversion → **TI-7**
Mech. properties → **TI-224**

Steel → **S. 364**

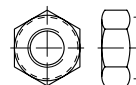
Brass → **S. 595**

ISO 10511 → replaces DIN 985

Price and delivery reservation

M 3	S	1000	16,30
M 4	S	1000	12,70
M 5	S	1000	2,71
M 6	S	1000	16,40
M 8	S	500	31,50
M 10	S	500	62,00
M 12	S	250	85,00
M 14	S	250	192,00
M 16	S	250	203,00
M 18	S	25	520,00
M 20	S	1	620,00
M 22	S	1	660,00
M 24	S	1	660,00
M 30	S	1	2410,00
M 36	S	1	4750,00

ISO	10511.940	RAZ 3395
10511	A 4	



Prevailing torque type hexagon nuts with non-metallic insert, low type

For use under temperatures from -50 to +120 °C

Caution! Risk of cold shut. Please note the technical advice given in the information box.

Dimensions → **TI-67** Standard conversion → **TI-7**
Mech. properties → **TI-224**

Steel → **S. 364**

Brass → **S. 595**

ISO 10511 → replaces DIN 985

Price and delivery reservation

M 3	S	1000	45,50
M 4	S	1000	25,50
M 5	S	1000	25,50
M 6	S	1000	34,00
M 8	S	500	49,50
M 10	S	500	97,00

ISO 10511

Dimensions	PU	Pieces	€.
M 12	S	250	150,00
M 14	S	250	295,00
M 16	S	250	340,00
M 20	S	1	950,00
M 24	S	1	1000,00
M 30	S	1	3650,00

ISO	10642.920	RAZ 3800
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10642 A 2



Hexagon socket countersunk head screws

Sometimes thread up to head

Caution! Screws have only a reduced loadability.

Dimensions → TI-14 Tightening torque → TI-235
 Mech. properties → TI-224

Steel → S. 366

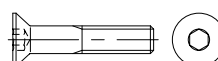
M 3	x	6	S	100	18,15 A2
M 3	x	8	S	100	16,65 A2
M 3	x	10	S	100	14,60 A2
M 3	x	12	S	100	13,30 A2
M 3	x	14	S	100	20,45 A2
M 3	x	16	S	100	14,35 A2
M 3	x	18	S	100	23,55 A2
M 3	x	20	S	100	16,10 A2
M 3	x	25	S	100	17,15 A2
M 3	x	30	S	100	18,95 A2
M 3	x	35	S	200	84,00 A2
M 4	x	6	S	100	32,75 A2
M 4	x	8	S	500	28,15 A2
M 4	x	8	K	100	30,65 A2
M 4	x	10	S	500	26,10 A2
M 4	x	10	K	100	28,60 A2
M 4	x	12	S	500	26,10 A2
M 4	x	12	K	100	28,60 A2
M 4	x	14	S	500	26,60 A2
M 4	x	14	K	100	29,10 A2
M 4	x	16	S	500	20,45 A2
M 4	x	16	K	100	22,95 A2
M 4	x	18	S	500	29,65 A2
M 4	x	18	K	100	32,15 A2
M 4	x	20	S	500	22,50 A2
M 4	x	20	K	100	25,00 A2
M 4	x	25	S	500	25,05 A2
M 4	x	25	K	100	27,55 A2
M 4	x	30	S	200	26,60 A2
M 4	x	35	S	200	29,65 A2
M 4	x	40	S	200	39,40 A2
M 4	x	45	S	100	41,45 A2
M 4	x	50	S	100	41,45 A2
M 5	x	6	S	100	33,75 A2
M 5	x	8	S	100	26,60 A2
M 5	x	10	S	500	26,10 A2
M 5	x	10	K	100	28,60 A2
M 5	x	12	S	500	26,10 A2
M 5	x	12	K	100	28,60 A2
M 5	x	14	S	500	35,30 A2
M 5	x	14	K	100	37,80 A2
M 5	x	16	S	500	20,45 A2
M 5	x	16	K	100	22,95 A2
M 5	x	18	S	500	38,85 A2
M 5	x	18	K	100	41,35 A2
M 5	x	20	S	500	22,50 A2
M 5	x	20	K	100	25,00 A2

Dimensions	PU	Pieces	€.		
M 5	x	25	S	500	25,05 A2
M 5	x	25	K	100	27,55 A2
M 5	x	30	S	200	26,60 A2
M 5	x	35	S	200	29,65 A2
M 5	x	40	S	200	39,40 A2
M 5	x	45	S	100	32,25 A2
M 5	x	50	S	100	35,30 A2
M 5	x	60	S	100	71,10 A2
M 6	x	8	S	100	50,10 A2
M 6	x	10	S	100	34,25 A2
M 6	x	12	S	500	32,75 A2
M 6	x	12	K	100	35,25 A2
M 6	x	14	S	500	41,45 A2
M 6	x	14	K	100	43,95 A2
M 6	x	16	S	500	26,10 A2
M 6	x	16	K	100	28,60 A2
M 6	x	18	S	200	45,00 A2
M 6	x	20	S	200	28,15 A2
M 6	x	25	S	200	30,20 A2
M 6	x	30	S	200	34,25 A2
M 6	x	35	S	200	39,90 A2
M 6	x	40	S	200	44,00 A2
M 6	x	45	S	100	54,20 A2
M 6	x	50	S	100	58,30 A2
M 6	x	55	S	100	108,00 A2
M 6	x	60	S	100	133,00 A2
M 6	x	70	S	100	154,00 A2
M 6	x	75	S	100	287,00 A2
M 6	x	80	S	100	190,00 A2
M 8	x	10	S	200	104,00 A2
M 8	x	12	S	200	92,05 A2
M 8	x	14	S	200	79,25 A2
M 8	x	16	S	200	49,10 A2
M 8	x	18	S	200	63,95 A2
M 8	x	20	S	200	46,55 A2
M 8	x	25	S	100	44,50 A2
M 8	x	30	S	100	46,05 A2
M 8	x	35	S	100	51,15 A2
M 8	x	40	S	100	63,95 A2
M 8	x	45	S	100	76,20 A2
M 8	x	50	S	100	84,40 A2
M 8	x	55	S	100	113,00 A2
M 8	x	60	S	100	136,00 A2
M 8	x	70	S	50	169,00 A2
M 8	x	80	S	50	182,00 A2
M 8	x	90	S	50	190,00 A2
M 8	x	100	S	50	215,00 A2
M 8	x	110	S	50	343,00 A2
M 8	x	120	S	50	374,00 A2
M 10	x	16	S	100	82,35 A2
M 10	x	20	S	100	82,35 A2
M 10	x	25	S	100	74,15 A2
M 10	x	30	S	100	77,20 A2
M 10	x	35	S	100	82,85 A2
M 10	x	40	S	100	94,60 A2
M 10	x	45	S	100	101,00 A2
M 10	x	50	S	100	107,00 A2
M 10	x	55	S	100	128,00 A2
M 10	x	60	S	50	144,00 A2
M 10	x	70	S	50	185,00 A2
M 10	x	80	S	50	195,00 A2
M 10	x	90	S	50	236,00 A2
M 10	x	100	S	50	292,00 A2
M 10	x	110	S	50	445,00 A2
M 10	x	120	S	50	481,00 A2
M 10	x	130	S	50	507,00 A2
M 12	x	20	S	50	120,00 A2
M 12	x	25	S	50	114,00 A2
M 12	x	30	S	50	116,00 A2
M 12	x	35	S	50	123,00 A2
M 12	x	40	S	50	133,00 A2
M 12	x	45	S	50	149,00 A2
M 12	x	50	S	50	159,00 A2
M 12	x	55	S	50	169,00 A2
M 12	x	60	S	50	177,00 A2

Dimensions	PU	Pieces	€.		
M 12	x	70	S	50	251,00 A2
M 12	x	80	S	50	261,00 A2
M 12	x	90	S	50	317,00 A2
M 12	x	100	S	50	369,00 A2
M 12	x	110	S	25	399,00 A2
M 12	x	120	S	25	440,00 A2
M 12	x	130	S	25	471,00 A2
M 12	x	140	S	25	512,00 A2
M 16	x	25	S	25	496,00 A2
M 16	x	30	S	25	415,00 A2
M 16	x	35	S	25	445,00 A2
M 16	x	40	S	25	496,00 A2
M 16	x	45	S	25	517,00 A2
M 16	x	50	S	25	532,00 A2
M 16	x	55	S	25	573,00 A2
M 16	x	60	S	25	588,00 A2
M 16	x	65	S	25	645,00 A2
M 16	x	70	S	25	645,00 A2
M 16	x	80	S	25	788,00 A2
M 16	x	90	S	25	829,00 A2
M 16	x	100	S	25	982,00 A2
M 16	x	110	S	25	1176,00 A2
M 16	x	120	S	25	1289,00 A2
M 16	x	130	S	25	1447,00 A2
M 16	x	140	S	25	1596,00 A2
M 16	x	150	S	25	1688,00 A2
M 20	x	40	S	25	951,00 A2
M 20	x	45	S	25	951,00 A2
M 20	x	50	S	25	951,00 A2
M 20	x	55	S	25	1033,00 A2
M 20	x	60	S	25	1084,00 A2
M 20	x	70	S	25	1197,00 A2
M 20	x	80	S	25	1432,00 A2
M 20	x	90	S	25	1228,00 A2
M 20	x	100	S	25	1483,00 A2
M 20	x	110	S	25	2199,00 A2
M 20	x	120	S	25	2250,00 A2
M 20	x	130	S	1	2455,00 A2
M 20	x	140	S	1	2506,00 A2
M 20	x	150	S	1	2557,00 A2

ISO	10642.940	RAZ 3800
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10642 A 4



Hexagon socket countersunk head screws

∅ > M 20: head geometry acc. to DIN 7991, sometimes thread up to head

Caution! Screws have only a reduced loadability.

Dimensions → TI-14 Tightening torque → TI-235
 Mech. properties → TI-224

Steel → S. 366

M 3	x	6	S	100	28,15 A4
M 3	x	8	S	100	28,15 A4
M 3	x	10	S	100	26,60 A4
M 3	x	12	S	100	20,70 A4
M 3	x	14	S	100	27,10 A4
M 3	x	16	S	100	26,10 A4
M 3	x	18	S	100	34,25 A4
M 3	x	20	S	100	26,60 A4
M 3	x	25	S	100	27,10 A4
M 3	x	30	S	100	29,15 A4
M 4	x	6	S	100	40,40 A4
M 4	x	8	S	500	36,30 A4

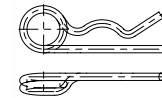


Dimensions	PU	Pieces	€.
M 4 x 8	K	100	38,80 A 4
M 4 x 10	S	500	33,25 A 4
M 4 x 10	K	100	35,75 A 4
M 4 x 12	S	500	35,80 A 4
M 4 x 12	K	100	38,30 A 4
M 4 x 14	S	500	35,80 A 4
M 4 x 14	K	100	38,30 A 4
M 4 x 16	S	500	29,15 A 4
M 4 x 16	K	100	31,65 A 4
M 4 x 18	S	500	37,85 A 4
M 4 x 18	K	100	40,35 A 4
M 4 x 20	S	500	31,70 A 4
M 4 x 20	K	100	34,20 A 4
M 4 x 25	S	500	33,25 A 4
M 4 x 25	K	100	35,75 A 4
M 4 x 30	S	200	35,80 A 4
M 4 x 35	S	200	39,90 A 4
M 4 x 40	S	200	49,60 A 4
M 4 x 45	S	100	50,65 A 4
M 4 x 50	S	100	50,65 A 4
M 5 x 6	S	100	42,95 A 4
M 5 x 8	S	100	38,35 A 4
M 5 x 10	S	500	37,35 A 4
M 5 x 10	K	100	39,85 A 4
M 5 x 12	S	500	35,80 A 4
M 5 x 12	K	100	38,30 A 4
M 5 x 14	S	500	40,90 A 4
M 5 x 14	K	100	43,40 A 4
M 5 x 16	S	500	29,15 A 4
M 5 x 16	K	100	31,65 A 4
M 5 x 18	S	500	41,95 A 4
M 5 x 18	K	100	44,45 A 4
M 5 x 20	S	500	31,70 A 4
M 5 x 20	K	100	34,20 A 4
M 5 x 25	S	500	33,25 A 4
M 5 x 25	K	100	35,75 A 4
M 5 x 30	S	200	35,80 A 4
M 5 x 35	S	200	39,90 A 4
M 5 x 40	S	200	49,60 A 4
M 5 x 45	S	100	47,05 A 4
M 5 x 50	S	100	53,20 A 4
M 5 x 55	S	100	61,90 A 4
M 5 x 60	S	100	65,45 A 4
M 6 x 8	S	100	85,90 A 4
M 6 x 10	S	100	44,00 A 4
M 6 x 12	S	500	41,95 A 4
M 6 x 12	K	100	44,45 A 4
M 6 x 14	S	500	50,65 A 4
M 6 x 14	K	100	53,15 A 4
M 6 x 16	S	500	32,75 A 4
M 6 x 16	K	100	35,25 A 4
M 6 x 18	S	200	53,70 A 4
M 6 x 20	S	200	33,25 A 4
M 6 x 25	S	200	40,90 A 4
M 6 x 30	S	200	45,50 A 4
M 6 x 35	S	200	50,65 A 4
M 6 x 40	S	200	60,85 A 4
M 6 x 45	S	100	85,90 A 4
M 6 x 50	S	100	88,45 A 4
M 6 x 55	S	100	136,00 A 4
M 6 x 60	S	100	159,00 A 4
M 6 x 70	S	100	192,00 A 4
M 6 x 80	S	100	231,00 A 4
M 6 x 90	S	100	297,00 A 4
M 6 x 100	S	100	369,00 A 4
M 8 x 10	S	100	139,00 A 4
M 8 x 12	S	200	127,00 A 4
M 8 x 14	S	200	116,00 A 4
M 8 x 16	S	200	61,35 A 4
M 8 x 18	S	200	121,00 A 4
M 8 x 20	S	200	55,25 A 4
M 8 x 25	S	100	55,75 A 4
M 8 x 30	S	100	57,30 A 4
M 8 x 35	S	100	62,40 A 4
M 8 x 40	S	100	82,35 A 4

