





































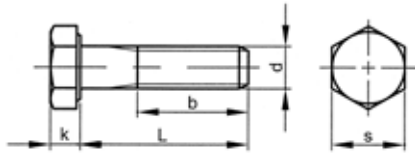


Bolts 1

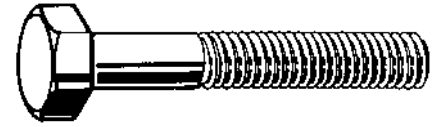
 <p>Page 1-2 ISO 4014 DIN 931</p> <p>Metric</p>	 <p>Page 1-16 ISO 4016/- DIN 601/555 (1987)</p> <p>With hexagon nut Metric</p>	 <p>Page 1-17 ISO 4017 DIN 933</p> <p>Metric</p>	 <p>Page 1-31 ISO ≈4017 DIN ≈933</p> <p>With slot Metric</p>	 <p>Page 1-32 ISO 8765 DIN 960</p> <p>Metric fine</p>
 <p>Page 1-35 ISO 8676 DIN 961</p> <p>Metric fine</p>	 <p>Page 1-38 ANSI ≈B18.2.1 BS ≈1768</p> <p>UNC</p>	 <p>Page 1-42 ANSI ≈B18.2.1 BS ≈1768</p> <p>UNF</p>	 <p>Page 1-45 DIN ≈931 (1954) NEN ≈2336 (1961)</p> <p>BSW</p>	 <p>Page 1-46 BS ≈1083 (1965)</p> <p>BSF</p>
 <p>Page 1-47 ANSI ≈B18.2.1 BS ≈1768</p> <p>UNC</p>	 <p>Page 1-50 ANSI ≈B18.2.1 BS ≈1768</p> <p>UNF</p>	 <p>Page 1-52 DIN ≈933 (1954) NEN ≈2337 (1961)</p> <p>BSW</p>	 <p>Page 1-53 BS ≈1083 (1965)</p> <p>BSF</p>	 <p>Page 1-54</p> <p>RIPP Metric</p>
 <p>Page 1-56</p> <p>TENSILOCK Metric</p>	 <p>Page 1-58 DIN 6921 ANSI B18.2.3.4M</p> <p>Metric</p>	 <p>Page 1-60 DIN 6921 ANSI B18.2.3.4M</p> <p>Metric fine</p>	 <p>Page 1-61 DIN 609</p> <p>With long thread Metric</p>	 <p>Page 1-62 ISO 8677 DIN 603</p> <p>Without hexagon nut Metric</p>
 <p>Page 1-65 ISO 8677/- DIN 603/555 (1987)</p> <p>With hexagon nut Metric</p>	 <p>Page 1-67 DIN ≈608 BS ≈4933</p> <p>With short square neck Metric</p>	 <p>Page 1-68 DIN - / 555 (1987) NEN - / 697</p> <p>SEHA Metric</p>	 <p>Page 1-69 DIN 604/555 (1987) NEN 2355/697</p> <p>With hexagon nut Metric</p>	 <p>Page 1-70 DIN 605/555 (1987) NF - / E25-402</p> <p>With square neck and hexagon nut Metric</p>
 <p>Page 1-71 DIN 15237</p> <p>Seating screw</p>	 <p>Page 1-72 DIN 15237</p> <p>For seating screws</p>	 <p>Page 1-73 DIN 479 NF E25-134</p> <p>With short dog point Metric</p>	 <p>Page 1-74</p> <p>Trackshoe bolt UNF</p>	 <p>Page 1-75 DIN 561 NF E25-133</p> <p>With small hexagon and dog point Metric</p>
 <p>Page 1-77 EN 14399-4</p> <p>PEINER</p>	 <p>Page 1-81 EN 14399-4</p> <p>PEINER</p>	 <p>Page 1-82 EN 14399-6</p> <p>PEINER</p>	 <p>Page 1-83 DIN 6917 NEN 5515</p> <p>PEINER I-sections</p>	 <p>Page 1-84 DIN 6918 NEN 5514</p> <p>PEINER U-sections</p>
 <p>Page 1-85 ISO 4014/4032 EN 15048</p> <p>Structural assembly set, CE marking</p>	 <p>Page 1-87 ISO 4017/4032 EN 15048</p> <p>Structural assembly set, CE marking</p>	 <p>Page 1-89</p> <p>Plastic</p>		

Hexagon head bolt

1



ISO 4014
DIN 931
NEN 1555
ANSI B18.2.3.1M
NF E25-112



Technical data

d	P	b (min.): L≤125mm	b (min.): 125mm<L≤200mm	b (min.): L>200mm	k	s
M4	0,7	14	-	-	2,8	7
M5	0,8	16	22	-	3,5	8
M6	1	18	24	-	4	10
M7	1	20	26	-	4,8	11
M8	1,25	22	28	-	5,3	13
M10 (DIN)	1,5	26	32	45	6,4	17
M10	1,5	26	-	-	6,4	16
M12 (DIN)	1,75	30	36	49	7,5	19
M12	1,75	30	36	-	7,5	18
M14 (DIN)	2	34	40	53	8,8	22
M14	2	34	40	-	8,8	21
M16	2	38	44	57	10	24
M18	2,5	42	48	61	11,5	27
M20	2,5	46	52	65	12,5	30
M22 (DIN)	2,5	50	56	69	14	32
M22	2,5	50	56	69	14	34
M24	3	54	60	73	15	36
M27	3	60	66	79	17	41
M30	3,5	66	72	85	18,7	46
M33	3,5	72	78	91	21	50
M36	4	78	84	97	22,5	55
M39	4	84	90	103	25	60
M42	4,5	90	96	109	26	65
M45	4,5	96	102	115	28	70
M48	5	102	108	121	30	75
M52	5	-	116	119	33	80
M56	5,5	-	124	137	35	85
M60	5,5	-	132	145	38	90
M64	6	-	140	153	40	95

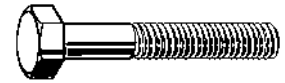
- Size 'b' is a guide value, it amounts on the minimum length of the threaded part.

Article groups

Thread	Driving features	Material	Class	Surface treatment	Colour	Packaging	Code	Page
M	hexagon	St	8.8			Standard	01000	1-3
M	hexagon	St	8.8	Zipl		Standard	01200	1-4
M	hexagon	St	8.8	Zipl yell.p.		Standard	01220	1-6
M	hexagon	St	8.8	Hot d.g.	iso metric	Standard	01400	1-7
M	hexagon	St	8.8	Hot d.g.	oversized	Standard	01420	1-8
M	hexagon	St	10.9			Standard	04100	1-8
M	hexagon	St	10.9	FLZNNC-NC6		Standard	04105	1-9
M	hexagon	St	8.8	FLZNNC-NC6		Standard	01226	1-10
M	hexagon	St	12.9			Standard	04108	1-10
M	hexagon	St	5.6		for pressure vessels	Standard	08750	1-11
M	hexagon	St.St. A2	70			Standard	51000	1-11
M	hexagon	St.St. A4	70			Standard	55000	1-13
M	hexagon	St.St. A4	80			Standard	53510	1-14
M	hexagon	St 24CrMo5	G			Standard	23010	1-15
M	hexagon	Plastic PA	PA 6.6		White	Standard	56090	1-15

01000 Hexagon head bolt A01A

Thread Metric thread
Material Steel
Class 8.8
Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M4X25	500	01000.040.025	M12X70/S=19	50	01000.120.070	M18X85	25	01000.180.085
M4X30	500	01000.040.030	M12X75/S=19	50	01000.120.075	M18X90	25	01000.180.090
M4X40	500	01000.040.040	M12X80/S=19	50	01000.120.080	M18X100	25	01000.180.100
			M12X85/S=19	50	01000.120.085	M18X110	25	01000.180.110
M5X30	200	01000.050.030	M12X90/S=19	50	01000.120.090	M18X120	25	01000.180.120
M5X35	200	01000.050.035	M12X100/S=19	50	01000.120.100	M18X130	25	01000.180.130
M5X40	200	01000.050.040	M12X110/S=19	50	01000.120.110	M18X140	25	01000.180.140
M5X45	200	01000.050.045	M12X120/S=19	50	01000.120.120	M18X150	25	01000.180.150
M5X50	200	01000.050.050	M12X130/S=19	50	01000.120.130	M18X160	25	01000.180.160
M5X55	200	01000.050.055	M12X140/S=19	50	01000.120.140	M18X170	25	01000.180.170
M5X60	200	01000.050.060	M12X150/S=19	50	01000.120.150	M18X180	10	01000.180.180
M5X70	200	01000.050.070	M12X160/S=19	25	01000.120.160	M18X200	10	01000.180.200
			M12X170/S=19	25	01000.120.170	M18X220	10	01000.180.220
M6X30	200	01000.060.030	M12X180/S=19	25	01000.120.180	M18X240	10	01000.180.240
M6X35	200	01000.060.035	M12X190/S=19	25	01000.120.190	M18X260	10	01000.180.260
M6X40	200	01000.060.040	M12X200/S=19	25	01000.120.200	M18X280	10	01000.180.280
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M6X55	200	01000.060.055	M12X260/S=19	25	01000.120.260			
M6X60	200	01000.060.060	M12X280/S=19	25	01000.120.280	M20X60	50	01000.200.060
M6X65	200	01000.060.065				M20X65	25	01000.200.065
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M6X80	200	01000.060.080	M14X60/S=22	50	01000.140.060	M20X80	25	01000.200.080
M6X90	200	01000.060.090	M14X65/S=22	50	01000.140.065	M20X85	25	01000.200.085
			M14X70/S=22	50	01000.140.070	M20X90	25	01000.200.090
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M7X35	200	01000.070.035	M14X80/S=22	50	01000.140.080	M20X110	25	01000.200.110
M7X40	200	01000.070.040	M14X90/S=22	50	01000.140.090	M20X120	25	01000.200.120
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M8X40	200	01000.080.040	M14X140/S=22	25	01000.140.140	M20X170	10	01000.200.170
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M8X50	200	01000.080.050	M14X160/S=22	25	01000.140.160	M20X190	10	01000.200.190
M8X55	200	01000.080.055	M14X180/S=22	25	01000.140.180	M20X200	10	01000.200.200
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M8X65	200	01000.080.065				M20X230	10	01000.200.230
M8X70	200	01000.080.070	M16X50	100	01000.160.050	M20X240	10	01000.200.240
M8X75	200	01000.080.075	M16X55	50	01000.160.055	M20X250	10	01000.200.250
M8X80	200	01000.080.080	M16X60	50	01000.160.060	M20X260	10	01000.200.260
M8X85	100	01000.080.085	M16X65	25	01000.160.065	M20X280	10	01000.200.280
M8X90	100	01000.080.090	M16X70	25	01000.160.070	M20X300	10	01000.200.300
M8X100	100	01000.080.100	M16X75	25	01000.160.075	M20X320	5	01000.200.320
M8X110	100	01000.080.110	M16X80	25	01000.160.080	M20X340	5	01000.200.340
M8X120	100	01000.080.120	M16X85	25	01000.160.085	M20X360	5	01000.200.360
M8X130	100	01000.080.130	M16X90	25	01000.160.090	M20X380	5	01000.200.380
M8X140	50	01000.080.140	M16X100	25	01000.160.100	M20X400	5	01000.200.400
M8X150	50	01000.080.150	M16X110	25	01000.160.110			
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M10X50/S=17	100	01000.100.050	M16X150	25	01000.160.150	M22X90/S=32	25	01000.220.090
M10X55/S=17	100	01000.100.055	M16X160	25	01000.160.160	M22X100/S=32	10	01000.220.100
M10X60/S=17	100	01000.100.060	M16X170	25	01000.160.170	M22X110/S=32	10	01000.220.110
M10X65/S=17	100	01000.100.065	M16X180	25	01000.160.180	M22X120/S=32	10	01000.220.120
M10X70/S=17	100	01000.100.070	M16X190	25	01000.160.190	M22X130/S=32	10	01000.220.130
M10X75/S=17	100	01000.100.075	M16X200	25	01000.160.200	M22X140/S=32	10	01000.220.140
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M10X85/S=17	100	01000.100.085	M16X220	25	01000.160.220	M22X160/S=32	10	01000.220.160
M10X90/S=17	100	01000.100.090	M16X230	25	01000.160.230	M22X180/S=32	10	01000.220.180
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M10X110/S=17	50	01000.100.110	M16X260	10	01000.160.260	M22X220/S=32	5	01000.220.220
M10X120/S=17	50	01000.100.120	M16X270	10	01000.160.270	M22X240/S=32	5	01000.220.240
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M10X160/S=17	50	01000.100.160	M16X340	10	01000.160.340			
M10X170/S=17	50	01000.100.170	M16X360	10	01000.160.360	M24X70	25	01000.240.070
M10X180/S=17	50	01000.100.180	M16X380	10	01000.160.380	M24X75	25	01000.240.075
M10X200/S=17	50	01000.100.200	M16X400	10	01000.160.400	M24X80	25	01000.240.080
						M24X85	25	01000.240.085
M12X45/S=19	100	01000.120.045	M18X55	25	01000.180.055	M24X90	10	01000.240.090
M12X50/S=19	100	01000.120.050	M18X60	25	01000.180.060	M24X100	10	01000.240.100
M12X55/S=19	100	01000.120.055	M18X65	25	01000.180.065	M24X110	10	01000.240.110
M12X60/S=19	100	01000.120.060	M18X70	25	01000.180.070	M24X120	10	01000.240.120
M12X65/S=19	50	01000.120.065	M18X75	25	01000.180.075	M24X130	10	01000.240.130
			M18X80	25	01000.180.080	M24X140	10	01000.240.140

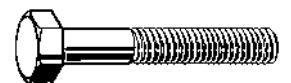
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01000 Hexagon head bolt ←

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M24X150	10	01000.240.150	M33X140	5	01000.330.140	M42X320	1	01000.420.320
M24X160	10	01000.240.160	M33X150	5	01000.330.150	M42X340	1	01000.420.340
M24X170	10	01000.240.170	M33X160	5	01000.330.160	M42X360	1	01000.420.360
M24X180	10	01000.240.180	M33X170	2	01000.330.170	M42X400	1	01000.420.400
M24X190	10	01000.240.190	M33X180	2	01000.330.180	M42X420	1	01000.420.420
M24X200	10	01000.240.200	M33X190	2	01000.330.190	M42X460	1	01000.420.460
M24X210	10	01000.240.210	M33X200	2	01000.330.200	M42X480	1	01000.420.480
M24X220	10	01000.240.220	M33X220	2	01000.330.220	M42X500	1	01000.420.500
M24X240	10	01000.240.240	M33X240	2	01000.330.240			
M24X250	10	01000.240.250	M33X250	2	01000.330.250	M45X120	1	01000.450.120
M24X260	10	01000.240.260	M33X260	2	01000.330.260	M45X140	1	01000.450.140
M24X280	10	01000.240.280	M33X280	2	01000.330.280	M45X160	1	01000.450.160
M24X300	10	01000.240.300	M33X300	2	01000.330.300	M45X180	1	01000.450.180
M24X320	5	01000.240.320	M33X320	2	01000.330.320	M45X200	1	01000.450.200
M24X340	5	01000.240.340	M33X340	2	01000.330.340	M45X220	1	01000.450.220
M24X360	5	01000.240.360	M33X360	2	01000.330.360	M45X240	1	01000.450.240
M24X380	5	01000.240.380				M45X280	1	01000.450.280
M24X400	5	01000.240.400	M36X110	5	01000.360.110	M45X300	1	01000.450.300
M24X420	5	01000.240.420	M36X120	5	01000.360.120	M45X320	1	01000.450.320
M24X440	5	01000.240.440	M36X130	5	01000.360.130	M45X360	1	01000.450.360
M24X450	5	01000.240.450	M36X140	5	01000.360.140			
			M36X150	5	01000.360.150	M48X140	1	01000.480.140
M27X80	10	01000.270.080	M36X160	5	01000.360.160	M48X150	1	01000.480.150
M27X90	10	01000.270.090	M36X170	2	01000.360.170	M48X160	1	01000.480.160
M27X100	10	01000.270.100	M36X180	2	01000.360.180	M48X170	1	01000.480.170
M27X110	10	01000.270.110	M36X190	2	01000.360.190	M48X180	1	01000.480.180
M27X120	10	01000.270.120	M36X200	2	01000.360.200	M48X200	1	01000.480.200
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M27X170	5	01000.270.170	M36X270	2	01000.360.270	M48X320	1	01000.480.320
M27X180	5	01000.270.180	M36X280	2	01000.360.280	M48X360	1	01000.480.360
M27X190	5	01000.270.190	M36X300	2	01000.360.300	M48X400	1	01000.480.400
M27X200	5	01000.270.200	M36X320	1	01000.360.320	M48X500	1	01000.480.500
M27X220	5	01000.270.220	M36X340	1	01000.360.340			
M27X240	5	01000.270.240	M36X360	1	01000.360.360	M52X160	1	01000.520.160
M27X260	5	01000.270.260	M36X400	1	01000.360.400	M52X180	1	01000.520.180
M27X280	5	01000.270.280	M36X420	1	01000.360.420	M52X200	1	01000.520.200
M27X300	5	01000.270.300	M36X440	1	01000.360.440	M52X240	1	01000.520.240
M27X320	5	01000.270.320	M36X460	1	01000.360.460	M52X280	1	01000.520.280
M27X340	5	01000.270.340	M36X480	1	01000.360.480	M52X320	1	01000.520.320
M27X360	5	01000.270.360	M36X500	1	01000.360.500	M52X360	1	01000.520.360
M27X380	5	01000.270.380				M52X400	1	01000.520.400
M27X400	5	01000.270.400	M39X110	1	01000.390.110	M52X500	1	01000.520.500
			M39X120	1	01000.390.120			
M30X90	10	01000.300.090	M39X130	1	01000.390.130	M56X160	1	01000.560.160
M30X100	10	01000.300.100	M39X140	1	01000.390.140	M56X180	1	01000.560.180
M30X110	10	01000.300.110	M39X150	1	01000.390.150	M56X200	1	01000.560.200
M30X120	10	01000.300.120	M39X160	1	01000.390.160	M56X240	1	01000.560.240
M30X130	10	01000.300.130	M39X170	1	01000.390.170	M56X260	1	01000.560.260
M30X140	10	01000.300.140	M39X180	1	01000.390.180	M56X280	1	01000.560.280
M30X150	10	01000.300.150	M39X190	1	01000.390.190	M56X320	1	01000.560.320
M30X160	10	01000.300.160	M39X200	1	01000.390.200	M56X360	1	01000.560.360
M30X170	5	01000.300.170	M39X220	1	01000.390.220	M56X400	1	01000.560.400
M30X180	5	01000.300.180	M39X240	1	01000.390.240	M56X440	1	01000.560.440
M30X190	5	01000.300.190	M39X260	1	01000.390.260			
M30X200	5	01000.300.200	M39X280	1	01000.390.280	M60X160	1	01000.600.160
M30X220	5	01000.300.220	M39X300	1	01000.390.300	M60X180	1	01000.600.180
M30X240	5	01000.300.240	M39X320	1	01000.390.320	M60X200	1	01000.600.200
M30X260	5	01000.300.260	M39X340	1	01000.390.340	M60X240	1	01000.600.240
M30X280	5	01000.300.280	M39X360	1	01000.390.360	M60X280	1	01000.600.280
M30X300	5	01000.300.300	M39X400	1	01000.390.400	M60X320	1	01000.600.320
M30X320	2	01000.300.320				M60X360	1	01000.600.360
M30X340	2	01000.300.340	M42X120	1	01000.420.120			
M30X360	2	01000.300.360	M42X140	1	01000.420.140	M64X180	1	01000.640.180
M30X400	2	01000.300.400	M42X150	1	01000.420.150	M64X200	1	01000.640.200
M30X420	2	01000.300.420	M42X160	1	01000.420.160	M64X240	1	01000.640.240
M30X440	2	01000.300.440	M42X180	1	01000.420.180	M64X280	1	01000.640.280
M30X480	2	01000.300.480	M42X200	1	01000.420.200	M64X320	1	01000.640.320
			M42X220	1	01000.420.220	M64X360	1	01000.640.360
M33X100	5	01000.330.100	M42X240	1	01000.420.240	M64X400	1	01000.640.400
M33X110	5	01000.330.110	M42X260	1	01000.420.260			
M33X120	5	01000.330.120	M42X280	1	01000.420.280			
M33X130	5	01000.330.130	M42X300	1	01000.420.300			

01200 Hexagon head bolt A05A

Thread	Metric thread
Material	Steel
Class	8.8
Surface treatment	Zinc plated
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M4X25	500	01200.040.025	M4X35	500	01200.040.035	M4X50	500	01200.040.050
M4X30	500	01200.040.030	M4X40	500	01200.040.040			

01200 Hexagon head bolt

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M5X30	200	01200.050.030	M10X140/S=17	50	01200.100.140	M16X140	25	01200.160.140
M5X35	200	01200.050.035	M10X150/S=17	50	01200.100.150	M16X150	25	01200.160.150
M5X40	200	01200.050.040	M10X155/S=17	50	01200.100.155	M16X160	25	01200.160.160
M5X45	200	01200.050.045	M10X160/S=17	50	01200.100.160	M16X170	25	01200.160.170
M5X50	200	01200.050.050	M10X170/S=17	50	01200.100.170	M16X180	25	01200.160.180
M5X55	200	01200.050.055	M10X180/S=17	50	01200.100.180	M16X190	25	01200.160.190
M5X60	200	01200.050.060	M10X200/S=17	50	01200.100.200	M16X200	25	01200.160.200
M5X65	200	01200.050.065	M10X210/S=17	25	01200.100.210	M16X210	25	01200.160.210
M5X70	200	01200.050.070	M10X220/S=17	25	01200.100.220	M16X220	25	01200.160.220
M5X80	200	01200.050.080	M10X240/S=17	25	01200.100.240	M16X230	25	01200.160.230
						M16X240	10	01200.160.240
M6X30	200	01200.060.030	M12X45/S=19	100	01200.120.045	M16X260	10	01200.160.260
M6X35	200	01200.060.035	M12X45/S=18	100	01200.120.046	M16X280	10	01200.160.280
M6X40	200	01200.060.040	M12X50/S=19	100	01200.120.050	M16X300	10	01200.160.300
M6X45	200	01200.060.045	M12X50/S=18	100	01200.120.051	M16X320	10	01200.160.320
M6X50	200	01200.060.050	M12X55/S=19	100	01200.120.055	M16X340	10	01200.160.340
M6X55	200	01200.060.055	M12X55/S=18	100	01200.120.056	M16X360	10	01200.160.360
M6X60	200	01200.060.060	M12X60/S=19	100	01200.120.060	M16X380	10	01200.160.380
M6X65	200	01200.060.065	M12X60/S=18	100	01200.120.061	M16X400	10	01200.160.400
M6X70	200	01200.060.070	M12X65/S=19	50	01200.120.065			
M6X75	200	01200.060.075	M12X65/S=18	50	01200.120.066	M18X60	25	01200.180.060
M6X80	200	01200.060.080	M12X70/S=19	50	01200.120.070	M18X65	25	01200.180.065
M6X90	100	01200.060.090	M12X70/S=18	50	01200.120.071	M18X70	25	01200.180.070
M6X100	100	01200.060.100	M12X75/S=19	50	01200.120.075	M18X75	25	01200.180.075
M6X110	100	01200.060.110	M12X75/S=18	50	01200.120.076	M18X80	25	01200.180.080
M6X120	100	01200.060.120	M12X80/S=19	50	01200.120.080	M18X90	25	01200.180.090
M6X130	100	01200.060.130	M12X80/S=18	50	01200.120.081	M18X100	25	01200.180.100
			M12X85/S=19	50	01200.120.085	M18X110	25	01200.180.110
M7X30	200	01200.070.030	M12X90/S=19	50	01200.120.090	M18X120	25	01200.180.120
M7X35	200	01200.070.035	M12X90/S=18	50	01200.120.091	M18X130	25	01200.180.130
M7X40	200	01200.070.040	M12X100/S=19	50	01200.120.100	M18X140	25	01200.180.140
M7X45	200	01200.070.045	M12X100/S=18	50	01200.120.101	M18X150	25	01200.180.150
M7X50	200	01200.070.050	M12X110/S=19	50	01200.120.110	M18X160	25	01200.180.160
M7X60	200	01200.070.060	M12X110/S=18	50	01200.120.111	M18X180	10	01200.180.180
M7X70	200	01200.070.070	M12X120/S=19	50	01200.120.120	M18X200	10	01200.180.200
M7X80	200	01200.070.080	M12X120/S=18	50	01200.120.121			
			M12X130/S=19	50	01200.120.130	M20X65	25	01200.200.065
M8X35	200	01200.080.035	M12X140/S=19	50	01200.120.140	M20X70	25	01200.200.070
M8X40	200	01200.080.040	M12X150/S=19	50	01200.120.150	M20X75	25	01200.200.075
M8X45	200	01200.080.045	M12X160/S=19	25	01200.120.160	M20X80	25	01200.200.080
M8X50	200	01200.080.050	M12X170/S=19	25	01200.120.170	M20X85	25	01200.200.085
M8X55	200	01200.080.055	M12X180/S=19	25	01200.120.180	M20X90	25	01200.200.090
M8X60	200	01200.080.060	M12X190/S=19	25	01200.120.190	M20X100	25	01200.200.100
M8X65	200	01200.080.065	M12X200/S=19	25	01200.120.200	M20X110	25	01200.200.110
M8X70	200	01200.080.070	M12X220/S=19	25	01200.120.220	M20X120	25	01200.200.120
M8X75	200	01200.080.075	M12X240/S=19	25	01200.120.240	M20X130	25	01200.200.130
M8X80	200	01200.080.080	M12X260/S=19	25	01200.120.260	M20X140	25	01200.200.140
M8X90	100	01200.080.090	M12X280/S=19	25	01200.120.280	M20X150	25	01200.200.150
M8X95	100	01200.080.095	M12X300/S=19	25	01200.120.300	M20X160	10	01200.200.160
M8X100	100	01200.080.100				M20X170	10	01200.200.170
M8X105	100	01200.080.105	M14X50/S=22	50	01200.140.050	M20X180	10	01200.200.180
M8X110	100	01200.080.110	M14X50/S=21	50	01200.140.051	M20X190	10	01200.200.190
M8X120	100	01200.080.120	M14X55/S=22	50	01200.140.055	M20X200	10	01200.200.200
M8X130	100	01200.080.130	M14X55/S=21	50	01200.140.056	M20X220	10	01200.200.220
M8X140	50	01200.080.140	M14X60/S=22	50	01200.140.060	M20X240	10	01200.200.240
M8X150	50	01200.080.150	M14X60/S=21	50	01200.140.061	M20X260	10	01200.200.260
M8X160	50	01200.080.160	M14X65/S=22	50	01200.140.065	M20X280	10	01200.200.280
M8X180	50	01200.080.180	M14X70/S=22	50	01200.140.070	M20X300	10	01200.200.300
M8X200	50	01200.080.200	M14X75/S=22	50	01200.140.075	M20X320	5	01200.200.320
			M14X80/S=22	50	01200.140.080			
M10X40/S=17	100	01200.100.040	M14X80/S=21	50	01200.140.081	M22X70/S=32	25	01200.220.070
M10X40/S=16	100	01200.100.041	M14X90/S=22	50	01200.140.090	M22X80/S=32	25	01200.220.080
M10X45/S=17	100	01200.100.045	M14X100/S=22	50	01200.140.100	M22X90/S=32	25	01200.220.090
M10X45/S=16	100	01200.100.046	M14X100/S=21	50	01200.140.101	M22X100/S=32	10	01200.220.100
M10X50/S=17	100	01200.100.050	M14X110/S=22	50	01200.140.110	M22X110/S=32	10	01200.220.110
M10X50/S=16	100	01200.100.051	M14X110/S=21	50	01200.140.111	M22X120/S=32	10	01200.220.120
M10X55/S=17	100	01200.100.055	M14X120/S=22	50	01200.140.120	M22X130/S=32	10	01200.220.130
M10X55/S=16	100	01200.100.056	M14X130/S=22	25	01200.140.130	M22X140/S=32	10	01200.220.140
M10X60/S=17	100	01200.100.060	M14X140/S=22	25	01200.140.140	M22X150/S=32	10	01200.220.150
M10X60/S=16	100	01200.100.061	M14X150/S=22	25	01200.140.150	M22X160/S=32	10	01200.220.160
M10X65/S=17	100	01200.100.065	M14X160/S=22	25	01200.140.160	M22X180/S=32	10	01200.220.180
M10X65/S=16	100	01200.100.066	M14X180/S=22	25	01200.140.180	M22X200/S=32	5	01200.220.200
M10X70/S=17	100	01200.100.070	M14X200/S=22	25	01200.140.200			
M10X70/S=16	100	01200.100.071	M14X220/S=22	25	01200.140.220	M24X70	25	01200.240.070
M10X75/S=17	100	01200.100.075	M14X240/S=22	25	01200.140.240	M24X75	25	01200.240.075
M10X75/S=16	100	01200.100.076	M14X260/S=22	25	01200.140.260	M24X80	25	01200.240.080
M10X80/S=17	100	01200.100.080				M24X90	10	01200.240.090
M10X80/S=16	100	01200.100.081	M16X50	50	01200.160.050	M24X100	10	01200.240.100
M10X85/S=17	100	01200.100.085	M16X55	50	01200.160.055	M24X110	10	01200.240.110
M10X85/S=16	100	01200.100.086	M16X60	50	01200.160.060	M24X120	10	01200.240.120
M10X90/S=17	100	01200.100.090	M16X65	25	01200.160.065	M24X130	10	01200.240.130
M10X90/S=16	100	01200.100.091	M16X70	25	01200.160.070	M24X140	10	01200.240.140
M10X95/S=17	100	01200.100.095	M16X75	25	01200.160.075	M24X150	10	01200.240.150
M10X100/S=17	100	01200.100.100	M16X80	25	01200.160.080	M24X160	10	01200.240.160
M10X100/S=16	100	01200.100.101	M16X85	25	01200.160.085	M24X180	10	01200.240.180
M10X110/S=17	50	01200.100.110	M16X90	25	01200.160.090	M24X200	10	01200.240.200
M10X110/S=16	50	01200.100.111	M16X95	50	01200.160.095	M24X220	10	01200.240.220
M10X120/S=17	50	01200.100.120	M16X100	25	01200.160.100	M24X240	10	01200.240.240
M10X120/S=16	50	01200.100.121	M16X110	25	01200.160.110	M24X260	10	01200.240.260
M10X130/S=17	50	01200.100.130	M16X120	25	01200.160.120	M24X280	10	01200.240.280