Dimensions	PU	Pieces	€.
M 8 x 45	S	100	96,15 A 4
M 8 x 50	S	100	105,00 A 4
M 8 x 55	S	100	144,00 A 4
M 8 x 60	S	100	167,00 A 4
M 8 x 70	S	50	205,00 A 4
M 8 x 80	S	50	241,00 A 4
M 8 x 90	S	50	287,00 A 4
M 8 x 100	S	50	317,00 A 4
M 8 x 120	S	50	502,00 A 4
M 10 x 16	S	25	139,00 A 4
M 10 x 20	S	100	102,00 A 4
M 10 x 25	S	100	97,65 A 4
M 10 x 30	S	100	101,00 A 4
M 10 x 35	S	100	108,00 A 4
M 10 x 40	S	100	124,00 A 4
M 10 x 45	S	100	133,00 A 4
M 10 x 50	S	100	144,00 A 4
M 10 x 55	S	100	182,00 A 4
M 10 x 60	S	50	190,00 A 4
M 10 x 70	S	50	231,00 A 4
M 10 x 80	S	50	287,00 A 4
M 10 x 90	S	50	343,00 A 4
M 10 x 100	S	50	399,00 A 4
M 10 x 120	S	50	502,00 A 4
M 12 x 20	S	50	195,00 A 4
M 12 x 25	S	50	185,00 A 4
M 12 x 30	S	50	177,00 A 4
M 12 x 35	S	50	185,00 A 4
M 12 x 40	S	50	200,00 A 4
M 12 x 45	S	50	223,00 A 4
M 12 x 50	S	50	231,00 A 4
M 12 x 55	S	50	246,00 A 4
M 12 x 60	S	50	297,00 A 4
M 12 x 70	S	50	307,00 A 4
M 12 x 80	S	50	353,00 A 4
M 12 x 90	S	50	430,00 A 4
M 12 x 100	S	50	507,00 A 4
M 12 x 110	S	25	737,00 A 4
M 12 x 120	S	25	793,00 A 4
M 16 x 25	S	25	542,00 A 4
M 16 x 30	S	1	573,00 A 4
M 16 x 35	S	1	604,00 A 4
M 16 x 40	S	1	665,00 A 4
M 16 x 45	S	1	691,00 A 4
M 16 x 50	S	1	696,00 A 4
M 16 x 55	S	1	742,00 A 4
M 16 x 60	S	1	788,00 A 4
M 16 x 70	S	1	885,00 A 4
M 16 x 80	S	1	1125,00 A 4
M 16 x 90	S	1	1355,00 A 4
M 16 x 100	S	1	1534,00 A 4
M 16 x 110	S	1	2301,00 A 4
M 16 x 120	S	1	2352,00 A 4
M 16 x 130	S	1	2404,00 A 4
M 16 x 140	S	1	2455,00 A 4
M 16 x 150	S	1	2506,00 A 4
M 20 x 40	S	1	1381,00 A 4
M 20 x 45	S	1	1534,00 A 4
M 20 x 50	S	1	1611,00 A 4
M 20 x 55	S	1	1739,00 A 4
M 20 x 60	S	1	1867,00 A 4
M 20 x 70	S	1	1995,00 A 4
M 20 x 80	S	1	2608,00 A 4
M 20 x 90	S	1	3324,00 A 4
M 20 x 100	S	1	3733,00 A 4
M 20 x 110	S	1	4858,00 A 4
M 20 x 120	S	1	4909,00 A 4
M 20 x 130	S	1	4960,00 A 4
M 20 x 140	S	1	5011,00 A 4
M 20 x 150	S	1	5062,00 A 4
M 24 x 50	S	1	2352,00 A 4
M 24 x 55	S	1	2352,00 A 4
M 24 x 60	S	1	2352,00 A 4
M 24 x 70	S	1	2455,00 A 4
M 24 x 80	S	1	3068,00 A 4

Dimensions	PU	Pieces	€.
M 24 x 90	S	1	3784,00 A 4
M 24 x 100	S	1	4193,00 A 4
M 24 x 110	S	1	5318,00 A 4
M 24 x 120	S	1	5369,00 A 4
M 24 x 140	S	1	5471,00 A 4
M 24 x 150	S	1	5522,00 A 4

DIN	11024.940	RAZ 770
11024 A 4		



Spring cotters for a bolt

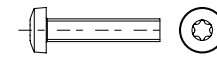
Dimensions → TI-121

Steel → S. 370

For hole Ø (tol. HB3)/shaft Ø from-to

Dimensions	PU	Pieces	€.
2,5 / 9 -11,2	S	25	1040,00 A 4
3,2 / 11,3-14	S	25	1120,00 A 4
4 / 14,1-20	S	25	1850,00 A 4
5 / 20,1-26	S	10	2270,00 A 4
6,3 / 26,1-34	S	10	3250,00 A 4
7 / 34,1-45	S	10	4050,00 A 4
8 / 45,1-56	S	10	9800,00 A 4

ISO	14583.920	RAZ 710
14583 A 2		ISR



Pan head screws, ISR = hexalobular socket

Dimensions → TI-40 Standard conversion → TI-11
Corrosion protection → TI-217 Tightening torque → TI-235

Steel → S. 380

Dimensions	PU	Pieces	€.
M 1,6 x 2	S	1000	30,00 A 2
M 1,6 x 3	S	1000	25,00 A 2
M 1,6 x 4	S	1000	24,00 A 2
M 1,6 x 5	S	1000	24,50 A 2
M 1,6 x 6	S	1000	25,00 A 2
M 1,6 x 8	S	1000	27,00 A 2
M 1,6 x 10	S	1000	30,00 A 2
M 1,6 x 12	S	1000	35,00 A 2
M 1,6 x 16	S	1000	42,00 A 2
M 2 x 2	S	1000	30,00 A 2
M 2 x 3	S	1000	25,00 A 2
M 2 x 4	S	1000	24,00 A 2
M 2 x 5	S	1000	24,50 A 2
M 2 x 6	S	1000	25,00 A 2
M 2 x 8	S	1000	27,00 A 2
M 2 x 10	S	1000	30,00 A 2
M 2 x 12	S	1000	35,00 A 2
M 2 x 16	S	1000	42,00 A 2
M 2 x 20	S	1000	50,00 A 2
M 2,5 x 3	S	1000	15,00 A 2
M 2,5 x 4	S	1000	10,60 A 2
M 2,5 x 5	S	1000	10,80 A 2
M 2,5 x 6	S	1000	8,60 A 2
M 2,5 x 8	S	1000	8,70 A 2
M 2,5 x 10	S	1000	8,90 A 2

ISO 14583

Dimensions	PU	Pieces	€.
M 2,5 x 12	S	1000	9,50 A2
M 2,5 x 16	S	1000	10,10 A2
M 2,5 x 20	S	1000	11,70 A2
M 2,5 x 25	S	1000	18,00 A2
M 3 x 4	S	1000	6,50 A2
M 3 x 5	S	1000	6,00 A2
M 3 x 6	S	1000	5,55 A2
M 3 x 8	S	1000	5,90 A2
M 3 x 10	S	1000	6,30 A2
M 3 x 12	S	1000	6,60 A2
M 3 x 16	S	1000	7,80 A2
M 3 x 20	S	1000	8,30 A2
M 3 x 25	S	1000	9,10 A2
M 3 x 30	S	1000	14,50 A2
M 4 x 5	S	1000	12,00 A2
M 4 x 6	S	1000	8,90 A2
M 4 x 8	S	1000	9,00 A2
M 4 x 10	S	1000	9,30 A2
M 4 x 12	S	1000	9,80 A2
M 4 x 16	S	1000	12,60 A2
M 4 x 20	S	1000	12,80 A2
M 4 x 25	S	1000	14,30 A2
M 4 x 30	S	1000	18,00 A2
M 4 x 35	S	500	24,75 A2
M 4 x 40	S	500	32,00 A2
M 5 x 6	S	500	22,20 A2
M 5 x 8	S	500	15,50 A2
M 5 x 10	S	500	15,80 A2
M 5 x 12	S	500	15,90 A2
M 5 x 20	S	500	19,80 A2
M 5 x 25	S	500	22,70 A2
M 5 x 30	S	500	26,00 A2
M 5 x 35	S	500	29,50 A2
M 5 x 40	S	500	34,50 A2
M 5 x 45	S	500	42,25 A2
M 5 x 50	S	500	55,00 A2
M 6 x 8	S	200	19,60 A2
M 6 x 10	S	200	19,80 A2
M 6 x 12	S	500	20,80 A2
M 6 x 16	S	200	22,50 A2
M 6 x 20	S	200	25,50 A2
M 6 x 25	S	200	28,50 A2
M 6 x 30	S	200	33,50 A2
M 6 x 35	S	200	37,00 A2
M 6 x 40	S	200	42,00 A2
M 6 x 45	S	200	51,35 A2
M 6 x 50	S	200	65,00 A2
M 6 x 60	S	200	88,00 A2
M 8 x 10	S	500	110,00 A2
M 8 x 12	S	500	95,00 A2
M 8 x 16	S	500	105,00 A2
M 8 x 20	S	500	113,00 A2
M 8 x 25	S	500	125,00 A2
M 8 x 30	S	500	136,00 A2
M 8 x 35	S	500	147,00 A2
M 8 x 40	S	500	159,00 A2
M 8 x 45	S	200	170,00 A2
M 8 x 50	S	200	182,00 A2
M 8 x 55	S	200	195,00 A2
M 8 x 60	S	200	206,00 A2
M10 x 12	S	200	175,00 A2
M10 x 16	S	200	158,00 A2
M10 x 20	S	200	170,00 A2
M10 x 25	S	200	190,00 A2
M10 x 30	S	200	205,00 A2
M10 x 35	S	200	225,00 A2
M10 x 40	S	200	245,00 A2
M10 x 45	S	100	270,00 A2
M10 x 50	S	100	275,00 A2
M10 x 55	S	100	295,00 A2
M10 x 60	S	100	310,00 A2

Dimensions	PU	Pieces	€.
ISO 14585.923			RAZ 690
14585 A 2		type C-ISR	



**Pan head tapping screws,
ISR = hexalobular socket,
C = with cone end**

Dimensions → TI-46

Steel → S. 380

2,9 x 6,5 -C	S	1000	7,30 A2
2,9 x 9,5 -C	S	1000	3,90 A2
2,9 x 13 -C	S	1000	4,10 A2
2,9 x 16 -C	S	1000	4,50 A2
2,9 x 19 -C	S	1000	4,80 A2
2,9 x 22 -C	S	1000	8,10 A2
2,9 x 25 -C	S	1000	8,40 A2
3,5 x 9,5 -C	S	1000	5,10 A2
3,5 x 13 -C	S	1000	5,40 A2
3,5 x 16 -C	S	1000	5,70 A2
3,5 x 19 -C	S	1000	6,30 A2
3,5 x 22 -C	S	1000	7,90 A2
3,5 x 25 -C	S	1000	8,20 A2
3,5 x 32 -C	S	1000	9,30 A2
3,5 x 38 -C	S	1000	10,45 A2
3,9 x 9,5 -C	S	1000	6,15 A2
3,9 x 13 -C	S	1000	6,15 A2
3,9 x 16 -C	S	1000	6,60 A2
3,9 x 19 -C	S	1000	7,20 A2
3,9 x 22 -C	S	500	8,85 A2
3,9 x 25 -C	S	500	9,15 A2
3,9 x 32 -C	S	500	11,00 A2
3,9 x 38 -C	S	500	12,45 A2
3,9 x 45 -C	S	500	15,45 A2
3,9 x 50 -C	S	500	16,65 A2
4,2 x 9,5 -C	S	1000	4,60 A2
4,2 x 13 -C	S	1000	7,05 A2
4,2 x 16 -C	S	1000	8,00 A2
4,2 x 19 -C	S	500	8,65 A2
4,2 x 22 -C	S	500	9,75 A2
4,2 x 25 -C	S	500	10,05 A2
4,2 x 32 -C	S	500	12,45 A2
4,2 x 38 -C	S	500	14,20 A2
4,2 x 45 -C	S	500	20,55 A2
4,2 x 50 -C	S	500	23,25 A2
4,2 x 60 -C	S	500	41,25 A2
4,8 x 9,5 -C	S	500	13,10 A2
4,8 x 13 -C	S	500	9,00 A2
4,8 x 16 -C	S	500	9,75 A2
4,8 x 19 -C	S	500	11,00 A2
4,8 x 22 -C	S	500	12,45 A2
4,8 x 25 -C	S	500	12,75 A2
4,8 x 32 -C	S	250	16,20 A2
4,8 x 38 -C	S	250	18,15 A2
4,8 x 45 -C	S	250	23,70 A2
4,8 x 50 -C	S	250	24,45 A2
4,8 x 55 -C	S	250	51,75 A2
4,8 x 60 -C	S	250	33,15 A2
4,8 x 70 -C	S	250	43,50 A2
4,8 x 80 -C	S	250	51,60 A2
4,8 x 90 -C	S	100	66,60 A2
4,8 x 100 -C	S	100	84,30 A2
5,5 x 13 -C	S	500	14,75 A2
5,5 x 16 -C	S	500	15,60 A2
5,5 x 19 -C	S	500	16,65 A2
5,5 x 22 -C	S	500	18,30 A2
5,5 x 25 -C	S	500	19,65 A2

Dimensions	PU	Pieces	€.
5,5 x 32 -C	S	250	22,95 A2
5,5 x 38 -C	S	250	25,95 A2
5,5 x 45 -C	S	250	31,05 A2
5,5 x 50 -C	S	250	34,80 A2
5,5 x 60 -C	S	250	41,40 A2
5,5 x 70 -C	S	250	49,50 A2
5,5 x 80 -C	S	250	60,00 A2
6,3 x 13 -C	S	500	16,50 A2
6,3 x 16 -C	S	500	16,80 A2
6,3 x 19 -C	S	500	18,00 A2
6,3 x 22 -C	S	500	19,80 A2
6,3 x 25 -C	S	500	21,00 A2
6,3 x 32 -C	S	250	25,20 A2
6,3 x 38 -C	S	250	27,90 A2
6,3 x 45 -C	S	250	33,30 A2
6,3 x 50 -C	S	250	41,40 A2
6,3 x 60 -C	S	250	49,80 A2
6,3 x 70 -C	S	250	60,00 A2

Dimensions	PU	Pieces	€.
ISO 14586.923			RAZ 690
14586 A 2		type C-ISR	



**Countersunk head tapping screws,
ISR = hexalobular socket,
C = with cone end**

countersunk $\sphericalangle = 90^\circ$

Dimensions → TI-47

Steel → S. 381

2,9 x 6,5 -C	S	1000	7,30
2,9 x 9,5 -C	S	1000	3,90
2,9 x 13 -C	S	1000	4,10
2,9 x 16 -C	S	1000	4,50
2,9 x 19 -C	S	1000	4,80
2,9 x 22 -C	S	1000	8,10
2,9 x 25 -C	S	1000	8,40
3,5 x 9,5 -C	S	1000	5,10
3,5 x 13 -C	S	1000	5,40
3,5 x 16 -C	S	1000	5,70
3,5 x 19 -C	S	1000	6,30
3,5 x 22 -C	S	1000	7,90
3,5 x 25 -C	S	1000	8,20
3,5 x 32 -C	S	1000	9,30
3,5 x 38 -C	S	1000	10,45
3,9 x 9,5 -C	S	1000	6,15
3,9 x 13 -C	S	1000	6,15
3,9 x 16 -C	S	1000	6,60
3,9 x 19 -C	S	1000	7,20
3,9 x 22 -C	S	500	8,85
3,9 x 25 -C	S	500	9,15
3,9 x 32 -C	S	500	11,00
3,9 x 38 -C	S	500	12,45
3,9 x 45 -C	S	500	15,45
3,9 x 50 -C	S	500	16,65
4,2 x 9,5 -C	S	1000	6,90
4,2 x 13 -C	S	1000	7,05
4,2 x 16 -C	S	1000	8,00
4,2 x 19 -C	S	500	8,65
4,2 x 22 -C	S	500	9,75
4,2 x 25 -C	S	500	10,05
4,2 x 32 -C	S	500	12,45
4,2 x 38 -C	S	500	14,20
4,2 x 45 -C	S	500	20,55
4,2 x 50 -C	S	500	23,25
4,2 x 60 -C	S	500	41,25



Article 88089

Dimensions	PU Pieces	€.
4,8 x 9,5 -C	S 500	13,10
4,8 x 13 -C	S 500	9,00
4,8 x 16 -C	S 500	9,75
4,8 x 19 -C	S 500	11,00
4,8 x 22 -C	S 500	12,45
4,8 x 25 -C	S 500	12,75
4,8 x 32 -C	S 250	16,20
4,8 x 38 -C	S 250	18,15
4,8 x 45 -C	S 250	23,70
4,8 x 50 -C	S 250	24,45
4,8 x 55 -C	S 250	51,75
4,8 x 60 -C	S 250	33,15
4,8 x 70 -C	S 250	43,50
4,8 x 80 -C	S 250	51,60
4,8 x 90 -C	S 100	66,60
4,8 x 100 -C	S 100	84,30
5,5 x 13 -C	S 500	14,75
5,5 x 16 -C	S 500	15,60
5,5 x 19 -C	S 500	16,65
5,5 x 22 -C	S 500	18,30
5,5 x 25 -C	S 500	19,65
5,5 x 32 -C	S 250	22,95
5,5 x 38 -C	S 250	25,95
5,5 x 45 -C	S 250	31,05
5,5 x 50 -C	S 250	34,80
5,5 x 60 -C	S 250	41,40
5,5 x 70 -C	S 250	49,50
5,5 x 80 -C	S 250	60,00
6,3 x 19 -C	S 500	18,00
6,3 x 22 -C	S 500	19,80
6,3 x 25 -C	S 500	21,00
6,3 x 32 -C	S 250	25,20
6,3 x 38 -C	S 250	27,90
6,3 x 45 -C	S 250	33,30
6,3 x 50 -C	S 250	41,40
6,3 x 60 -C	S 250	49,80
6,3 x 70 -C	S 250	60,00

DIN	71412.941	RAZ 782
71412	A 4	type A-M



Lubricating nipples, cone type, with hexagon, A = cone head straight/axial, M = with taper fine pitch thread

Dimensions → **TI-25**

Steel → **S. 384**

Thread M x pitch/wrench size SW

AM 6	x 1 SW 7	S 50	1304,00 A 4
AM 8	x 1 SW 9	S 50	1381,00 A 4
AM 10	x 1 SW 11	S 25	1432,00 A 4

Dimensions PU Pieces €.