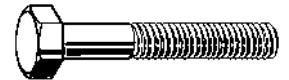
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01200 Hexagon head bolt

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M24X300	10	01200.240.300	M30X90	10	01200.300.090	M33X110	5	01200.330.110
M24X320	5	01200.240.320	M30X100	10	01200.300.100	M33X120	5	01200.330.120
M24X340	5	01200.240.340	M30X110	10	01200.300.110	M33X140	5	01200.330.140
M24X360	5	01200.240.360	M30X120	10	01200.300.120	M33X160	5	01200.330.160
M24X380	5	01200.240.380	M30X130	10	01200.300.130	M33X180	2	01200.330.180
M24X400	5	01200.240.400	M30X140	10	01200.300.140	M33X200	2	01200.330.200
M27X80	10	01200.270.080	M30X150	10	01200.300.150	M36X110	5	01200.360.110
M27X90	10	01200.270.090	M30X160	10	01200.300.160	M36X120	5	01200.360.120
M27X100	10	01200.270.100	M30X180	5	01200.300.180	M36X130	5	01200.360.130
M27X110	10	01200.270.110	M30X200	5	01200.300.200	M36X140	5	01200.360.140
M27X120	10	01200.270.120	M30X220	5	01200.300.220	M36X150	5	01200.360.150
M27X130	10	01200.270.130	M30X240	5	01200.300.240	M36X160	5	01200.360.160
M27X140	10	01200.270.140	M30X260	5	01200.300.260	M36X180	2	01200.360.180
M27X160	10	01200.270.160	M30X280	5	01200.300.280	M36X200	2	01200.360.200
M27X180	5	01200.270.180	M30X300	5	01200.300.300	M36X220	2	01200.360.220
M27X200	5	01200.270.200	M30X320	2	01200.300.320	M36X240	2	01200.360.240
M27X220	5	01200.270.220	M30X340	2	01200.300.340	M36X260	2	01200.360.260
M27X240	5	01200.270.240	M30X360	2	01200.300.360	M36X280	2	01200.360.280
M27X260	5	01200.270.260	M30X400	2	01200.300.400	M36X300	2	01200.360.300
M27X280	5	01200.270.280						
M27X300	5	01200.270.300	M33X100	5	01200.330.100			

01220 Hexagon head bolt A06A

Thread	Metric thread	
Material	Steel	
Class	8.8	
Surface treatment	Zinc plated yellow passivated	
Packaging	Standard	



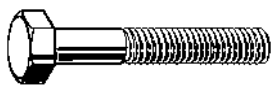
d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M4X25	500	01220.040.025	M10X60/S=17	100	01220.100.060	M14X200/S=22	25	01220.140.200
M4X30	500	01220.040.030	M10X65/S=17	100	01220.100.065	M16X55	50	01220.160.055
M4X40	500	01220.040.040	M10X70/S=17	100	01220.100.070	M16X60	50	01220.160.060
M4X50	500	01220.040.050	M10X75/S=17	100	01220.100.075	M16X65	25	01220.160.065
M5X30	200	01220.050.030	M10X80/S=17	100	01220.100.080	M16X70	25	01220.160.070
M5X35	200	01220.050.035	M10X85/S=17	100	01220.100.085	M16X75	25	01220.160.075
M5X40	200	01220.050.040	M10X90/S=17	100	01220.100.090	M16X80	25	01220.160.080
M5X45	200	01220.050.045	M10X100/S=17	100	01220.100.100	M16X85	25	01220.160.085
M5X50	200	01220.050.050	M10X110/S=17	50	01220.100.110	M16X90	25	01220.160.090
M5X55	200	01220.050.055	M10X120/S=17	50	01220.100.120	M16X95	25	01220.160.095
M5X60	200	01220.050.060	M10X130/S=17	50	01220.100.130	M16X100	25	01220.160.100
M5X65	200	01220.050.065	M10X140/S=17	50	01220.100.140	M16X110	25	01220.160.110
M5X70	200	01220.050.070	M10X150/S=17	50	01220.100.150	M16X120	25	01220.160.120
M5X80	200	01220.050.080	M10X160/S=17	50	01220.100.160	M16X130	25	01220.160.130
M6X30	200	01220.060.030	M10X170/S=17	50	01220.100.170	M16X140	25	01220.160.140
M6X35	200	01220.060.035	M10X180/S=17	50	01220.100.180	M16X150	25	01220.160.150
M6X40	200	01220.060.040	M10X190/S=17	50	01220.100.190	M16X160	25	01220.160.160
M6X45	200	01220.060.045	M10X200/S=17	50	01220.100.200	M16X170	25	01220.160.170
M6X50	200	01220.060.050	M10X220/S=17	50	01220.100.220	M16X180	25	01220.160.180
M6X55	200	01220.060.055	M12X45/S=19	100	01220.120.045	M16X190	25	01220.160.190
M6X60	200	01220.060.060	M12X50/S=19	100	01220.120.050	M16X200	25	01220.160.200
M6X65	200	01220.060.065	M12X55/S=19	100	01220.120.055	M16X220	25	01220.160.220
M6X70	200	01220.060.070	M12X60/S=19	100	01220.120.060	M16X240	25	01220.160.240
M6X75	200	01220.060.075	M12X65/S=19	50	01220.120.065	M20X65	25	01220.200.065
M6X80	100	01220.060.080	M12X70/S=19	50	01220.120.070	M20X70	25	01220.200.070
M6X90	100	01220.060.090	M12X75/S=19	50	01220.120.075	M20X75	25	01220.200.075
M6X100	100	01220.060.100	M12X80/S=19	50	01220.120.080	M20X80	25	01220.200.080
M6X110	100	01220.060.110	M12X85/S=19	50	01220.120.085	M20X90	25	01220.200.090
M6X120	100	01220.060.120	M12X90/S=19	50	01220.120.090	M20X100	25	01220.200.100
M6X130	100	01220.060.130	M12X95/S=19	50	01220.120.095	M20X110	25	01220.200.110
M8X35	200	01220.080.035	M12X100/S=19	50	01220.120.100	M20X120	25	01220.200.120
M8X40	200	01220.080.040	M12X110/S=19	50	01220.120.110	M20X130	25	01220.200.130
M8X45	200	01220.080.045	M12X120/S=19	50	01220.120.120	M20X140	25	01220.200.140
M8X50	200	01220.080.050	M12X130/S=19	50	01220.120.130	M20X150	25	01220.200.150
M8X55	200	01220.080.055	M12X140/S=19	50	01220.120.140	M20X160	10	01220.200.160
M8X60	200	01220.080.060	M12X150/S=19	50	01220.120.150	M20X180	10	01220.200.180
M8X65	200	01220.080.065	M12X160/S=19	50	01220.120.160	M20X190	10	01220.200.190
M8X70	200	01220.080.070	M12X180/S=19	50	01220.120.180	M20X200	10	01220.200.200
M8X75	200	01220.080.075	M12X200/S=19	50	01220.120.200	M20X220	10	01220.200.220
M8X80	200	01220.080.080	M12X220/S=19	50	01220.120.220	M20X240	10	01220.200.240
M8X90	100	01220.080.090	M12X240/S=19	50	01220.120.240	M20X260	10	01220.200.260
M8X100	100	01220.080.100	M14X50/S=22	50	01220.140.050	M20X280	10	01220.200.280
M8X110	100	01220.080.110	M14X55/S=22	50	01220.140.055	M20X300	10	01220.200.300
M8X120	100	01220.080.120	M14X60/S=22	50	01220.140.060	M22X120/S=32	25	01220.220.120
M8X130	100	01220.080.130	M14X70/S=22	50	01220.140.070	M22X130/S=32	25	01220.220.130
M8X140	100	01220.080.140	M14X80/S=22	50	01220.140.080	M24X80	25	01220.240.080
M8X150	100	01220.080.150	M14X90/S=22	50	01220.140.090	M24X90	10	01220.240.090
M8X160	50	01220.080.160	M14X100/S=22	50	01220.140.100	M24X100	10	01220.240.100
M8X180	50	01220.080.180	M14X110/S=22	50	01220.140.110	M24X110	10	01220.240.110
M10X40/S=17	100	01220.100.040	M14X120/S=22	50	01220.140.120	M24X120	10	01220.240.120
M10X45/S=17	100	01220.100.045	M14X130/S=22	25	01220.140.130	M24X130	10	01220.240.130
M10X50/S=17	100	01220.100.050	M14X140/S=22	25	01220.140.140	M24X140	10	01220.240.140
M10X55/S=17	100	01220.100.055	M14X150/S=22	25	01220.140.150	M24X150	10	01220.240.150
			M14X160/S=22	25	01220.140.160	M24X160	10	01220.240.160
			M14X180/S=22	25	01220.140.180			

01220 Hexagon head bolt

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M24X180	10	01220.240.180	M27X160	10	01220.270.160	M33X100	10	01220.330.100
M24X200	10	01220.240.200	M27X180	5	01220.270.180	M33X120	5	01220.330.120
M24X220	10	01220.240.220	M27X200	5	01220.270.200	M33X140	5	01220.330.140
M24X240	10	01220.240.240				M33X160	5	01220.330.160
M24X260	10	01220.240.260	M30X100	10	01220.300.100	M33X180	5	01220.330.180
M24X280	10	01220.240.280	M30X120	10	01220.300.120	M33X200	5	01220.330.200
M24X300	10	01220.240.300	M30X130	10	01220.300.130			
			M30X140	10	01220.300.140	M36X120	5	01220.360.120
M27X100	10	01220.270.100	M30X160	10	01220.300.160	M36X180	5	01220.360.180
M27X110	10	01220.270.110	M30X180	5	01220.300.180			
M27X120	10	01220.270.120	M30X200	5	01220.300.200			
M27X140	10	01220.270.140						

1
01400 Hexagon head bolt iso-metric fitting thread A07A

Thread	Metric thread
Material	Steel
Class	8.8
Surface treatment	Hot dip galvanized
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M8X35	100	01400.080.035	M16X80	25	01400.160.080	M24X90	10	01400.240.090
M8X40	100	01400.080.040	M16X90	25	01400.160.090	M24X100	10	01400.240.100
M8X45	100	01400.080.045	M16X100	25	01400.160.100	M24X110	10	01400.240.110
M8X50	100	01400.080.050	M16X110	25	01400.160.110	M24X120	10	01400.240.120
M8X55	100	01400.080.055	M16X120	25	01400.160.120	M24X130	10	01400.240.130
M8X60	100	01400.080.060	M16X130	25	01400.160.130	M24X140	10	01400.240.140
M8X65	100	01400.080.065	M16X140	25	01400.160.140	M24X150	10	01400.240.150
M8X70	100	01400.080.070	M16X150	25	01400.160.150	M24X160	10	01400.240.160
M8X75	100	01400.080.075	M16X160	25	01400.160.160	M24X180	10	01400.240.180
M8X80	100	01400.080.080	M16X180	25	01400.160.180	M24X200	10	01400.240.200
M8X90	100	01400.080.090	M16X200	25	01400.160.200	M24X220	10	01400.240.220
M8X100	50	01400.080.100	M16X220	25	01400.160.220	M24X240	10	01400.240.240
			M16X240	25	01400.160.240	M24X260	10	01400.240.260
M10X40/S=17	100	01400.100.040	M16X260	25	01400.160.260	M24X280	10	01400.240.280
M10X45/S=17	100	01400.100.045				M24X300	10	01400.240.300
M10X50/S=17	50	01400.100.050	M18X60	25	01400.180.060	M24X320	5	01400.240.320
M10X55/S=17	50	01400.100.055	M18X70	25	01400.180.070	M24X340	5	01400.240.340
M10X60/S=17	50	01400.100.060	M18X80	25	01400.180.080	M24X360	5	01400.240.360
M10X65/S=17	50	01400.100.065	M18X90	25	01400.180.090			
M10X70/S=17	50	01400.100.070	M18X100	25	01400.180.100	M27X80	10	01400.270.080
M10X75/S=17	50	01400.100.075	M18X110	25	01400.180.110	M27X90	10	01400.270.090
M10X80/S=17	50	01400.100.080	M18X120	25	01400.180.120	M27X100	10	01400.270.100
M10X90/S=17	50	01400.100.090	M18X130	25	01400.180.130	M27X110	10	01400.270.110
M10X100/S=17	50	01400.100.100	M18X140	25	01400.180.140	M27X120	10	01400.270.120
M10X110/S=17	50	01400.100.110	M18X150	25	01400.180.150	M27X130	10	01400.270.130
M10X110/S=16	50	01400.100.111				M27X140	10	01400.270.140
M10X120/S=17	50	01400.100.120	M20X65	25	01400.200.065	M27X150	10	01400.270.150
M10X120/S=16	50	01400.100.121	M20X70	25	01400.200.070	M27X160	10	01400.270.160
M10X130/S=16	50	01400.100.131	M20X75	25	01400.200.075			
M10X140/S=16	50	01400.100.141	M20X80	25	01400.200.080	M30X90	10	01400.300.090
M10X150/S=16	50	01400.100.151	M20X90	25	01400.200.090	M30X100	10	01400.300.100
M10X160/S=16	50	01400.100.161	M20X100	25	01400.200.100	M30X110	10	01400.300.110
M10X180/S=16	50	01400.100.181	M20X110	25	01400.200.110	M30X120	10	01400.300.120
M10X200/S=16	50	01400.100.201	M20X120	25	01400.200.120	M30X130	10	01400.300.130
			M20X130	25	01400.200.130	M30X140	10	01400.300.140
M12X45/S=19	50	01400.120.045	M20X140	25	01400.200.140	M30X150	10	01400.300.150
M12X50/S=19	50	01400.120.050	M20X150	25	01400.200.150	M30X160	10	01400.300.160
M12X55/S=19	25	01400.120.055	M20X160	10	01400.200.160	M30X180	10	01400.300.180
M12X60/S=19	25	01400.120.060	M20X180	10	01400.200.180	M30X200	10	01400.300.200
M12X65/S=19	25	01400.120.065	M20X200	10	01400.200.200	M30X220	5	01400.300.220
M12X70/S=19	25	01400.120.070	M20X220	10	01400.200.220	M30X240	5	01400.300.240
M12X75/S=19	25	01400.120.075	M20X240	10	01400.200.240	M30X260	5	01400.300.260
M12X80/S=19	25	01400.120.080	M20X260	10	01400.200.260			
M12X90/S=19	25	01400.120.090	M20X280	10	01400.200.280	M33X100	5	01400.330.100
M12X100/S=19	25	01400.120.100	M20X300	10	01400.200.300	M33X120	5	01400.330.120
M12X110/S=19	25	01400.120.110				M33X140	5	01400.330.140
M12X120/S=19	25	01400.120.120	M22X70/S=34	25	01400.220.071	M33X160	5	01400.330.160
M12X130/S=19	25	01400.120.130	M22X75/S=34	25	01400.220.076			
M12X140/S=19	25	01400.120.140	M22X80/S=34	25	01400.220.081	M36X110	5	01400.360.110
M12X150/S=19	25	01400.120.150	M22X90/S=34	25	01400.220.091	M36X120	5	01400.360.120
M12X160/S=19	25	01400.120.160	M22X100/S=34	10	01400.220.101	M36X140	5	01400.360.140
M12X180/S=19	25	01400.120.180	M22X110/S=34	10	01400.220.111	M36X160	2	01400.360.160
M12X200/S=19	25	01400.120.200	M22X120/S=34	10	01400.220.121	M36X180	2	01400.360.180
			M22X130/S=34	10	01400.220.131	M36X200	2	01400.360.200
M16X55	25	01400.160.055	M22X140/S=34	10	01400.220.141	M36X220	2	01400.360.220
M16X60	25	01400.160.060	M22X150/S=34	10	01400.220.151	M36X240	2	01400.360.240
M16X65	25	01400.160.065						
M16X70	25	01400.160.070	M24X75	25	01400.240.075			
M16X75	25	01400.160.075	M24X80	25	01400.240.080			

- For hot dip galvanized bolts with ISO-METRIC FITTING thread, the thread is rolled undersize so that it will meet the go-gauge with tolerance class h AFTER galvanizing.
- The advantage of this way of manufacturing is that the bolts can be used in any threaded hole without any problem.

01400 Hexagon head bolt iso-metric fitting thread

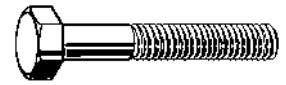
d x L	Art.number	d x L	Art.number	d x L	Art.number
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- The corresponding ISO-METRIC FITTING nuts have been threaded according to the tolerance class 6H AFTER galvanizing so that they perfectly fit onto the bolts.

01420 Hexagon head bolt oversized thread

A07A

Thread	Metric thread
Material	Steel
Class	8.8
Surface treatment	Hot dip galvanized
Packaging	Standard



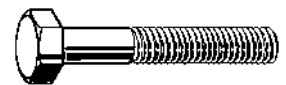
d x L	Art.number	d x L	Art.number	d x L	Art.number
M10X40/S=17	100 01420.100.040	M16X100	25 01420.160.100	M22X90/S=32	10 01420.220.090
M10X50/S=17	50 01420.100.050	M16X110	25 01420.160.110	M22X100/S=32	10 01420.220.100
		M16X120	25 01420.160.120	M22X120/S=32	10 01420.220.120
M12X45/S=19	100 01420.120.045	M16X140	25 01420.160.140	M22X140/S=32	10 01420.220.140
M12X50/S=19	100 01420.120.050	M16X150	25 01420.160.150	M22X160/S=32	10 01420.220.160
M12X55/S=19	100 01420.120.055	M16X160	25 01420.160.160	M22X180/S=32	10 01420.220.180
M12X60/S=19	100 01420.120.060	M16X180	25 01420.160.180	M22X200/S=32	10 01420.220.200
M12X65/S=19	100 01420.120.065				
M12X70/S=19	100 01420.120.070	M18X60	50 01420.180.060	M24X75	25 01420.240.075
M12X75/S=19	50 01420.120.075	M18X70	50 01420.180.070	M24X80	25 01420.240.080
M12X80/S=19	50 01420.120.080	M18X80	25 01420.180.080	M24X90	10 01420.240.090
M12X90/S=19	50 01420.120.090	M18X90	25 01420.180.090	M24X100	10 01420.240.100
M12X100/S=19	50 01420.120.100	M18X100	25 01420.180.100	M24X110	10 01420.240.110
M12X120/S=19	50 01420.120.120	M18X120	25 01420.180.120	M24X120	10 01420.240.120
M12X140/S=19	50 01420.120.140	M18X140	25 01420.180.140	M24X130	10 01420.240.130
M12X160/S=19	25 01420.120.160			M24X140	10 01420.240.140
		M20X65	25 01420.200.065	M24X150	10 01420.240.150
M14X50/S=22	50 01420.140.050	M20X70	25 01420.200.070	M24X160	10 01420.240.160
M14X60/S=22	50 01420.140.060	M20X75	25 01420.200.075	M24X180	10 01420.240.180
M14X70/S=22	50 01420.140.070	M20X80	25 01420.200.080		
M14X80/S=22	25 01420.140.080	M20X85	25 01420.200.085	M27X80	10 01420.270.080
M14X90/S=22	25 01420.140.090	M20X90	25 01420.200.090	M27X100	10 01420.270.100
M14X100/S=22	25 01420.140.100	M20X100	25 01420.200.100	M27X120	10 01420.270.120
M14X120/S=22	25 01420.140.120	M20X110	25 01420.200.110	M27X140	10 01420.270.140
M14X140/S=22	25 01420.140.140	M20X120	25 01420.200.120	M27X160	10 01420.270.160
		M20X130	25 01420.200.130		
M16X55	50 01420.160.055	M20X140	25 01420.200.140	M30X100	10 01420.300.100
M16X60	50 01420.160.060	M20X160	10 01420.200.160	M30X120	10 01420.300.120
M16X65	50 01420.160.065	M20X180	10 01420.200.180	M30X140	10 01420.300.140
M16X70	50 01420.160.070	M20X260	10 01420.200.260	M30X160	10 01420.300.160
M16X75	25 01420.160.075				
M16X80	25 01420.160.080	M22X70/S=32	25 01420.220.070		
M16X90	25 01420.160.090	M22X80/S=32	25 01420.220.080		

- For hot dip galvanized bolts with OVERSIZED thread the zinc layer is applied ON the normal thread, so AFTER galvanizing these bolts are no longer ISO-metric mating, but thicker: so called OVERSIZED.
- They do not mate the usual fit of screwthread and cannot be used in e.g. normal threaded holes.
- The corresponding OVERSIZED nuts have been tapped about 0,3 mm larger AFTER galvanizing running perfectly onto these bolts.

04100 Hexagon head bolt

C01A

Thread	Metric thread
Material	Steel
Class	10.9
Packaging	Standard



d x L	Art.number	d x L	Art.number	d x L	Art.number
M6X30	200 04100.060.030	M10X40/S=17	100 04100.100.040	M12X65/S=19	50 04100.120.065
M6X35	200 04100.060.035	M10X45/S=17	100 04100.100.045	M12X70/S=19	50 04100.120.070
M6X40	200 04100.060.040	M10X50/S=17	100 04100.100.050	M12X75/S=19	100 04100.120.075
M6X45	200 04100.060.045	M10X55/S=17	100 04100.100.055	M12X80/S=19	50 04100.120.080
M6X50	200 04100.060.050	M10X60/S=17	100 04100.100.060	M12X85/S=19	50 04100.120.085
M6X55	200 04100.060.055	M10X65/S=17	100 04100.100.065	M12X90/S=19	50 04100.120.090
M6X60	200 04100.060.060	M10X70/S=17	100 04100.100.070	M12X100/S=19	50 04100.120.100
M6X70	200 04100.060.070	M10X75/S=17	100 04100.100.075	M12X110/S=19	50 04100.120.110
M6X80	200 04100.060.080	M10X80/S=17	100 04100.100.080	M12X120/S=19	50 04100.120.120
		M10X90/S=17	100 04100.100.090	M12X130/S=19	25 04100.120.130
M8X30	200 04100.080.030	M10X100/S=17	100 04100.100.100	M12X140/S=19	25 04100.120.140
M8X35	200 04100.080.035	M10X110/S=17	50 04100.100.110	M12X150/S=19	25 04100.120.150
M8X40	200 04100.080.040	M10X120/S=17	50 04100.100.120	M12X160/S=19	25 04100.120.160
M8X45	200 04100.080.045	M10X130/S=17	50 04100.100.130	M12X180/S=19	25 04100.120.180
M8X50	200 04100.080.050	M10X140/S=17	50 04100.100.140	M12X200/S=19	25 04100.120.200
M8X60	200 04100.080.060	M10X150/S=17	50 04100.100.150	M12X220/S=19	25 04100.120.220
M8X70	200 04100.080.070	M10X160/S=17	50 04100.100.160		
M8X80	200 04100.080.080	M10X180/S=17	50 04100.100.180		
M8X90	100 04100.080.090			M14X45/S=22	50 04100.140.045
M8X100	100 04100.080.100	M12X45/S=19	100 04100.120.045	M14X50/S=22	50 04100.140.050
M8X110	100 04100.080.110	M12X50/S=19	100 04100.120.050	M14X55/S=22	50 04100.140.055
M8X120	100 04100.080.120	M12X55/S=19	100 04100.120.055	M14X60/S=22	50 04100.140.060
		M12X60/S=19	100 04100.120.060	M14X65/S=22	50 04100.140.065
				M14X70/S=22	50 04100.140.070

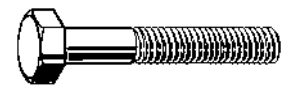
04100 Hexagon head bolt ←

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M14X75/S=22	50	04100.140.075	M20X150	25	04100.200.150	M30X130	10	04100.300.130
M14X80/S=22	50	04100.140.080	M20X160	10	04100.200.160	M30X140	10	04100.300.140
M14X85/S=22	50	04100.140.085	M20X170	10	04100.200.170	M30X150	10	04100.300.150
M14X90/S=22	50	04100.140.090	M20X180	10	04100.200.180	M30X160	10	04100.300.160
M14X100/S=22	50	04100.140.100	M20X190	10	04100.200.190	M30X170	5	04100.300.170
M14X120/S=22	50	04100.140.120	M20X200	10	04100.200.200	M30X180	5	04100.300.180
M14X130/S=22	50	04100.140.130	M20X220	10	04100.200.220	M30X200	5	04100.300.200
M14X140/S=22	50	04100.140.140	M20X230	10	04100.200.230	M30X220	5	04100.300.220
M14X150/S=22	25	04100.140.150	M20X240	10	04100.200.240	M30X240	5	04100.300.240
M14X160/S=22	25	04100.140.160	M20X260	10	04100.200.260	M30X260	5	04100.300.260
M16X55	50	04100.160.055	M22X70/S=32	10	04100.220.070	M30X280	5	04100.300.280
M16X60	50	04100.160.060	M22X75/S=32	10	04100.220.075	M30X300	5	04100.300.300
M16X65	25	04100.160.065	M22X80/S=32	10	04100.220.080	M33X100	5	04100.330.100
M16X70	25	04100.160.070	M22X90/S=32	10	04100.220.090	M33X110	5	04100.330.110
M16X75	25	04100.160.075	M22X100/S=32	10	04100.220.100	M33X120	5	04100.330.120
M16X80	25	04100.160.080	M22X110/S=32	10	04100.220.110	M33X130	5	04100.330.130
M16X90	25	04100.160.090	M22X120/S=32	10	04100.220.120	M33X140	5	04100.330.140
M16X95	25	04100.160.095	M22X130/S=32	10	04100.220.130	M33X150	5	04100.330.150
M16X100	25	04100.160.100	M24X75	25	04100.240.075	M33X160	5	04100.330.160
M16X110	25	04100.160.110	M24X80	25	04100.240.080	M33X180	2	04100.330.180
M16X120	25	04100.160.120	M24X90	10	04100.240.090	M33X200	2	04100.330.200
M16X130	25	04100.160.130	M24X100	10	04100.240.100	M33X240	2	04100.330.240
M16X140	25	04100.160.140	M24X110	10	04100.240.110	M36X100	5	04100.360.100
M16X150	25	04100.160.150	M24X120	10	04100.240.120	M36X110	5	04100.360.110
M16X160	25	04100.160.160	M24X130	10	04100.240.130	M36X120	5	04100.360.120
M16X170	25	04100.160.170	M24X140	10	04100.240.140	M36X130	5	04100.360.130
M16X180	25	04100.160.180	M24X150	10	04100.240.150	M36X140	5	04100.360.140
M16X190	25	04100.160.190	M24X160	10	04100.240.160	M36X150	5	04100.360.150
M16X200	25	04100.160.200	M24X170	10	04100.240.170	M36X160	5	04100.360.160
M16X220	25	04100.160.220	M24X180	10	04100.240.180	M36X180	2	04100.360.180
M16X240	10	04100.160.240	M24X200	10	04100.240.200	M36X200	2	04100.360.200
M16X250	10	04100.160.250	M24X220	10	04100.240.220	M36X220	2	04100.360.220
M18X60	25	04100.180.060	M24X240	10	04100.240.240	M36X240	2	04100.360.240
M18X65	25	04100.180.065	M24X260	10	04100.240.260	M36X260	2	04100.360.260
M18X70	25	04100.180.070	M24X280	10	04100.240.280	M39X120	1	04100.390.120
M18X80	25	04100.180.080	M27X80	10	04100.270.080	M39X140	1	04100.390.140
M18X85	100	04100.180.085	M27X90	10	04100.270.090	M39X150	5	04100.390.150
M18X90	25	04100.180.090	M27X100	10	04100.270.100	M39X160	1	04100.390.160
M18X100	25	04100.180.100	M27X110	10	04100.270.110	M39X180	1	04100.390.180
M18X110	25	04100.180.110	M27X120	10	04100.270.120	M39X200	1	04100.390.200
M18X120	25	04100.180.120	M27X130	10	04100.270.130	M42X160	1	04100.420.160
M20X65	25	04100.200.065	M27X140	10	04100.270.140	M42X180	1	04100.420.180
M20X70	25	04100.200.070	M27X150	10	04100.270.150	M42X200	1	04100.420.200
M20X75	25	04100.200.075	M27X160	10	04100.270.160	M42X220	1	04100.420.220
M20X80	25	04100.200.080	M27X170	5	04100.270.170	M42X240	1	04100.420.240
M20X85	25	04100.200.085	M27X180	5	04100.270.180	M45X160	1	04100.450.160
M20X90	25	04100.200.090	M27X190	5	04100.270.190	M45X200	1	04100.450.200
M20X95	25	04100.200.095	M27X200	5	04100.270.200	M45X220	1	04100.450.220
M20X100	25	04100.200.100	M30X90	10	04100.300.090	M45X240	1	04100.450.240
M20X110	25	04100.200.110	M30X100	10	04100.300.100			
M20X120	25	04100.200.120	M30X110	10	04100.300.110			
M20X130	25	04100.200.130	M30X120	10	04100.300.120			
M20X140	25	04100.200.140						

• Warning: electro-galvanizing of these products may cause hydrogen embrittlement.