DIN	80704.940	RAZ 790
80704	A 4	

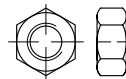


Bow nuts

Dimensions → **TI-127**

M 8	S 1	4450,00 A 4
M 10	S 1	4700,00 A 4
M 12	S 1	5700,00 A 4
M 16	S 1	6700,00 A 4
M 20	S 1	8000,00 A 4

ASME B	83934.944	RAZ 2200
18.2.2	A 4	UNC

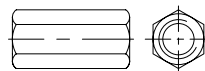


Hex nuts with UNC thread

Dimensions → **TI-60 GS** → **TI-213**

1/4	S 100	65,00 A 4
3/8	S 100	130,00 A 4
1/2	S 50	219,00 A 4
5/8	S 25	385,00 A 4

Article	88087.910	RAZ 810
88087	A 1	



Hexagon couplings with continuous internal thread

Product grade C (g), thread tol.: 6H, tolerance for wrench size = h13, l ± 1,0, Thread screw-in depth: group N = max. 1,5d

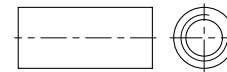
Dimensions → **TI-64**

Internal thread x length/wrench sizes (SW)

M 6	x 25 SW10	S 50	295,00 A 1/A 2
M 8	x 30 SW13	S 50	600,00 A 1/A 2
M 10	x 30 SW17	S 25	1030,00 A 1/A 2
M 12	x 40 SW19	S 25	1500,00 A 1/A 2
M 16	x 50 SW24	S 10	2600,00 A 1/A 2
M 20	x 50 SW30	S 10	3950,00 A 1/A 2
M 24	x 50 SW36	S 5	5600,00 A 1/A 2
M 30	x 60 SW46	S 5	8700,00 A 1/A 2

Dimensions PU Pieces €.

Article	88088.920	RAZ 810
88088	A 2	



Round couplings with continuous internal thread

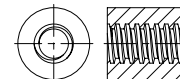
Product grade C (g), Thread screw-in depth: group N = max. 1,5d

Dimensions → **TI-75**

Internal thread x length x outside Ø

M 6	x 25 x 10	S 50	280,00 A 2
M 6	x 30 x 10	S 50	340,00 A 2
M 8	x 25 x 11	S 50	350,00 A 2
M 8	x 30 x 11	S 50	435,00 A 2
M 10	x 30 x 13	S 25	530,00 A 2
M 12	x 30 x 15	S 25	690,00 A 2
M 16	x 40 x 22	S 10	1650,00 A 2

Article	88089.944	RAZ 811
88089	A 4	



Round nuts with trapezoidal thread, height = 1,5 d

Threaded rods TR → DIN 975 trapezoidal

Dimensions → **TI-75**

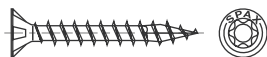
Thread x pitch x outside Ø

TR 16	x 4 -36	S 1	7500,00 A 4
TR 20	x 4 -36	S 1	9400,00 A 4
TR 24	x 5 -50	S 1	12400,00 A 4
TR 30	x 6 -60	S 1	19200,00 A 4

Article 88091



Dimensions	PU Pieces	€.
Article 88091.920	RAZ 816	
88091 A 2	SPAX CSK-T	



SPAX universal screws, with SPAX 4CUT point, CSK = SPAX MULTI counters. head, T = T-STAR plus

Slide-coated

Caution! Lower tightness compared to hardened steel.

Bits → article 88663, 88654
Caps → article 88006

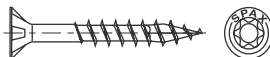
Approvals: Z-9.1-235, ETA-12/0114



Nominal Ø x nominal length/thread length approx. - bit size

3	x	12/10-T10	K	200	4,90 A2
3	x	16/13-T10	K	200	5,15 A2
3	x	20/16-T10	K	200	5,80 A2
3	x	25/21-T10	K	200	6,00 A2
3	x	30/26-T10	K	200	6,50 A2
3	x	35/31-T10	K	200	9,70 A2
3	x	40/36-T10	K	200	10,25 A2
3,5	x	16/12-T15	K	200	5,85 A2
3,5	x	20/15-T15	K	200	6,50 A2
3,5	x	25/20-T15	K	200	6,65 A2
3,5	x	30/25-T15	K	200	6,95 A2
3,5	x	35/30-T15	K	200	7,75 A2
3,5	x	40/35-T15	K	200	8,45 A2
4	x	20/15-T20	K	200	7,75 A2
4	x	25/20-T20	K	200	8,20 A2
4	x	30/25-T20	K	200	9,00 A2
4	x	35/30-T20	K	200	9,70 A2
4	x	40/35-T20	K	200	10,30 A2
4	x	45/40-T20	K	200	10,65 A2
4	x	50/45-T20	K	200	11,05 A2
4	x	60/50-T20	K	100	16,90 A2
4,5	x	25/19-T20	K	200	9,70 A2
4,5	x	30/24-T20	K	200	10,25 A2
4,5	x	35/29-T20	K	200	11,30 A2
4,5	x	40/34-T20	K	200	12,40 A2
4,5	x	45/39-T20	K	200	13,60 A2
4,5	x	50/44-T20	K	200	14,70 A2
4,5	x	60/54-T20	K	100	19,45 A2
4,5	x	70/59-T20	K	100	22,40 A2
5	x	20/15-T20	K	200	12,30 A2
5	x	25/20-T20	K	200	12,30 A2
5	x	30/24-T20	K	200	11,65 A2
5	x	35/29-T20	K	200	12,95 A2
5	x	40/34-T20	K	200	14,70 A2
5	x	45/39-T20	K	200	16,50 A2
5	x	50/44-T20	K	200	18,25 A2
5	x	60/54-T20	K	100	22,40 A2
5	x	70/60-T20	K	100	32,50 A2
5	x	80/60-T20	K	100	38,50 A2
6	x	40/34-T30	K	200	29,00 A2
6	x	45/38-T30	K	200	32,50 A2
6	x	50/43-T30	K	100	32,50 A2
6	x	60/53-T30	K	100	38,00 A2
6	x	70/61-T30	K	100	39,50 A2
6	x	80/61-T30	K	100	40,50 A2

Dimensions	PU Pieces	€.
Article 88091.929	RAZ 816	
88091 A 2	SPAX CSK-T-P	



SPAX universal screws, with SPAX 4CUT point, CSK = SPAX MULTI counters. head, T = T-STAR plus, P = partially threaded

Slide-coated,
6x160 with CUT point

Caution! Lower tightness compared to hardened steel.

Bits → article 88663, 88654
Caps → article 88006

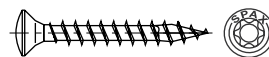
Approvals: Z-9.1-235, ETA-12/0114



Nominal Ø x nominal length/thread length approx. - bit size

3,5	x	30/18-T15	K	200	6,95 A2
3,5	x	35/23-T15	K	200	7,75 A2
3,5	x	40/23-T15	K	200	8,45 A2
4	x	30/18-T20	K	200	9,00 A2
4	x	35/23-T20	K	200	9,70 A2
4	x	40/23-T20	K	200	10,30 A2
4	x	45/30-T20	K	200	10,65 A2
4	x	50/32-T20	K	200	11,05 A2
4,5	x	40/25-T20	K	200	12,40 A2
4,5	x	45/30-T20	K	200	13,60 A2
4,5	x	50/32-T20	K	200	14,70 A2
4,5	x	60/37-T20	K	100	19,45 A2
4,5	x	70/42-T20	K	100	22,40 A2
5	x	40/27-T20	K	200	14,70 A2
5	x	45/30-T20	K	200	16,50 A2
5	x	50/32-T20	K	200	18,25 A2
5	x	60/37-T20	K	100	22,40 A2
5	x	70/41-T20	K	100	32,50 A2
5	x	80/46-T20	K	100	38,50 A2
5	x	90/61-T20	K	100	45,00 A2
5	x	100/61-T20	K	100	53,00 A2
5	x	120/68-T20	K	100	58,00 A2
6	x	60/37-T30	K	100	38,00 A2
6	x	70/41-T30	K	100	39,50 A2
6	x	80/46-T30	K	100	40,50 A2
6	x	90/61-T30	K	100	44,50 A2
6	x	100/61-T30	K	100	48,50 A2
6	x	120/68-T30	K	100	59,00 A2
6	x	140/68-T30	K	100	80,00 A2
6	x	160/68-T30	K	100	103,00 A2

Dimensions	PU Pieces	€.
Article 88092.925	RAZ 816	
88092 A 2	SPAX RCSK-T	



SPAX universal screws, with SPAX 4CUT point, RCSK = SPAX MULTI raised countersunk head, T = T-STAR plus

Slide-coated

Caution! Lower tightness compared to hardened steel.

Bits → article 88663, 88654
Caps → article 88006

Approvals: Z-9.1-235, ETA-12/0114



Nominal Ø x nominal length/thread length approx. - bit size

3	x	16/13-T10	K	200	6,00 A2
3	x	20/16-T10	K	200	6,65 A2
3	x	25/21-T10	K	200	6,85 A2
3	x	30/26-T10	K	200	7,50 A2
3,5	x	16/13-T15	K	200	6,70 A2
3,5	x	20/16-T15	K	200	7,50 A2
3,5	x	25/21-T15	K	200	7,60 A2
3,5	x	30/25-T15	K	200	8,00 A2
4	x	30/25-T20	K	200	10,25 A2
4	x	35/30-T20	K	200	11,15 A2
4	x	40/35-T20	K	200	11,80 A2
4	x	45/40-T20	K	200	12,40 A2
4,5	x	30/25-T20	K	200	11,80 A2
4,5	x	40/34-T20	K	200	14,15 A2
4,5	x	50/44-T20	K	200	16,90 A2

Dimensions	PU Pieces	€.
Article 88093.924	RAZ 816	
88093 A 2	SPAX PAN-T	



SPAX universal screws, with SPAX 4CUT point, PAN = pan head, T = T-STAR plus

Slide-coated

Caution! Lower tightness compared to hardened steel.

Bits → article 88663, 88654
Caps → article 88006

Approvals: Z-9.1-235, ETA-12/0114



Nominal Ø x nominal length/thread length approx. - bit size

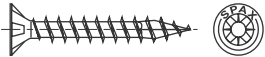
3	x	20/16-T10	K	200	6,95 A2
3	x	30/26-T10	K	200	7,80 A2
3,5	x	20/16-T15	K	200	7,80 A2
3,5	x	30/25-T15	K	200	8,35 A2
4	x	20/16-T20	K	200	9,30 A2



Article 88193

Dimensions	PU Pieces	€.
4 x 25/21-T20	K 200	9,85 A 2
4 x 30/25-T20	K 200	10,80 A 2
4 x 35/30-T20	K 200	11,65 A 2
4 x 40/35-T20	K 200	12,35 A 2
4 x 45/40-T20	K 200	12,80 A 2
4 x 50/45-T20	K 200	13,25 A 2
5 x 25/20-T20	K 200	13,35 A 2
5 x 30/25-T20	K 200	14,00 A 2
5 x 40/35-T20	K 200	17,65 A 2
5 x 50/44-T20	K 100	21,90 A 2

Article	88094.920	RAZ 816
88094	A 2	SPAX CSK-Z



SPAX universal screws, with SPAX 4CUT point, CSK = SPAX MULTI counters. head, Z = Pozidriv cross recess

Slide-coated,
bit sizes: Ø 3 → Z1, Ø 3,5 - 5,0 → Z2, Ø 6 → 3

Caution! Lower tightness compared to hardened steel.

Approvals: Z-9.1-235, ETA-12/0114

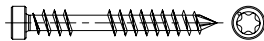


Nominal Ø x nominal length/thread length approx.

3 x 12/10-Z	S 200	4,90 A 2
3 x 16/13-Z	S 200	5,15 A 2
3 x 20/16-Z	S 200	5,80 A 2
3 x 25/21-Z	S 200	6,00 A 2
3 x 30/26-Z	S 200	6,50 A 2
3 x 35/31-Z	S 200	9,70 A 2
3 x 40/36-Z	S 200	10,25 A 2
3,5 x 16/12-Z	S 200	5,85 A 2
3,5 x 20/15-Z	S 200	6,50 A 2
3,5 x 25/20-Z	S 200	6,65 A 2
3,5 x 30/25-Z	S 200	6,95 A 2
3,5 x 35/30-Z	S 200	7,75 A 2
3,5 x 40/35-Z	S 200	8,45 A 2
4 x 20/15-Z	S 200	7,75 A 2
4 x 25/20-Z	S 200	8,20 A 2
4 x 30/25-Z	S 200	9,00 A 2
4 x 35/30-Z	S 200	9,70 A 2
4 x 40/35-Z	S 200	10,30 A 2
4 x 45/40-Z	S 200	10,65 A 2
4 x 50/45-Z	S 200	11,05 A 2
4 x 60/50-Z	S 100	16,90 A 2
4,5 x 25/19-Z	S 200	9,70 A 2
4,5 x 30/24-Z	S 200	10,25 A 2
4,5 x 35/29-Z	S 200	11,30 A 2
4,5 x 40/34-Z	S 200	12,40 A 2
4,5 x 45/39-Z	S 200	13,60 A 2
4,5 x 50/44-Z	S 200	14,70 A 2
4,5 x 60/54-Z	S 100	19,45 A 2
4,5 x 70/59-Z	S 100	22,40 A 2
5 x 30/24-Z	S 200	11,65 A 2
5 x 35/29-Z	S 200	12,95 A 2
5 x 40/34-Z	S 200	14,70 A 2
5 x 45/39-Z	S 200	16,50 A 2
5 x 50/44-Z	S 200	18,25 A 2
5 x 60/54-Z	S 100	22,40 A 2
5 x 70/60-Z	S 100	32,50 A 2
5 x 80/60-Z	S 100	38,50 A 2
5 x 100/60-Z	K 200	53,00 A 2

Dimensions	PU Pieces	€.
6 x 40/33-Z	S 200	29,00 A 2
6 x 50/43-Z	S 100	32,50 A 2
6 x 60/53-Z	S 100	38,00 A 2
6 x 70/60-Z	S 100	39,50 A 2
6 x 80/60-Z	S 100	40,50 A 2
6 x 90/60-Z	S 100	44,50 A 2
6 x 100/60-Z	S 100	48,50 A 2

Article	88192.924	RAZ 816
88192	A 2	SPAX D-C-T



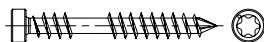
SPAX screws D for terraces planks, with fixing thread and SPAX CUT point, C = cylindric head, T = T-STAR plus

Slide-coated

Bits → article 88663, 88654

5 x 40/22-T25	S 200	25,00 A 2
5 x 50/23-T25	S 200	30,50 A 2
5 x 60/28-T25	S 100	34,00 A 2
5 x 70/33-T25	S 100	51,00 A 2
5 x 80/33-T25	S 100	55,00 A 2

Article	88192.944	RAZ 816
88192	A 4	SPAX D-C-T



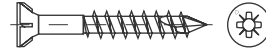
SPAX screws D for terraces planks, with fixing thread and SPAX CUT point, C = cylindric head, T = T-STAR plus

Slide-coated

Bits → article 88663, 88654

5,5 x 40/22-T25	S 200	48,00 A 4
5,5 x 50/22-T25	S 200	51,00 A 4
5,5 x 60/27-T25	S 100	58,00 A 4
5,5 x 70/32-T25	S 100	87,00 A 4
5,5 x 80/37-T25	S 100	94,00 A 4

Dimensions	PU Pieces	€.
Article	88190.924	RAZ 816
88190	A 2	SPAX CSK-Z

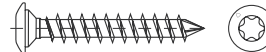


SPAX glass strip screws, with SPAX CUT point and milling ribs, CSK = countersunk head, Z = Pozidriv cross recess

Slide-coated

3,5 x 40/23-Z2	S 200	25,30 A 2
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Article	88191.924	RAZ 816
88191	A 2	SPAX CSK F-T



SPAX post screws, with SPAX CUT point, self-tapping, CSK F = countersunk fillister head, T = T-STAR plus

Slide-coated

Bits → article 88663, 88654

Nominal Ø x nominal length/thread length approx. - bit size

8 x 50/45-T40	S 50	124,35 A 2
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Article	88193.924	RAZ 816
88193	A 2	SPAX-T-T



SPAX screws, with SPAX 4CUT point, T = with flange head, T = T-STAR plus

Slide-coated

Bits → article 88663, 88654

Approvals: Z-9.1-449, ETA-12/0114



Nominal Ø x nominal length/thread length approx. - bit size

6 x 60/56-T30	S 100	48,80 A 2
6 x 80/61-T30	S 100	58,00 A 2
6 x 100/61-T30	S 100	67,00 A 2
6 x 120/68-T30	S 100	92,90 A 2
6 x 140/68-T30	S 100	99,00 A 2
8 x 50/46-T40	S 50	93,00 A 2
8 x 80/70-T40	S 50	115,00 A 2
8 x 100/80-T40	S 50	133,00 A 2
8 x 120/80-T40	S 50	184,00 A 2
8 x 140/80-T40	S 50	199,00 A 2
8 x 160/80-T40	S 50	217,00 A 2
8 x 180/80-T40	S 50	260,00 A 2
8 x 200/80-T40	S 50	312,00 A 2

Article 89018

SPAX®

Dimensions	PU Pieces	€.
Article 89018.920	RAZ 816	
89018 A 2	SPAX Facade	



SPAX facade screws with raised countersunk head, CUT point, T-STAR plus

Slide-coated

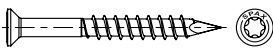
Approvals: Z-9.1-235, ETA-12/0114 Bit sizes: # Ø 4,5 - T20 # Ø 5,0 - T25



Nominal Ø x nominal length/thread length approx.

4,5	x	35/25 -T	S	200	18,80
4,5	x	40/25 -T	S	200	19,50
4,5	x	45/30 -T	S	200	22,60
4,5	x	50/32 -T	S	200	25,30
4,5	x	60/37 -T	S	100	29,20
4,5	x	70/42 -T	S	100	32,40
4,5	x	80/46 -T	S	100	38,30
5	x	60/37 -T	S	100	37,40
5	x	70/42 -T	S	100	41,80
5	x	80/46 -T	S	100	50,50
5	x	90/61 -T	S	100	55,00
5	x	100/61 -T	S	100	59,50

Article	89018.922	RAZ 816
89018 A 2	SPAX Facade	
	small head	



SPAX facade screws with very small raised countersunk head, CUT point, T-STAR plus

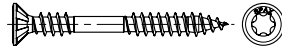
Slide-coated

Bit sizes: # Ø 4/4,5 - T15 # Ø 5,0 - T20

Nominal Ø x nominal length/thread length approx.

4	x	40/23 -T	S	100	17,50
4	x	45/30 -T	S	100	19,00
4,5	x	70/42 -T	S	100	33,00
5	x	100/61 -T	S	100	62,00

Dimensions	PU Pieces	€.
Article 89019.920	RAZ 816	
89019 A 2	SPAX Facade	
	fixing thread	



SPAX facade screws with raised countersunk head, 4CUT point, fixing thread, T-STAR plus

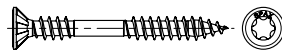
Small head (Ø 8 mm), slide-coated

Bit sizes Ø 4,5 - T20

Nominal Ø x nominal length/thread length approx.

4,5	x	50/26,5 -T	S	200	22,50
4,5	x	60/26,5 -T	S	100	28,50
4,5	x	70/31,5 -T	S	100	38,00

Article	89019.927	RAZ 816
89019 A 2	SPAX Facade	
	fixing thread antique	



SPAX facade screws with raised countersunk head, antique look, 4CUT point, fixing thread, T-STAR plus

Small head (Ø 8 mm), slide-coated

Bit sizes Ø 4,5 - T20

Nominal Ø x nominal length/thread length approx.

4,5	x	70/26,5 -T	S	200	25,50 antique
4,5	x	60/26,5 -T	S	100	32,00 antique

Article	88096.920	RAZ 815
88096 A 2	PAN-Z	



Chipboard screws, PAN = pan head, Z = Pozidriv cross recess

Caution! Lower tightness compared to hardened steel.

Dimensions → T1-52

3	x	16 -Z	S	1000	5,80 A2
3	x	20 -Z	S	1000	5,90 A2
3	x	25 -Z	S	1000	6,05 A2
3	x	30 -Z	S	1000	6,40 A2
3,5	x	16 -Z	S	1000	6,40 A2
3,5	x	20 -Z	S	1000	6,65 A2
3,5	x	25 -Z	S	1000	6,90 A2
3,5	x	30 -Z	S	1000	7,15 A2
3,5	x	35 -Z	S	1000	8,20 A2
3,5	x	40 -Z	S	1000	8,45 A2
4	x	16 -Z	S	1000	7,45 A2

Dimensions	PU Pieces	€.			
4	x	20 -Z	S	1000	8,20 A2
4	x	25 -Z	S	1000	8,70 A2
4	x	30 -Z	S	1000	9,20 A2
4	x	35 -Z	S	1000	10,75 A2
4	x	40 -Z	S	1000	11,25 A2
4	x	45 -Z	S	1000	11,75 A2
4	x	50 -Z	S	1000	12,30 A2
4,5	x	12 -Z	S	1000	11,00 A2
4,5	x	16 -Z	S	1000	9,50 A2
4,5	x	20 -Z	S	1000	8,70 A2
4,5	x	25 -Z	S	1000	9,20 A2
4,5	x	30 -Z	S	1000	10,25 A2
4,5	x	35 -Z	S	500	10,75 A2
4,5	x	40 -Z	S	500	11,75 A2
4,5	x	45 -Z	S	500	12,80 A2
4,5	x	50 -Z	S	500	16,40 A2
4,5	x	60 -Z	S	500	21,50 A2
5	x	20 -Z	S	1000	11,75 A2
5	x	25 -Z	S	1000	12,05 A2
5	x	30 -Z	S	1000	12,30 A2
5	x	35 -Z	S	1000	15,35 A2
5	x	40 -Z	S	1000	15,85 A2
5	x	45 -Z	S	1000	17,90 A2
5	x	50 -Z	S	500	18,40 A2
5	x	60 -Z	S	500	20,45 A2
5	x	70 -Z	S	500	32,75 A2
6	x	40 -Z	S	500	24,55 A2
6	x	45 -Z	S	500	26,10 A2
6	x	50 -Z	S	200	28,15 A2
6	x	60 -Z	S	200	31,70 A2
6	x	70 -Z	S	200	40,90 A2

Article	88097.920	RAZ 815
88097 A 2	CSK-Z	



Chipboard screws, CSK = countersunk head, Z = Pozidriv cross recess

Caution! Lower tightness compared to hardened steel.

Dimensions → T1-52

3	x	12 -Z	S	1000	5,25 A2
3	x	12 -Z	K	200	7,30 A2
3	x	16 -Z	S	1000	5,25 A2
3	x	16 -Z	K	200	7,30 A2
3	x	20 -Z	S	1000	5,75 A2
3	x	20 -Z	K	200	7,80 A2
3	x	25 -Z	S	1000	6,00 A2
3	x	25 -Z	K	200	8,05 A2
3	x	30 -Z	S	1000	6,35 A2
3	x	30 -Z	K	200	8,40 A2
3,5	x	16 -Z	S	1000	6,10 A2
3,5	x	16 -Z	K	200	8,15 A2
3,5	x	20 -Z	S	1000	6,35 A2
3,5	x	20 -Z	K	200	8,40 A2
3,5	x	25 -Z	S	1000	6,65 A2
3,5	x	25 -Z	K	200	8,70 A2
3,5	x	30 -Z	S	1000	7,05 A2
3,5	x	30 -Z	K	200	9,10 A2
3,5	x	35 -Z	S	1000	8,30 A2
3,5	x	35 -Z	K	200	10,35 A2
3,5	x	40 -Z	S	1000	8,55 A2
3,5	x	40 -Z	K	200	10,60 A2
3,5	x	45 -Z	S	1000	9,25 A2
3,5	x	45 -Z	K	200	12,75 A2



Article 88098

Dimensions	PU	Pieces	€.
3,5 x 50 -Z	S	1000	11,50 A2
3,5 x 50 -Z	K	200	14,40 A2
4 x 16 -Z	S	1000	7,35 A2
4 x 16 -Z	K	200	9,40 A2
4 x 20 -Z	S	1000	7,95 A2
4 x 20 -Z	K	200	10,00 A2
4 x 25 -Z	S	1000	8,30 A2
4 x 25 -Z	K	200	10,35 A2
4 x 30 -Z	S	1000	9,25 A2
4 x 30 -Z	K	200	11,30 A2
4 x 35 -Z	S	1000	10,20 A2
4 x 35 -Z	K	200	12,25 A2
4 x 40 -Z	S	1000	10,80 A2
4 x 40 -Z	K	200	12,85 A2
4 x 45 -Z	S	1000	11,50 A2
4 x 45 -Z	K	200	13,55 A2
4 x 50 -Z	S	1000	12,10 A2
4 x 50 -Z	K	200	14,15 A2
4 x 60 -Z	S	500	14,70 A2
4 x 60 -Z	K	100	16,75 A2
4 x 70 -Z	S	500	18,10 A2
4 x 70 -Z	K	100	20,50 A2
4 x 80 -Z	S	500	23,95 A2
4 x 80 -Z	K	100	27,50 A2
4,5 x 20 -Z	S	1000	6,65 A2
4,5 x 20 -Z	K	200	11,35 A2
4,5 x 25 -Z	S	1000	9,50 A2
4,5 x 25 -Z	K	200	11,85 A2
4,5 x 30 -Z	S	1000	10,00 A2
4,5 x 30 -Z	K	200	12,05 A2
4,5 x 35 -Z	S	500	10,70 A2
4,5 x 35 -Z	K	200	12,75 A2
4,5 x 40 -Z	S	500	11,40 A2
4,5 x 40 -Z	K	200	13,45 A2
4,5 x 45 -Z	S	500	12,50 A2
4,5 x 45 -Z	K	200	14,55 A2
4,5 x 50 -Z	S	500	15,60 A2
4,5 x 50 -Z	K	200	17,65 A2
4,5 x 60 -Z	S	500	21,10 A2
4,5 x 60 -Z	K	100	23,15 A2
4,5 x 70 -Z	S	500	25,00 A2
4,5 x 70 -Z	K	100	28,25 A2
5 x 20 -Z	S	1000	12,00 A2
5 x 20 -Z	K	200	15,00 A2
5 x 25 -Z	S	1000	11,80 A2
5 x 25 -Z	K	200	13,85 A2
5 x 30 -Z	S	1000	11,80 A2
5 x 30 -Z	K	200	13,85 A2
5 x 35 -Z	S	1000	14,80 A2
5 x 35 -Z	K	200	16,85 A2
5 x 40 -Z	S	1000	15,00 A2
5 x 40 -Z	K	200	17,05 A2
5 x 50 -Z	S	1000	18,20 A2
5 x 50 -Z	K	200	20,25 A2
5 x 60 -Z	S	500	25,50 A2
5 x 60 -Z	K	100	27,55 A2
5 x 70 -Z	S	500	32,60 A2
5 x 70 -Z	K	100	34,65 A2
5 x 80 -Z	S	500	36,40 A2
5 x 80 -Z	K	100	38,45 A2
5 x 90 -Z	S	200	39,60 A2
5 x 90 -Z	K	100	41,65 A2
5 x 100 -Z	S	200	43,40 A2
5 x 100 -Z	K	100	45,45 A2
6 x 40 -Z	S	500	19,10 A2
6 x 40 -Z	K	200	21,15 A2
6 x 50 -Z	S	200	26,70 A2
6 x 60 -Z	S	200	31,10 A2
6 x 60 -Z	K	100	33,15 A2
6 x 70 -Z	S	200	40,30 A2
6 x 70 -Z	K	100	42,35 A2
6 x 80 -Z	S	200	43,40 A2
6 x 80 -Z	K	100	45,45 A2
6 x 90 -Z	S	200	47,20 A2
6 x 90 -Z	K	100	49,25 A2

Dimensions	PU	Pieces	€.
6 x 100 -Z	S	100	51,60 A2
6 x 110 -Z	S	100	62,00 A2
6 x 120 -Z	S	100	62,80 A2
6 x 130 -Z	S	100	75,00 A2
6 x 140 -Z	S	100	85,00 A2
6 x 150 -Z	S	100	100,00 A2