04105 Hexagon head bolt C95A

Thread Metric thread
Material Steel
Class 10.9
Surface treatment Zinc flake Cr6+ free - ISO 10683 flZnnc
Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X30	200	04105.060.030	M10X70	100	04105.100.070	M14X90	50	04105.140.090
M6X35	200	04105.060.035	M10X80	100	04105.100.080	M14X100	50	04105.140.100
M6X40	200	04105.060.040	M10X90	100	04105.100.090	M16X55	50	04105.160.055
M6X50	200	04105.060.050	M10X100	100	04105.100.100	M16X60	50	04105.160.060
M6X60	200	04105.060.060	M10X110	50	04105.100.110	M16X65	25	04105.160.065
M6X70	200	04105.060.070	M10X120	50	04105.100.120	M16X70	25	04105.160.070
M6X80	200	04105.060.080	M12X45	100	04105.120.045	M16X80	25	04105.160.080
M8X35	200	04105.080.035	M12X50	100	04105.120.050	M16X90	25	04105.160.090
M8X40	200	04105.080.040	M12X60	100	04105.120.060	M16X100	25	04105.160.100
M8X45	200	04105.080.045	M12X70	50	04105.120.070	M16X120	25	04105.160.120
M8X50	200	04105.080.050	M12X80	50	04105.120.080	M16X130	25	04105.160.130
M8X60	200	04105.080.060	M12X90	50	04105.120.090	M16X140	25	04105.160.140
M8X70	200	04105.080.070	M12X100	50	04105.120.100	M16X150	10	04105.160.150
M10X40	100	04105.100.040	M12X120	50	04105.120.120	M16X160	10	04105.160.160
M10X45	100	04105.100.045	M14X50	50	04105.140.050	M20X70	25	04105.200.070
M10X50	100	04105.100.050	M14X60	50	04105.140.060	M20X80	25	04105.200.080
M10X60	100	04105.100.060	M14X80	50	04105.140.080	M20X90	25	04105.200.090

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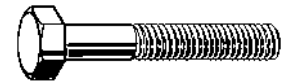
04105 Hexagon head bolt ←

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M20X100	25	04105.200.100	M24X80	25	04105.240.080	M24X180	10	04105.240.180
M20X120	25	04105.200.120	M24X90	10	04105.240.090	M24X200	10	04105.240.200
M20X140	25	04105.200.140	M24X100	10	04105.240.100			
M20X160	10	04105.200.160	M24X120	10	04105.240.120			
M20X200	10	04105.200.200	M24X140	10	04105.240.140			
			M24X160	10	04105.240.160			

• Technical brochure available on request.

01226 Hexagon head bolt A96A

Thread	Metric thread
Material	Steel
Class	8.8
Surface treatment	Zinc flake Cr6+ free - ISO 10683 flZnnc
Packaging	Standard

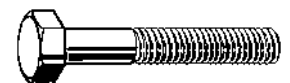


d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X30	200	01226.060.030	M12X55/S=19	100	01226.120.055	M18X80	25	01226.180.080
M6X35	200	01226.060.035	M12X60/S=19	100	01226.120.060	M18X90	25	01226.180.090
M6X40	200	01226.060.040	M12X65/S=19	50	01226.120.065	M20X65	25	01226.200.065
M6X45	200	01226.060.045	M12X70/S=19	50	01226.120.070	M20X70	25	01226.200.070
M6X50	200	01226.060.050	M12X80/S=19	50	01226.120.080	M20X75	25	01226.200.075
M6X60	200	01226.060.060	M12X90/S=19	50	01226.120.090	M20X80	25	01226.200.080
			M12X100/S=19	50	01226.120.100	M20X85	25	01226.200.085
M8X35	200	01226.080.035	M12X110/S=19	50	01226.120.110	M20X90	25	01226.200.090
M8X40	200	01226.080.040	M12X120/S=19	50	01226.120.120	M20X100	25	01226.200.100
M8X45	200	01226.080.045	M12X140/S=19	50	01226.120.140	M20X110	25	01226.200.110
M8X50	200	01226.080.050	M12X150/S=19	50	01226.120.150	M20X120	25	01226.200.120
M8X55	200	01226.080.055	M12X170/S=19	25	01226.120.170	M20X130	25	01226.200.130
M8X60	200	01226.080.060	M16X55	50	01226.160.055	M20X140	25	01226.200.140
M8X70	200	01226.080.070	M16X60	50	01226.160.060	M20X150	25	01226.200.150
M8X80	200	01226.080.080	M16X65	25	01226.160.065	M20X160	10	01226.200.160
M8X90	100	01226.080.090	M16X70	25	01226.160.070	M20X180	10	01226.200.180
M8X110	100	01226.080.110	M16X75	25	01226.160.075	M20X200	10	01226.200.200
			M16X80	25	01226.160.080	M24X70	25	01226.240.070
M10X40/S=17	100	01226.100.040	M16X90	25	01226.160.090	M24X80	25	01226.240.080
M10X45/S=17	100	01226.100.045	M16X90	25	01226.160.090	M24X90	10	01226.240.090
M10X50/S=17	100	01226.100.050	M16X100	25	01226.160.100	M24X100	10	01226.240.100
M10X60/S=17	100	01226.100.060	M16X110	25	01226.160.110	M24X110	10	01226.240.110
M10X70/S=17	100	01226.100.070	M16X120	25	01226.160.120	M24X130	10	01226.240.130
M10X80/S=17	100	01226.100.080	M16X130	25	01226.160.130	M24X140	10	01226.240.140
M10X90/S=17	100	01226.100.090	M16X140	25	01226.160.140	M24X160	10	01226.240.160
M10X100/S=17	100	01226.100.100	M16X150	25	01226.160.150	M24X180	10	01226.240.180
M10X120/S=17	50	01226.100.120	M16X160	25	01226.160.160	M24X200	10	01226.240.200
			M16X180	25	01226.160.180			
M12X45/S=19	100	01226.120.045	M18X60	25	01226.180.060			
M12X50/S=19	100	01226.120.050						

• A ISO 10683 Zinc Flake surface coating eliminates the possibilities of damage which can arise due to hydrogen embrittlement.

04108 Hexagon head bolt C01A

Thread	Metric thread
Material	Steel
Class	12.9
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X30	200	04108.060.030	M12X60/S=19	100	04108.120.060	M16X120	25	04108.160.120
M6X40	200	04108.060.040	M12X70/S=19	50	04108.120.070	M16X130	25	04108.160.130
M6X50	200	04108.060.050	M12X80/S=19	50	04108.120.080	M16X140	25	04108.160.140
M6X60	200	04108.060.060	M12X90/S=19	50	04108.120.090	M16X160	25	04108.160.160
			M12X100/S=19	50	04108.120.100	M20X70	25	04108.200.070
M8X40	200	04108.080.040	M12X110/S=19	50	04108.120.110	M20X80	25	04108.200.080
M8X50	200	04108.080.050	M12X120/S=19	50	04108.120.120	M20X90	25	04108.200.090
M8X60	200	04108.080.060				M20X100	25	04108.200.100
M8X80	200	04108.080.080	M14X50/S=22	50	04108.140.050	M20X110	25	04108.200.110
M8X100	100	04108.080.100	M14X60/S=22	50	04108.140.060	M20X140	25	04108.200.140
			M14X70/S=22	50	04108.140.070	M20X160	10	04108.200.160
M10X40/S=17	100	04108.100.040	M14X80/S=22	50	04108.140.080	M24X80	25	04108.240.080
M10X45/S=17	100	04108.100.045	M14X90/S=22	50	04108.140.090	M24X90	10	04108.240.090
M10X50/S=17	100	04108.100.050	M14X100/S=22	50	04108.140.100	M24X100	10	04108.240.100
M10X60/S=17	100	04108.100.060	M14X120/S=22	50	04108.140.120			
M10X70/S=17	100	04108.100.070				M30X90	10	04108.300.090
M10X80/S=17	100	04108.100.080	M16X60	50	04108.160.060	M30X100	10	04108.300.100
M10X100/S=17	100	04108.100.100	M16X70	25	04108.160.070	M30X110	10	04108.300.110
M10X120/S=17	50	04108.100.120	M16X80	25	04108.160.080	M30X120	10	04108.300.120
			M16X90	25	04108.160.090			
M12X45/S=19	100	04108.120.045	M16X100	25	04108.160.100			
M12X50/S=19	100	04108.120.050	M16X110	25	04108.160.110			

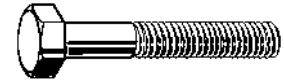
04108 Hexagon head bolt

d x L	Art.number	d x L	Art.number	d x L	Art.number
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- Warning: electro-galvanizing of these products may cause hydrogen embrittlement.

08750 Hexagon head bolt for pressure vessels etc.
E11A

Thread	Metric thread
Material	Steel
Class	5.6
Packaging	Standard

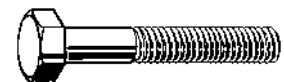


d x L	Art.number	d x L	Art.number	d x L	Art.number
M12X50/S=18	100 08750.120.051	M16X160	25 08750.160.160	M24X110	25 08750.240.110
M12X55/S=18	100 08750.120.056	M16X180	25 08750.160.180	M24X120	25 08750.240.120
M12X60/S=18	100 08750.120.061			M24X150	10 08750.240.150
M12X65/S=18	50 08750.120.066	M20X75	25 08750.200.075	M24X160	10 08750.240.160
M12X70/S=18	50 08750.120.071	M20X80	25 08750.200.080	M24X180	10 08750.240.180
M12X80/S=18	50 08750.120.081	M20X90	25 08750.200.090	M24X200	10 08750.240.200
		M20X100	25 08750.200.100	M24X220	10 08750.240.220
M16X60	50 08750.160.060	M20X110	25 08750.200.110		
M16X65	25 08750.160.065	M20X120	25 08750.200.120	M27X90	10 08750.270.090
M16X70	25 08750.160.070	M20X130	25 08750.200.130	M27X100	10 08750.270.100
M16X75	25 08750.160.075	M20X140	25 08750.200.140	M27X110	10 08750.270.110
M16X80	25 08750.160.080	M20X150	25 08750.200.150	M27X120	10 08750.270.120
M16X90	25 08750.160.090	M20X160	10 08750.200.160	M27X130	10 08750.270.130
M16X100	25 08750.160.100	M20X180	10 08750.200.180	M27X240	5 08750.270.240
M16X110	25 08750.160.110				
M16X120	25 08750.160.120	M24X90	25 08750.240.090	M30X120	10 08750.300.120
M16X140	25 08750.160.140	M24X100	25 08750.240.100		

- Special features hexagon head bolts for pressure vessels etc.:
- Are intended for use in pressure vessels, steam apparatus, equipment and flanged joints at temperatures from -10°C up to +300°C, overpressures max. 40 bar and sizes up to and including M30.
- Meets the requirements of AD-Merkblatt W7, TRD 106 of the TÜV (Technischer Überwachungsverein) and DIN 267-13.
- According to TÜV-Merkblatt Werkstoffe 1253, the manufacturer has been certified to deliver these bolts without a 3.1 certificate, the trade-mark and class designation are sufficient.
- This certification is also accepted by the Dutch "STOOMWEZEN BV" and meets the requirements M0802.

51000 Hexagon head bolt
Q01A

Thread	Metric thread
Material	Stainless steel A2
Class	70
Packaging	Standard



d x L	Art.number	d x L	Art.number	d x L	Art.number
M5X25 *	200 51000.050.025	M6X180	50 51000.060.180	M10X65/S=17	50 51000.100.065
M5X30	100 51000.050.030			M10X70/S=17	50 51000.100.070
M5X35	100 51000.050.035	M8X30	200 51000.080.030	M10X75/S=17	50 51000.100.075
M5X40	100 51000.050.040	M8X35	100 51000.080.035	M10X80/S=17	50 51000.100.080
M5X45	100 51000.050.045	M8X40	100 51000.080.040	M10X85/S=17 *	50 51000.100.085
M5X50	100 51000.050.050	M8X45	100 51000.080.045	M10X90/S=17	50 51000.100.090
M5X55	100 51000.050.055	M8X50	100 51000.080.050	M10X100/S=17	50 51000.100.100
M5X60	100 51000.050.060	M8X55	100 51000.080.055	M10X110/S=17	50 51000.100.110
M5X65 *	200 51000.050.065	M8X60	100 51000.080.060	M10X120/S=17	25 51000.100.120
M5X70 *	100 51000.050.070	M8X65	100 51000.080.065	M10X130/S=17	25 51000.100.130
M5X75 *	100 51000.050.075	M8X70	100 51000.080.070	M10X140/S=17	25 51000.100.140
M5X80 *	100 51000.050.080	M8X75	100 51000.080.075	M10X150/S=17	25 51000.100.150
M5X90 *	100 51000.050.090	M8X80	100 51000.080.080	M10X160/S=17	25 51000.100.160
M5X100 *	100 51000.050.100	M8X85 *	50 51000.080.085	M10X170/S=17	25 51000.100.170
		M8X90	100 51000.080.090	M10X180/S=17	25 51000.100.180
M6X25 *	200 51000.060.025	M8X95 *	50 51000.080.095	M10X190/S=17	25 51000.100.190
M6X30	200 51000.060.030	M8X100	100 51000.080.100	M10X200/S=17	10 51000.100.200
M6X35	100 51000.060.035	M8X110	50 51000.080.110	M10X210/S=17 *	10 51000.100.210
M6X40	100 51000.060.040	M8X120	50 51000.080.120	M10X220/S=17 *	10 51000.100.220
M6X45	100 51000.060.045	M8X130	50 51000.080.130	M10X240/S=17 *	10 51000.100.240
M6X50	100 51000.060.050	M8X140	50 51000.080.140	M10X260 *	10 51000.100.260
M6X55	100 51000.060.055	M8X150	50 51000.080.150	M10X280/S=17 *	10 51000.100.280
M6X60	100 51000.060.060	M8X160	25 51000.080.160	M10X300 *	10 51000.100.300
M6X65	100 51000.060.065	M8X170	25 51000.080.170	M10X340 *	10 51000.100.340
M6X70	100 51000.060.070	M8X180	25 51000.080.180	M10X380 *	10 51000.100.380
M6X75 *	100 51000.060.075	M8X190	25 51000.080.190	M10X400 *	10 51000.100.400
M6X80	100 51000.060.080	M8X200	10 51000.080.200	M10X420 *	10 51000.100.420
M6X85 *	100 51000.060.085	M8X210 *	25 51000.080.210	M10X440 *	10 51000.100.440
M6X90	100 51000.060.090	M8X220 *	25 51000.080.220	M10X480 *	10 51000.100.480
M6X100	100 51000.060.100	M8X240 *	25 51000.080.240		
M6X110	50 51000.060.110			M12X45/S=19	50 51000.120.045
M6X120	50 51000.060.120	M10X40/S=17	100 51000.100.040	M12X50/S=19	50 51000.120.050
M6X130	50 51000.060.130	M10X45/S=17	100 51000.100.045	M12X55/S=19	50 51000.120.055
M6X140	50 51000.060.140	M10X50/S=17	100 51000.100.050	M12X60/S=19	50 51000.120.060
M6X150	50 51000.060.150	M10X55/S=17	100 51000.100.055	M12X65/S=19	50 51000.120.065
M6X170 *	100 51000.060.170	M10X60/S=17	100 51000.100.060	M12X70/S=19	50 51000.120.070

51000 Hexagon head bolt

1

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M12X75/S=19	50	51000.120.075				M24X220	5	51000.240.220
M12X80/S=19	50	51000.120.080	M18X60	25	51000.180.060	M24X230 *	5	51000.240.230
M12X85/S=19 *	25	51000.120.085	M18X65	25	51000.180.065	M24X240	5	51000.240.240
M12X90/S=19	50	51000.120.090	M18X70	25	51000.180.070	M24X250 *	5	51000.240.250
M12X100/S=19	50	51000.120.100	M18X75 *	25	51000.180.075	M24X260	5	51000.240.260
M12X110/S=19	25	51000.120.110	M18X80	10	51000.180.080	M24X270 *	5	51000.240.270
M12X120/S=19	25	51000.120.120	M18X90	10	51000.180.090	M24X280 *	5	51000.240.280
M12X130/S=19	25	51000.120.130	M18X100	10	51000.180.100	M24X300 *	5	51000.240.300
M12X140/S=19	25	51000.120.140	M18X110	10	51000.180.110	M24X320 *	5	51000.240.320
M12X150/S=19	25	51000.120.150	M18X120	10	51000.180.120	M24X340 *	5	51000.240.340
M12X160/S=19	25	51000.120.160	M18X130	10	51000.180.130	M24X360 *	5	51000.240.360
M12X170/S=19	25	51000.120.170	M18X140	10	51000.180.140	M24X380 *	5	51000.240.380
M12X180/S=19	25	51000.120.180	M18X150	10	51000.180.150	M24X400 *	5	51000.240.400
M12X190/S=19	25	51000.120.190	M18X170 *	25	51000.180.170	M24X420 *	5	51000.240.420
M12X200/S=19	10	51000.120.200	M18X180 *	25	51000.180.180	M24X440 *	5	51000.240.440
M12X210/S=19 *	10	51000.120.210	M18X200	5	51000.180.200	M24X460 *	5	51000.240.460
M12X220/S=19 *	10	51000.120.220				M24X480 *	5	51000.240.480
M12X230 *	10	51000.120.230	M20X65	25	51000.200.065	M24X500 *	5	51000.240.500
M12X240/S=19 *	10	51000.120.240	M20X70	25	51000.200.070	M24X520 *	5	51000.240.520
M12X250 *	10	51000.120.250	M20X75	10	51000.200.075	M24X540 *	5	51000.240.540
M12X260/S=19 *	10	51000.120.260	M20X80	25	51000.200.080	M24X560 *	5	51000.240.560
M12X280/S=19 *	10	51000.120.280	M20X85	25	51000.200.085			
M12X300 *	10	51000.120.300	M20X90	25	51000.200.090	M27X90	3	51000.270.090
M12X320 *	10	51000.120.320	M20X95 *	25	51000.200.095	M27X100	3	51000.270.100
M12X340 *	10	51000.120.340	M20X100	25	51000.200.100	M27X110	3	51000.270.110
M12X360 *	10	51000.120.360	M20X105 *	25	51000.200.105	M27X120	3	51000.270.120
M12X380 *	10	51000.120.380	M20X110	25	51000.200.110	M27X130	3	51000.270.130
M12X400/S=19 *	10	51000.120.400	M20X120	10	51000.200.120	M27X140	3	51000.270.140
M12X420 *	10	51000.120.420	M20X130	10	51000.200.130	M27X150	3	51000.270.150
M12X440 *	10	51000.120.440	M20X140	10	51000.200.140	M27X160	3	51000.270.160
M12X460 *	10	51000.120.460	M20X150	10	51000.200.150	M27X170 *	5	51000.270.170
M12X480 *	10	51000.120.480	M20X160	10	51000.200.160	M27X180	3	51000.270.180
M12X500 *	10	51000.120.500	M20X170 *	10	51000.200.170	M27X190 *	5	51000.270.190
			M20X180	10	51000.200.180	M27X200	3	51000.270.200
M14X50/S=22	50	51000.140.050	M20X190 *	10	51000.200.190	M27X210 *	5	51000.270.210
M14X55/S=22	50	51000.140.055	M20X200	5	51000.200.200	M27X220	3	51000.270.220
M14X60/S=22	50	51000.140.060	M20X210 *	10	51000.200.210	M27X230 *	5	51000.270.230
M14X70/S=22	50	51000.140.070	M20X220	5	51000.200.220	M27X240	3	51000.270.240
M14X80/S=22	10	51000.140.080	M20X230	5	51000.200.230	M27X250	3	51000.270.250
M14X90/S=22	10	51000.140.090	M20X240	5	51000.200.240			
M14X100/S=22	10	51000.140.100	M20X250 *	10	51000.200.250	M30X80	1	51000.300.080
M14X120/S=22	10	51000.140.120	M20X260 *	5	51000.200.260	M30X90	1	51000.300.090
M14X130/S=22	10	51000.140.130	M20X270 *	10	51000.200.270	M30X100	1	51000.300.100
M14X140/S=22	10	51000.140.140	M20X280 *	10	51000.200.280	M30X110	1	51000.300.110
M14X150/S=22	10	51000.140.150	M20X290 *	10	51000.200.290	M30X120	1	51000.300.120
M14X160/S=22	10	51000.140.160	M20X300 *	5	51000.200.300	M30X130	1	51000.300.130
M14X170/S=22 *	10	51000.140.170	M20X320 *	5	51000.200.320	M30X140	1	51000.300.140
M14X180/S=22	10	51000.140.180	M20X340 *	5	51000.200.340	M30X150	1	51000.300.150
M14X190/S=22 *	10	51000.140.190	M20X360 *	5	51000.200.360	M30X160	1	51000.300.160
M14X200/S=22	10	51000.140.200	M20X380 *	5	51000.200.380	M30X170	1	51000.300.170
			M20X400 *	5	51000.200.400	M30X180	1	51000.300.180
M16X55	50	51000.160.055	M20X420 *	5	51000.200.420	M30X190	1	51000.300.190
M16X60	25	51000.160.060	M20X440 *	5	51000.200.440	M30X200	1	51000.300.200
M16X65	25	51000.160.065	M20X460 *	5	51000.200.460	M30X210 *	5	51000.300.210
M16X70	25	51000.160.070	M20X480 *	5	51000.200.480	M30X220	1	51000.300.220
M16X75	25	51000.160.075	M20X500 *	5	51000.200.500	M30X230 *	5	51000.300.230
M16X80	25	51000.160.080	M50X520 *	5	51000.200.520	M30X240	1	51000.300.240
M16X85	25	51000.160.085	M20X540 *	5	51000.200.540	M30X260	1	51000.300.260
M16X90	25	51000.160.090	M20X560 *	5	51000.200.560			
M16X95 *	25	51000.160.095	M20X580 *	5	51000.200.580			
M16X100	25	51000.160.100				M33X90	1	51000.330.090
M16X110	25	51000.160.110	M22X80/S=32	10	51000.220.080	M33X100	1	51000.330.100
M16X120	10	51000.160.120	M22X90/S=32	10	51000.220.090	M33X110	1	51000.330.110
M16X130	10	51000.160.130	M22X100/S=32	10	51000.220.100	M33X120	1	51000.330.120
M16X140	10	51000.160.140	M22X110/S=32	5	51000.220.110	M33X130	1	51000.330.130
M16X150	10	51000.160.150	M22X120/S=32	5	51000.220.120	M33X140	1	51000.330.140
M16X160	10	51000.160.160	M22X130/S=32 *	20	51000.220.130	M33X150	1	51000.330.150
M16X170	10	51000.160.170	M22X140/S=32	5	51000.220.140	M33X160	1	51000.330.160
M16X180	5	51000.160.180	M22X150/S=32	5	51000.220.150	M33X170	1	51000.330.170
M16X190	5	51000.160.190	M22X160/S=32 *	10	51000.220.160	M33X180	1	51000.330.180
M16X200	5	51000.160.200	M22X180/S=32	5	51000.220.180	M33X190	1	51000.330.190
M16X210	5	51000.160.210	M22X200/S=32 *	10	51000.220.200	M33X200	1	51000.330.200
M16X220	5	51000.160.220				M33X210 *	5	51000.330.210
M16X230	5	51000.160.230	M24X65 *	10	51000.240.065	M33X220	1	51000.330.220
M16X240	5	51000.160.240	M24X70 *	10	51000.240.070	M33X230 *	5	51000.330.230
M16X250	5	51000.160.250	M24X80	5	51000.240.080	M33X240	1	51000.330.240
M16X260	5	51000.160.260	M24X85 *	10	51000.240.085			
M16X270 *	10	51000.160.270	M24X90	5	51000.240.090	M36X100	1	51000.360.100
M16X280	5	51000.160.280	M24X95 *	10	51000.240.095	M36X110	1	51000.360.110
M16X290 *	10	51000.160.290	M24X100	5	51000.240.100	M36X120	1	51000.360.120
M16X300 *	10	51000.160.300	M24X110	5	51000.240.110	M36X130	1	51000.360.130
M16X320 *	10	51000.160.320	M24X120	5	51000.240.120	M36X140	1	51000.360.140
M16X340 *	10	51000.160.340	M24X130	5	51000.240.130	M36X150	1	51000.360.150
M16X360 *	10	51000.160.360	M24X140	5	51000.240.140	M36X160	1	51000.360.160
M16X380 *	10	51000.160.380	M24X150	5	51000.240.150	M36X170	1	51000.360.170
M16X400 *	10	51000.160.400	M24X160	5	51000.240.160	M36X180	1	51000.360.180
M16X420 *	10	51000.160.420	M24X180	5	51000.240.180	M36X190	1	51000.360.190
M16X440 *	10	51000.160.440	M24X190 *	10	51000.240.190	M36X200	1	51000.360.200
M16X480 *	10	51000.160.480	M24X200	5	51000.240.200	M36X210 *	5	51000.360.210
M16X500 *	10	51000.160.500	M24X210 *	5	51000.240.210	M36X220	1	51000.360.220
M16X520 *	10	51000.160.520				M36X230 *	5	51000.360.230

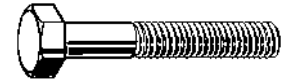
51000 Hexagon head bolt

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M36X240	1	51000.360.240	M36X260	1	51000.360.260	M42X130 *	5	51000.420.130
M36X250 *	5	51000.360.250				M45X150 *	5	51000.450.150

- Sizes with a diameter > M24 and sizes with a length > 8xd are minimal property class 50.

55000 Hexagon head bolt
Q41A

Thread Metric thread
 Material Stainless steel A4
 Class 70
 Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M5X30	100	55000.050.030	M10X80/S=17	50	55000.100.080	M16X90	25	55000.160.090
M5X35	100	55000.050.035	M10X85/S=17 *	50	55000.100.085	M16X100	25	55000.160.100
M5X40	100	55000.050.040	M10X90/S=17	50	55000.100.090	M16X110	25	55000.160.110
M5X45	100	55000.050.045	M10X95/S=17 *	50	55000.100.095	M16X120	10	55000.160.120
M5X50	100	55000.050.050	M10X100/S=17	50	55000.100.100	M16X130	10	55000.160.130
M5X55	100	55000.050.055	M10X110/S=17	50	55000.100.110	M16X140	10	55000.160.140
M5X60 *	200	55000.050.060	M10X120/S=17	25	55000.100.120	M16X150	10	55000.160.150
M5X65 *	200	55000.050.065	M10X130/S=17	25	55000.100.130	M16X160	10	55000.160.160
M5X70 *	100	55000.050.070	M10X140/S=17	25	55000.100.140	M16X170 *	10	55000.160.170
M5X75 *	100	55000.050.075	M10X150/S=17	25	55000.100.150	M16X180	5	55000.160.180
M5X80 *	100	55000.050.080	M10X160/S=17	25	55000.100.160	M16X190 *	10	55000.160.190
M5X90 *	100	55000.050.090	M10X170/S=17	25	55000.100.170	M16X200	5	55000.160.200
M5X100 *	100	55000.050.100	M10X180/S=17	25	55000.100.180	M16X210 *	10	55000.160.210
			M10X190/S=17	25	55000.100.190	M16X220	5	55000.160.220
			M10X200/S=17	10	55000.100.200	M16X230 *	10	55000.160.230
M6X25 *	200	55000.060.025	M10X210/S=17 *	10	55000.100.210	M16X240	5	55000.160.240
M6X30	200	55000.060.030	M10X220/S=17	10	55000.100.220	M16X250 *	10	55000.160.250
M6X35	100	55000.060.035				M16X260	5	55000.160.260
M6X40	100	55000.060.040	M12X40/S=19 *	50	55000.120.040	M16X270 *	10	55000.160.270
M6X45	100	55000.060.045	M12X45/S=19	50	55000.120.045	M16X280	5	55000.160.280
M6X50	100	55000.060.050	M12X50/S=19	50	55000.120.050	M16X290 *	10	55000.160.290
M6X55	100	55000.060.055	M12X55/S=19	50	55000.120.055	M16X300	5	55000.160.300
M6X60	100	55000.060.060	M12X60/S=19	50	55000.120.060			
M6X65	100	55000.060.065	M12X65/S=19	50	55000.120.065	M18X60 *	25	55000.180.060
M6X70	100	55000.060.070	M12X70/S=19	50	55000.120.070	M18X65	25	55000.180.065
M6X75 *	100	55000.060.075	M12X75/S=19	50	55000.120.075	M18X70	25	55000.180.070
M6X80	100	55000.060.080	M12X80/S=19	50	55000.120.080	M18X75 *	25	55000.180.075
M6X90	100	55000.060.090	M12X85/S=19 *	25	55000.120.085	M18X80	10	55000.180.080
M6X100	100	55000.060.100	M12X90/S=19	50	55000.120.090	M18X90	10	55000.180.090
M6X110	50	55000.060.110	M12X95/S=19 *	25	55000.120.095	M18X100	10	55000.180.100
M6X120	50	55000.060.120	M12X100/S=19	50	55000.120.100	M18X110	10	55000.180.110
M6X130	50	55000.060.130	M12X110/S=19	25	55000.120.110	M18X120	10	55000.180.120
M6X140	50	55000.060.140	M12X120/S=19	25	55000.120.120	M18X130 *	25	55000.180.130
M6X150	50	55000.060.150	M12X130/S=19	25	55000.120.130	M18X140 *	25	55000.180.140
M6X160	50	55000.060.160	M12X140/S=19	25	55000.120.140	M18X150	10	55000.180.150
M6X170	50	55000.060.170	M12X150/S=19	25	55000.120.150	M18X160 *	25	55000.180.160
M6X180	50	55000.060.180	M12X160/S=19	25	55000.120.160	M18X180 *	25	55000.180.180
			M12X170/S=19	25	55000.120.170	M18X200 *	25	55000.180.200
M8X30 *	100	55000.080.030	M12X180/S=19	25	55000.120.180			
M8X35	100	55000.080.035	M12X190/S=19	25	55000.120.190	M20X60 *	25	55000.200.060
M8X40	100	55000.080.040	M12X200/S=19	10	55000.120.200	M20X65	25	55000.200.065
M8X45	100	55000.080.045	M12X210/S=19	10	55000.120.210	M20X70	25	55000.200.070
M8X50	100	55000.080.050	M12X220/S=19	10	55000.120.220	M20X75	25	55000.200.075
M8X55	100	55000.080.055	M12X230/S=19 *	10	55000.120.230	M20X80	25	55000.200.080
M8X60	100	55000.080.060	M12X240/S=19	10	55000.120.240	M20X85 *	25	55000.200.085
M8X65	100	55000.080.065	M12X250/S=19 *	10	55000.120.250	M20X90	25	55000.200.090
M8X70	100	55000.080.070	M12X260/S=19 *	10	55000.120.260	M20X100	25	55000.200.100
M8X75	100	55000.080.075	M12X280/S=19 *	10	55000.120.280	M20X110	25	55000.200.110
M8X80	100	55000.080.080	M12X300/S=19 *	10	55000.120.300	M20X120	10	55000.200.120
M8X85 *	50	55000.080.085				M20X130	10	55000.200.130
M8X90	100	55000.080.090	M14X55/S=22 *	50	55000.140.055	M20X140	10	55000.200.140
M8X100	100	55000.080.100	M14X60/S=22	50	55000.140.060	M20X150	10	55000.200.150
M8X110	50	55000.080.110	M14X65/S=22 *	25	55000.140.065	M20X160	10	55000.200.160
M8X120	50	55000.080.120	M14X70/S=22	50	55000.140.070	M20X180	10	55000.200.180
M8X130	50	55000.080.130	M14X75/S=22 *	50	55000.140.075	M20X190 *	10	55000.200.190
M8X140	50	55000.080.140	M14X80/S=22	10	55000.140.080	M20X200	5	55000.200.200
M8X150	50	55000.080.150	M14X90/S=22	10	55000.140.090	M20X210 *	10	55000.200.210
M8X160	25	55000.080.160	M14X100/S=22	10	55000.140.100	M20X220	5	55000.200.220
M8X170	25	55000.080.170	M14X110/S=22	10	55000.140.110	M20X240	5	55000.200.240
M8X180	25	55000.080.180	M14X120/S=22	10	55000.140.120	M20X250 *	10	55000.200.250
M8X190	25	55000.080.190	M14X140/S=22	10	55000.140.140	M20X260	5	55000.200.260
M8X200	10	55000.080.200	M14X150/S=22	10	55000.140.150	M20X270 *	10	55000.200.270
M8X210 *	25	55000.080.210	M14X160/S=22	10	55000.140.160	M20X280	5	55000.200.280
M8X220	10	55000.080.220	M14X180/S=22	10	55000.140.180	M20X300	5	55000.200.300
			M14X200/S=22	10	55000.140.200	M20X320 *	5	55000.200.320
M10X35/S=17 *	100	55000.100.035	M16X55	50	55000.160.055	M22X80/S=32	10	55000.220.080
M10X40/S=17	100	55000.100.040	M16X60	25	55000.160.060	M22X90/S=32	10	55000.220.090
M10X45/S=17	100	55000.100.045	M16X65	25	55000.160.065	M22X100/S=32	10	55000.220.100
M10X50/S=17	100	55000.100.050	M16X70	25	55000.160.070	M22X120/S=32	5	55000.220.120
M10X55/S=17	100	55000.100.055	M16X75	25	55000.160.075	M22X130/S=32	5	55000.220.130
M10X60/S=17	100	55000.100.060	M16X80	25	55000.160.080	M22X140/S=32	5	55000.220.140
M10X65/S=17	50	55000.100.065	M16X85	25	55000.160.085	M22X150/S=32	5	55000.220.150
M10X70/S=17	50	55000.100.070						
M10X75/S=17	50	55000.100.075						

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55000 Hexagon head bolt ←

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M22X160/S=32 *	10	55000.220.160	M27X140	3	55000.270.140	M33X110	1	55000.330.110
M22X180/S=32 *	10	55000.220.180	M27X150	3	55000.270.150	M33X120	1	55000.330.120
M22X200/S=32 *	10	55000.220.200	M27X160	3	55000.270.160	M33X130	1	55000.330.130
M24X75 *	10	55000.240.075	M27X170 *	5	55000.270.170	M33X140	1	55000.330.140
M24X80	5	55000.240.080	M27X180	3	55000.270.180	M33X150	1	55000.330.150
M24X90	5	55000.240.090	M27X190 *	5	55000.270.190	M33X160	1	55000.330.160
M24X100	5	55000.240.100	M27X200	3	55000.270.200	M33X170	1	55000.330.170
M24X110	5	55000.240.110	M27X210 *	5	55000.270.210	M33X180	1	55000.330.180
M24X120	5	55000.240.120	M27X220	3	55000.270.220	M33X190	1	55000.330.190
M24X130	5	55000.240.130	M27X240	3	55000.270.240	M33X200	1	55000.330.200
M24X140	5	55000.240.140	M27X250 *	5	55000.270.250	M33X210 *	5	55000.330.210
M24X150	5	55000.240.150	M27X300 *	5	55000.270.300	M33X220	1	55000.330.220
M24X160	5	55000.240.160	M30X80 *	10	55000.300.080	M33X230 *	5	55000.330.230
M24X170 *	10	55000.240.170	M30X90	1	55000.300.090	M33X240	1	55000.330.240
M24X180	5	55000.240.180	M30X100	1	55000.300.100	M33X250 *	5	55000.330.250
M24X190 *	10	55000.240.190	M30X110	1	55000.300.110	M33X260	1	55000.330.260
M24X200	5	55000.240.200	M30X120	1	55000.300.120	M36X100	1	55000.360.100
M24X210 *	5	55000.240.210	M30X140	1	55000.300.140	M36X110	1	55000.360.110
M24X220	5	55000.240.220	M30X150	1	55000.300.150	M36X120	1	55000.360.120
M24X230	5	55000.240.230	M30X160	1	55000.300.160	M36X130	1	55000.360.130
M24X240	5	55000.240.240	M30X170 *	5	55000.300.170	M36X140	1	55000.360.140
M24X260	5	55000.240.260	M30X180	1	55000.300.180	M36X150	1	55000.360.150
M24X280 *	5	55000.240.280	M30X190 *	5	55000.300.190	M36X160	1	55000.360.160
M24X290 *	5	55000.240.290	M30X200	1	55000.300.200	M36X170	1	55000.360.170
M24X300 *	5	55000.240.300	M30X210	1	55000.300.210	M36X180	1	55000.360.180
M27X75 *	10	55000.270.075	M30X220	1	55000.300.220	M36X190	1	55000.360.190
M27X80	3	55000.270.080	M30X230 *	5	55000.300.230	M36X200	1	55000.360.200
M27X90	3	55000.270.090	M30X240	1	55000.300.240	M36X210 *	5	55000.360.210
M27X100	3	55000.270.100	M30X250	1	55000.300.250	M36X220	1	55000.360.220
M27X110	3	55000.270.110	M30X300 *	5	55000.300.300	M36X230 *	5	55000.360.230
M27X120	3	55000.270.120	M33X90	1	55000.330.090	M36X240	1	55000.360.240
M27X130	3	55000.270.130	M33X100	1	55000.330.100	M36X250 *	5	55000.360.250

• Sizes with a diameter > M24 and sizes with a length > 8xd are minimal property class 50.

53510 Hexagon head bolt R11A

Thread	Metric thread
Material	Stainless steel A4
Class	80
Packaging	Standard

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M5X25 *	200	53510.050.025	M8X120 *	50	53510.080.120	M16X50 *	25	53510.160.050
M5X30 *	200	53510.050.030	M8X130 *	50	53510.080.130	M16X55	25	53510.160.055
M5X35 *	200	53510.050.035	M8X140 *	50	53510.080.140	M16X60	25	53510.160.060
M5X40 *	200	53510.050.040	M8X150 *	50	53510.080.150	M16X65	25	53510.160.065
M5X45 *	200	53510.050.045				M16X70	25	53510.160.070
M5X50 *	200	53510.050.050	M10X35/S=17 *	100	53510.100.035	M16X75	25	53510.160.075
M5X55 *	200	53510.050.055	M10X40/S=17	50	53510.100.040	M16X80	25	53510.160.080
M5X60 *	200	53510.050.060	M10X45/S=17	50	53510.100.045	M16X90	25	53510.160.090
M5X65 *	200	53510.050.065	M10X50/S=17	50	53510.100.050	M16X100	25	53510.160.100
M5X70 *	100	53510.050.070	M10X55/S=17 *	50	53510.100.055	M16X110 *	25	53510.160.110
M5X75 *	100	53510.050.075	M10X60/S=17	50	53510.100.060	M16X120	25	53510.160.120
M5X80 *	100	53510.050.080	M10X65/S=17 *	50	53510.100.065	M16X130 *	25	53510.160.130
M5X100 *	100	53510.050.100	M10X70/S=17	50	53510.100.070	M16X140 *	25	53510.160.140
M6X30	100	53510.060.030	M10X80/S=17	50	53510.100.080	M16X150	25	53510.160.150
M6X35	100	53510.060.035	M10X90/S=17	50	53510.100.090	M20X60 *	25	53510.200.060
M6X40	100	53510.060.040	M10X100/S=17	50	53510.100.100	M20X65 *	25	53510.200.065
M6X50	100	53510.060.050	M10X110/S=17 *	50	53510.100.110	M20X70	10	53510.200.070
M6X60	100	53510.060.060	M10X130/S=17 *	50	53510.100.130	M20X75 *	25	53510.200.075
M6X65	100	53510.060.065	M10X140/S=17 *	50	53510.100.140	M20X80	10	53510.200.080
M6X70	100	53510.060.070	M10X160/S=17 *	25	53510.100.160	M20X90	10	53510.200.090
M6X75 *	100	53510.060.075	M12X40/S=19 *	50	53510.120.040	M20X100	10	53510.200.100
M6X80	100	53510.060.080	M12X45/S=19	25	53510.120.045	M20X120	10	53510.200.120
M6X90 *	100	53510.060.090	M12X50/S=19	25	53510.120.050	M20X130 *	1	53510.200.130
M6X100	100	53510.060.100	M12X55/S=19	25	53510.120.055	M20X140 *	1	53510.200.140
M6X130 *	100	53510.060.130	M12X60/S=19	25	53510.120.060	M20X150	10	53510.200.150
M8X35 *	100	53510.080.035	M12X65/S=19	25	53510.120.065	M20X160 *	10	53510.200.160
M8X40	50	53510.080.040	M12X70/S=19	25	53510.120.070	M20X200 *	10	53510.200.200
M8X45	50	53510.080.045	M12X75/S=19	25	53510.120.075	M24X75 *	10	53510.240.075
M8X50	50	53510.080.050	M12X80/S=19	25	53510.120.080	M24X80	10	53510.240.080
M8X55 *	100	53510.080.055	M12X90/S=19	25	53510.120.090	M24X85 *	10	53510.240.085
M8X60	50	53510.080.060	M12X100/S=19	25	53510.120.100	M24X90	10	53510.240.090
M8X70	50	53510.080.070	M12X110/S=19 *	25	53510.120.110	M24X100	10	53510.240.100
M8X75 *	50	53510.080.075	M12X120/S=19 *	25	53510.120.120	M24X120	10	53510.240.120
M8X80	50	53510.080.080	M12X130/S=19 *	25	53510.120.130	M24X130 *	10	53510.240.130
M8X90 *	50	53510.080.090	M12X140/S=19 *	25	53510.120.140	M24X140 *	10	53510.240.140
M8X100	50	53510.080.100	M12X150/S=19 *	25	53510.120.150	M24X150	10	53510.240.150
M8X110 *	50	53510.080.110	M12X160/S=19 *	10	53510.120.160	M24X160 *	10	53510.240.160
			M12X180/S=19 *	10	53510.120.180	M24X180 *	10	53510.240.180
			M12X220/S=19 *	10	53510.120.220	M24X200 *	10	53510.240.200

53510 Hexagon head bolt ←

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
			M30X150 *	10	53510.300.150			

- Depending on availability it is possible that the diameters M10 and M12 are supplied acc. to DIN 931 with the appropriate values stated between brackets.

23010 Hexagon head bolt G90A

Thread	Metric thread							
Material	Steel 24CrMo5							
Class	G							
Packaging	Standard							

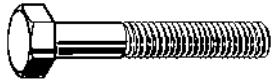


d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M20X100	10	23010.200.100	M24X120	10	23010.240.120	M30X150	5	23010.300.150
M20X120	10	23010.200.120	M24X140	10	23010.240.140			

- Special features hexagon head bolts:
- Made of steel 24 Cr Mo 5 materialnumber: 1.7258.
- Intended for use at high temperatures up to 400°C.
- Threadlengths not acc. to ISO 4014.
- Mechanical properties acc. to DIN 17240.
- The bolthead is marked with the marking sign G, acc. to DIN 267-13.

56090 Hexagon head bolt plastic W02A

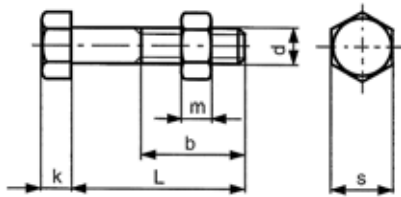
Thread	Metric thread							
Material	Plastic Polyamide (nylon)							
Class	PA 6.6							
Colour	White							
Packaging	Standard							
	ISO ≈4014							
	DIN ≈931							
	NEN ≈1555							
	ANSI ≈B18.2.3.1M							
	NF ≈E25-112							



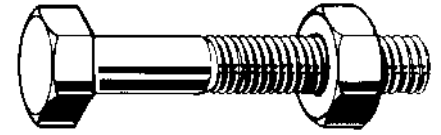
d x L/b	☒	Art.number	d x L/b	☒	Art.number	d x L/b	☒	Art.number
M8X70	50	56090.080.070	M12X50/50	25	56090.120.050	M12X80/30	25	56090.120.080
M10X60/50	25	56090.100.060	M12X60/50	25	56090.120.060			
M12X40/30	25	56090.120.040						

Hexagon head bolt with hexagon nut

1



ISO 4016/-
DIN 601/555 (1987)
 NEN 102/697
 NF E25-115-1/E25-402



Technical data

d	P	b (min.): L≤125mm	b (min.): 125mm<L≤200mm	b (min.): L>200mm	k	m	s
M5	0,8	16	22	35	3,5	4	8
M6	1	18	24	37	4	5	10
M8	1,25	22	28	41	5,3	6,5	13
M10	1,5	26	32	45	6,4	8	17
M12	1,75	30	36	49	7,5	10	19
M16	2	38	44	57	10	13	24
M20	2,5	46	52	65	12,5	16	30
M24	3	54	60	73	15	19	36
M27	3	60	66	79	17	22	41

- The corresponding hexagon nuts have a property class ≥ I4I.

08200 Hexagon head bolt with hexagon nut

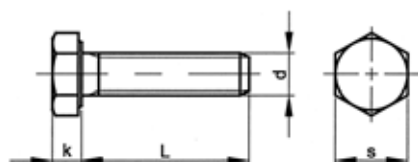
E03A

Thread Metric thread
Material Steel
Class ≥4.6
Surface treatment Zinc plated
Packaging Standard

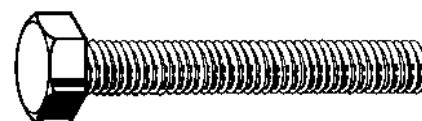


d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X16	500	08200.060.016	M10X100	100	08200.100.100	M16X140	25	08200.160.140
M6X20	500	08200.060.020	M10X120	50	08200.100.120	M16X160	25	08200.160.160
M6X25	500	08200.060.025	M10X140	50	08200.100.140	M16X180	25	08200.160.180
M6X30	500	08200.060.030				M16X200	25	08200.160.200
M6X40	200	08200.060.040	M12X25	100	08200.120.025	M20X40	25	08200.200.040
M6X50	200	08200.060.050	M12X30	100	08200.120.030	M20X50	25	08200.200.050
M6X60	200	08200.060.060	M12X35	100	08200.120.035	M20X60	25	08200.200.060
M6X70	200	08200.060.070	M12X40	100	08200.120.040	M20X65	25	08200.200.065
M6X80	200	08200.060.080	M12X45	100	08200.120.045	M20X70	25	08200.200.070
M6X100	100	08200.060.100	M12X50	100	08200.120.050	M20X75	25	08200.200.075
			M12X55	100	08200.120.055	M20X80	25	08200.200.080
M8X20	200	08200.080.020	M12X60	100	08200.120.060	M20X90	25	08200.200.090
M8X25	200	08200.080.025	M12X70	50	08200.120.070	M20X100	25	08200.200.100
M8X30	200	08200.080.030	M12X80	50	08200.120.080	M20X110	25	08200.200.110
M8X40	200	08200.080.040	M12X100	50	08200.120.100	M20X120	25	08200.200.120
M8X45	200	08200.080.045	M12X110	50	08200.120.110	M20X130	25	08200.200.130
M8X50	200	08200.080.050	M12X130	50	08200.120.130	M20X140	25	08200.200.140
M8X55	200	08200.080.055	M12X150	50	08200.120.150	M20X150	10	08200.200.150
M8X60	200	08200.080.060				M20X160	10	08200.200.160
M8X70	200	08200.080.070	M16X35	50	08200.160.035	M20X180	10	08200.200.180
M8X80	200	08200.080.080	M16X40	50	08200.160.040	M20X200	10	08200.200.200
M8X90	100	08200.080.090	M16X45	50	08200.160.045	M20X220	10	08200.200.220
M8X100	100	08200.080.100	M16X50	50	08200.160.050	M20X240	10	08200.200.240
			M16X55	50	08200.160.055			
M10X25	200	08200.100.025	M16X60	50	08200.160.060	M24X70	25	08200.240.070
M10X30	200	08200.100.030	M16X65	25	08200.160.065	M24X80	25	08200.240.080
M10X35	100	08200.100.035	M16X70	25	08200.160.070	M24X90	10	08200.240.090
M10X40	100	08200.100.040	M16X80	25	08200.160.080	M24X100	10	08200.240.100
M10X45	100	08200.100.045	M16X100	25	08200.160.100	M24X110	10	08200.240.110
M10X50	100	08200.100.050	M16X110	25	08200.160.110			
M10X70	100	08200.100.070	M16X120	25	08200.160.120			
M10X90	100	08200.100.090	M16X130	25	08200.160.130			

Hexagon head screw



ISO 4017
DIN 933
NEN 1568
ANSI B18.2.3.1M
NF E25-114



Technical data

d	P	k	s
M2	0,4	1,4	4
M2,5	0,45	1,7	5
M3	0,5	2	5,5
M4	0,7	2,8	7
M5	0,8	3,5	8
M6	1	4	10
M7	1	4,8	11
M8	1,25	5,3	13
M10 (DIN)	1,5	6,4	17
M10	1,5	6,4	16
M12 (DIN)	1,75	7,5	19

d	P	k	s
M12	1,75	7,5	18
M14 (DIN)	2	8,8	22
M14	2	8,8	21
M16	2	10	24
M18	2,5	11,5	27
M20	2,5	12,5	30
M22 (DIN)	2,5	14	32
M22	2,5	14	34
M24	3	15	36
M27	3	17	41
M30	3,5	18,7	46

d	P	k	s
M33	3,5	21	50
M36	4	22,5	55
M39	4	25	60
M42	4,5	26	65
M45	4,5	28	70
M48	5	30	75
M52	5	33	80
M64	6	40	95

Article groups

Thread	Driving features	Material	Class	Surface treatment	Colour	Packaging	Code	Page
M	hexagon	St	8.8			Standard	01010	1-17
M	hexagon	St	8.8	Zipl		Standard	01210	1-19
M	hexagon	St	8.8	Zipl yell.p.		Standard	01230	1-20
M	hexagon	St	8.8	Hot d.g.	iso metric	Standard	01410	1-21
M	hexagon	St	8.8	Hot d.g.	oversized	Standard	01430	1-22
M	hexagon	St	10.9			Standard	04110	1-22
M	hexagon	St	10.9	FLZNNC-NC6		Standard	04116	1-23
M	hexagon	St	8.8	FLZNNC-NC6		Standard	01236	1-23
M	hexagon	St	12.9			Standard	04118	1-24
M	hexagon	St	5.6		for pressure vessels	Standard	08760	1-24
M	hexagon	St.St. A2	70			Standard	51010	1-24
M	hexagon	St.St. A4	70			Standard	55010	1-26
M	hexagon	St.St. A4	80			Standard	53520	1-27
M	hexagon	Al Sopral P40				Standard	45010	1-28
M	hexagon	Al Sopral P60				Standard	45210	1-28
M	hexagon	Kuprodur Cu5	60			Standard	45810	1-28
M	hexagon	Br Cu2/Cu3				Standard	46010	1-29
M	hexagon	Br Cu2/Cu3		Ni.pl.		Standard	46060	1-29
M	hexagon	Ti ASTM	Gr.2			Standard	45910	1-29
M	hexagon	Plastic PA	PA 6.6		White	Standard	56100	1-30

01010 Hexagon head screw

A01A

Thread Metric thread
Material Steel
Class 8.8
Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M4X8	500	01010.040.008	M5X20	200	01010.050.020	M6X30	200	01010.060.030
M4X10	500	01010.040.010	M5X25	200	01010.050.025	M6X35	200	01010.060.035
M4X12	500	01010.040.012	M5X30	200	01010.050.030	M6X40	200	01010.060.040
M4X16	500	01010.040.016	M5X35	200	01010.050.035	M6X45	200	01010.060.045
M4X20	500	01010.040.020	M5X40	200	01010.050.040	M6X50	200	01010.060.050
M4X25	500	01010.040.025	M5X50	200	01010.050.050	M6X60	200	01010.060.060
M4X30	500	01010.040.030				M6X70	200	01010.060.070
M4X35	500	01010.040.035	M6X8	200	01010.060.008	M6X80	200	01010.060.080
M4X40	500	01010.040.040	M6X10	200	01010.060.010			
M4X50	500	01010.040.050	M6X12	200	01010.060.012	M7X12	200	01010.070.012
			M6X14	200	01010.060.014	M7X16	200	01010.070.016
			M6X16	200	01010.060.016	M7X20	200	01010.070.020
M5X8	200	01010.050.008	M6X18	200	01010.060.018	M7X25	200	01010.070.025
M5X10	200	01010.050.010	M6X20	200	01010.060.020	M7X30	200	01010.070.030
M5X12	200	01010.050.012	M6X22	200	01010.060.022	M7X35	200	01010.070.035
M5X16	200	01010.050.016	M6X25	200	01010.060.025	M7X40	200	01010.070.040
M5X18	200	01010.050.018						