Article	88098.920	RAZ 815
88098	A 2	CSK-T



Chipboard screws,
CSK = countersunk head,
T = hexalobular socket

Length G 60mm mostly with partial thread

Caps → article 88006

Dimensions → **T1-52**

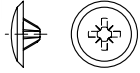
3 x 12 -T10	S	1000	9,20
3 x 12 -T10	K	200	13,00
3 x 16 -T10	S	1000	9,20
3 x 16 -T10	K	200	13,00
3 x 20 -T10	S	1000	10,10
3 x 20 -T10	K	200	13,75
3 x 25 -T10	S	1000	10,50
3 x 25 -T10	K	200	14,25
3 x 30 -T10	S	1000	11,20
3 x 30 -T10	K	200	14,75
3 x 35 -T10	S	1000	14,00
3 x 35 -T10	K	200	18,00
3 x 40 -T10	S	1000	18,40
3 x 40 -T10	K	200	21,00
3,5 x 16 -T15	S	1000	10,75
3,5 x 16 -T15	K	200	14,50
3,5 x 20 -T15	S	1000	11,20
3,5 x 20 -T15	K	200	14,75
3,5 x 25 -T15	S	1000	11,75
3,5 x 25 -T15	K	200	15,50
3,5 x 30 -T15	S	1000	12,35
3,5 x 30 -T15	K	200	16,00
3,5 x 35 -T15	S	1000	14,55
3,5 x 35 -T15	K	200	18,25
3,5 x 40 -T15	S	1000	15,00
3,5 x 40 -T15	K	200	18,75
4 x 16 -T20	S	1000	13,00
4 x 16 -T20	K	200	16,50
4 x 20 -T20	S	1000	14,00
4 x 20 -T20	K	200	17,50
4 x 25 -T20	S	1000	14,55
4 x 25 -T20	K	200	18,25
4 x 30 -T20	S	1000	16,20
4 x 30 -T20	K	200	20,00
4 x 35 -T20	S	1000	17,85
4 x 35 -T20	K	200	21,75
4 x 40 -T20	S	1000	18,90
4 x 40 -T20	K	200	22,50
4 x 45 -T20	S	1000	20,20
4 x 45 -T20	K	200	23,75
4 x 50 -T20	S	1000	21,20
4 x 50 -T20	K	200	25,00
4 x 60 -T20	S	500	25,75
4 x 60 -T20	K	100	29,75
4 x 70 -T20	S	500	31,75
4 x 70 -T20	K	100	36,00
4 x 80 -T20	S	500	42,00
4 x 80 -T20	K	100	48,25

Dimensions	PU	Pieces	€.
4,5 x 16 -T20	S	1000	15,00
4,5 x 16 -T20	K	200	22,00
4,5 x 20 -T20	S	1000	12,00
4,5 x 20 -T20	K	200	20,00
4,5 x 25 -T20	S	1000	16,65
4,5 x 25 -T20	K	200	20,75
4,5 x 30 -T20	S	1000	17,50
4,5 x 30 -T20	K	200	21,35
4,5 x 35 -T20	S	500	18,75
4,5 x 35 -T20	K	200	22,50
4,5 x 40 -T20	S	500	20,00
4,5 x 40 -T20	K	200	23,65
4,5 x 45 -T20	S	500	22,00
4,5 x 45 -T20	K	200	25,50
4,5 x 50 -T20	S	500	27,30
4,5 x 50 -T20	K	200	31,00
4,5 x 60 -T20	S	500	37,00
4,5 x 60 -T20	K	100	40,75
4,5 x 70 -T20	S	500	49,00
4,5 x 70 -T20	K	100	56,00
5 x 20 -T25	S	1000	21,00
5 x 20 -T25	K	200	26,25
5 x 25 -T25	S	1000	20,75
5 x 25 -T25	K	200	25,00
5 x 30 -T25	S	1000	20,75
5 x 30 -T25	K	200	25,00
5 x 35 -T25	S	1000	26,00
5 x 35 -T25	K	200	30,00
5 x 40 -T25	S	1000	26,25
5 x 40 -T25	K	200	30,00
5 x 50 -T25	S	1000	32,00
5 x 50 -T25	K	200	35,50
5 x 60 -T25	S	500	44,75
5 x 60 -T25	K	100	48,50
5 x 70 -T25	S	500	57,05
5 x 70 -T25	K	100	60,65
5 x 80 -T25	S	500	63,70
5 x 80 -T25	K	100	67,75
5 x 90 -T25	S	200	69,30
5 x 90 -T25	K	100	73,00
5 x 100 -T25	S	200	75,95
5 x 100 -T25	K	100	80,00
6 x 40 -T30	S	500	33,50
6 x 40 -T30	K	200	37,05
6 x 50 -T30	S	200	46,75
6 x 50 -T30	K	100	50,75
6 x 60 -T30	S	200	54,50
6 x 60 -T30	K	100	58,20
6 x 70 -T30	S	200	70,75
6 x 70 -T30	K	100	74,25
6 x 80 -T30	S	200	80,00
6 x 80 -T30	K	100	79,85
6 x 90 -T30	S	200	82,60
6 x 90 -T30	K	100	86,20
6 x 100 -T30	S	100	90,30
6 x 110 -T30	S	100	108,50
6 x 120 -T30	S	100	125,00
6 x 130 -T30	S	100	132,00
6 x 140 -T30	S	100	148,75
6 x 150 -T30	S	100	175,00
6 x 160 -T30	S	100	135,00
6 x 180 -T30	S	100	175,00
6 x 180 -T30	S	100	225,00
8 x 70 -T40	S	50	100,75
8 x 80 -T40	S	50	125,95
8 x 90 -T40	S	50	158,00
8 x 100 -T40	S	50	197,50
8 x 120 -T40	S	50	260,00
8 x 140 -T40	S	50	325,00



Article 88002

Dimensions	PU Pieces	€.
Article 88002.(*)	RAZ 800	
88002 Plastic	Z	



Caps for countersunk head screws with Pozidriv cross recess Z

white RAL 9010 (*630),
light brown RAL 8001 (*640),
dark brown RAL 8014 (*650)

Cross recess no. x caps Ø/for screws Ø

1	x	8 / 3	S	1000	1,30 plastic
2	x	12 / 3,5-5	S	1000	1,30 plastic
3	x	13 / 5,5-6	S	1000	1,40 plastic

Article	88104.920	RAZ 840
88104 A 2		



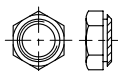
Washers with large outside diameter, product grade C (g)

Dimensions → TI-85

Inside Ø x outside Ø x thickness

4,3	x	20	x	1,5	S	100	20,00 A2
5,3	x	20	x	1,5	S	100	24,90 A2
5,3	x	30	x	1,5	S	100	56,00 A2
6,4	x	20	x	1,5	S	100	24,90 A2
6,4	x	25	x	1,5	S	100	31,50 A2
6,4	x	30	x	1,5	S	100	46,50 A2
8,4	x	20	x	1,5	S	100	24,90 A2
8,4	x	25	x	1,5	S	100	31,50 A2
8,4	x	30	x	1,5	S	100	46,50 A2
8,4	x	40	x	1,5	S	100	54,00 A2
10,5	x	25	x	1,5	S	100	35,50 A2
10,5	x	30	x	1,5	S	100	46,50 A2
10,5	x	40	x	1,5	S	100	58,00 A2
12,5	x	30	x	1,5	S	100	46,50 A2

Article	88106.910	RAZ 850
88106 A 1		



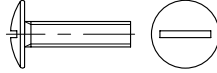
Rivet nuts

Dimensions → TI-76

Thread M/collar height

M 3 / 0,9	S	100	83,00 A1
M 4 / 0,9	S	100	146,00 A1
M 5 / 0,9	S	100	154,00 A1
M 6 / 0,9	S	100	163,00 A1
M 8 / 1,9	S	100	193,00 A1
M 10 / 1,9	S	100	210,00 A1
M 12 / 2,9	S	50	410,00 A1
M 16 / 2,4	S	50	640,00 A1

Dimensions	PU Pieces	€.
Article 88107.920	RAZ 851	
88107 A 2		

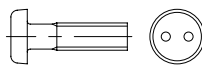


Slotted mushroom head screws with thread up to head

Dimensions → TI-41

M 5	x	10	S	500	58,00 A2
M 6	x	10	S	500	43,00 A2
M 6	x	12	S	500	41,00 A2
M 6	x	16	S	500	41,00 A2
M 6	x	20	S	500	63,00 A2
M 6	x	25	S	500	69,00 A2
M 8	x	16	S	200	83,00 A2
M 8	x	20	S	200	90,00 A2
M 8	x	25	S	200	102,00 A2
M 8	x	30	S	200	122,00 A2
M 8	x	35	S	200	128,00 A2
M 8	x	40	S	200	133,00 A2
M 8	x	50	S	200	145,00 A2
M 8	x	60	S	100	240,00 A2

Article	88111.920	RAZ 855
88111 A 2		snake eyes



Theft resistant screws with pan head ~ DIN 85, metric thread, snake eyes drive

Bits → article 88665

Dimensions → TI-27

M 3	x	6	S	100	150,00 A2
M 3	x	8	S	100	150,00 A2
M 3	x	10	S	10	110,00 A2
M 3	x	12	S	10	110,00 A2
M 3	x	16	S	10	110,00 A2
M 3	x	20	S	100	125,00 A2
M 4	x	6	S	100	150,00 A2
M 4	x	10	S	10	116,00 A2
M 4	x	12	S	10	116,00 A2
M 4	x	16	S	10	116,00 A2
M 4	x	20	S	10	116,00 A2
M 4	x	25	S	10	116,00 A2
M 5	x	12	S	10	130,00 A2
M 5	x	16	S	10	130,00 A2
M 5	x	20	S	10	130,00 A2
M 5	x	25	S	10	130,00 A2
M 5	x	30	S	10	130,00 A2
M 6	x	12	S	10	135,00 A2
M 6	x	16	S	100	135,00 A2
M 6	x	20	S	10	135,00 A2
M 6	x	25	S	10	150,00 A2
M 6	x	30	S	10	164,00 A2
M 6	x	40	S	10	183,00 A2

Dimensions	PU Pieces	€.
Article 88112.920	RAZ 855	
88112 A 2	snake eyes	



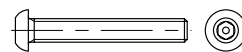
Theft resistant screws with countersunk head ~ DIN 963, metric thread, snake eyes drive

Bits → article 88665

Dimensions → TI-27

M 3	x	6	S	100	150,00 A2
M 3	x	8	S	100	150,00 A2
M 3	x	10	S	10	110,00 A2
M 3	x	12	S	10	110,00 A2
M 3	x	16	S	10	110,00 A2
M 3	x	20	S	100	125,00 A2
M 4	x	10	S	10	116,00 A2
M 4	x	12	S	10	116,00 A2
M 4	x	16	S	10	116,00 A2
M 4	x	20	S	10	116,00 A2
M 4	x	25	S	10	116,00 A2
M 4	x	50	S	100	250,00 A2
M 5	x	12	S	10	130,00 A2
M 5	x	16	S	10	130,00 A2
M 5	x	20	S	10	130,00 A2
M 5	x	25	S	10	130,00 A2
M 5	x	30	S	10	130,00 A2
M 5	x	35	S	100	235,00 A2
M 6	x	12	S	10	135,00 A2
M 6	x	16	S	100	135,00 A2
M 6	x	20	S	10	135,00 A2
M 6	x	25	S	10	150,00 A2
M 6	x	30	S	10	164,00 A2
M 6	x	40	S	10	183,00 A2

Article	88113.920	RAZ 855
88113 A 2		Pin-hex



Theft resistant screws with button head ~ ISO 7380, with metric thread, hexagon socket with pin

Bits → article 88666

Dimensions → TI-27

M 3	x	6	S	10	120,00 A2
M 3	x	8	S	10	105,00 A2
M 3	x	10	S	10	80,00 A2
M 3	x	12	S	10	80,00 A2
M 3	x	16	S	10	80,00 A2
M 3	x	20	S	10	85,00 A2
M 4	x	6	S	10	120,00 A2
M 4	x	8	S	10	120,00 A2
M 4	x	10	S	10	77,00 A2
M 4	x	12	S	10	79,00 A2



Article 88116

Dimensions	PU Pieces	€.
M 4 x 16	S 10	79,00 A2
M 4 x 20	S 10	85,00 A2
M 4 x 25	S 10	101,00 A2
M 4 x 30	S 10	114,00 A2
M 4 x 40	S 10	150,00 A2
M 5 x 10	S 10	89,00 A2
M 5 x 12	S 10	91,00 A2
M 5 x 16	S 10	91,00 A2
M 5 x 20	S 10	99,00 A2
M 5 x 25	S 10	116,00 A2
M 5 x 30	S 10	132,00 A2
M 5 x 35	S 10	175,00 A2
M 5 x 40	S 10	205,00 A2
M 5 x 50	S 10	225,00 A2
M 5 x 60	S 10	280,00 A2
M 6 x 10	S 10	125,00 A2
M 6 x 12	S 10	116,00 A2
M 6 x 16	S 10	117,00 A2
M 6 x 20	S 10	127,00 A2
M 6 x 25	S 10	145,00 A2
M 6 x 30	S 10	161,00 A2
M 6 x 35	S 10	200,00 A2
M 6 x 40	S 10	207,00 A2
M 6 x 45	S 10	245,00 A2
M 6 x 50	S 10	260,00 A2
M 6 x 60	S 10	320,00 A2
M 8 x 10	S 10	225,00 A2
M 8 x 12	S 10	200,00 A2
M 8 x 16	S 10	179,00 A2
M 8 x 20	S 10	188,00 A2
M 8 x 25	S 10	202,00 A2
M 8 x 30	S 5	234,00 A2
M 8 x 35	S 5	265,00 A2
M 8 x 40	S 5	295,00 A2
M 8 x 45	S 5	325,00 A2
M 8 x 50	S 5	340,00 A2
M 8 x 60	S 5	450,00 A2
M 10 x 16	S 10	450,00 A2
M 10 x 20	S 10	500,00 A2
M 10 x 25	S 10	605,00 A2
M 10 x 30	S 5	710,00 A2
M 10 x 40	S 5	885,00 A2
M 10 x 50	S 5	1050,00 A2
M 10 x 60	S 5	1350,00 A2
M 12 x 25	S 500	2875,00 A2

Dimensions	PU Pieces	€.
4,2 x 19	S 10	88,00 A2
4,2 x 25	S 10	100,00 A2
4,2 x 32	S 10	112,00 A2
4,2 x 38	S 10	124,00 A2
4,2 x 50	S 100	145,00 A2
4,8 x 13	S 100	100,00 A2
4,8 x 16	S 100	113,00 A2
4,8 x 19	S 10	114,00 A2
4,8 x 25	S 10	129,00 A2
4,8 x 32	S 10	148,00 A2
4,8 x 38	S 10	162,00 A2
4,8 x 50	S 100	175,00 A2
5,5 x 16	S 100	210,00 A2
5,5 x 19	S 100	220,00 A2
5,5 x 25	S 10	144,00 A2
5,5 x 32	S 100	285,00 A2
5,5 x 38	S 10	167,00 A2
5,5 x 50	S 10	206,00 A2
5,5 x 63	S 100	390,00 A2
5,5 x 75	S 100	400,00 A2
6,3 x 13	S 100	565,00 A2
6,3 x 16	S 100	260,00 A2
6,3 x 19	S 100	305,00 A2
6,3 x 25	S 100	345,00 A2
6,3 x 32	S 100	370,00 A2
6,3 x 38	S 100	400,00 A2
6,3 x 50	S 100	470,00 A2