01010 Hexagon head screw

1

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M7X45	200	01010.070.045	M14X60/S=22	50	01010.140.060	M24X45	25	01010.240.045
M7X50	200	01010.070.050	M14X65/S=22	50	01010.140.065	M24X50	25	01010.240.050
M8X10	200	01010.080.010	M14X70/S=22	50	01010.140.070	M24X55	25	01010.240.055
M8X12	200	01010.080.012	M14X75/S=22	50	01010.140.075	M24X60	25	01010.240.060
M8X14	200	01010.080.014	M14X80/S=22	50	01010.140.080	M24X65	25	01010.240.065
M8X16	200	01010.080.016	M14X90/S=22	50	01010.140.090	M24X70	25	01010.240.070
M8X18	200	01010.080.018	M14X100/S=22	50	01010.140.100	M24X75	25	01010.240.075
M8X20	200	01010.080.020	M14X120/S=22	50	01010.140.120	M24X80	25	01010.240.080
M8X22	200	01010.080.022	M16X20	50	01010.160.020	M24X90	10	01010.240.090
M8X25	200	01010.080.025	M16X25	50	01010.160.025	M24X100	10	01010.240.100
M8X30	200	01010.080.030	M16X30	50	01010.160.030	M24X110	10	01010.240.110
M8X35	200	01010.080.035	M16X35	50	01010.160.035	M24X120	10	01010.240.120
M8X40	200	01010.080.040	M16X40	50	01010.160.040	M24X130	10	01010.240.130
M8X45	200	01010.080.045	M16X45	50	01010.160.045	M24X140	10	01010.240.140
M8X50	200	01010.080.050	M16X50	50	01010.160.050	M24X150	10	01010.240.150
M8X55	200	01010.080.055	M16X55	50	01010.160.055	M24X160	10	01010.240.160
M8X60	200	01010.080.060	M16X60	50	01010.160.060	M24X200	10	01010.240.200
M8X65	200	01010.080.065	M16X65	25	01010.160.065	M27X50	10	01010.270.050
M8X70	200	01010.080.070	M16X70	25	01010.160.070	M27X60	10	01010.270.060
M8X75	200	01010.080.075	M16X75	25	01010.160.075	M27X70	10	01010.270.070
M8X80	200	01010.080.080	M16X80	25	01010.160.080	M27X75	10	01010.270.075
M8X90	100	01010.080.090	M16X90	25	01010.160.090	M27X80	10	01010.270.080
M8X100	100	01010.080.100	M16X100	25	01010.160.100	M27X90	10	01010.270.090
M8X110	100	01010.080.110	M16X110	25	01010.160.110	M27X100	10	01010.270.100
M8X120	100	01010.080.120	M16X120	25	01010.160.120	M27X110	10	01010.270.110
M10X12/S=17	200	01010.100.012	M16X130	25	01010.160.130	M27X120	10	01010.270.120
M10X16/S=17	200	01010.100.016	M16X140	25	01010.160.140	M30X50	10	01010.300.050
M10X20/S=17	200	01010.100.020	M16X150	25	01010.160.150	M30X60	10	01010.300.060
M10X22/S=17	200	01010.100.022	M16X160	25	01010.160.160	M30X65	10	01010.300.065
M10X25/S=17	200	01010.100.025	M16X180	25	01010.160.180	M30X70	10	01010.300.070
M10X28/S=17	200	01010.100.028	M16X200	25	01010.160.200	M30X75	10	01010.300.075
M10X30/S=17	200	01010.100.030	M18X30	50	01010.180.030	M30X80	10	01010.300.080
M10X35/S=17	100	01010.100.035	M18X35	50	01010.180.035	M30X90	10	01010.300.090
M10X40/S=17	100	01010.100.040	M18X40	50	01010.180.040	M30X100	10	01010.300.100
M10X45/S=17	100	01010.100.045	M18X45	50	01010.180.045	M30X110	10	01010.300.110
M10X50/S=17	100	01010.100.050	M18X50	50	01010.180.050	M30X120	10	01010.300.120
M10X55/S=17	100	01010.100.055	M18X55	25	01010.180.055	M30X130	10	01010.300.130
M10X60/S=17	100	01010.100.060	M18X60	25	01010.180.060	M30X140	5	01010.300.140
M10X65/S=17	100	01010.100.065	M18X70	25	01010.180.070	M30X160	5	01010.300.160
M10X70/S=17	100	01010.100.070	M18X80	25	01010.180.080	M30X180	5	01010.300.180
M10X75/S=17	100	01010.100.075	M18X90	25	01010.180.090	M30X200	5	01010.300.200
M10X80/S=17	100	01010.100.080	M18X100	25	01010.180.100	M33X70	5	01010.330.070
M10X90/S=17	100	01010.100.090	M18X110	25	01010.180.110	M33X80	5	01010.330.080
M10X100/S=17	100	01010.100.100	M18X120	25	01010.180.120	M33X90	5	01010.330.090
M10X110/S=17	50	01010.100.110	M20X30	25	01010.200.030	M33X100	5	01010.330.100
M10X120/S=17	50	01010.100.120	M20X35	25	01010.200.035	M33X140	5	01010.330.140
M10X140/S=17	50	01010.100.140	M20X40	25	01010.200.040	M36X50	5	01010.360.050
M10X150/S=17	50	01010.100.150	M20X45	25	01010.200.045	M36X60	5	01010.360.060
M12X16/S=19	100	01010.120.016	M20X50	25	01010.200.050	M36X80	5	01010.360.080
M12X20/S=19	100	01010.120.020	M20X55	25	01010.200.055	M36X90	5	01010.360.090
M12X25/S=19	100	01010.120.025	M20X60	25	01010.200.060	M36X100	5	01010.360.100
M12X28/S=19	100	01010.120.028	M20X65	25	01010.200.065	M36X110	5	01010.360.110
M12X30/S=19	100	01010.120.030	M20X70	25	01010.200.070	M36X140	5	01010.360.140
M12X35/S=19	100	01010.120.035	M20X75	25	01010.200.075	M36X160	5	01010.360.160
M12X40/S=19	100	01010.120.040	M20X80	25	01010.200.080	M36X180	5	01010.360.180
M12X45/S=19	100	01010.120.045	M20X90	25	01010.200.090	M39X80	1	01010.390.080
M12X50/S=19	100	01010.120.050	M20X100	25	01010.200.100	M39X90	1	01010.390.090
M12X55/S=19	100	01010.120.055	M20X110	25	01010.200.110	M39X100	1	01010.390.100
M12X60/S=19	100	01010.120.060	M20X120	25	01010.200.120	M42X80	1	01010.420.080
M12X65/S=19	50	01010.120.065	M20X130	25	01010.200.130	M42X90	1	01010.420.090
M12X70/S=19	50	01010.120.070	M20X140	25	01010.200.140	M42X100	1	01010.420.100
M12X75/S=19	50	01010.120.075	M20X150	10	01010.200.150	M42X120	1	01010.420.120
M12X80/S=19	50	01010.120.080	M20X160	10	01010.200.160	M45X90	1	01010.450.090
M12X90/S=19	50	01010.120.090	M20X180	10	01010.200.180	M45X100	1	01010.450.100
M12X100/S=19	50	01010.120.100	M20X200	10	01010.200.200	M48X100	1	01010.480.100
M12X110/S=19	50	01010.120.110	M22X40/S=32	25	01010.220.040	M48X110	1	01010.480.110
M12X120/S=19	50	01010.120.120	M22X50/S=32	25	01010.220.050	M48X120	1	01010.480.120
M12X130/S=19	50	01010.120.130	M22X55/S=32	25	01010.220.055	M52X100	1	01010.520.100
M12X140/S=19	50	01010.120.140	M22X60/S=32	25	01010.220.060	M52X120	1	01010.520.120
M12X150/S=19	50	01010.120.150	M22X65/S=32	25	01010.220.065	M64X160	1	01010.640.160
M12X160/S=19	50	01010.120.160	M22X70/S=32	25	01010.220.070			
M14X20/S=22	100	01010.140.020	M22X80/S=32	25	01010.220.080			
M14X25/S=22	100	01010.140.025	M22X90/S=32	25	01010.220.090			
M14X30/S=22	100	01010.140.030	M22X100/S=32	10	01010.220.100			
M14X35/S=22	100	01010.140.035	M22X120/S=32	25	01010.220.120			
M14X40/S=22	100	01010.140.040	M22X150/S=32	10	01010.220.150			
M14X45/S=22	50	01010.140.045	M24X40	25	01010.240.040			
M14X50/S=22	50	01010.140.050						
M14X55/S=22	50	01010.140.055						

01210 Hexagon head screw

A05A

Thread Metric thread
Material Steel
Class 8.8
Surface treatment Zinc plated
Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M3X6	500	01210.030.006	M8X20	200	01210.080.020	M12X70/S=18	50	01210.120.071
M3X8	500	01210.030.008	M8X22	200	01210.080.022	M12X75/S=19	50	01210.120.075
M3X10	500	01210.030.010	M8X25	200	01210.080.025	M12X80/S=19	50	01210.120.080
M3X12	500	01210.030.012	M8X30	200	01210.080.030	M12X80/S=18	50	01210.120.081
M3X16	500	01210.030.016	M8X35	200	01210.080.035	M12X85/S=19	50	01210.120.085
M3X20	500	01210.030.020	M8X40	200	01210.080.040	M12X90/S=19	50	01210.120.090
M3X25	500	01210.030.025	M8X45	200	01210.080.045	M12X100/S=19	50	01210.120.100
M3X30	500	01210.030.030	M8X50	200	01210.080.050	M12X110/S=19	50	01210.120.110
			M8X55	200	01210.080.055	M12X120/S=19	50	01210.120.120
M4X6	500	01210.040.006	M8X60	200	01210.080.060	M12X130/S=19	50	01210.120.130
M4X8	500	01210.040.008	M8X65	200	01210.080.065	M12X140/S=19	50	01210.120.140
M4X10	500	01210.040.010	M8X70	200	01210.080.070	M12X150/S=19	50	01210.120.150
M4X12	500	01210.040.012	M8X75	200	01210.080.075			
M4X16	500	01210.040.016	M8X80	200	01210.080.080	M14X20/S=22	100	01210.140.020
M4X20	500	01210.040.020	M8X90	100	01210.080.090	M14X20/S=21	100	01210.140.021
M4X25	500	01210.040.025	M8X100	100	01210.080.100	M14X25/S=22	100	01210.140.025
M4X30	500	01210.040.030	M8X110	100	01210.080.110	M14X25/S=21	100	01210.140.026
M4X35	500	01210.040.035	M8X120	100	01210.080.120	M14X30/S=22	100	01210.140.030
M4X40	500	01210.040.040	M8X130	10	01210.080.130	M14X35/S=22	100	01210.140.035
M4X50	500	01210.040.050				M14X35/S=21	100	01210.140.036
M4X60	200	01210.040.060	M8X150	10	01210.080.150	M14X40/S=22	100	01210.140.040
			M10X12/S=17	200	01210.100.012	M14X40/S=21	100	01210.140.041
M5X8	200	01210.050.008	M10X14/S=17	200	01210.100.014	M14X45/S=22	50	01210.140.045
M5X10	200	01210.050.010	M10X16/S=17	200	01210.100.016	M14X45/S=21	50	01210.140.046
M5X12	200	01210.050.012	M10X16/S=16	200	01210.100.017	M14X50/S=22	50	01210.140.050
M5X16	200	01210.050.016	M10X20/S=17	200	01210.100.020	M14X50/S=21	50	01210.140.051
M5X18	200	01210.050.018	M10X20/S=16	200	01210.100.021	M14X55/S=22	50	01210.140.055
M5X20	200	01210.050.020	M10X22/S=17	200	01210.100.022	M14X60/S=22	50	01210.140.060
M5X22	200	01210.050.022	M10X25/S=17	200	01210.100.025	M14X60/S=21	50	01210.140.061
M5X25	200	01210.050.025	M10X25/S=16	200	01210.100.026	M14X65/S=22	50	01210.140.065
M5X30	200	01210.050.030	M10X30/S=17	200	01210.100.030	M14X70/S=22	50	01210.140.070
M5X35	200	01210.050.035	M10X30/S=16	200	01210.100.031	M14X75/S=22	50	01210.140.075
M5X40	200	01210.050.040	M10X35/S=17	100	01210.100.035	M14X80/S=22	50	01210.140.080
M5X45	200	01210.050.045	M10X35/S=16	100	01210.100.036	M14X90/S=22	50	01210.140.090
M5X50	200	01210.050.050	M10X40/S=17	100	01210.100.040	M14X100/S=22	50	01210.140.100
M5X55	200	01210.050.055	M10X40/S=16	100	01210.100.041	M14X120/S=22	50	01210.140.120
M5X60	200	01210.050.060	M10X45/S=17	100	01210.100.045			
			M10X45/S=16	100	01210.100.046	M16X20	50	01210.160.020
M6X8	200	01210.060.008	M10X50/S=17	100	01210.100.050	M16X25	50	01210.160.025
M6X10	200	01210.060.010	M10X50/S=16	100	01210.100.051	M16X30	50	01210.160.030
M6X12	200	01210.060.012	M10X55/S=17	100	01210.100.055	M16X35	50	01210.160.035
M6X14	200	01210.060.014	M10X60/S=17	100	01210.100.060	M16X40	50	01210.160.040
M6X16	200	01210.060.016	M10X60/S=16	100	01210.100.061	M16X45	50	01210.160.045
M6X18	200	01210.060.018	M10X65/S=17	100	01210.100.065	M16X50	50	01210.160.050
M6X20	200	01210.060.020	M10X65/S=16	100	01210.100.066	M16X55	50	01210.160.055
M6X22	200	01210.060.022	M10X70/S=17	100	01210.100.070	M16X60	50	01210.160.060
M6X25	200	01210.060.025	M10X75/S=17	100	01210.100.075	M16X65	25	01210.160.065
M6X30	200	01210.060.030	M10X80/S=17	100	01210.100.080	M16X70	25	01210.160.070
M6X35	200	01210.060.035	M10X90/S=17	100	01210.100.090	M16X75	25	01210.160.075
M6X40	200	01210.060.040	M10X100/S=17	100	01210.100.100	M16X80	25	01210.160.080
M6X45	200	01210.060.045	M10X110/S=17	50	01210.100.110	M16X90	25	01210.160.090
M6X50	200	01210.060.050	M10X120/S=17	50	01210.100.120	M16X100	25	01210.160.100
M6X55	200	01210.060.055	M10X130/S=17	50	01210.100.130	M16X110	25	01210.160.110
M6X60	200	01210.060.060	M10X140/S=17	50	01210.100.140	M16X120	25	01210.160.120
M6X65	200	01210.060.065	M10X150/S=17	50	01210.100.150	M16X130	25	01210.160.130
M6X70	200	01210.060.070	M10X170/S=17	50	01210.100.170	M16X140	25	01210.160.140
M6X80	200	01210.060.080				M16X150	25	01210.160.150
M6X90	100	01210.060.090	M12X12/S=19	100	01210.120.012	M16X160	25	01210.160.160
M6X100	100	01210.060.100	M12X16/S=19	100	01210.120.016	M16X180	25	01210.160.180
			M12X20/S=19	100	01210.120.020	M16X200	25	01210.160.200
M7X10	200	01210.070.010	M12X20/S=18	100	01210.120.021			
M7X12	200	01210.070.012	M12X22/S=19	100	01210.120.022	M18X30	50	01210.180.030
M7X16	200	01210.070.016	M12X25/S=19	100	01210.120.025	M18X35	50	01210.180.035
M7X20	200	01210.070.020	M12X25/S=18	100	01210.120.026	M18X40	50	01210.180.040
M7X25	200	01210.070.025	M12X30/S=19	100	01210.120.030	M18X45	50	01210.180.045
M7X30	200	01210.070.030	M12X30/S=18	100	01210.120.031	M18X50	50	01210.180.050
M7X35	200	01210.070.035	M12X35/S=19	100	01210.120.035	M18X55	25	01210.180.055
M7X40	200	01210.070.040	M12X35/S=18	100	01210.120.036	M18X60	25	01210.180.060
M7X45	200	01210.070.045	M12X40/S=19	100	01210.120.040	M18X70	25	01210.180.070
M7X50	200	01210.070.050	M12X40/S=18	100	01210.120.041	M18X80	25	01210.180.080
M7X60	200	01210.070.060	M12X45/S=19	100	01210.120.045	M18X90	25	01210.180.090
M7X70	200	01210.070.070	M12X45/S=18	100	01210.120.046	M18X100	25	01210.180.100
			M12X50/S=19	100	01210.120.050			
M8X10	200	01210.080.010	M12X50/S=18	100	01210.120.051	M20X30	25	01210.200.030
M8X12	200	01210.080.012	M12X55/S=19	100	01210.120.055	M20X35	25	01210.200.035
M8X14	200	01210.080.014	M12X60/S=19	100	01210.120.060	M20X40	25	01210.200.040
M8X16	200	01210.080.016	M12X60/S=18	100	01210.120.061	M20X45	25	01210.200.045
M8X18	200	01210.080.018	M12X65/S=19	50	01210.120.065	M20X50	25	01210.200.050
			M12X70/S=19	50	01210.120.070			

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01210 Hexagon head screw

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M20X55	25	01210.200.055	M24X45	25	01210.240.045	M30X60	10	01210.300.060
M20X60	25	01210.200.060	M24X50	25	01210.240.050	M30X70	10	01210.300.070
M20X65	25	01210.200.065	M24X55	25	01210.240.055	M30X80	10	01210.300.080
M20X70	25	01210.200.070	M24X60	25	01210.240.060	M30X90	10	01210.300.090
M20X75	25	01210.200.075	M24X65	25	01210.240.065	M30X100	10	01210.300.100
M20X80	25	01210.200.080	M24X70	25	01210.240.070	M30X120	10	01210.300.120
M20X90	25	01210.200.090	M24X80	25	01210.240.080	M30X140	10	01210.300.140
M20X100	25	01210.200.100	M24X90	10	01210.240.090	M30X160	10	01210.300.160
M20X110	25	01210.200.110	M24X100	10	01210.240.100			
M20X120	25	01210.200.120	M24X110	10	01210.240.110	M33X60	5	01210.330.060
M20X130	25	01210.200.130	M24X120	10	01210.240.120	M33X70	5	01210.330.070
M20X140	25	01210.200.140	M24X140	10	01210.240.140	M33X80	5	01210.330.080
M20X150	10	01210.200.150	M24X160	10	01210.240.160	M33X90	5	01210.330.090
M20X160	10	01210.200.160	M24X180	10	01210.240.180	M33X100	5	01210.330.100
M20X180	10	01210.200.180	M24X200	10	01210.240.200			
M20X200	10	01210.200.200						
			M27X50	10	01210.270.050	M36X50	5	01210.360.050
M22X50/S=32	25	01210.220.050	M27X60	10	01210.270.060	M36X80	5	01210.360.080
M22X55/S=32	25	01210.220.055	M27X70	10	01210.270.070	M36X90	5	01210.360.090
M22X60/S=32	25	01210.220.060	M27X80	10	01210.270.080	M36X100	5	01210.360.100
M22X65/S=32	25	01210.220.065	M27X90	10	01210.270.090	M36X110	5	01210.360.110
M22X70/S=32	25	01210.220.070	M27X100	10	01210.270.100	M36X120	5	01210.360.120
M22X80/S=32	25	01210.220.080	M27X120	10	01210.270.120	M36X140	5	01210.360.140
M22X90/S=32	25	01210.220.090	M27X140	10	01210.270.140	M36X160	5	01210.360.160
M22X100/S=32	10	01210.220.100	M27X160	10	01210.270.160			
M24X40	25	01210.240.040	M30X50	10	01210.300.050			

01230 Hexagon head screw **A06A**

Thread	Metric thread
Material	Steel
Class	8.8
Surface treatment	Zinc plated yellow passivated
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M3X8	500	01230.030.008	M6X100	200	01230.060.100	M10X110/S=17	50	01230.100.110
M3X10	500	01230.030.010				M10X120/S=17	50	01230.100.120
M3X12	500	01230.030.012	M7X10	200	01230.070.010	M10X130/S=17	50	01230.100.130
M3X16	500	01230.030.016	M7X12	200	01230.070.012	M10X140/S=17	50	01230.100.140
M3X20	500	01230.030.020	M7X16	200	01230.070.016	M10X150/S=17	50	01230.100.150
M3X25	500	01230.030.025	M7X20	200	01230.070.020			
M3X30	500	01230.030.030	M7X25	200	01230.070.025	M12X16/S=19	100	01230.120.016
			M7X30	200	01230.070.030	M12X20/S=19	100	01230.120.020
M4X6	500	01230.040.006	M7X35	200	01230.070.035	M12X25/S=19	100	01230.120.025
M4X8	500	01230.040.008	M7X40	200	01230.070.040	M12X30/S=19	100	01230.120.030
M4X10	500	01230.040.010	M7X45	200	01230.070.045	M12X35/S=19	100	01230.120.035
M4X12	500	01230.040.012	M7X50	200	01230.070.050	M12X40/S=19	100	01230.120.040
M4X16	500	01230.040.016				M12X45/S=19	100	01230.120.045
M4X20	500	01230.040.020	M8X10	200	01230.080.010	M12X50/S=19	100	01230.120.050
M4X25	500	01230.040.025	M8X12	200	01230.080.012	M12X55/S=19	100	01230.120.055
M4X30	500	01230.040.030	M8X16	200	01230.080.016	M12X60/S=19	100	01230.120.060
M4X35	200	01230.040.035	M8X20	200	01230.080.020	M12X65/S=19	100	01230.120.065
M4X40	200	01230.040.040	M8X25	200	01230.080.025	M12X70/S=19	50	01230.120.070
M4X50	200	01230.040.050	M8X30	200	01230.080.030	M12X75/S=19	50	01230.120.075
M4X60	200	01230.040.060	M8X35	200	01230.080.035	M12X80/S=19	50	01230.120.080
			M8X40	200	01230.080.040	M12X90/S=19	50	01230.120.090
M5X8	500	01230.050.008	M8X45	200	01230.080.045	M12X100/S=19	50	01230.120.100
M5X10	500	01230.050.010	M8X50	200	01230.080.050	M12X110/S=19	50	01230.120.110
M5X12	500	01230.050.012	M8X55	200	01230.080.055	M12X120/S=19	50	01230.120.120
M5X16	500	01230.050.016	M8X60	200	01230.080.060	M12X130/S=19	50	01230.120.130
M5X20	500	01230.050.020	M8X70	200	01230.080.070	M12X140/S=19	50	01230.120.140
M5X22	500	01230.050.022	M8X75	200	01230.080.075	M12X150/S=19	50	01230.120.150
M5X25	500	01230.050.025	M8X80	200	01230.080.080			
M5X30	500	01230.050.030	M8X90	100	01230.080.090	M14X20/S=22	100	01230.140.020
M5X35	200	01230.050.035	M8X100	100	01230.080.100	M14X25/S=22	100	01230.140.025
M5X40	200	01230.050.040	M8X110	100	01230.080.110	M14X30/S=22	100	01230.140.030
M5X45	200	01230.050.045	M8X120	100	01230.080.120	M14X35/S=22	100	01230.140.035
M5X50	200	01230.050.050				M14X40/S=22	100	01230.140.040
M5X60	200	01230.050.060	M10X12/S=17	200	01230.100.012	M14X45/S=22	50	01230.140.045
			M10X16/S=17	200	01230.100.016	M14X50/S=22	50	01230.140.050
M6X8	500	01230.060.008	M10X20/S=17	200	01230.100.020	M14X60/S=22	50	01230.140.060
M6X10	500	01230.060.010	M10X25/S=17	200	01230.100.025	M14X70/S=22	50	01230.140.070
M6X12	500	01230.060.012	M10X30/S=17	200	01230.100.030	M14X75/S=22	50	01230.140.075
M6X14	500	01230.060.014	M10X35/S=17	100	01230.100.035	M14X80/S=22	50	01230.140.080
M6X16	500	01230.060.016	M10X40/S=17	100	01230.100.040	M14X90/S=22	50	01230.140.090
M6X20	500	01230.060.020	M10X45/S=17	100	01230.100.045	M14X100/S=22	50	01230.140.100
M6X25	500	01230.060.025	M10X50/S=17	100	01230.100.050			
M6X30	500	01230.060.030	M10X55/S=17	100	01230.100.055	M16X20	50	01230.160.020
M6X35	200	01230.060.035	M10X60/S=17	100	01230.100.060	M16X25	50	01230.160.025
M6X40	200	01230.060.040	M10X65/S=17	100	01230.100.065	M16X30	50	01230.160.030
M6X45	200	01230.060.045	M10X70/S=17	100	01230.100.070	M16X35	50	01230.160.035
M6X50	200	01230.060.050	M10X75/S=17	100	01230.100.075	M16X40	50	01230.160.040
M6X60	200	01230.060.060	M10X80/S=17	100	01230.100.080	M16X45	50	01230.160.045
M6X70	200	01230.060.070	M10X90/S=17	100	01230.100.090	M16X50	50	01230.160.050
M6X80	200	01230.060.080	M10X100/S=17	100	01230.100.100	M16X55	50	01230.160.055

01230 Hexagon head screw

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M16X60	50	01230.160.060	M20X55	25	01230.200.055	M24X130	10	01230.240.130
M16X65	50	01230.160.065	M20X60	25	01230.200.060	M24X140	10	01230.240.140
M16X70	25	01230.160.070	M20X65	25	01230.200.065	M24X150	10	01230.240.150
M16X80	25	01230.160.080	M20X70	25	01230.200.070	M24X160	10	01230.240.160
M16X90	25	01230.160.090	M20X80	25	01230.200.080	M24X180	10	01230.240.180
M16X100	25	01230.160.100	M20X90	25	01230.200.090	M24X200	10	01230.240.200
M16X110	25	01230.160.110	M20X100	25	01230.200.100			
M16X120	25	01230.160.120	M20X110	25	01230.200.110	M27X50	10	01230.270.050
M16X130	25	01230.160.130	M20X120	25	01230.200.120	M27X60	10	01230.270.060
M16X140	25	01230.160.140	M20X140	25	01230.200.140	M27X70	10	01230.270.070
M16X150	25	01230.160.150	M20X150	25	01230.200.150	M27X80	10	01230.270.080
M16X160	25	01230.160.160	M20X160	10	01230.200.160	M27X90	10	01230.270.090
M16X180	25	01230.160.180	M20X180	10	01230.200.180	M27X100	10	01230.270.100
M16X200	25	01230.160.200	M20X200	10	01230.200.200	M27X120	10	01230.270.120
M18X40	50	01230.180.040	M24X40	25	01230.240.040	M30X60	10	01230.300.060
M18X45	50	01230.180.045	M24X45	25	01230.240.045	M33X80	5	01230.330.080
M18X50	50	01230.180.050	M24X50	25	01230.240.050	M33X90	5	01230.330.090
			M24X55	25	01230.240.055	M33X100	5	01230.330.100
M20X30	25	01230.200.030	M24X60	25	01230.240.060			
M20X35	25	01230.200.035	M24X70	25	01230.240.070	M36X80	5	01230.360.080
M20X40	25	01230.200.040	M24X80	25	01230.240.080	M36X90	5	01230.360.090
M20X45	25	01230.200.045	M24X90	25	01230.240.090	M36X100	5	01230.360.100
M20X50	25	01230.200.050	M24X100	10	01230.240.100			
			M24X120	10	01230.240.120			

01410 Hexagon head screw iso-metric fitting thread
A07A

Thread	Metric thread
Material	Steel
Class	8.8
Surface treatment	Hot dip galvanized
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X16	100	01410.060.016	M12X60/S=19	100	01410.120.060	M22X50/S=34	25	01410.220.051
M6X20	100	01410.060.020	M12X70/S=19	100	01410.120.070	M22X60/S=34	25	01410.220.061
M6X25	100	01410.060.025	M12X80/S=19	50	01410.120.080	M22X65/S=34	25	01410.220.066
M6X30	500	01410.060.030	M12X90/S=19	50	01410.120.090			
M6X40	200	01410.060.040	M12X100/S=19	50	01410.120.100	M24X40	25	01410.240.040
			M12X120/S=19	50	01410.120.120	M24X50	25	01410.240.050
M8X12	100	01410.080.012				M24X55	25	01410.240.055
M8X16	100	01410.080.016	M16X25	50	01410.160.025	M24X60	25	01410.240.060
M8X20	100	01410.080.020	M16X30	50	01410.160.030	M24X65	25	01410.240.065
M8X25	100	01410.080.025	M16X35	50	01410.160.035	M24X70	25	01410.240.070
M8X30	100	01410.080.030	M16X40	50	01410.160.040	M24X80	25	01410.240.080
M8X35	100	01410.080.035	M16X45	50	01410.160.045	M24X90	10	01410.240.090
M8X40	100	01410.080.040	M16X50	50	01410.160.050			
M8X45	100	01410.080.045	M16X55	50	01410.160.055	M27X50	10	01410.270.050
M8X50	100	01410.080.050	M16X60	50	01410.160.060	M27X60	10	01410.270.060
M8X60	100	01410.080.060	M16X70	50	01410.160.070	M27X70	10	01410.270.070
			M16X80	50	01410.160.080	M27X80	10	01410.270.080
M10X16/S=17	100	01410.100.016	M16X90	25	01410.160.090	M27X90	10	01410.270.090
M10X20/S=17	100	01410.100.020	M16X100	25	01410.160.100			
M10X25/S=17	100	01410.100.025	M16X120	25	01410.160.120	M30X60	10	01410.300.060
M10X30/S=17	100	01410.100.030				M30X70	10	01410.300.070
M10X35/S=17	100	01410.100.035	M18X40	25	01410.180.040	M30X80	10	01410.300.080
M10X40/S=17	100	01410.100.040	M18X45	25	01410.180.045	M30X90	10	01410.300.090
M10X50/S=17	100	01410.100.050	M18X50	25	01410.180.050	M30X100	10	01410.300.100
M10X60/S=17	100	01410.100.060	M18X55	25	01410.180.055	M30X120	10	01410.300.120
M10X70/S=17	100	01410.100.070						
M10X80/S=17	100	01410.100.080	M20X40	25	01410.200.040			
M10X100/S=17	100	01410.100.100	M20X45	25	01410.200.045	M33X80	5	01410.330.080
			M20X50	25	01410.200.050	M33X90	5	01410.330.090
M12X20/S=19	100	01410.120.020	M20X55	25	01410.200.055	M33X100	5	01410.330.100
M12X25/S=19	100	01410.120.025	M20X60	25	01410.200.060			
M12X30/S=19	100	01410.120.030	M20X70	25	01410.200.070	M36X80	5	01410.360.080
M12X35/S=19	100	01410.120.035	M20X80	25	01410.200.080	M36X90	5	01410.360.090
M12X40/S=19	100	01410.120.040	M20X90	25	01410.200.090	M36X100	5	01410.360.100
M12X45/S=19	100	01410.120.045	M20X100	25	01410.200.100			
M12X50/S=19	100	01410.120.050	M20X120	25	01410.200.120			

- For hot dip galvanized bolts with ISO-METRIC FITTING thread, the thread is rolled undersize so that it will meet the go-gauge with tolerance class h AFTER galvanizing.
- The advantage of this way of manufacturing is that the bolts can be used in any threaded hole without any problem.
- The corresponding ISO-METRIC FITTING nuts have been threaded according to the tolerance class 6H AFTER galvanizing so that they perfectly fit onto the bolts.

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01430 Hexagon head screw oversized thread		A07A
Thread	Metric thread	
Material	Steel	
Class	8.8	
Surface treatment	Hot dip galvanized	
Packaging	Standard	



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M10X20/S=17	100	01430.100.020	M14X60/S=22	50	01430.140.060	M20X40	25	01430.200.040
M10X25/S=17	100	01430.100.025				M20X45	25	01430.200.045
M10X30/S=17	100	01430.100.030	M16X30	50	01430.160.030	M20X50	25	01430.200.050
M10X35/S=17	100	01430.100.035	M16X35	50	01430.160.035	M20X55	25	01430.200.055
			M16X40	50	01430.160.040	M20X60	25	01430.200.060
M12X20/S=19	100	01430.120.020	M16X45	50	01430.160.045			
M12X25/S=19	100	01430.120.025	M16X50	50	01430.160.050	M22X50/S=32	25	01430.220.050
M12X30/S=19	100	01430.120.030				M22X60/S=32	25	01430.220.060
M12X35/S=19	100	01430.120.035	M18X30	50	01430.180.030	M22X70/S=32	25	01430.220.070
M12X40/S=19	100	01430.120.040	M18X40	50	01430.180.040	M22X80/S=32	25	01430.220.080
M12X50/S=19	100	01430.120.050	M18X50	25	01430.180.050			
			M18X60	25	01430.180.060	M24X50	25	01430.240.050
M14X30/S=22	100	01430.140.030	M18X70	25	01430.180.070	M24X60	25	01430.240.060
M14X35/S=22	100	01430.140.035	M18X80	25	01430.180.080	M24X65	25	01430.240.065
M14X40/S=22	100	01430.140.040	M18X100	25	01430.180.100	M24X70	25	01430.240.070
M14X50/S=22	50	01430.140.050						

- For hot dip galvanized bolts with OVERSIZED thread the zinc layer is applied ON the normal thread, so AFTER galvanizing these bolts are no longer ISO-metric mating, but thicker: so called OVERSIZED.
- They do not mate the usual fit of screwthread and cannot be used in e.g. normal threaded holes.
- The corresponding OVERSIZED nuts have been tapped about 0,3 mm larger AFTER galvanizing running perfectly onto these bolts.

04110 Hexagon head screw		C01A
Thread	Metric thread	
Material	Steel	
Class	10.9	
Packaging	Standard	



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X10	200	04110.060.010	M12X25/S=19	100	04110.120.025	M18X30	50	04110.180.030
M6X12	200	04110.060.012	M12X30/S=19	100	04110.120.030	M18X35	50	04110.180.035
M6X16	200	04110.060.016	M12X35/S=19	100	04110.120.035	M18X40	50	04110.180.040
M6X20	200	04110.060.020	M12X40/S=19	100	04110.120.040	M18X45	50	04110.180.045
M6X25	200	04110.060.025	M12X45/S=19	100	04110.120.045	M18X50	50	04110.180.050
M6X30	200	04110.060.030	M12X50/S=19	100	04110.120.050			
M6X35	200	04110.060.035	M12X55/S=19	100	04110.120.055	M20X30	25	04110.200.030
M6X40	200	04110.060.040	M12X60/S=19	100	04110.120.060	M20X35	25	04110.200.035
M6X45	200	04110.060.045	M12X70/S=19	100	04110.120.070	M20X40	25	04110.200.040
M6X50	200	04110.060.050	M12X75/S=19	100	04110.120.075	M20X45	25	04110.200.045
M6X60	200	04110.060.060	M12X80/S=19	100	04110.120.080	M20X50	25	04110.200.050
M6X70	200	04110.060.070	M12X90/S=19	50	04110.120.090	M20X55	25	04110.200.055
			M12X100/S=19	50	04110.120.100	M20X60	25	04110.200.060
			M12X120/S=19	50	04110.120.120	M20X70	25	04110.200.070
M8X10	200	04110.080.010				M20X80	25	04110.200.080
M8X12	200	04110.080.012	M14X30/S=22	100	04110.140.030	M20X90	25	04110.200.090
M8X16	200	04110.080.016	M14X35/S=22	100	04110.140.035	M20X100	25	04110.200.100
M8X20	200	04110.080.020	M14X40/S=22	100	04110.140.040	M20X120	25	04110.200.120
M8X25	200	04110.080.025	M14X45/S=22	50	04110.140.045			
M8X30	200	04110.080.030	M14X50/S=22	50	04110.140.050	M22X50/S=32	25	04110.220.050
M8X35	200	04110.080.035	M14X55/S=22	50	04110.140.055	M22X60/S=32	25	04110.220.060
M8X40	200	04110.080.040	M14X60/S=22	50	04110.140.060	M22X70/S=32	25	04110.220.070
M8X50	200	04110.080.050	M14X70/S=22	50	04110.140.070	M22X80/S=32	25	04110.220.080
M8X60	200	04110.080.060	M14X80/S=22	50	04110.140.080			
M8X70	200	04110.080.070	M14X90/S=22	50	04110.140.090	M24X40	25	04110.240.040
M8X80	200	04110.080.080	M14X100/S=22	50	04110.140.100	M24X45	25	04110.240.045
						M24X50	25	04110.240.050
M10X16/S=17	200	04110.100.016	M16X25	50	04110.160.025	M24X55	25	04110.240.055
M10X20/S=17	200	04110.100.020	M16X30	50	04110.160.030	M24X60	25	04110.240.060
M10X25/S=17	200	04110.100.025	M16X35	50	04110.160.035	M24X65	25	04110.240.065
M10X30/S=17	200	04110.100.030	M16X40	50	04110.160.040	M24X70	25	04110.240.070
M10X35/S=17	100	04110.100.035	M16X45	50	04110.160.045	M24X80	25	04110.240.080
M10X40/S=17	100	04110.100.040	M16X50	50	04110.160.050	M24X90	10	04110.240.090
M10X45/S=17	100	04110.100.045	M16X55	50	04110.160.055	M24X100	10	04110.240.100
M10X50/S=17	100	04110.100.050	M16X60	25	04110.160.060	M24X120	10	04110.240.120
M10X55/S=17	100	04110.100.055	M16X65	25	04110.160.065			
M10X60/S=17	100	04110.100.060	M16X70	25	04110.160.070	M27X60	10	04110.270.060
M10X70/S=17	100	04110.100.070	M16X80	25	04110.160.080	M27X70	10	04110.270.070
M10X80/S=17	100	04110.100.080	M16X90	25	04110.160.090	M27X80	10	04110.270.080
M10X90/S=17	100	04110.100.090	M16X100	25	04110.160.100			
M10X100/S=17	100	04110.100.100	M16X120	25	04110.160.120	M30X60	10	04110.300.060
			M16X140	100	04110.160.140	M30X70	10	04110.300.070
M12X16/S=19	100	04110.120.016				M30X80	10	04110.300.080
M12X20/S=19	100	04110.120.020						

04110 Hexagon head screw ←

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M30X90	10	04110.300.090	M36X70	5	04110.360.070	M36X110	5	04110.360.110
M30X100	10	04110.300.100	M36X80	5	04110.360.080			
M30X110	10	04110.300.110	M36X90	5	04110.360.090			
			M36X100	5	04110.360.100			

• Warning: electro-galvanizing of these products may cause hydrogen embrittlement.

04116 Hexagon head screw C02C

Thread	Metric thread
Material	Steel
Class	10.9
Surface treatment	Zinc flake Cr6+ free - ISO 10683 flZnnc
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X10	200	04116.060.010	M10X60/S=17	100	04116.100.060	M16X40	50	04116.160.040
M6X12	200	04116.060.012				M16X45	50	04116.160.045
M6X16	200	04116.060.016	M12X20/S=19	100	04116.120.020	M16X50	50	04116.160.050
M6X20	200	04116.060.020	M12X25/S=19	100	04116.120.025	M16X60	25	04116.160.060
M6X25	200	04116.060.025	M12X30/S=19	100	04116.120.030			
M6X30	200	04116.060.030	M12X35/S=19	100	04116.120.035	M20X40	25	04116.200.040
			M12X40/S=19	100	04116.120.040	M20X45	25	04116.200.045
M8X16	200	04116.080.016	M12X45/S=19	100	04116.120.045	M20X50	25	04116.200.050
M8X20	200	04116.080.020	M12X50/S=19	100	04116.120.050	M20X60	25	04116.200.060
M8X25	200	04116.080.025	M12X60/S=19	100	04116.120.060	M20X70	25	04116.200.070
M8X30	200	04116.080.030						
			M14X40/S=22	100	04116.140.040	M24X50	25	04116.240.050
M10X16/S=17	200	04116.100.016	M14X45/S=22	50	04116.140.045	M24X60	25	04116.240.060
M10X20/S=17	200	04116.100.020	M14X50/S=22	50	04116.140.050	M24X70	25	04116.240.070
M10X25/S=17	200	04116.100.025						
M10X30/S=17	200	04116.100.030	M16X30	50	04116.160.030			
M10X35/S=17	100	04116.100.035	M16X35	50	04116.160.035			

• A ISO 10683 Zinc Flake surface coating eliminates the possibilities of damage which can arise due to hydrogen embrittlement.

01236 Hexagon head screw A96A

Thread	Metric thread
Material	Steel
Class	8.8
Surface treatment	Zinc flake Cr6+ free - ISO 10683 flZnnc
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M4X10	500	01236.040.010	M8X40	200	01236.080.040	M14X65/S=22	50	01236.140.065
M4X12	500	01236.040.012	M8X45	200	01236.080.045	M14X70/S=22	50	01236.140.070
M4X16	500	01236.040.016	M8X50	200	01236.080.050			
M4X20	500	01236.040.020	M8X60	200	01236.080.060	M16X20	50	01236.160.020
M4X25	500	01236.040.025	M8X70	200	01236.080.070	M16X25	50	01236.160.025
M4X30	500	01236.040.030	M8X80	200	01236.080.080	M16X30	50	01236.160.030
						M16X35	50	01236.160.035
M5X10	500	01236.050.010	M10X16/S=17	200	01236.100.016	M16X40	50	01236.160.040
M5X12	500	01236.050.012	M10X20/S=17	200	01236.100.020	M16X45	50	01236.160.045
M5X16	500	01236.050.016	M10X25/S=17	200	01236.100.025	M16X50	50	01236.160.050
M5X20	500	01236.050.020	M10X30/S=17	200	01236.100.030	M16X60	50	01236.160.060
M5X25	500	01236.050.025	M10X35/S=17	100	01236.100.035	M16X65	25	01236.160.065
M5X30	500	01236.050.030	M10X40/S=17	100	01236.100.040	M16X70	25	01236.160.070
M5X35	200	01236.050.035	M10X45/S=17	100	01236.100.045	M16X80	25	01236.160.080
M5X40	200	01236.050.040	M10X50/S=17	100	01236.100.050	M16X100	25	01236.160.100
M5X45	200	01236.050.045	M10X55/S=17	100	01236.100.055	M16X110	25	01236.160.110
M5X50	200	01236.050.050	M10X60/S=17	100	01236.100.060			
			M10X70/S=17	100	01236.100.070	M18X45	25	01236.180.045
M6X10	500	01236.060.010	M10X80/S=17	100	01236.100.080	M18X50	50	01236.180.050
M6X12	500	01236.060.012	M10X90/S=17	100	01236.100.090	M18X55	25	01236.180.055
M6X16	500	01236.060.016				M18X60	25	01236.180.060
M6X20	500	01236.060.020	M12X20/S=19	100	01236.120.020	M18X65	25	01236.180.065
M6X25	500	01236.060.025	M12X25/S=19	100	01236.120.025			
M6X30	500	01236.060.030	M12X30/S=19	100	01236.120.030	M20X40	25	01236.200.040
M6X35	200	01236.060.035	M12X35/S=19	100	01236.120.035	M20X45	25	01236.200.045
M6X40	200	01236.060.040	M12X40/S=19	100	01236.120.040	M20X50	25	01236.200.050
M6X50	200	01236.060.050	M12X45/S=19	100	01236.120.045	M20X55	25	01236.200.055
M6X60	200	01236.060.060	M12X50/S=19	100	01236.120.050	M20X60	25	01236.200.060
M6X70	200	01236.060.070	M12X60/S=19	100	01236.120.060	M20X65	25	01236.200.065
			M12X70/S=19	50	01236.120.070	M20X70	25	01236.200.070
M8X10	200	01236.080.010	M12X80/S=19	50	01236.120.080	M20X80	25	01236.200.080
M8X12	200	01236.080.012				M20X90	25	01236.200.090
M8X16	200	01236.080.016	M14X30/S=22	100	01236.140.030			
M8X20	200	01236.080.020	M14X35/S=22	100	01236.140.035	M24X50	25	01236.240.050
M8X25	200	01236.080.025	M14X40/S=22	100	01236.140.040	M24X60	25	01236.240.060
M8X30	200	01236.080.030	M14X45/S=22	50	01236.140.045	M24X70	25	01236.240.070
M8X35	200	01236.080.035	M14X60/S=22	50	01236.140.060			

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01236 Hexagon head screw								
d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M24X80		25	01236.240.080					

04118 Hexagon head screw								C01A
Thread	Metric thread							
Material	Steel							
Class	12.9							
Packaging	Standard							

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M8X20		200	04118.080.020		M16X30		50	04118.160.030
M8X25		200	04118.080.025		M16X35		50	04118.160.035
M8X30		200	04118.080.030		M16X40		50	04118.160.040
					M16X45		50	04118.160.045
M10X20/S=17		200	04118.100.020		M16X50		50	04118.160.050
M10X25/S=17		200	04118.100.025		M16X60		50	04118.160.060
M10X30/S=17		200	04118.100.030		M16X70		25	04118.160.070
M10X35/S=17		100	04118.100.035		M16X80		25	04118.160.080
M10X40/S=17		100	04118.100.040					
					M20X40		25	04118.200.040
M12X25/S=19		100	04118.120.025		M20X50		25	04118.200.050
M12X30/S=19		100	04118.120.030		M20X60		25	04118.200.060
M12X35/S=19		100	04118.120.035		M20X70		25	04118.200.070
M12X40/S=19		100	04118.120.040		M20X80		25	04118.200.080
M12X45/S=19		100	04118.120.045		M20X90		25	04118.200.090
					M20X100		25	04118.200.100
					M24X50		25	04118.240.050
					M24X60		25	04118.240.060
					M24X70		25	04118.240.070
					M24X80		25	04118.240.080
					M24X90		10	04118.240.090
					M24X100		10	04118.240.100
					M30X60		10	04118.300.060
					M30X70		10	04118.300.070
					M30X80		10	04118.300.080
					M30X90		10	04118.300.090
					M30X100		10	04118.300.100

- Warning: electro-galvanizing of these products may cause hydrogen embrittlement.

08760 Hexagon head screw for pressure vessels etc.								E11A
Thread	Metric thread							
Material	Steel							
Class	5.6							
Packaging	Standard							

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M10X25/S=16		200	08760.100.026		M16X45		50	08760.160.045
M12X25/S=18		100	08760.120.026		M16X50		50	08760.160.050
M12X30/S=18		100	08760.120.031		M16X55		50	08760.160.055
M12X35/S=18		100	08760.120.036		M16X60		50	08760.160.060
M12X40/S=18		100	08760.120.041					
M12X45/S=18		100	08760.120.046		M20X50		25	08760.200.050
					M20X60		25	08760.200.060
M16X35		50	08760.160.035		M20X65		25	08760.200.065
					M20X70		25	08760.200.070
					M24X55		25	08760.240.055
					M24X70		25	08760.240.070
					M24X80		25	08760.240.080
					M27X65		10	08760.270.065

- Special features hexagon head screws for pressure vessels etc.:
- Are intended for use in pressure vessels, steam apparatus, equipment and flanged joints at temperatures from -10°C up to +300°C, overpressures max. 40 bar and sizes up to and including M30.
- Meets the requirements of AD-Merkblatt W7, TRD 106 of the TÜV (Technischer Überwachungsverein) and DIN 267-13.
- According to TÜV-Merkblatt Werkstoffe 1253, the manufacturer has been certified to deliver these screws without a 3.1 certificate, the trademark and class designation are sufficient.
- This certification is also accepted by the Dutch "STOOMWEZEN BV" and meets the requirements M0802.

51010 Hexagon head screw								Q01A
Thread	Metric thread							
Material	Stainless steel A2							
Class	70							
Packaging	Standard							

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M2X4		1000	51010.020.004		M2,5X14		1000	51010.025.014
M2X5		1000	51010.020.005		M2,5X16		1000	51010.025.016
M2X6		1000	51010.020.006					
M2X8		1000	51010.020.008		M3X6		200	51010.030.006
M2X12		1000	51010.020.012		M3X8		200	51010.030.008
M2X16		1000	51010.020.016		M3X10		200	51010.030.010
M2X20		1000	51010.020.020		M3X12		200	51010.030.012
					M3X14		1000	51010.030.014
M2,5X4 *		1000	51010.025.004		M3X16		200	51010.030.016
M2,5X5		1000	51010.025.005		M3X20		200	51010.030.020
M2,5X10		1000	51010.025.010		M3X25		200	51010.030.025
M2,5X12		1000	51010.025.012		M3X30		200	51010.030.030
					M4X4		1000	51010.040.004
					M4X5		1000	51010.040.005
					M4X6		200	51010.040.006
					M4X8		200	51010.040.008
					M4X10		200	51010.040.010
					M4X12		200	51010.040.012
					M4X14 *		1000	51010.040.014
					M4X16		200	51010.040.016
					M4X18 *		1000	51010.040.018
					M4X20		200	51010.040.020
					M4X22 *		500	51010.040.022

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51010 Hexagon head screw

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M30X80	1	51010.300.080	M33X90	1	51010.330.090	M36X100	1	51010.360.100
M30X90	1	51010.300.090	M33X100	1	51010.330.100	M36X110	1	51010.360.110
M30X100	1	51010.300.100	M33X110	1	51010.330.110	M36X120	1	51010.360.120
M30X110	1	51010.300.110	M33X120	1	51010.330.120	M36X130	1	51010.360.130
M30X120	1	51010.300.120	M33X140 *	5	51010.330.140	M36X140	1	51010.360.140
M30X140 *	10	51010.300.140	M33X150 *	5	51010.330.150	M36X150	1	51010.360.150
M30X150 *	10	51010.300.150						
M33X80	1	51010.330.080	M36X80	1	51010.360.080			
			M36X90	1	51010.360.090			

• Sizes with a diameter > M24 and sizes with a length > 8xd are minimal property class 50.

55010 Hexagon head screw

Q41A

Thread Metric thread
 Material Stainless steel A4
 Class 70
 Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M2X8 *	1000	55010.020.008	M6X40	200	55010.060.040	M10X135/S=17 *	50	55010.100.135
M2X10 *	1000	55010.020.010	M6X45	100	55010.060.045	M10X140/S=17	25	55010.100.140
M2X12 *	1000	55010.020.012	M6X50	100	55010.060.050	M10X160/S=17	10	55010.100.160
M2X14 *	1000	55010.020.014	M6X55	100	55010.060.055	M10X170/S=17 *	25	55010.100.170
M2X16 *	1000	55010.020.016	M6X60	100	55010.060.060	M10X180/S=17	10	55010.100.180
			M6X65 *	100	55010.060.065	M10X200/S=17	10	55010.100.200
M2,5X5 *	1000	55010.025.005	M6X70	100	55010.060.070			
M2,5X8 *	1000	55010.025.008	M6X75 *	100	55010.060.075	M12X16/S=19	100	55010.120.016
M2,5X12 *	1000	55010.025.012	M6X80	100	55010.060.080	M12X20/S=19	100	55010.120.020
			M6X90	100	55010.060.090	M12X25/S=19	100	55010.120.025
M3X6 *	1000	55010.030.006	M6X100	100	55010.060.100	M12X30/S=19	100	55010.120.030
M3X8	200	55010.030.008	M6X120 *	50	55010.060.120	M12X35/S=19	100	55010.120.035
M3X10	200	55010.030.010				M12X40/S=19	50	55010.120.040
M3X12	200	55010.030.012	M8X10	200	55010.080.010	M12X45/S=19	50	55010.120.045
M3X16	200	55010.030.016	M8X12	200	55010.080.012	M12X50/S=19	50	55010.120.050
M3X20	200	55010.030.020	M8X16	200	55010.080.016	M12X55/S=19	50	55010.120.055
M3X25	200	55010.030.025	M8X18 *	200	55010.080.018	M12X60/S=19	50	55010.120.060
M3X30	200	55010.030.030	M8X20	200	55010.080.020	M12X65/S=19	50	55010.120.065
M3X35 *	500	55010.030.035	M8X22 *	200	55010.080.022	M12X70/S=19	50	55010.120.070
			M8X25	200	55010.080.025	M12X75/S=19 *	25	55010.120.075
M4X6 *	1000	55010.040.006	M8X30	200	55010.080.030	M12X80/S=19	50	55010.120.080
M4X8	200	55010.040.008	M8X35	200	55010.080.035	M12X90/S=19	25	55010.120.090
M4X10	200	55010.040.010	M8X40	100	55010.080.040	M12X100/S=19	25	55010.120.100
M4X12	200	55010.040.012	M8X45	100	55010.080.045	M12X110/S=19	25	55010.120.110
M4X14 *	1000	55010.040.014	M8X50	100	55010.080.050	M12X120/S=19	25	55010.120.120
M4X16	200	55010.040.016	M8X55	100	55010.080.055	M12X130/S=19 *	25	55010.120.130
M4X18 *	1000	55010.040.018	M8X60	100	55010.080.060	M12X140/S=19	25	55010.120.140
M4X20	200	55010.040.020	M8X65	100	55010.080.065	M12X150/S=19	10	55010.120.150
M4X22 *	500	55010.040.022	M8X70	50	55010.080.070	M12X160/S=19	10	55010.120.160
M4X25	200	55010.040.025	M8X75 *	50	55010.080.075	M12X170/S=19 *	10	55010.120.170
M4X30	200	55010.040.030	M8X80	50	55010.080.080	M12X180/S=19	10	55010.120.180
M4X35	200	55010.040.035	M8X90	50	55010.080.090	M12X200/S=19	10	55010.120.200
M4X40	200	55010.040.040	M8X100	50	55010.080.100			
M4X50	200	55010.040.050	M8X110	25	55010.080.110	M14X20/S=22 *	50	55010.140.020
M4X60 *	100	55010.040.060	M8X120	25	55010.080.120	M14X25/S=22	50	55010.140.025
			M8X130 *	50	55010.080.130	M14X30/S=22	50	55010.140.030
M5X6 *	500	55010.050.006	M8X140	25	55010.080.140	M14X35/S=22	50	55010.140.035
M5X8	200	55010.050.008	M8X150 *	50	55010.080.150	M14X40/S=22	50	55010.140.040
M5X10	200	55010.050.010	M8X160	25	55010.080.160	M14X50/S=22	50	55010.140.050
M5X12	200	55010.050.012	M8X170 *	25	55010.080.170	M14X55/S=22 *	50	55010.140.055
M5X14 *	500	55010.050.014	M8X180	25	55010.080.180	M14X60/S=22	50	55010.140.060
M5X16	200	55010.050.016				M14X65/S=22	50	55010.140.065
M5X18	200	55010.050.018	M10X10/S=17 *	100	55010.100.010	M14X70/S=22	50	55010.140.070
M5X20	200	55010.050.020	M10X12/S=17	100	55010.100.012	M14X75/S=22 *	50	55010.140.075
M5X22 *	500	55010.050.022	M10X14/S=17 *	100	55010.100.014	M14X80/S=22	25	55010.140.080
M5X25	200	55010.050.025	M10X16/S=17	100	55010.100.016	M14X90/S=22	25	55010.140.090
M5X30	200	55010.050.030	M10X18/S=17 *	100	55010.100.018	M14X100/S=22	10	55010.140.100
M5X35	200	55010.050.035	M10X20/S=17	100	55010.100.020	M14X110/S=22 *	25	55010.140.110
M5X40	200	55010.050.040	M10X22/S=17 *	100	55010.100.022	M14X120/S=22	10	55010.140.120
M5X45	200	55010.050.045	M10X25/S=17	100	55010.100.025	M14X130/S=22 *	25	55010.140.130
M5X50	200	55010.050.050	M10X30/S=17	100	55010.100.030	M14X140/S=22	10	55010.140.140
M5X55 *	200	55010.050.055	M10X35/S=17	100	55010.100.035	M14X150/S=22 *	25	55010.140.150
M5X60	200	55010.050.060	M10X40/S=17	100	55010.100.040			
M5X80 *	100	55010.050.080	M10X45/S=17	100	55010.100.045	M16X20 *	25	55010.160.020
			M10X50/S=17	100	55010.100.050	M16X25	50	55010.160.025
M6X8	200	55010.060.008	M10X55/S=17	50	55010.100.055	M16X30	50	55010.160.030
M6X10	200	55010.060.010	M10X60/S=17	50	55010.100.060	M16X35	50	55010.160.035
M6X12	200	55010.060.012	M10X65/S=17	50	55010.100.065	M16X40	50	55010.160.040
M6X14 *	200	55010.060.014	M10X70/S=17	50	55010.100.070	M16X45	50	55010.160.045
M6X16	200	55010.060.016	M10X75/S=17 *	50	55010.100.075	M16X50	25	55010.160.050
M6X18	200	55010.060.018	M10X80/S=17	50	55010.100.080	M16X55	25	55010.160.055
M6X20	200	55010.060.020	M10X90/S=17	25	55010.100.090	M16X60	25	55010.160.060
M6X22 *	200	55010.060.022	M10X100/S=17	25	55010.100.100	M16X65	25	55010.160.065
M6X25	200	55010.060.025	M10X110/S=17	25	55010.100.110	M16X70	25	55010.160.070
M6X30	200	55010.060.030	M10X120/S=17	25	55010.100.120	M16X75 *	25	55010.160.075
M6X35	200	55010.060.035	M10X130/S=17 *	50	55010.100.130	M16X80	25	55010.160.080

55010 Hexagon head screw

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M16X90	10	55010.160.090	M20X120	5	55010.200.120	M24X160	3	55010.240.160
M16X100	10	55010.160.100	M20X130	5	55010.200.130	M24X170 *	10	55010.240.170
M16X110	10	55010.160.110	M20X140	5	55010.200.140	M24X180	3	55010.240.180
M16X120	10	55010.160.120	M20X150	5	55010.200.150	M24X190 *	5	55010.240.190
M16X130	10	55010.160.130	M20X160	5	55010.200.160	M24X200	3	55010.240.200
M16X140	10	55010.160.140	M20X170 *	25	55010.200.170			
M16X150	10	55010.160.150	M20X180	5	55010.200.180	M27X50	3	55010.270.050
M16X160	10	55010.160.160	M20X190 *	20	55010.200.190	M27X55 *	10	55010.270.055
M16X170 *	25	55010.160.170	M20X200	5	55010.200.200	M27X60	3	55010.270.060
M16X180	10	55010.160.180				M27X65 *	10	55010.270.065
M16X190 *	10	55010.160.190	M22X40/S=32 *	25	55010.220.040	M27X70	3	55010.270.070
M16X200	10	55010.160.200	M22X45/S=32 *	25	55010.220.045	M27X80	3	55010.270.080
			M22X50/S=32	10	55010.220.050	M27X90	3	55010.270.090
M18X35	25	55010.180.035	M22X55/S=32 *	25	55010.220.055	M27X100	3	55010.270.100
M18X40	25	55010.180.040	M22X60/S=32	10	55010.220.060	M27X110 *	10	55010.270.110
M18X45	25	55010.180.045	M22X65/S=32 *	25	55010.220.065	M27X120	3	55010.270.120
M18X50	25	55010.180.050	M22X70/S=32	10	55010.220.070	M27X130 *	10	55010.270.130
M18X55 *	25	55010.180.055	M22X75/S=32 *	25	55010.220.075			
M18X60	25	55010.180.060	M22X80/S=32	10	55010.220.080	M30X60	1	55010.300.060
M18X65 *	25	55010.180.065	M22X90/S=32 *	25	55010.220.090	M30X65 *	10	55010.300.065
M18X70	25	55010.180.070	M22X100/S=32 *	25	55010.220.100	M30X70	1	55010.300.070
M18X75 *	25	55010.180.075	M22X110/S=32 *	20	55010.220.110	M30X80	1	55010.300.080
M18X80	25	55010.180.080	M22X120/S=32 *	20	55010.220.120	M30X90	1	55010.300.090
M18X90	25	55010.180.090	M22X130/S=32 *	20	55010.220.130	M30X100	1	55010.300.100
M18X100	25	55010.180.100	M22X150/S=32 *	10	55010.220.150	M30X110	1	55010.300.110
M18X130 *	25	55010.180.130				M30X120	1	55010.300.120
M18X150 *	25	55010.180.150	M24X40 *	10	55010.240.040	M30X150	1	55010.300.150
			M24X45 *	10	55010.240.045			
M20X30	25	55010.200.030	M24X50	5	55010.240.050	M33X70	1	55010.330.070
M20X35	25	55010.200.035	M24X55	5	55010.240.055	M33X80	1	55010.330.080
M20X40	25	55010.200.040	M24X60	5	55010.240.060	M33X90	1	55010.330.090
M20X45	25	55010.200.045	M24X65	5	55010.240.065	M33X100	1	55010.330.100
M20X50	25	55010.200.050	M24X70	5	55010.240.070	M33X110	1	55010.330.110
M20X55	25	55010.200.055	M24X75 *	10	55010.240.075	M33X120	1	55010.330.120
M20X60	25	55010.200.060	M24X80	5	55010.240.080			
M20X65	25	55010.200.065	M24X85 *	10	55010.240.085	M36X80	1	55010.360.080
M20X70	25	55010.200.070	M24X90	5	55010.240.090	M36X90	1	55010.360.090
M20X75	10	55010.200.075	M24X100	5	55010.240.100	M36X100	1	55010.360.100
M20X80	10	55010.200.080	M24X120	5	55010.240.120	M36X110	1	55010.360.110
M20X90	10	55010.200.090	M24X130	5	55010.240.130	M36X120	1	55010.360.120
M20X100	10	55010.200.100	M24X140	5	55010.240.140			
M20X110	5	55010.200.110	M24X150	5	55010.240.150			

• Sizes with a diameter > M24 and sizes with a length > 8xd are minimal property class 50.