Article	88115.920	RAZ 855
88115 A 2		



Theft resistant screws with countersunk head DIN 7982, tapping screw thread ST, hexalobular socket with pin

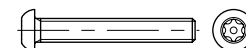
Bits → article 88667
Dimensions → TI-48

2,9 x 13	S 100	95,00 A2
2,9 x 19	S 100	100,00 A2
3,5 x 9,5	S 100	80,00 A2
3,5 x 13	S 100	74,00 A2
3,5 x 16	S 100	76,00 A2
3,5 x 19	S 100	78,00 A2
3,5 x 25	S 10	80,00 A2
3,5 x 38	S 10	99,00 A2
4,2 x 13	S 10	72,00 A2
4,2 x 16	S 100	82,00 A2
4,2 x 19	S 10	88,00 A2
4,2 x 25	S 10	100,00 A2
4,2 x 32	S 10	112,00 A2
4,2 x 38	S 10	124,00 A2
4,2 x 50	S 100	150,00 A2
4,8 x 13	S 100	102,00 A2
4,8 x 16	S 100	112,00 A2
4,8 x 19	S 100	120,00 A2
4,8 x 25	S 10	129,00 A2
4,8 x 32	S 10	148,00 A2
4,8 x 38	S 10	162,00 A2
4,8 x 50	S 10	153,00 A2
5,5 x 16	S 100	245,00 A2
5,5 x 25	S 100	255,00 A2
5,5 x 38	S 10	153,00 A2
5,5 x 50	S 10	206,00 A2
5,5 x 63	S 100	411,00 A2

Dimensions	PU Pieces	€.
5,5 x 75	S 100	425,00 A2
6,3 x 19	S 100	320,00 A2
6,3 x 50	S 100	500,00 A2

Article	88116.920	RAZ 855
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88116 A 2



Theft resistant screws with button head ~ ISO 7380, metric thread, hexalobular socket with pin

Bits → article 88667
Dimensions → TI-27

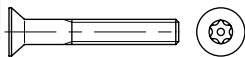
M 3 x 6-T10	S 100	96,00 A2
M 3 x 8-T10	S 100	96,00 A2
M 3 x 10-T10	S 100	96,00 A2
M 3 x 12-T10	S 100	98,00 A2
M 3 x 16-T10	S 100	98,00 A2
M 3 x 20-T10	S 100	105,00 A2
M 4 x 6-T20	S 100	98,00 A2
M 4 x 8-T20	S 100	98,00 A2
M 4 x 10-T20	S 100	103,00 A2
M 4 x 12-T20	S 100	108,00 A2
M 4 x 16-T20	S 100	115,00 A2
M 4 x 20-T20	S 100	122,00 A2
M 4 x 25-T20	S 100	130,00 A2
M 4 x 30-T20	S 100	145,00 A2
M 4 x 40-T20	S 100	182,00 A2
M 4 x 50-T20	S 100	200,00 A2
M 5 x 8-T25	S 100	140,00 A2
M 5 x 10-T25	S 100	140,00 A2
M 5 x 12-T25	S 100	140,00 A2
M 5 x 16-T25	S 100	147,00 A2
M 5 x 20-T25	S 100	152,00 A2
M 5 x 25-T25	S 100	170,00 A2
M 5 x 30-T25	S 100	190,00 A2
M 5 x 35-T25	S 100	205,00 A2
M 5 x 40-T25	S 100	220,00 A2
M 5 x 50-T25	S 100	280,00 A2
M 5 x 60-T25	S 100	350,00 A2
M 6 x 10-T30	S 100	167,00 A2
M 6 x 12-T30	S 100	170,00 A2
M 6 x 16-T30	S 100	180,00 A2
M 6 x 20-T30	S 100	191,00 A2
M 6 x 25-T30	S 100	215,00 A2
M 6 x 30-T30	S 100	216,00 A2
M 6 x 35-T30	S 100	236,00 A2
M 6 x 40-T30	S 100	275,00 A2
M 6 x 45-T30	S 100	295,00 A2
M 6 x 50-T30	S 100	315,00 A2
M 6 x 60-T30	S 100	410,00 A2
M 8 x 12-T40	S 100	285,00 A2
M 8 x 16-T40	S 100	310,00 A2
M 8 x 20-T40	S 100	350,00 A2
M 8 x 25-T40	S 100	380,00 A2
M 8 x 30-T40	S 100	410,00 A2
M 8 x 35-T40	S 100	475,00 A2
M 8 x 40-T40	S 100	480,00 A2
M 8 x 45-T40	S 100	530,00 A2
M 8 x 50-T40	S 100	535,00 A2
M 8 x 60-T40	S 100	575,00 A2
M 8 x 80-T40	S 100	705,00 A2
M10 x 12-T45	S 100	475,00 A2
M10 x 20-T45	S 100	530,00 A2



Article 88116

Dimensions	PU	Pieces	€.
M10 x 25-T45	S	100	560,00 A2
M10 x 30-T45	S	100	580,00 A2
M10 x 40-T45	S	100	630,00 A2
M10 x 45-T45	S	100	670,00 A2
M10 x 50-T45	S	100	735,00 A2
M10 x 60-T45	S	100	765,00 A2
M10 x 65-T45	S	100	790,00 A2
M10 x 80-T45	S	100	865,00 A2

Article	88117.920	RAZ 855
88117	A 2	



Theft resistant screws with countersunk head ~ ISO 10642, metric thread, hexalobular socket with pin

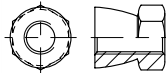
Bits → article 88667

Dimensions → **TI-27**

M 3 x 6-T10	S	100	77,00 A2
M 3 x 8-T10	S	100	81,00 A2
M 3 x 10-T10	S	100	86,00 A2
M 3 x 12-T10	S	100	90,00 A2
M 3 x 16-T10	S	100	100,00 A2
M 3 x 20-T10	S	100	110,00 A2
M 3,5 x 6-T15	S	100	80,00 A2
M 3,5 x 12-T15	S	100	90,00 A2
M 4 x 6-T20	S	100	90,00 A2
M 4 x 8-T20	S	100	93,00 A2
M 4 x 10-T20	S	100	95,00 A2
M 4 x 12-T20	S	100	97,00 A2
M 4 x 16-T20	S	100	100,00 A2
M 4 x 20-T20	S	100	115,00 A2
M 4 x 25-T20	S	100	125,00 A2
M 4 x 30-T20	S	100	140,00 A2
M 4 x 40-T20	S	100	160,00 A2
M 4 x 50-T20	S	100	190,00 A2
M 5 x 8-T25	S	100	135,00 A2
M 5 x 10-T25	S	100	135,00 A2
M 5 x 12-T25	S	100	135,00 A2
M 5 x 16-T25	S	100	145,00 A2
M 5 x 20-T25	S	100	165,00 A2
M 5 x 25-T25	S	100	170,00 A2
M 5 x 30-T25	S	100	190,00 A2
M 5 x 35-T25	S	100	225,00 A2
M 5 x 40-T25	S	100	230,00 A2
M 5 x 50-T25	S	100	300,00 A2
M 5 x 60-T25	S	100	355,00 A2
M 5 x 70-T25	S	100	415,00 A2
M 5 x 80-T25	S	100	420,00 A2
M 6 x 10-T30	S	100	155,00 A2
M 6 x 12-T30	S	100	160,00 A2
M 6 x 16-T30	S	100	170,00 A2
M 6 x 20-T30	S	100	185,00 A2
M 6 x 25-T30	S	100	205,00 A2
M 6 x 30-T30	S	100	220,00 A2
M 6 x 35-T30	S	100	235,00 A2
M 6 x 40-T30	S	100	265,00 A2
M 6 x 45-T30	S	100	300,00 A2
M 6 x 50-T30	S	100	325,00 A2
M 6 x 60-T30	S	100	420,00 A2
M 8 x 16-T40	S	100	355,00 A2
M 8 x 20-T40	S	100	405,00 A2
M 8 x 25-T40	S	100	440,00 A2
M 8 x 30-T40	S	100	475,00 A2
M 8 x 40-T40	S	100	555,00 A2

Dimensions	PU	Pieces	€.
M 8 x 50-T40	S	100	615,00 A2
M 8 x 60-T40	S	100	665,00 A2
M 8 x 80-T40	S	100	815,00 A2
M10 x 60-T45	S	100	815,00 A2
M10 x 80-T45	S	100	995,00 A2

Article	88118.910	RAZ 855
88118	A 1	



Theft resistant nuts/pull-off nuts, flat round type, hexagon, for one-way assembly (unscrewable)

M 6 x 6	S	500	97,95 A1
M 6 x 6	K	50	107,00 A1
M 8 x 6	S	500	129,00 A1
M 8 x 6	K	50	138,00 A1
M 10 x 8	S	500	499,00 A1
M 10 x 8	K	25	520,00 A1
M 12 x 9	S	250	880,00 A1
M 12 x 9	K	25	980,00 A1
M 16 x 14	S	100	2065,00 A1
M 16 x 14	K	25	2265,00 A1

Article	88120.924	RAZ 860
88120	A 2	type S



SCHNORR safety washers with serrations on both sides, S = standard

Caution! Lower tightness compared to hardened steel.

Dimensions → **TI-103**

For screw M x outside Ø x thickness

§ 2 x 4 x 0,35	S	1000	1,50 A2
§ 2 x 4 x 0,35	K	200	2,50 A2
§ 2,5 x 4,8 x 0,45	S	2000	1,50 A2
§ 2,5 x 4,8 x 0,45	K	200	2,50 A2
§ 3 x 5,5 x 0,45	S	2000	1,50 A2
§ 3 x 5,5 x 0,45	K	200	2,50 A2
§ 4 x 7 x 0,5	S	1000	1,80 A2
§ 4 x 7 x 0,5	K	200	2,80 A2
§ 5 x 9 x 0,6	S	1000	3,05 A2
§ 5 x 9 x 0,6	K	200	4,05 A2
§ 6 x 10 x 0,7	S	1000	3,85 A2
§ 6 x 10 x 0,7	K	200	4,85 A2
§ 8 x 13 x 0,8	S	1000	6,80 A2
§ 8 x 13 x 0,8	K	200	7,80 A2
§ 10 x 16 x 1	S	1000	12,40 A2
§ 10 x 16 x 1	K	200	13,40 A2
§ 12 x 18 x 1,1	S	500	17,35 A2
§ 12 x 18 x 1,1	K	100	18,35 A2
§ 16 x 24 x 1,3	S	250	33,40 A2
§ 16 x 24 x 1,3	K	100	34,60 A2
§ 20 x 30 x 1,5	S	250	62,20 A2
§ 20 x 30 x 1,5	K	100	63,40 A2
§ 24 x 36 x 1,8	S	100	88,65 A2

Dimensions	PU	Pieces	€.
Article	88121.924	RAZ 860	
88121	A 2	type VS	



SCHNORR safety washers with serrations on both sides, VS = extra strong

Caution! Lower tightness compared to hardened steel.

Dimensions → **TI-103**

For screw M x outside Ø x thickness

VS 5 x 9 x 1	S	1000	12,30 A2
VS 6 x 10 x 1	S	1000	14,55 A2
VS 8 x 13 x 1,2	S	1000	20,70 A2
VS 10 x 16 x 1,5	S	1000	43,90 A2
VS 12 x 18 x 1,5	S	500	61,50 A2
VS 16 x 24 x 2	S	250	123,00 A2
VS 20 x 30 x 2	S	250	219,00 A2

Article	88123.940	RAZ 865
88123	A 4	type S



TECKENTRUP lock washers, S = for normal and small connecting surfaces

Dimensions → **TI-104**

For screw Ø x outside Ø x thickness

§ 4 x 8,2 x 0,8	S	1000	10,80 A4
§ 5 x 10,2 x 1	S	1000	13,65 A4
§ 6 x 12,2 x 1,2	S	1000	14,55 A4
§ 8 x 16,2 x 1,4	S	1000	24,40 A4
§ 10 x 20,25 x 1,6	S	1000	40,00 A4
§ 12 x 24,25 x 1,6	S	1000	72,00 A4

Article	88124.940	RAZ 865
88124	A 4	type M



TECKENTRUP lock washers, M = for normal connecting surface

Dimensions → **TI-104**

For screw Ø x outside Ø x thickness

M 4 x 10,2 x 1	S	1000	13,20 A4
M 5 x 12,2 x 1,2	S	1000	16,20 A4
M 6 x 14,2 x 1,4	S	1000	20,40 A4
M 8 x 18,2 x 1,4	S	1000	30,00 A4
M 10 x 22,25 x 1,6	S	500	53,20 A4
M 12 x 27,25 x 1,8	S	500	90,80 A4

Article 88149

Dimensions PU Pieces €.

Article	88125.940	RAZ 865
88125	A 4	type B



TECKENTRUP lock washers, B = for large connecting surface

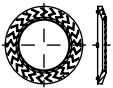
Dimensions → TI-104

For screw Ø x outside Ø x thickness

B 6	x	18,2	x	1,4	S	1000	30,00 A4
B 8	x	22,25	x	1,9	S	500	53,20 A4
B 10	x	27,25	x	2,4	S	500	105,40 A4

Article 88129.940 RAZ 865

88129	A 4	type K
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TECKENTRUP lock washers, K = with contact serrations

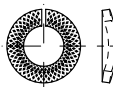
Dimensions → TI-104

For screw Ø x outside Ø x thickness

K 4	x	8,2	x	0,8	S	1000	14,00 A4
K 5	x	10,2	x	1	S	1000	16,40 A4
K 6	x	12,2	x	1,2	S	1000	18,60 A4
K 8	x	16,2	x	1,4	S	1000	30,00 A4
K 10	x	20,25	x	1,6	S	500	85,00 A4
K 12	x	24,25	x	1,6	S	500	130,00 A4

Article 88130.960 RAZ 870

88130	1.4310	VSK-D
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Lock rings, VSK-D = standard type

Caution! Lower tightness compared to hardened steel.

Dimensions → TI-104

For screw Ø x outside Ø x thickness

5	x	9,2	x	1,2	S	5000	5,60
6	x	11,8	x	1,6	S	2000	9,80
8	x	14	x	2	S	1000	15,60
10	x	18	x	2,2	S	500	24,70
12	x	21	x	2,5	S	500	36,00
14	x	24	x	3	S	250	60,00
16	x	27,3	x	3,5	S	200	81,00
18	x	29,4	x	3,5	S	150	131,00
20	x	33,6	x	4	S	100	131,00
24	x	40	x	5	S	50	246,00

Dimensions PU Pieces €.

Article	88132.940	RAZ 870
88132	A 4	



NORD-LOCK washers, standard, preassembled pairs

Caution!

Lower tightness compared to hardened steel.

When assembling take care to position the washer pairs correctly!

Dimensions → TI-105

For screw Ø

NL 5 SS	S	200	200,00 A4
NL 6 SS	S	200	240,00 A4
NL 8 SS	S	200	255,00 A4
NL 10 SS	S	200	290,00 A4
NL 12 SS	S	200	520,00 A4
NL 16 SS	S	100	740,00 A4
NL 18 SS	S	100	990,00 A4
NL 20 SS	S	100	990,00 A4
NL 24 SS	S	100	1490,00 A4

Article 88132.945 RAZ 870

88132	A 4	SP
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NORD-LOCK washers, preassembled pairs SP = with enlarged outer diameter

Caution!

Lower tightness compared to hardened steel.

When assembling take care to position the washer pairs correctly!