53520 Hexagon head screw
R11A

Thread Metric thread
Material Stainless steel A4
Class 80
Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M4X8	100	53520.040.008	M6X60	100	53520.060.060	M10X75/S=17 *	50	53520.100.075
M4X10	100	53520.040.010	M6X65 *	100	53520.060.065	M10X80/S=17 *	50	53520.100.080
M4X12	100	53520.040.012	M6X70 *	100	53520.060.070	M10X90/S=17 *	50	53520.100.090
M4X16	100	53520.040.016	M6X90 *	100	53520.060.090	M10X100/S=17 *	50	53520.100.100
			M6X100 *	100	53520.060.100	M10X120/S=17 *	50	53520.100.120
M5X8 *	500	53520.050.008				M10X130/S=17 *	50	53520.100.130
M5X10	100	53520.050.010	M8X10 *	500	53520.080.010			
M5X12	100	53520.050.012	M8X12	50	53520.080.012	M12X16	100	53520.120.016
M5X14 *	500	53520.050.014	M8X16	50	53520.080.016	M12X20/S=19	25	53520.120.020
M5X16	100	53520.050.016	M8X20	50	53520.080.020	M12X25/S=19	25	53520.120.025
M5X20	100	53520.050.020	M8X22 *	200	53520.080.022	M12X30/S=19	25	53520.120.030
M5X22 *	500	53520.050.022	M8X25	50	53520.080.025	M12X35/S=19	25	53520.120.035
M5X25	100	53520.050.025	M8X30	50	53520.080.030	M12X40/S=19	25	53520.120.040
M5X30	100	53520.050.030	M8X35	50	53520.080.035	M12X45	100	53520.120.045
M5X40	100	53520.050.040	M8X40	50	53520.080.040	M12X50/S=19	25	53520.120.050
M5X50 *	200	53520.050.050	M8X45	50	53520.080.045	M12X55/S=19	25	53520.120.055
M5X60 *	200	53520.050.060	M8X50	50	53520.080.050	M12X60/S=19	25	53520.120.060
M5X70 *	100	53520.050.070	M8X65 *	100	53520.080.065	M12X65/S=19	25	53520.120.065
			M8X70 *	50	53520.080.070	M12X70/S=19	25	53520.120.070
M6X8 *	500	53520.060.008	M8X80 *	50	53520.080.080	M12X75/S=19 *	25	53520.120.075
M6X10	100	53520.060.010	M8X90 *	50	53520.080.090	M12X80/S=19 *	25	53520.120.080
M6X12	100	53520.060.012				M12X90/S=19 *	25	53520.120.090
M6X14 *	200	53520.060.014	M10X16/S=17	50	53520.100.016	M12X100/S=19 *	25	53520.120.100
M6X16	100	53520.060.016	M10X20/S=17	50	53520.100.020			
M6X18 *	200	53520.060.018	M10X25/S=17	50	53520.100.025	M14X25/S=22 *	50	53520.140.025
M6X20	100	53520.060.020	M10X30/S=17	50	53520.100.030	M14X30/S=22 *	50	53520.140.030
M6X22 *	200	53520.060.022	M10X35/S=17	50	53520.100.035	M14X35/S=22 *	50	53520.140.035
M6X25	100	53520.060.025	M10X40/S=17	50	53520.100.040	M14X40/S=22 *	50	53520.140.040
M6X30	100	53520.060.030	M10X45	100	53520.100.045	M14X45/S=22 *	50	53520.140.045
M6X35 *	200	53520.060.035	M10X50/S=17	50	53520.100.050	M14X50/S=22 *	50	53520.140.050
M6X40	100	53520.060.040	M10X55/S=17 *	50	53520.100.055	M14X60/S=22 *	50	53520.140.060
M6X45 *	100	53520.060.045	M10X60/S=17 *	50	53520.100.060	M14X65/S=22 *	50	53520.140.065
M6X50 *	100	53520.060.050	M10X65/S=17 *	50	53520.100.065	M14X70/S=22 *	50	53520.140.070

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53520 Hexagon head screw

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M14X80/S=22 *	50	53520.140.080	M20X30 *	25	53520.200.030	M20X140 *	25	53520.200.140
M16X25 *	25	53520.160.025	M20X35 *	25	53520.200.035	M20X150 *	25	53520.200.150
M16X30	25	53520.160.030	M20X40	10	53520.200.040	M24X40 *	10	53520.240.040
M16X35	25	53520.160.035	M20X45 *	25	53520.200.045	M24X50	10	53520.240.050
M16X40	25	53520.160.040	M20X50	10	53520.200.050	M24X55 *	10	53520.240.055
M16X45	25	53520.160.045	M20X55	10	53520.200.055	M24X60	10	53520.240.060
M16X50	25	53520.160.050	M20X60	10	53520.200.060	M24X65 *	10	53520.240.065
M16X55	25	53520.160.055	M20X65 *	25	53520.200.065	M24X70	10	53520.240.070
M16X60	25	53520.160.060	M20X70 *	25	53520.200.070	M24X75 *	10	53520.240.075
M16X65	25	53520.160.065	M20X75 *	25	53520.200.075	M24X80	10	53520.240.080
M16X70	25	53520.160.070	M20X80 *	25	53520.200.080	M24X90 *	10	53520.240.090
M16X75 *	25	53520.160.075	M20X90 *	25	53520.200.090	M24X100 *	10	53520.240.100
M16X80 *	25	53520.160.080	M20X100 *	25	53520.200.100	M24X120 *	10	53520.240.120
M16X90 *	25	53520.160.090	M20X110 *	25	53520.200.110			
M16X100 *	25	53520.160.100	M20X120 *	25	53520.200.120			
M16X130 *	25	53520.160.130	M20X130 *	25	53520.200.130			

45010 Hexagon head screw
W01A


Thread	Metric thread
Material	Aluminium Sopral P40
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X10	100	45010.060.010	M8X16	100	45010.080.016	M10X40/S=17	100	45010.100.040
M6X16	100	45010.060.016	M8X25	100	45010.080.025	M10X50/S=17	100	45010.100.050
M6X25	100	45010.060.025	M8X30	100	45010.080.030			
M6X30	100	45010.060.030	M8X50	100	45010.080.050			
M6X50	100	45010.060.050	M10X30/S=17	100	45010.100.030			

45210 Hexagon head screw
W01A

Thread	Metric thread
Material	Aluminium Sopral P60
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M8X20	100	45210.080.020	M10X30/S=17	100	45210.100.030	M12X70/S=19	25	45210.120.070
M8X25	100	45210.080.025	M10X35/S=17	100	45210.100.035	M12X80/S=19	25	45210.120.080
M8X30	100	45210.080.030	M12X60/S=19	50	45210.120.060			
M8X35	100	45210.080.035						
M8X40	100	45210.080.040						

45810 Hexagon head screw
M11A

Thread	Metric thread
Material	Kuprodur Cu5
Class	60
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X16	100	45810.060.016	M10X20/S=17	50	45810.100.020	M12X40/S=19	25	45810.120.040
M6X20	100	45810.060.020	M10X25/S=17	50	45810.100.025	M12X50/S=19	25	45810.120.050
M6X25	100	45810.060.025	M10X30/S=17	50	45810.100.030	M12X60/S=19	25	45810.120.060
M6X30	100	45810.060.030	M10X35/S=17	50	45810.100.035	M16X35	10	45810.160.035
M8X20	100	45810.080.020	M10X40/S=17	50	45810.100.040	M16X40	10	45810.160.040
M8X25	100	45810.080.025	M10X45/S=17	50	45810.100.045	M16X50	10	45810.160.050
M8X30	100	45810.080.030	M12X30/S=19	25	45810.120.030			
M8X35	100	45810.080.035	M12X35/S=19	25	45810.120.035			
M8X40	100	45810.080.040						

46010 Hexagon head screw		M01A
Thread	Metric thread	
Material	Brass Cu2/Cu3	
Packaging	Standard	

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M4X10	200	46010.040.010	M6X50	200	46010.060.050	M12X20/S=19	50	46010.120.020
M4X12	200	46010.040.012	M8X16	100	46010.080.016	M12X25/S=19	50	46010.120.025
M4X16	200	46010.040.016	M8X20	100	46010.080.020	M12X30/S=19	50	46010.120.030
M4X20	200	46010.040.020	M8X25	100	46010.080.025	M12X35/S=19	50	46010.120.035
M4X25	200	46010.040.025	M8X30	100	46010.080.030	M12X40/S=19	25	46010.120.040
M4X30	200	46010.040.030	M8X40	100	46010.080.040	M12X50/S=19	25	46010.120.050
M5X10	200	46010.050.010	M8X50	100	46010.080.050	M12X60/S=19	25	46010.120.060
M5X12	200	46010.050.012	M8X60	100	46010.080.060	M12X70/S=19	25	46010.120.070
M5X16	200	46010.050.016	M8X70	100	46010.080.070	M12X80/S=19	25	46010.120.080
M5X20	200	46010.050.020	M10X16/S=17	100	46010.100.016	M12X90/S=19	25	46010.120.090
M5X25	200	46010.050.025	M10X20/S=17	50	46010.100.020	M12X100/S=19	25	46010.120.100
M5X30	200	46010.050.030	M10X25/S=17	50	46010.100.025	M16X30	25	46010.160.030
M5X40	200	46010.050.040	M10X30/S=17	50	46010.100.030	M16X40	25	46010.160.040
M6X12	200	46010.060.012	M10X35/S=17	50	46010.100.035	M16X50	10	46010.160.050
M6X16	200	46010.060.016	M10X40/S=17	50	46010.100.040	M16X60	10	46010.160.060
M6X20	200	46010.060.020	M10X45/S=17	50	46010.100.045	M16X70	10	46010.160.070
M6X25	200	46010.060.025	M10X50/S=17	50	46010.100.050	M16X80	10	46010.160.080
M6X30	200	46010.060.030	M10X60/S=17	50	46010.100.060	M16X90	10	46010.160.090
M6X40	200	46010.060.040				M16X100	10	46010.160.100

46060 Hexagon head screw		M01A
Thread	Metric thread	
Material	Brass Cu2/Cu3	
Surface treatment	Nickel plated	
Packaging	Standard	

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M4X8	200	46060.040.008	M5X50	200	46060.050.050	M8X40	100	46060.080.040
M4X10	200	46060.040.010	M6X10	200	46060.060.010	M8X45	100	46060.080.045
M4X12	200	46060.040.012	M6X12	200	46060.060.012	M8X50	100	46060.080.050
M4X16	200	46060.040.016	M6X16	200	46060.060.016	M8X60	100	46060.080.060
M4X20	200	46060.040.020	M6X20	200	46060.060.020	M8X70	100	46060.080.070
M4X25	200	46060.040.025	M6X25	200	46060.060.025	M10X16/S=17	50	46060.100.016
M4X30	200	46060.040.030	M6X30	200	46060.060.030	M10X20/S=17	50	46060.100.020
M4X35	200	46060.040.035	M6X35	200	46060.060.035	M10X25/S=17	50	46060.100.025
M4X40	200	46060.040.040	M6X40	200	46060.060.040	M10X30/S=17	50	46060.100.030
M5X8	200	46060.050.008	M6X50	200	46060.060.050	M10X35/S=17	50	46060.100.035
M5X10	200	46060.050.010	M6X60	100	46060.060.060	M10X40/S=17	50	46060.100.040
M5X12	200	46060.050.012	M8X12	100	46060.080.012	M10X45/S=17	50	46060.100.045
M5X16	200	46060.050.016	M8X16	100	46060.080.016	M10X50/S=17	50	46060.100.050
M5X20	200	46060.050.020	M8X20	100	46060.080.020	M10X60/S=17	50	46060.100.060
M5X25	200	46060.050.025	M8X25	100	46060.080.025	M10X70/S=17	25	46060.100.070
M5X30	200	46060.050.030	M8X30	100	46060.080.030	M12X40/S=19	25	46060.120.040
M5X40	200	46060.050.040	M8X35	100	46060.080.035			
M5X45	200	46060.050.045						

45910 Hexagon head screw		W01A
Thread	Metric thread	
Material	Titanium ASTM	
Class	Gr.2	
Packaging	Standard	
	ISO ≈4017	
	DIN ≈933	
	NEN ≈1568	
	NF ≈E25-114	

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X20	10	45910.060.020	M8X30	10	45910.080.030	M10X30/S=17	10	45910.100.030
M6X30	10	45910.060.030	M8X40	10	45910.080.040	M10X40/S=17	5	45910.100.040
M6X40	10	45910.060.040	M8X50	10	45910.080.050	M10X50/S=17	5	45910.100.050
M8X20	10	45910.080.020	M10X20/S=17	10	45910.100.020			

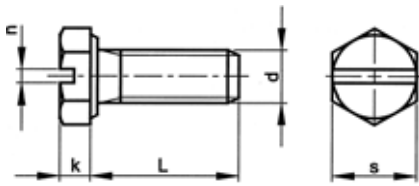
- Titanium ASTM Grade 2 (materialnumber 3.7035) with a high percentage of pure titanium, ensures product stability and -suitability in extremely corrosive environments where other materials i.e. stainless steel fail.
- Titanium Grade 2 is also suitable for other light loaded applications.

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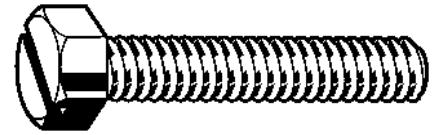
56100 Hexagon head screw plastic		W02A
Thread	Metric thread	
Material	Plastic Polyamide (nylon)	
Class	PA 6.6	
Colour	White	
Packaging	Standard	
	ISO ≈4017	
	DIN ≈933	
	NEN ≈1568	
	ANSI ≈B18.2.3.1M	
	NF ≈E25-114	

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M3X10	200	56100.030.010	M5X50	100	56100.050.050	M8X50	50	56100.080.050
M3X16	200	56100.030.016				M8X60	50	56100.080.060
M3X20	200	56100.030.020	M6X10	50	56100.060.010	M10X20/S=17	25	56100.100.020
M3X25	200	56100.030.025	M6X12	50	56100.060.012	M10X25/S=16	25	56100.100.025
			M6X16	50	56100.060.016	M10X30/S=17	25	56100.100.030
M4X10	200	56100.040.010	M6X20	50	56100.060.020	M10X40/S=17	25	56100.100.040
M4X12	200	56100.040.012	M6X25	50	56100.060.025	M10X50/S=17	25	56100.100.050
M4X16	200	56100.040.016	M6X30	50	56100.060.030			
M4X20	200	56100.040.020	M6X40	50	56100.060.040	M12X20/S=19	25	56100.120.020
M4X30	200	56100.040.030	M6X50	50	56100.060.050	M12X35/S=19	25	56100.120.035
						M12X40/S=19	25	56100.120.040
M5X10	100	56100.050.010	M8X16	50	56100.080.016	M12X50/S=19	25	56100.120.050
M5X12	100	56100.050.012	M8X20	50	56100.080.020			
M5X16	100	56100.050.016	M8X25	50	56100.080.025	M16X50	25	56100.160.050
M5X20	100	56100.050.020	M8X30	50	56100.080.030			
M5X25	100	56100.050.025	M8X35	50	56100.080.035			
M5X30	100	56100.050.030	M8X40	50	56100.080.040			

Slotted hexagon head screw



ISO ≈4017
DIN ≈933
NEN ≈1568
ANSI ≈B18.2.3.1M
NF ≈E25-137



Technical data

d	P	k	s	n
M3	0,5	2	5,5	0,8
M4	0,7	2,8	7	1
M5	0,8	3,5	8	1,2
M6	1	4	10	1,6
M8	1,25	5,3	13	2

- Slot acc. to DIN 962 SZ.

51012 Slotted hexagon head screw

Q01A

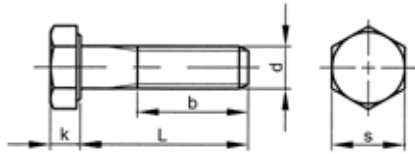
Thread Metric thread
Material Stainless steel A2
Class 70
Packaging Standard



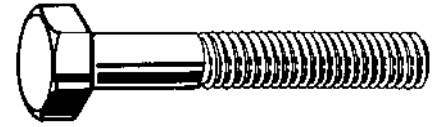
d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M3X8 *	1000	51012.030.008	M5X16	200	51012.050.016	M6X30	200	51012.060.030
M4X6 *	500	51012.040.006	M5X20	200	51012.050.020	M6X35	200	51012.060.035
M4X8	200	51012.040.008	M5X25	200	51012.050.025	M6X40	200	51012.060.040
M4X10	200	51012.040.010	M5X30	200	51012.050.030	M8X16 *	200	51012.080.016
M4X12	200	51012.040.012	M6X10 *	500	51012.060.010	M8X20 *	200	51012.080.020
M4X16 *	500	51012.040.016	M6X12	200	51012.060.012	M8X25 *	100	51012.080.025
M4X20 *	500	51012.040.020	M6X16	200	51012.060.016	M8X30 *	100	51012.080.030
M5X8 *	500	51012.050.008	M6X18 *	200	51012.060.018	M8X40 *	100	51012.080.040
M5X10 *	500	51012.050.010	M6X20	200	51012.060.020			
M5X12 *	500	51012.050.012	M6X25	200	51012.060.025			

Hexagon head bolt MF

1



ISO 8765
 DIN 960
 NEN 1555
 NF E25-152



Technical data

d	b (min.): L≤125mm	b (min.): 125mm<L≤200mm	b (min.): L>200mm	k	s
M8	22	28	41	5,3	13
M10 (DIN)	26	32	45	6,4	17
M12 (DIN)	30	36	49	7,5	19
M14 (DIN)	34	40	53	8,8	22
M16	38	44	57	10	24
M18	42	48	61	11,5	27
M20	46	52	65	12,5	30
M22	50	56	69	14	32
M24	54	60	73	15	36
M27 (DIN)	60	66	79	17	41
M30	66	72	85	18,7	46

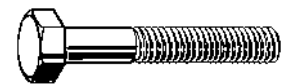
Article groups

Thread	Driving features	Material	Class	Surface treatment	Packaging	Code	Page
MF	hexagon	St	8.8		Standard	01060	1-32
MEF	hexagon	St	8.8		Standard	01061	1-32
MF	hexagon	St	8.8	Zipl yell.p.	Standard	01240	1-33
MEF	hexagon	St	8.8	Zipl yell.p.	Standard	01241	1-33
MF	hexagon	St	10.9		Standard	04160	1-33
MEF	hexagon	St	10.9		Standard	04161	1-34

01060 Hexagon head bolt MF

A09A

Thread Metric fine thread
Material Steel
Class 8.8
Packaging Standard

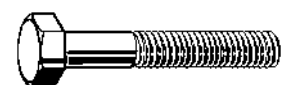


d x P x L	☒	Art.number	d x P x L	☒	Art.number	d x P x L	☒	Art.number
M8X1,00X35	200	01060.080.035	M12X1,50X45/S=19	100	01060.120.045	M14X1,50X80/S=22	50	01060.140.080
M8X1,00X40	200	01060.080.040	M12X1,50X50/S=19	100	01060.120.050	M14X1,50X90/S=22	50	01060.140.090
M8X1,00X50	200	01060.080.050	M12X1,50X55/S=19	100	01060.120.055	M14X1,50X100/S=22	50	01060.140.100
M8X1,00X60	200	01060.080.060	M12X1,50X60/S=19	100	01060.120.060			
M8X1,00X70	200	01060.080.070	M12X1,50X65/S=19	50	01060.120.065	M16X1,50X55	50	01060.160.055
M8X1,00X80	200	01060.080.080	M12X1,50X70/S=19	50	01060.120.070	M16X1,50X60	50	01060.160.060
M8X1,00X90	100	01060.080.090	M12X1,50X75/S=19	50	01060.120.075	M16X1,50X65	25	01060.160.065
			M12X1,50X80/S=19	50	01060.120.080	M16X1,50X70	25	01060.160.070
M10X1,25X40/S=17	100	01060.100.040	M12X1,50X85/S=19	50	01060.120.085	M16X1,50X75	25	01060.160.075
M10X1,25X50/S=17	100	01060.100.050	M12X1,50X90/S=19	50	01060.120.090	M16X1,50X80	25	01060.160.080
M10X1,25X60/S=17	100	01060.100.060	M12X1,50X100/S=19	50	01060.120.100	M16X1,50X90	25	01060.160.090
M10X1,25X70/S=17	100	01060.100.070	M12X1,50X120/S=19	100	01060.120.120	M16X1,50X90	25	01060.160.090
M10X1,25X75/S=17	100	01060.100.075				M16X1,50X100	25	01060.160.100
M10X1,25X80/S=17	100	01060.100.080	M14X1,50X50/S=22	50	01060.140.050	M16X1,50X110	25	01060.160.110
M10X1,25X90/S=17	100	01060.100.090	M14X1,50X55/S=22	50	01060.140.055	M16X1,50X120	25	01060.160.120
M10X1,25X100/S=17	100	01060.100.100	M14X1,50X60/S=22	50	01060.140.060	M16X1,50X130	25	01060.160.130
M10X1,25X120/S=17	100	01060.100.120	M14X1,50X65/S=22	50	01060.140.065	M16X1,50X140	25	01060.160.140
			M14X1,50X70/S=22	50	01060.140.070	M16X1,50X150	25	01060.160.150
			M14X1,50X75/S=22	50	01060.140.075			

01061 Hexagon head bolt MF

A09A

Thread Metric extra fine thread
Material Steel
Class 8.8
Packaging Standard



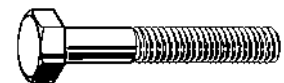
d x P x L	☒	Art.number	d x P x L	☒	Art.number	d x P x L	☒	Art.number
M10X1,00X40/S=17	100	01061.100.040	M10X1,00X50/S=17	100	01061.100.050	M10X1,00X70/S=17	100	01061.100.070
M10X1,00X45/S=17	100	01061.100.045	M10X1,00X60/S=17	100	01061.100.060	M10X1,00X80/S=17	100	01061.100.080

01061 Hexagon head bolt MF

d x P x L	☒	Art.number	d x P x L	☒	Art.number	d x P x L	☒	Art.number
M10X1,00X90/S=17	100	01061.100.090	M18X1,50X70	25	01061.180.070	M18X1,50X200	10	01061.180.200
M10X1,00X100/S=17	100	01061.100.100	M18X1,50X80	25	01061.180.080	M20X1,50X70	25	01061.200.070
M12X1,25X45/S=19	100	01061.120.045	M18X1,50X90	25	01061.180.090	M20X1,50X80	25	01061.200.080
M12X1,25X50/S=19	100	01061.120.050	M18X1,50X100	25	01061.180.100	M20X1,50X90	25	01061.200.090
M12X1,25X55/S=19	100	01061.120.055	M18X1,50X120	25	01061.180.120	M20X1,50X100	25	01061.200.100
M12X1,25X60/S=19	100	01061.120.060	M18X1,50X130	25	01061.180.130	M20X1,50X120	25	01061.200.120
M12X1,25X70/S=19	50	01061.120.070	M18X1,50X140	25	01061.180.140	M20X1,50X130	25	01061.200.130
M12X1,25X80/S=19	50	01061.120.080	M18X1,50X150	25	01061.180.150	M20X1,50X140	25	01061.200.140
M12X1,25X90/S=19	50	01061.120.090	M18X1,50X160	10	01061.180.160	M20X1,50X150	25	01061.200.150
M12X1,25X100/S=19	50	01061.120.100	M18X1,50X170	10	01061.180.170			
M12X1,25X110/S=19	100	01061.120.110	M18X1,50X180	10	01061.180.180			
M12X1,25X140/S=19	100	01061.120.140	M18X1,50X190	10	01061.180.190			

01240 Hexagon head bolt MF
A09A

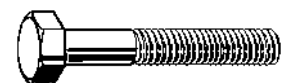
Thread Metric fine thread
Material Steel
Class 8.8
Surface treatment Zinc plated yellow passivated
Packaging Standard



d x P x L	☒	Art.number	d x P x L	☒	Art.number	d x P x L	☒	Art.number
M8X1,00X35	200	01240.080.035	M12X1,50X50/S=19	100	01240.120.050	M14X1,50X110/S=22	50	01240.140.110
M8X1,00X40	200	01240.080.040	M12X1,50X55/S=19	100	01240.120.055	M14X1,50X120/S=22	50	01240.140.120
M8X1,00X50	200	01240.080.050	M12X1,50X60/S=19	100	01240.120.060	M14X1,50X140/S=22	50	01240.140.140
M8X1,00X60	200	01240.080.060	M12X1,50X65/S=19	50	01240.120.065			
M8X1,00X70	200	01240.080.070	M12X1,50X70/S=19	50	01240.120.070	M16X1,50X55	50	01240.160.055
M8X1,00X80	200	01240.080.080	M12X1,50X80/S=19	50	01240.120.080	M16X1,50X60	50	01240.160.060
M8X1,00X90	100	01240.080.090	M12X1,50X90/S=19	50	01240.120.090	M16X1,50X65	25	01240.160.065
			M12X1,50X100/S=19	50	01240.120.100	M16X1,50X70	25	01240.160.070
M10X1,25X40/S=17	100	01240.100.040				M16X1,50X75	25	01240.160.075
M10X1,25X50/S=17	100	01240.100.050	M14X1,50X50/S=22	50	01240.140.050	M16X1,50X80	25	01240.160.080
M10X1,25X60/S=17	100	01240.100.060	M14X1,50X55/S=22	50	01240.140.055	M16X1,50X90	25	01240.160.090
M10X1,25X70/S=17	100	01240.100.070	M14X1,50X60/S=22	50	01240.140.060	M16X1,50X100	25	01240.160.100
M10X1,25X80/S=17	100	01240.100.080	M14X1,50X65/S=22	50	01240.140.065	M16X1,50X110	25	01240.160.110
M10X1,25X90/S=17	100	01240.100.090	M14X1,50X70/S=22	50	01240.140.070	M16X1,50X120	25	01240.160.120
M10X1,25X100/S=17	100	01240.100.100	M14X1,50X75/S=22	50	01240.140.075	M16X1,50X130	25	01240.160.130
M10X1,25X110/S=17	100	01240.100.110	M14X1,50X80/S=22	50	01240.140.080	M16X1,50X140	25	01240.160.140
			M14X1,50X90/S=22	50	01240.140.090	M16X1,50X150	25	01240.160.150
M12X1,50X45/S=19	100	01240.120.045	M14X1,50X100/S=22	50	01240.140.100			