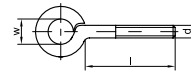
Dimensions → TI-105

For screw Ø

NL 3,5 SP SS	S	200	270,00 A4
NL 4 SP SS	S	200	280,00 A4
NL 5 SP SS	S	200	290,00 A4
NL 6 SP SS	S	200	302,00 A4
NL 8 SP SS	S	200	372,00 A4
NL 10 SP SS	S	200	610,00 A4
NL 12 SP SS	S	100	1104,00 A4
NL 14 SP SS	S	100	1217,00 A4
NL 16 SP SS	S	100	1230,00 A4
NL 18 SP SS	S	100	1857,00 A4
NL 20 SP SS	S	100	1880,00 A4
NL 22 SP SS	S	50	3158,00 A4
NL 24 SP SS	S	50	4294,00 A4
NL 27 SP SS	S	25	4294,00 A4
NL 30 SP SS	S	25	5367,00 A4

Dimensions PU Pieces €.

Article	88136.920	RAZ 872
88136	A 2	type 48



Screw eyes type 48, with metric thread

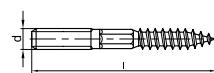
Dimensions → TI-36

d x l x D

M 4	x	10 D 6	S	50	91,00 A2
M 4	x	15 D 6	S	50	88,00 A2
M 4	x	20 D 6	S	50	91,00 A2
M 4	x	30 D 6	S	50	94,60 A2
M 5	x	15 D 8	S	50	97,20 A2
M 5	x	20 D 8	S	50	101,80 A2
M 5	x	30 D 8	S	50	104,00 A2
M 5	x	40 D 8	S	50	110,00 A2
M 6	x	15 D 10	S	50	113,00 A2
M 6	x	20 D 10	S	50	122,50 A2
M 6	x	25 D 10	S	50	124,60 A2
M 6	x	30 D 10	S	50	130,60 A2
M 6	x	40 D 10	S	50	136,00 A2
M 6	x	50 D 10	S	50	142,00 A2
M 6	x	60 D 10	S	50	144,00 A2
M 8	x	20 D 12	S	50	212,00 A2
M 8	x	25 D 12	S	50	220,00 A2
M 8	x	30 D 12	S	50	230,00 A2
M 8	x	40 D 12	S	50	253,00 A2
M 8	x	50 D 12	S	50	266,00 A2
M 8	x	60 D 12	S	50	284,00 A2
M 10	x	40 D 14	S	50	421,82 A2
M 10	x	70 D 14	S	50	665,70 A2

Article 88149.920 RAZ 874

88149	A 2
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Hanger bolts, one side = metric thread other side = wood screw thread

Dimensions → TI-55

Ø M x overall length

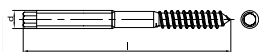
M 6	x	50	S	100	99,00 A2
M 6	x	60	S	100	119,00 A2
M 6	x	70	S	100	141,00 A2
M 6	x	80	S	100	162,00 A2
M 6	x	100	S	100	200,00 A2
M 6	x	120	S	100	241,00 A2
M 6	x	130	S	100	265,00 A2
M 6	x	140	S	100	285,00 A2
M 6	x	150	S	100	305,00 A2
M 6	x	160	S	100	325,00 A2
M 6	x	180	S	100	365,00 A2
M 8	x	50	S	100	133,00 A2
M 8	x	60	S	100	159,00 A2
M 8	x	70	S	100	187,00 A2
M 8	x	80	S	50	233,00 A2
M 8	x	90	S	50	241,00 A2
M 8	x	100	S	50	265,00 A2
M 8	x	110	S	50	280,00 A2



Article 88149

Dimensions	PU	Pieces	€.
M 8 x 120	S	50	295,00 A2
M 8 x 130	S	50	345,00 A2
M 8 x 140	S	50	375,00 A2
M 8 x 150	S	50	400,00 A2
M 8 x 160	S	50	425,00 A2
M 8 x 180	S	50	480,00 A2
M 8 x 200	S	50	530,00 A2
M 10 x 80	S	25	350,00 A2
M 10 x 100	S	25	435,00 A2
M 10 x 120	S	25	485,00 A2
M 10 x 140	S	25	570,00 A2
M 10 x 160	S	25	700,00 A2
M 10 x 180	S	25	790,00 A2
M 10 x 200	S	25	870,00 A2

Article	88149.925	RAZ 874
88149	A 2 - 70	Hex



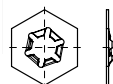
Hanger bolts, one side = metric thread other side = wood screw thread, Hex = with hexagon

Dimensions → **TI-55** Mech. properties → **TI-224**

Ø M x overall length - wrench size

M 10 x 180 SW7	S	25	790,00 A2
M 10 x 200 SW7	S	25	870,00 A2
M 10 x 250 SW7	S	25	1200,00 A2
M 12 x 180 SW9	S	25	1290,00 A2
M 12 x 200 SW9	S	25	1480,00 A2
M 12 x 250 SW9	S	25	1830,00 A2

Article	88151.920	RAZ 857
88151	A 2	RUV



REYHER captivity washers for metric screws

For usage acc. to EC machinery directive

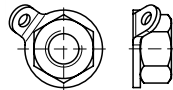
Matching screws → DIN 7964 A 2

Product informaton → **TI-247**

Thread Ø x SW x thickness

M 6 x 12 x 0,5	S	100	24,00 A2
M 8 x 16 x 0,5	S	100	25,00 A2
M10 x 18 x 0,5	S	100	26,00 A2
M12 x 21 x 0,6	S	50	38,00 A2
M16 x 27 x 0,7	S	50	45,00 A2

Dimensions	PU	Pieces	€.
Article	88153.920	RAZ 857	
88153	A 2	RUV	



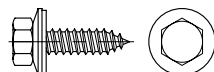
REYHER captivity nuts

For usage acc. to EC machinery directive

Product information → **TI-247** Mech. properties → **TI-224**

M 5	K	25	400,00 A2
M 6	K	25	420,00 A2
M 8	K	25	450,00 A2
M 10	K	10	500,00 A2
M 12	K	10	590,00 A2

Article	88176.920	RAZ 876
88176	A 2	type A



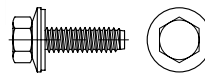
Tapping screws for facing with assembled sealing washer A = with cone end

Wrench size = 3/8", Ø sealing washer = 16 mm

Dimensions → **TI-50**

A 6,5 x 16	S	500	34,50 A2
A 6,5 x 19	S	500	36,00 A2
A 6,5 x 25	S	500	40,50 A2
A 6,5 x 32	S	400	46,00 A2
A 6,5 x 38	S	400	54,00 A2
A 6,5 x 45	S	300	58,00 A2
A 6,5 x 50	S	250	59,00 A2
A 6,5 x 64	S	200	76,00 A2
A 6,5 x 75	S	200	85,00 A2
A 6,5 x 85	S	200	95,00 A2
A 6,5 x 90	S	150	95,00 A2
A 6,5 x 100	S	100	105,00 A2
A 6,5 x 115	S	100	112,00 A2
A 6,5 x 130	S	100	130,00 A2
A 6,5 x 150	S	100	157,00 A2
A 6,5 x 175	S	100	199,00 A2
A 6,5 x 200	S	100	246,00 A2

Dimensions	PU	Pieces	€.
Article	88276.920	RAZ 876	
88276	A 2	type BZ	



Tapping screws for facing with assembled sealing washer BZ = with flat end

Wrench size = 3/8", Ø sealing washer = 16 mm

Caps → article 88008

Dimensions → **TI-50**

BZ 6,3 x 16	S	500	36,35 A2
BZ 6,3 x 19	S	500	38,50 A2
BZ 6,3 x 25	S	500	40,50 A2
BZ 6,3 x 32	S	400	46,00 A2
BZ 6,3 x 38	S	400	54,00 A2
BZ 6,3 x 45	S	300	58,00 A2
BZ 6,3 x 50	S	250	59,00 A2
BZ 6,3 x 64	S	200	76,00 A2
BZ 6,3 x 75	S	200	85,00 A2
BZ 6,3 x 90	S	150	95,00 A2
BZ 6,3 x 100	S	100	105,00 A2
BZ 6,3 x 115	S	100	112,00 A2
BZ 6,3 x 130	S	100	130,00 A2
BZ 6,3 x 150	S	100	157,00 A2
BZ 6,3 x 175	S	100	199,00 A2

Article	88008.(*)	RAZ 800
88008	Plastic	



Caps for tapping screws for facing

White RAL 9010 (*630),
light grey RAL 9002 (*640),
light ivory RAL 1015 (*670),
red brown RAL 8012 (*650)

For articles 88176, 88276 with wrench size SW 3/8"

F. SW 3/8 S 200 7,00 plastic

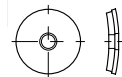


Article 88331

Dimensions PU Pieces €.

Article	88277.920	RAZ 890
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88277 A 2



**Sealing washers,
convex metal washers
with vulcanised sealing**

Thickness of sealing ~ 1,5 mm

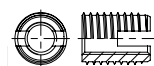
Aluminium → S. 597

Outside Ø x inside Ø x thickness of metal washer

16	x	6,8	x	1	S	1000	8,20 A 2
19	x	6,8	x	1	S	1000	11,00 A 2
25	x	6,8	x	1	S	1000	21,00 A 2
25	x	8,5	x	1	S	1000	23,00 A 2
29	x	6,8	x	1	S	1000	27,00 A 2

Article	88302.910	RAZ 899
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88302 A 1 type 302



**ENSAT threaded inserts type 302,
self tapping with cutting slot,
Inside = metric thread**

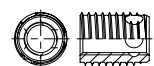
ENSAT driving tools → S. 417

Internal thread M x length

M 3	x	6	S	50	159,00 A 1
M 4	x	8	S	50	160,00 A 1
M 5	x	10	S	50	165,00 A 1
M 6	x	14	S	25	191,00 A 1
M 8	x	15	S	25	260,00 A 1
M 10	x	18	S	25	340,00 A 1
M 12	x	22	S	25	465,00 A 1
M 16	x	22	S	10	1290,00 A 1
M 20	x	27	S	10	1670,00 A 1

Article	88307.300	RAZ 899
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88307 1. 4105 type 307



**ENSAT threaded inserts type 307,
short,
self tapping with cutting bores,
Inside = metric thread**

ENSAT driving tools → S. 417

Internal thread M x length

M 5	x	7	S	50	184,00
M 6	x	8	S	25	213,00
M 8	x	9	S	25	255,00
M 10	x	10	S	25	315,00

Dimensions PU Pieces €.

Article	88330.921	RAZ 910
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88330 A 2 type A-SR



**Wire thread inserts DIN 8140,
with engaging tang,
A = for metric thread,
SR = AMECOIL type SR**

Product information → TI-150

Thread M x length installed

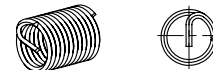
M 3	x	3	S	25	61,00 A 2
M 3	x	4,5	S	25	70,00 A 2
M 3	x	6	S	25	77,00 A 2
M 4	x	4	S	200	44,50 A 2
M 4	x	4	K	25	52,00 A 2
M 4	x	6	S	200	52,00 A 2
M 4	x	6	K	25	60,00 A 2
M 4	x	8	S	200	55,00 A 2
M 4	x	8	K	25	62,00 A 2
M 5	x	5	S	200	57,00 A 2
M 5	x	5	K	25	64,00 A 2
M 5	x	7,5	S	200	67,00 A 2
M 5	x	7,5	K	25	73,00 A 2
M 5	x	10	S	200	69,00 A 2
M 5	x	10	K	25	77,00 A 2
M 6	x	6	S	200	67,00 A 2
M 6	x	6	K	25	73,00 A 2
M 6	x	9	S	200	73,00 A 2
M 6	x	9	K	25	80,00 A 2
M 6	x	12	S	200	77,00 A 2
M 6	x	12	K	25	84,00 A 2
M 6	x	15	S	200	90,00 A 2
M 7	x	10,5	S	25	84,00 A 2
M 8	x	8	S	100	69,00 A 2
M 8	x	8	K	25	77,00 A 2
M 8	x	12	S	100	80,00 A 2
M 8	x	12	K	25	87,00 A 2
M 8	x	16	S	100	85,00 A 2
M 8	x	16	K	25	92,00 A 2
M 8	x	20	S	100	100,00 A 2
M 10	x	10	S	100	96,00 A 2
M 10	x	10	K	25	103,00 A 2
M 10	x	15	S	100	111,00 A 2
M 10	x	15	K	25	118,00 A 2
M 10	x	20	S	100	116,00 A 2
M 10	x	20	K	25	124,00 A 2
M 12	x	12	S	100	190,00 A 2
M 12	x	12	K	15	201,00 A 2
M 12	x	18	S	100	221,00 A 2
M 12	x	18	K	15	231,00 A 2
M 12	x	24	S	100	230,00 A 2
M 12	x	24	K	15	240,00 A 2
M 14	x	14	S	10	295,00 A 2
M 14	x	21	S	10	335,00 A 2
M 14	x	28	S	10	350,00 A 2
M 16	x	16	S	50	375,00 A 2
M 16	x	16	K	10	390,00 A 2
M 16	x	24	S	50	435,00 A 2
M 16	x	24	K	10	445,00 A 2
M 16	x	32	S	50	455,00 A 2
M 16	x	32	K	10	470,00 A 2
M 18	x	18	S	10	460,00 A 2
M 18	x	27	S	10	530,00 A 2
M 20	x	20	S	10	520,00 A 2
M 20	x	30	S	10	610,00 A 2
M 20	x	40	S	10	630,00 A 2
M 24	x	24	S	10	860,00 A 2

Dimensions PU Pieces €.

M 24	x	36	S	10	1010,00 A 2
M 24	x	48	S	10	1030,00 A 2

Article	88331.926	RAZ 910
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88331 A 2 type A-fine



**Wire thread inserts DIN 8140,
with engaging tang,
A = for metric fine pitch thread**

Product information → TI-150

Thread M x length installed

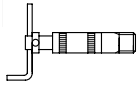
M 8	x	1	x	8	S	25	77,00 A 2
M 8	x	1	x	12	S	25	87,00 A 2
M 8	x	1	x	16	S	25	92,00 A 2
M 10	x	1	x	10	S	25	103,00 A 2
M 10	x	1,25	x	10	S	25	103,00 A 2
M 10	x	1	x	15	S	25	118,00 A 2
M 10	x	1,25	x	15	S	25	118,00 A 2
M 10	x	1	x	20	S	25	124,00 A 2
M 10	x	1,25	x	20	S	25	124,00 A 2
M 12	x	1,25	x	12	S	15	201,00 A 2
M 12	x	1,5	x	12	S	15	201,00 A 2
M 12	x	1,25	x	18	S	15	231,00 A 2
M 12	x	1,5	x	18	S	15	231,00 A 2
M 12	x	1,25	x	24	S	15	240,00 A 2
M 12	x	1,5	x	24	S	15	240,00 A 2
M 14	x	1,25	x	8,4	S	15	175,00 A 2
M 14	x	1,25	x	12,4	S	15	175,00 A 2
M 14	x	1,5	x	14	S	10	295,00 A 2
M 14	x	1,25	x	16,4	S	15	175,00 A 2
M 14	x	1,5	x	21	S	10	335,00 A 2
M 14	x	1,5	x	28	S	10	350,00 A 2
M 16	x	1,5	x	16	S	10	390,00 A 2
M 16	x	1,5	x	24	S	10	445,00 A 2
M 16	x	1,5	x	32	S	10	470,00 A 2
M 20	x	1,5	x	20	S	10	520,00 A 2
M 20	x	2	x	20	S	10	520,00 A 2
M 20	x	1,5	x	30	S	10	610,00 A 2
M 20	x	2	x	30	S	10	610,00 A 2
M 20	x	1,5	x	40	S	10	630,00 A 2
M 20	x	2	x	40	S	10	630,00 A 2
M 24	x	1,5	x	24	S	10	860,00 A 2
M 24	x	2	x	24	S	10	860,00 A 2
M 24	x	1,5	x	36	S	10	1010,00 A 2
M 24	x	2	x	36	S	10	1010,00 A 2
M 24	x	1,5	x	48	S	10	1030,00 A 2
M 24	x	2	x	48	S	10	1030,00 A 2

Article 88333

Dimensions PU Pieces €.

Article	88333.000	RAZ 915
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88333 fine



AMECOIL multidimensional hand fitting tools, basic tool without mandrel and without threaded nose, fine = for thread inserts article 88331

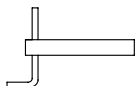
Product information → TI-150

Size/for thread M

NR. 2 M 6 -M 8	S	1	2032,00
NR. 3 M10 -M12	S	1	2500,00
NR. 4 M14 -M16	S	1	3600,00

Article	88333.004	RAZ 915
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88333 SR



AMECOIL specific hand fitting tools, without threaded mandrel, SR = for thread inserts article 88330 and 88346

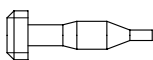
Product information → TI-150

Size/for thread M

Nr.1-M 2,5-M 8	S	1	2110,00
Nr.2-M10 -M16	S	1	2110,00

Article	88334.000	RAZ 915
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88334 fine



AMECOIL accessories for fitting tool, mandrel and threaded nose for basic fitting tool, fine = for thread inserts article 88331

Product information → TI-150

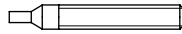
For inserts with thread M

M 8	x 1	S	1	2650,00
M 10	x 1	S	1	2900,00
M 10	x 1,25	S	1	2900,00
M 12	x 1,25	S	1	3000,00
M 12	x 1,5	S	1	3000,00
M 14	x 1,25	S	1	1780,00
M 14	x 1,5	S	1	1780,00
M 16	x 1,5	S	1	3500,00

Dimensions PU Pieces €.

Article	88334.004	RAZ 915
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88334 SR



AMECOIL threaded mandrels, for specific hand fitting tool, article 88330 and 88346, SR = for thread inserts

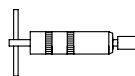
Product information → TI-150

For inserts with thread M/mandrel no.

M 3 / Nr.1	S	1	5300,00
M 4 / Nr.1	S	1	5300,00
M 5 / Nr.1	S	1	5300,00
M 6 / Nr.1	S	1	5300,00
M 7 / Nr.1	S	1	5300,00
M 8 / Nr.1	S	1	5300,00
M 10 / Nr.2	S	1	6400,00
M 12 / Nr.2	S	1	6400,00
M 14 / Nr.2	S	1	6400,00
M 16 / Nr.2	S	1	6400,00

Article	88335.000	RAZ 915
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88335 fine



AMECOIL unidim. hand fitting tools: for each diameter, fine = for thread inserts article 88331

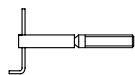
Product information → TI-150

For inserts with thread M

M 20	x 1,5	S	1	10300,00
M 20	x 2	S	1	10600,00
M 24	x 1,5	S	1	11200,00
M 24	x 2	S	1	11600,00

Article	88335.004	RAZ 915
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88335 SR



AMECOIL specific hand fitting tools, for each diameter, SR = for thread inserts article 88330 and 88346

Product information → TI-150

For inserts with thread M

M 18	S	1	34700,00
M 20	S	1	34700,00
M 24	S	1	34700,00

Dimensions PU Pieces €.

Article	88336.000	RAZ 915
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88336



AMECOIL tang breaks for the removal of the engaging tang, for type SR and fine

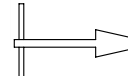
Product information → TI-150

For threads exceeding Ø 18 use a tapered pliers

M 3	S	1	390,00
M 4	S	1	450,00
M 5	S	1	570,00
M 6	S	1	830,00
M 8	S	1	890,00
M 10	S	1	900,00
M 12	S	1	1000,00
M 14	S	1	1080,00
M 16	S	1	1170,00
M 18	S	1	1250,00

Article	88337.000	RAZ 915
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88337



AMECOIL extractors for type SR and fine

Product information → TI-150

Size for inserts with thread M

NR.1 M 2,5-M 8	S	1	1740,00
NR.2 M 5 -M12	S	1	1870,00
NR.3 M 10 -M24	S	1	2000,00

Article	88338.000	RAZ 915
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88338



AMECOIL finish taps for through and blind holes, manual or machine, 2 pitch point

Product information → TI-150

For inserts with thread M

M 3	S	1	1200,00
M 4	S	1	1240,00
M 5	S	1	1280,00
M 6	S	1	1430,00
M 7	S	1	1450,00
M 8	S	1	1760,00
M 8	x 1	S	2280,00
M 10	S	1	2260,00

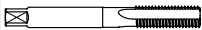


Article 88928

Dimensions	PU Pieces	€.
M 10 x 1	S 1	2550,00
M 10 x 1,25	S 1	2600,00
M 12	S 1	3000,00
M 12 x 1,25	S 1	3500,00
M 12 x 1,5	S 1	3350,00
M 14	S 1	3800,00
M 14 x 1,25	S 1	3950,00
M 14 x 1,5	S 1	3950,00
M 16	S 1	4400,00
M 16 x 1,5	S 1	4550,00
M 18	S 1	6300,00
M 20	S 1	8000,00
M 20 x 1,5	S 1	7200,00
M 20 x 2	S 1	9100,00
M 24	S 1	9900,00
M 24 x 1,5	S 1	9400,00
M 24 x 2	S 1	11500,00

Article 88339.000 RAZ 915

88339



AMECOIL roughing taps for through and blind holes, 4-pitch point

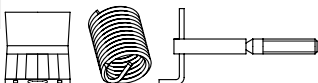
Product information → TI-150

For inserts with thread M

M 18	S 1	6600,00
M 20	S 1	8300,00
M 22	S 1	8800,00
M 24	S 1	10300,00

Article 88342.000 RAZ 913

88342 AMECOIL assortment MINIKIT type SR



Content: 5 thread inserts, drillbit, tap, fitting tool

M 4	S 1	7800,00
M 5	S 1	7800,00
M 6	S 1	7800,00
M 8	S 1	8600,00
M 10	S 1	10500,00

Dimensions PU Pieces €.

Article 88343.000 RAZ 913

88343

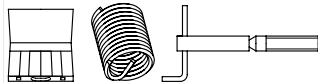


AMECOIL boxes, without content

box S 1 2475,00

Article 88344.000 RAZ 913

88344 AMECOIL assortment type SR



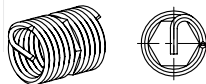
AMECOIL assortments, in each case complete with fitting tools

no.1 = 15 pieces each M 2,5-M 5, length = 1,5 d
no.2 = 15 pieces each M 4-M 8, length = 1,5 d
no.3 = 15 pieces each M 6-M 12, length = 1,5 d

Nr.1	S 1	31500,00
Nr.2	S 1	31500,00
Nr.3	S 1	31500,00

Article 88346.922 RAZ 910

88346 A 2 type B SR



Wire thread inserts DIN 8140, with engaging tang, B = with locking, for metric thread SR = AMECOIL type SR

Product information → TI-150

Nominal size/thread M x installed length

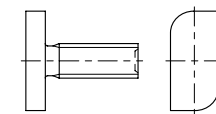
BM 3 x 3	S 25	73,00 A 2
BM 3 x 4,5	S 25	84,00 A 2
BM 3 x 6	S 25	92,00 A 2
BM 4 x 4	S 25	62,00 A 2
BM 4 x 6	S 25	71,00 A 2
BM 4 x 8	S 25	74,00 A 2
BM 5 x 5	S 25	77,00 A 2
BM 5 x 7,5	S 25	88,00 A 2
BM 5 x 10	S 25	91,00 A 2
BM 6 x 6	S 25	88,00 A 2
BM 6 x 9	S 25	96,00 A 2
BM 6 x 12	S 25	100,00 A 2
BM 8 x 8	S 25	91,00 A 2
BM 8 x 12	S 25	104,00 A 2
BM 8 x 16	S 25	109,00 A 2
BM 10 x 10	S 25	124,00 A 2
BM 10 x 15	S 25	142,00 A 2
BM 10 x 20	S 25	148,00 A 2

Dimensions PU Pieces €.

BM 12 x 12	S 15	241,00 A 2
BM 12 x 18	S 15	280,00 A 2
BM 12 x 24	S 15	290,00 A 2
BM 16 x 16	S 10	465,00 A 2
BM 16 x 24	S 10	540,00 A 2
BM 16 x 32	S 10	560,00 A 2
BM 20 x 20	S 10	630,00 A 2
BM 20 x 30	S 10	720,00 A 2
BM 20 x 40	S 10	750,00 A 2
BM 24 x 24	S 10	1030,00 A 2
BM 24 x 36	S 10	1210,00 A 2

Article 88928.925 RAZ 985

88928 A 2 type 28/15



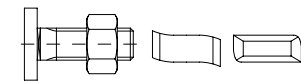
T-head bolts without square

For profiles 28/15, 28/12, 28/28, 26/26

M 8 x 20	S 200	192,00 A 2
M 8 x 25	S 200	202,00 A 2
M 8 x 30	S 200	224,00 A 2
M 8 x 35	S 200	221,00 A 2
M 10 x 20	S 100	227,00 A 2
M 10 x 25	S 100	233,00 A 2
M 10 x 30	S 100	245,00 A 2
M 10 x 40	S 100	266,00 A 2

Article 88928.940 RAZ 985

88928 Mu A 4 HS 28/15



T-head bolts for Halfen channels, Mu = with hexagon nut

For profiles 28/15, 28/12, 28/28, 26/26, head types subject to confirmation, head width ~22,5 mm

Mech. properties → TI-224

Steel → S. 422



M 10 x 40	S 50	430,00 A 4
M 10 x 50	S 50	465,00 A 4
M 10 x 60	S 50	495,00 A 4
M 10 x 80	S 25	630,00 A 4

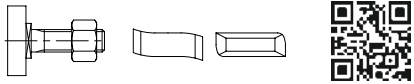


Article 88938

Dimensions PU Pieces €.

Article	88938.940	RAZ 985
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88938 Mu A 4 HS 38/17



T-head bolts for Halfen channels, Mu = with hexagon nut

For profiles 38/17, 36/20, 36/36, 35/50, head types subject to confirmation, head width ~30,5 mm

Mech. properties → TI-224

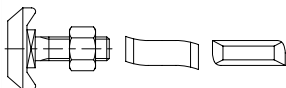
Steel → S. 422



M 10	x	30	S	50	620,00 A4
M 10	x	40	S	50	700,00 A4
M 10	x	50	S	50	670,00 A4
M 10	x	60	S	50	720,00 A4
M 12	x	30	S	25	610,00 A4
M 12	x	40	S	25	650,00 A4
M 12	x	50	S	25	700,00 A4
M 12	x	60	S	25	770,00 A4
M 12	x	80	S	25	790,00 A4
M 16	x	30	S	10	860,00 A4
M 16	x	40	S	10	930,00 A4
M 16	x	50	S	10	1030,00 A4
M 16	x	60	S	10	1100,00 A4
M 16	x	80	S	10	1260,00 A4
M 16	x	100	S	10	1410,00 A4

Article 88940.940 RAZ 985

88940 Mu A 4 HS 40/22



Hook bolts/suspension bolts, Mu = with hexagon nut

For profiles 40/22, 40/25, 422, head types subject to confirmation, head width ~32,5 mm

Steel → S. 422

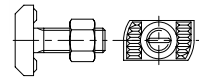


M 10	x	30	S	50	1340,00 A4
M 10	x	40	S	50	1370,00 A4
M 10	x	50	S	50	1420,00 A4
M 12	x	30	S	25	900,00 A4
M 12	x	40	S	25	1000,00 A4
M 12	x	50	S	25	1090,00 A4
M 12	x	80	S	25	1260,00 A4
M 16	x	40	S	10	1100,00 A4
M 16	x	50	S	10	1190,00 A4
M 16	x	60	S	10	1240,00 A4
M 16	x	80	S	10	1340,00 A4
M 16	x	100	S	10	1700,00 A4

Dimensions PU Pieces €.

Article	88941.940	RAZ 985
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88941 Mu A 4 HZS 41/22



T-head bolts, Mu = with hexagon nut

For profiles HZA/HZM 41/22, head width ~34,5 mm

Mech. properties → TI-224

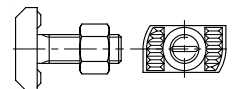
Steel → S. 422



M 12	x	35	S	25	2130,00 A4
M 12	x	50	S	25	2280,00 A4
M 12	x	80	S	25	2390,00 A4
M 16	x	35	S	25	2250,00 A4
M 16	x	50	S	25	2500,00 A4

Article 88943.940 RAZ 985

88943 Mu A 4 HZS 38/23



T-head/Halfen bolts, Mu = with hexagon nut

For profile 38/23 DYNAGRIP, head width ~28,8 mm

Mech. properties → TI-224

Steel → 424

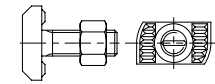


M 16	x	60	S	25	2150,00 A4
M 16	x	80	S	25	2350,00 A4

Dimensions PU Pieces €.

Article	88944.940	RAZ 985
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88944 Mu A 4 - 70 HZS 53/34



T-head/Halfen bolts, Mu = with hexagon nut

For profile HZA 53/34, head width ~41,6 mm

Mech. properties → TI-224

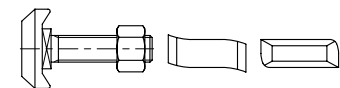
Steel → S. 424



M 16	x	60	S	25	2650,00 A4
M 16	x	100	S	25	2950,00 A4
M 20	x	65	S	25	2850,00 A4
M 20	x	100	S	25	3250,00 A4

Article 88950.940 RAZ 985

88950 Mu A 4 HS 50/30



Hook bolts/suspension bolts, Mu = with hexagon nut

For profiles 50/30, 50/40, 49/30, 52/34, 54/33, 486, head types subject to confirmation, head width ~41 mm

Mech. properties → TI-224

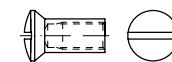
Steel → S. 424



M 12	x	30	S	25	1120,00 A4
M 12	x	40	S	25	1130,00 A4
M 12	x	50	S	25	1140,00 A4
M 16	x	40	S	10	2000,00 A4
M 16	x	50	S	10	2130,00 A4
M 16	x	60	S	10	2260,00 A4
M 16	x	80	S	10	2700,00 A4
M 20	x	55	S	10	2330,00 A4
M 20	x	75	S	10	2650,00 A4
M 20	x	100	S	10	2750,00 A4

Article 88964.910 RAZ 996

88964 A 1



Sleeve nuts with raised countersunk head, with internal thread

Dimensions → TI-77

Internal thread M x length

M 4	x	14	S	100	140,00 A1
M 5	x	15	S	100	181,00 A1
M 6	x	15	S	100	208,00 A1
M 6	x	20	S	100	220,00 A1
M 8	x	15	S	100	375,00 A1
M 8	x	20	S	100	400,00 A1