01241 Hexagon head bolt MF
A09A

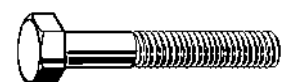
Thread Metric extra fine thread
Material Steel
Class 8.8
Surface treatment Zinc plated yellow passivated
Packaging Standard



d x P x L	☒	Art.number	d x P x L	☒	Art.number	d x P x L	☒	Art.number
M10X1,00X40/S=17	100	01241.100.040	M12X1,25X70/S=19	50	01241.120.070	M18X1,50X120	25	01241.180.120
M10X1,00X45/S=17	100	01241.100.045	M12X1,25X80/S=19	50	01241.120.080			
M10X1,00X50/S=17	100	01241.100.050	M12X1,25X90/S=19	50	01241.120.090	M20X1,50X70	25	01241.200.070
M10X1,00X60/S=17	100	01241.100.060	M12X1,25X100/S=19	50	01241.120.100	M20X1,50X80	25	01241.200.080
M10X1,00X70/S=17	100	01241.100.070	M12X1,25X110/S=19	50	01241.120.110	M20X1,50X90	25	01241.200.090
M10X1,00X80/S=17	100	01241.100.080				M20X1,50X100	25	01241.200.100
M10X1,00X90/S=17	100	01241.100.090	M18X1,50X60	25	01241.180.060	M20X1,50X110	25	01241.200.110
M10X1,00X100/S=17	100	01241.100.100	M18X1,50X70	25	01241.180.070	M20X1,50X120	25	01241.200.120
			M18X1,50X80	25	01241.180.080	M20X1,50X140	25	01241.200.140
M12X1,25X45/S=19	100	01241.120.045	M18X1,50X90	25	01241.180.090	M20X1,50X150	25	01241.200.150
M12X1,25X50/S=19	100	01241.120.050	M18X1,50X100	25	01241.180.100			
M12X1,25X60/S=19	100	01241.120.060	M18X1,50X110	25	01241.180.110			

04160 Hexagon head bolt MF
C02A

Thread Metric fine thread
Material Steel
Class 10.9
Packaging Standard



d x P x L	☒	Art.number	d x P x L	☒	Art.number	d x P x L	☒	Art.number
M8X1,00X35	200	04160.080.035	M10X1,25X45/S=17	100	04160.100.045	M10X1,25X100/S=17	100	04160.100.100
M8X1,00X40	200	04160.080.040	M10X1,25X50/S=17	100	04160.100.050	M12X1,50X50/S=19	50	04160.120.050
M8X1,00X50	200	04160.080.050	M10X1,25X60/S=17	100	04160.100.060	M12X1,50X60/S=19	50	04160.120.060
M8X1,00X60	200	04160.080.060	M10X1,25X70/S=17	100	04160.100.070	M12X1,50X70/S=19	50	04160.120.070
M8X1,00X70	100	04160.080.070	M10X1,25X80/S=17	100	04160.100.080	M12X1,50X80/S=19	50	04160.120.080
M8X1,00X80	100	04160.080.080	M10X1,25X90/S=17	100	04160.100.090	M12X1,50X90/S=19	50	04160.120.090
M8X1,00X90	100	04160.080.090						

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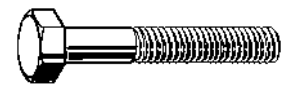
04160 Hexagon head bolt MF ←

d x P x L	☒	Art.number	d x P x L	☒	Art.number	d x P x L	☒	Art.number
M12X1,50X100/S=19	50	04160.120.100	M16X1,50X60	25	04160.160.060	M24X2,00X100	10	04160.240.100
M12X1,50X120/S=19	25	04160.120.120	M16X1,50X65	25	04160.160.065	M24X2,00X110	10	04160.240.110
M14X1,50X50/S=22	50	04160.140.050	M16X1,50X70	25	04160.160.070	M24X2,00X120	10	04160.240.120
M14X1,50X60/S=22	50	04160.140.060	M16X1,50X80	25	04160.160.080	M24X2,00X130	10	04160.240.130
M14X1,50X65/S=22	50	04160.140.065	M16X1,50X90	25	04160.160.090	M24X2,00X140	10	04160.240.140
M14X1,50X70/S=22	50	04160.140.070	M16X1,50X100	25	04160.160.100	M24X2,00X150	10	04160.240.150
M14X1,50X80/S=22	25	04160.140.080	M16X1,50X110	25	04160.160.110	M24X2,00X160	10	04160.240.160
M14X1,50X90/S=22	25	04160.140.090	M16X1,50X120	25	04160.160.120	M24X2,00X180	10	04160.240.180
M14X1,50X100/S=22	25	04160.140.100	M16X1,50X130	20	04160.160.130	M24X2,00X200	10	04160.240.200
M14X1,50X110/S=22	25	04160.140.110	M16X1,50X140	20	04160.160.140	M27X2,00X190	10	04160.270.190
M14X1,50X120/S=22	25	04160.140.120	M16X1,50X150	20	04160.160.150	M30X2,00X140	5	04160.300.140
M16X1,50X50	25	04160.160.050	M24X2,00X80	15	04160.240.080			
M16X1,50X55	25	04160.160.055	M24X2,00X90	15	04160.240.090			

• Warning: electro-galvanizing of these products may cause hydrogen embrittlement.

04161 Hexagon head bolt MF C02A

Thread Metric extra fine thread
Material Steel
Class 10.9
Packaging Standard

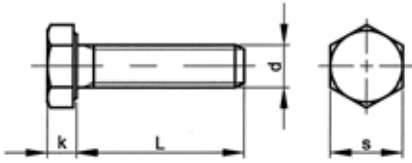


d x P x L	☒	Art.number	d x P x L	☒	Art.number	d x P x L	☒	Art.number
M10X1,00X50/S=17	100	04161.100.050	M18X1,50X90	25	04161.180.090	M20X1,50X90	25	04161.200.090
M10X1,00X60/S=17	100	04161.100.060	M18X1,50X100	25	04161.180.100	M20X1,50X100	25	04161.200.100
M10X1,00X70/S=17	100	04161.100.070	M18X1,50X110	15	04161.180.110	M20X1,50X110	10	04161.200.110
M10X1,00X80/S=17	100	04161.100.080	M18X1,50X120	15	04161.180.120	M20X1,50X120	10	04161.200.120
M10X1,00X90/S=17	50	04161.100.090	M18X1,50X130	15	04161.180.130	M20X1,50X130	10	04161.200.130
M10X1,00X100/S=17	50	04161.100.100	M18X1,50X140	10	04161.180.140	M20X1,50X140	10	04161.200.140
M18X1,50X60	25	04161.180.060	M18X1,50X150	10	04161.180.150	M20X1,50X150	10	04161.200.150
M18X1,50X70	25	04161.180.070	M18X1,50X160	10	04161.180.160	M20X1,50X160	10	04161.200.160
M18X1,50X75	25	04161.180.075	M20X1,50X70	25	04161.200.070			
M18X1,50X80	25	04161.180.080	M20X1,50X80	25	04161.200.080			

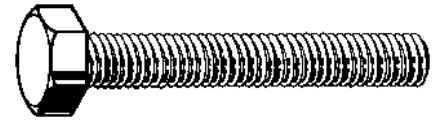
• Warning: electro-galvanizing of these products may cause hydrogen embrittlement.

Hexagon head screw MF

1



ISO 8676
DIN 961
NEN 1568
NF E25-151



Technical data

d	k	s
M8	5,3	13
M10 (DIN)	6,4	17
M10	6,4	16
M12 (DIN)	7,5	19

d	k	s
M14 (DIN)	8,8	22
M16	10	24
M18	11,5	27

d	k	s
M20	12,5	30
M24	15	36

Article groups

Thread	Driving features	Material	Class	Surface treatment	Packaging	Code	Page
MF	hexagon	St	8.8		Standard	01070	1-35
MEF	hexagon	St	8.8		Standard	01071	1-35
MF	hexagon	St	8.8	Zipl yell.p.	Standard	01250	1-36
MEF	hexagon	St	8.8	Zipl yell.p.	Standard	01251	1-36
MF	hexagon	St	10.9		Standard	04170	1-36
MEF	hexagon	St	10.9		Standard	04171	1-37

01070 Hexagon head screw MF

A09A

Thread Metric fine thread
Material Steel
Class 8.8
Packaging Standard



d x P x L	☒	Art.number	d x P x L	☒	Art.number	d x P x L	☒	Art.number
M8X1,00X16	200	01070.080.016	M12X1,50X20/S=19	100	01070.120.020	M14X1,50X50/S=22	50	01070.140.050
M8X1,00X20	200	01070.080.020	M12X1,50X25/S=19	100	01070.120.025	M14X1,50X60/S=22	50	01070.140.060
M8X1,00X25	200	01070.080.025	M12X1,50X30/S=19	100	01070.120.030			
M8X1,00X30	200	01070.080.030	M12X1,50X35/S=19	100	01070.120.035	M16X1,50X20	50	01070.160.020
M8X1,00X35	200	01070.080.035	M12X1,50X40/S=19	100	01070.120.040	M16X1,50X25	50	01070.160.025
M8X1,00X40	200	01070.080.040	M12X1,50X45/S=19	100	01070.120.045	M16X1,50X30	50	01070.160.030
			M12X1,50X50/S=19	100	01070.120.050	M16X1,50X35	50	01070.160.035
M10X1,25X20/S=17	200	01070.100.020	M12X1,50X60/S=19	100	01070.120.060	M16X1,50X40	50	01070.160.040
M10X1,25X25/S=17	200	01070.100.025				M16X1,50X45	50	01070.160.045
M10X1,25X30/S=17	200	01070.100.030	M14X1,50X20/S=22	100	01070.140.020	M16X1,50X50	50	01070.160.050
M10X1,25X35/S=17	100	01070.100.035	M14X1,50X25/S=22	100	01070.140.025	M16X1,50X60	50	01070.160.060
M10X1,25X40/S=17	100	01070.100.040	M14X1,50X30/S=22	100	01070.140.030	M16X1,50X70	25	01070.160.070
M10X1,25X45/S=17	100	01070.100.045	M14X1,50X35/S=22	100	01070.140.035	M16X1,50X80	25	01070.160.080
M10X1,25X50/S=17	100	01070.100.050	M14X1,50X40/S=22	100	01070.140.040	M16X1,50X120	25	01070.160.120
			M14X1,50X45/S=22	50	01070.140.045			

01071 Hexagon head screw MF

A09A

Thread Metric extra fine thread
Material Steel
Class 8.8
Packaging Standard



d x P x L	☒	Art.number	d x P x L	☒	Art.number	d x P x L	☒	Art.number
M10X1,00X20/S=17	200	01071.100.020	M12X1,25X40/S=19	100	01071.120.040	M18X1,50X80	25	01071.180.080
M10X1,00X25/S=17	200	01071.100.025	M12X1,25X50/S=19	100	01071.120.050			
M10X1,00X30/S=17	200	01071.100.030				M20X1,50X40	25	01071.200.040
M10X1,00X35/S=17	100	01071.100.035	M18X1,50X35	50	01071.180.035	M20X1,50X45	25	01071.200.045
M10X1,00X40/S=17	100	01071.100.040	M18X1,50X40	50	01071.180.040	M20X1,50X50	25	01071.200.050
			M18X1,50X45	50	01071.180.045	M20X1,50X60	25	01071.200.060
M12X1,25X25/S=19	100	01071.120.025	M18X1,50X50	50	01071.180.050	M20X1,50X70	25	01071.200.070
M12X1,25X30/S=19	100	01071.120.030	M18X1,50X60	25	01071.180.060	M20X1,50X80	25	01071.200.080
M12X1,25X35/S=19	100	01071.120.035	M18X1,50X70	25	01071.180.070			

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01250 Hexagon head screw MF		A09A
Thread	Metric fine thread	
Material	Steel	
Class	8.8	
Surface treatment	Zinc plated yellow passivated	
Packaging	Standard	



d x P x L	☒	Art.number	d x P x L	☒	Art.number	d x P x L	☒	Art.number
M8X1,00X20	200	01250.080.020	M12X1,50X20/S=19	100	01250.120.020	M14X1,50X45/S=22	50	01250.140.045
M8X1,00X25	200	01250.080.025	M12X1,50X25/S=19	100	01250.120.025	M14X1,50X50/S=22	50	01250.140.050
M8X1,00X30	200	01250.080.030	M12X1,50X30/S=19	100	01250.120.030	M14X1,50X60/S=22	50	01250.140.060
M8X1,00X35	200	01250.080.035	M12X1,50X35/S=19	100	01250.120.035			
M8X1,00X40	200	01250.080.040	M12X1,50X40/S=19	100	01250.120.040	M16X1,50X20	50	01250.160.020
			M12X1,50X45/S=19	100	01250.120.045	M16X1,50X25	50	01250.160.025
M10X1,25X20/S=17	200	01250.100.020	M12X1,50X50/S=19	100	01250.120.050	M16X1,50X30	50	01250.160.030
M10X1,25X25/S=17	200	01250.100.025	M12X1,50X60/S=19	100	01250.120.060	M16X1,50X35	50	01250.160.035
M10X1,25X30/S=17	200	01250.100.030				M16X1,50X40	50	01250.160.040
M10X1,25X35/S=17	100	01250.100.035	M14X1,50X20/S=22	100	01250.140.020	M16X1,50X45	50	01250.160.045
M10X1,25X40/S=17	100	01250.100.040	M14X1,50X25/S=22	100	01250.140.025	M16X1,50X50	50	01250.160.050
M10X1,25X45/S=17	100	01250.100.045	M14X1,50X30/S=22	100	01250.140.030	M16X1,50X60	50	01250.160.060
M10X1,25X50/S=17	100	01250.100.050	M14X1,50X35/S=22	100	01250.140.035	M16X1,50X70	25	01250.160.070
			M14X1,50X40/S=22	100	01250.140.040			

01251 Hexagon head screw MF		A09A
Thread	Metric extra fine thread	
Material	Steel	
Class	8.8	
Surface treatment	Zinc plated yellow passivated	
Packaging	Standard	



d x P x L	☒	Art.number	d x P x L	☒	Art.number	d x P x L	☒	Art.number
M10X1,00X20/S=17	200	01251.100.020	M12X1,25X40/S=19	100	01251.120.040	M18X1,50X70	25	01251.180.070
M10X1,00X25/S=17	200	01251.100.025	M12X1,25X45/S=19	100	01251.120.045	M18X1,50X80	25	01251.180.080
M10X1,00X30/S=17	200	01251.100.030	M12X1,25X50/S=19	100	01251.120.050			
M10X1,00X35/S=17	100	01251.100.035				M20X1,50X40	25	01251.200.040
M10X1,00X40/S=17	100	01251.100.040	M18X1,50X35	50	01251.180.035	M20X1,50X50	25	01251.200.050
			M18X1,50X40	50	01251.180.040	M20X1,50X60	25	01251.200.060
M12X1,25X25/S=19	100	01251.120.025	M18X1,50X45	50	01251.180.045	M20X1,50X70	25	01251.200.070
M12X1,25X30/S=19	100	01251.120.030	M18X1,50X50	50	01251.180.050	M20X1,50X80	25	01251.200.080
M12X1,25X35/S=19	100	01251.120.035	M18X1,50X60	25	01251.180.060			

04170 Hexagon head screw MF		C02A
Thread	Metric fine thread	
Material	Steel	
Class	10.9	
Packaging	Standard	



d x P x L	☒	Art.number	d x P x L	☒	Art.number	d x P x L	☒	Art.number
M8X1,00X20	200	04170.080.020	M12X1,50X30/S=19	100	04170.120.030	M16X1,50X40	50	04170.160.040
M8X1,00X25	200	04170.080.025	M12X1,50X35/S=19	100	04170.120.035	M16X1,50X45	50	04170.160.045
M8X1,00X30	200	04170.080.030	M12X1,50X40/S=19	100	04170.120.040	M16X1,50X50	25	04170.160.050
M8X1,00X35	200	04170.080.035				M16X1,50X60	25	04170.160.060
M8X1,00X40	200	04170.080.040	M14X1,50X25/S=22	50	04170.140.025			
			M14X1,50X30/S=22	50	04170.140.030	M24X2,00X45	25	04170.240.045
M10X1,25X20/S=17	200	04170.100.020	M14X1,50X35/S=22	50	04170.140.035	M24X2,00X50	25	04170.240.050
M10X1,25X25/S=17	200	04170.100.025	M14X1,50X40/S=22	50	04170.140.040	M24X2,00X60	25	04170.240.060
M10X1,25X30/S=17	100	04170.100.030	M14X1,50X45/S=22	50	04170.140.045	M24X2,00X70	25	04170.240.070
M10X1,25X35/S=17	100	04170.100.035	M14X1,50X50/S=22	50	04170.140.050			
M10X1,25X40/S=17	100	04170.100.040	M14X1,50X60/S=22	50	04170.140.060			
M12X1,50X20/S=19	100	04170.120.020	M16X1,50X30	50	04170.160.030			
M12X1,50X25/S=19	100	04170.120.025	M16X1,50X35	50	04170.160.035			

• Warning: electro-galvanizing of these products may cause hydrogen embrittlement.

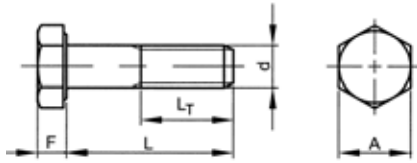
04171 Hexagon head screw MF		C02A
Thread	Metric extra fine thread	
Material	Steel	
Class	10.9	
Packaging	Standard	

d x P x L	☒	Art.number	d x P x L	☒	Art.number	d x P x L	☒	Art.number	
M10X1,00X20/S=17	100	04171.100.020	M12X1,25X30/S=19	50	04171.120.030	M20X1,50X40	25	04171.200.040	
M10X1,00X25/S=17	100	04171.100.025	M12X1,25X35/S=19	50	04171.120.035		M20X1,50X45	25	04171.200.045
M10X1,00X30/S=17	100	04171.100.030	M12X1,25X40/S=19	50	04171.120.040		M20X1,50X50	25	04171.200.050
M10X1,00X35/S=17	100	04171.100.035					M20X1,50X60	25	04171.200.060
M10X1,00X40/S=17	100	04171.100.040	M18X1,50X40	25	04171.180.040				
			M18X1,50X50	25	04171.180.050				
M12X1,25X25/S=19	50	04171.120.025	M18X1,50X60	25	04171.180.060				

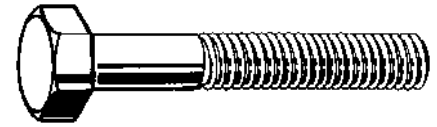
- Warning: electro-galvanizing of these products may cause hydrogen embrittlement.

Hexagon head bolt UNC

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ANSI ≈ B18.2.1
BS ≈ 1768



Technical data

d	Threads per inch	L _T (min.): L ≤ 6.IN.	L _T (min.): L > 6.IN.	F	A
No.10	24	-	-	3	5/16
1/4	20	19	25	4	7/16
5/16	18	22	29	5,2	1/2
3/8	16	25	32	6	9/16
7/16	14	29	35	7,1	5/8
1/2	13	32	38	7,9	3/4
9/16	12	35	41	9,1	13/16
5/8	11	38	44	9,9	15/16
3/4	10	44	51	11,9	1.1/8
7/8	9	51	57	13,9	1.5/16
1.IN.	8	57	64	15,5	1.1/2
1.1/8	7	64	70	17,5	1.11/16
1.1/4	7	70	76	19,8	1.7/8
1.1/2	6	83	89	23,8	2.1/4

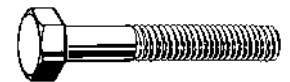
Article groups


Thread	Driving features	Material	Class	Surface treatment	Packaging	Code	Page
UNC	hexagon	St	Grade 5		Standard	02400	1-38
UNC	hexagon	St	Grade 5	Zipl	Standard	02420	1-39
UNC	hexagon	St.St. A2			Standard	51006	1-40
UNC	hexagon	St.St. A4			Standard	55006	1-40

02400 Hexagon head bolt UNC

X01A

Thread	Unified National Coarse
Material	Steel
Class	Grade 5
Packaging	Standard



- Grade 5 acc. to the American standards SAE J429/ASTM A449 (marking sign ) corresponds much the same with property class 8.8 acc. to ISO 898-1. When the bolts are also marked with 8.8, then they meet the properties of property class 8.8. Depending on availability also the equal class S acc. to BS 1768 (marking sign S) can be supplied.

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1.1/4	200	02400.063.031	5/16X4.1/2	50	02400.079.114	7/16X4.IN.	50	02400.111.101
1/4X1.1/2	200	02400.063.038	5/16X5.IN.	100	02400.079.127	7/16X4.1/2	50	02400.111.114
1/4X1.3/4	200	02400.063.044						
1/4X2.IN.	200	02400.063.050	3/8X1.1/2	100	02400.096.038	1/2X1.3/4	50	02400.127.044
1/4X2.1/4	200	02400.063.057	3/8X1.3/4	100	02400.096.044	1/2X2.IN.	50	02400.127.050
1/4X2.1/2	100	02400.063.063	3/8X2.IN.	100	02400.096.050	1/2X2.1/4	50	02400.127.057
1/4X2.3/4	100	02400.063.069	3/8X2.1/4	100	02400.096.057	1/2X2.1/2	50	02400.127.063
1/4X3.IN.	100	02400.063.076	3/8X2.1/2	100	02400.096.063	1/2X2.3/4	50	02400.127.069
1/4X3.1/4	100	02400.063.082	3/8X2.3/4	100	02400.096.069	1/2X3.IN.	50	02400.127.076
1/4X3.1/2	100	02400.063.088	3/8X3.IN.	100	02400.096.076	1/2X3.1/4	25	02400.127.082
1/4X4.IN.	100	02400.063.101	3/8X3.1/4	50	02400.096.082	1/2X3.1/2	50	02400.127.088
1/4X4.1/2	100	02400.063.114	3/8X3.1/2	50	02400.096.088	1/2X3.3/4	25	02400.127.095
1/4X6.IN.	100	02400.063.152	3/8X4.IN.	50	02400.096.101	1/2X4.IN.	50	02400.127.101
			3/8X4.1/2	50	02400.096.114	1/2X4.1/2	50	02400.127.114
5/16X1.1/4	200	02400.079.031	3/8X5.IN.	50	02400.096.127	1/2X5.IN.	50	02400.127.127
5/16X1.1/2	200	02400.079.038	3/8X5.1/2	50	02400.096.139	1/2X5.1/2	25	02400.127.139
5/16X1.3/4	100	02400.079.044	3/8X6.IN.	50	02400.096.152	1/2X6.IN.	25	02400.127.152
5/16X2.IN.	100	02400.079.050				1/2X6.1/2	25	02400.127.165
5/16X2.1/4	100	02400.079.057	7/16X1.1/2	100	02400.111.038	1/2X7.IN.	25	02400.127.177
5/16X2.1/2	100	02400.079.063	7/16X1.3/4	50	02400.111.044	1/2X8.IN.	10	02400.127.203
5/16X2.3/4	100	02400.079.069	7/16X2.IN.	100	02400.111.050	1/2X8.1/2	10	02400.127.215
5/16X3.IN.	100	02400.079.076	7/16X2.1/2	50	02400.111.063	1/2X10.IN.	10	02400.127.254
5/16X3.1/2	100	02400.079.088	7/16X2.3/4	50	02400.111.069	1/2X12.IN.	10	02400.127.304
5/16X3.3/4	100	02400.079.095	7/16X3.IN.	50	02400.111.076	1/2X13.IN.	10	02400.127.330
5/16X4.IN.	100	02400.079.101	7/16X3.1/2	50	02400.111.088			

02400 Hexagon head bolt UNC ←

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
9/16X1.1/4	25	02400.142.031	3/4X9.IN.	10	02400.191.228	1.1/8X3.IN.	4	02400.285.076
9/16X1.1/2	25	02400.142.038	3/4X10.IN.	10	02400.191.254	1.1/8X3.1/2	4	02400.285.088
9/16X1.3/4	25	02400.142.044				1.1/8X4.IN.	4	02400.285.101
9/16X2.IN.	100	02400.142.050	7/8X2.1/4	25	02400.222.057	1.1/8X4.1/2	4	02400.285.114
9/16X3.IN.	25	02400.142.076	7/8X3.IN.	25	02400.222.076	1.1/8X5.IN.	4	02400.285.127
9/16X3.1/2	25	02400.142.088	7/8X3.1/2	10	02400.222.088	1.1/8X5.1/2	4	02400.285.139
			7/8X4.IN.	10	02400.222.101	1.1/8X6.IN.	4	02400.285.152
5/8X2.1/4	25	02400.158.057	7/8X4.1/2	10	02400.222.114			
5/8X2.1/2	25	02400.158.063	7/8X5.IN.	10	02400.222.127	1.1/4X3.1/4	2	02400.317.082
5/8X2.3/4	25	02400.158.069	7/8X5.1/2	10	02400.222.139	1.1/4X3.1/2	2	02400.317.088
5/8X3.IN.	25	02400.158.076	7/8X6.IN.	10	02400.222.152	1.1/4X4.IN.	2	02400.317.101
5/8X3.1/4	25	02400.158.082	7/8X6.1/2	10	02400.222.165	1.1/4X4.1/2	2	02400.317.114
5/8X3.1/2	25	02400.158.088	7/8X7.IN.	10	02400.222.177	1.1/4X5.IN.	2	02400.317.127
5/8X3.3/4	25	02400.158.095	7/8X8.IN.	5	02400.222.203	1.1/4X5.1/2	2	02400.317.139
5/8X4.IN.	25	02400.158.101	7/8X8.1/2	5	02400.222.215	1.1/4X6.IN.	2	02400.317.152
5/8X4.1/2	25	02400.158.114				1.1/4X6.1/2	2	02400.317.165
5/8X5.IN.	25	02400.158.127	1.IN.X2.1/4	10	02400.254.057	1.1/4X7.IN.	2	02400.317.177
5/8X5.1/2	10	02400.158.139	1.IN.X2.1/2	10	02400.254.063	1.1/4X8.IN.	2	02400.317.203
5/8X6.IN.	10	02400.158.152	1.IN.X2.3/4	10	02400.254.069	1.1/4X9.IN.	2	02400.317.228
5/8X7.IN.	10	02400.158.177	1.IN.X3.IN.	10	02400.254.076	1.1/4X10.IN.	2	02400.317.254
5/8X8.IN.	10	02400.158.203	1.IN.X3.1/4	10	02400.254.082	1.1/4X12.IN.	2	02400.317.304
			1.IN.X3.1/2	10	02400.254.088			
3/4X2.1/4	25	02400.191.057	1.IN.X4.IN.	10	02400.254.101	1.1/2X3.IN.	2	02400.381.076
3/4X2.1/2	25	02400.191.063	1.IN.X4.1/2	10	02400.254.114	1.1/2X3.1/2	2	02400.381.088
3/4X2.3/4	25	02400.191.069	1.IN.X5.IN.	10	02400.254.127	1.1/2X4.IN.	2	02400.381.101
3/4X3.IN.	25	02400.191.076	1.IN.X5.1/2	10	02400.254.139	1.1/2X4.1/2	2	02400.381.114
3/4X3.1/4	25	02400.191.082	1.IN.X6.IN.	10	02400.254.152	1.1/2X5.IN.	2	02400.381.127
3/4X3.1/2	25	02400.191.088	1.IN.X6.1/2	5	02400.254.165	1.1/2X5.1/2	2	02400.381.139
3/4X4.IN.	25	02400.191.101	1.IN.X7.IN.	5	02400.254.177	1.1/2X6.IN.	2	02400.381.152
3/4X4.1/2	10	02400.191.114	1.IN.X7.1/2	5	02400.254.190	1.1/2X8.IN.	2	02400.381.203
3/4X5.IN.	10	02400.191.127	1.IN.X8.IN.	5	02400.254.203	1.1/2X10.IN.	1	02400.381.254
3/4X5.1/2	10	02400.191.139	1.IN.X8.1/2	5	02400.254.215	1.1/2X12.IN.	1	02400.381.304
3/4X6.IN.	10	02400.191.152	1.IN.X9.IN.	5	02400.254.228	1.1/2X14.IN.	1	02400.381.355
3/4X7.IN.	10	02400.191.177	1.IN.X10.IN.	5	02400.254.254			
3/4X8.IN.	10	02400.191.203						

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02420 Hexagon head bolt UNC X01A

Thread	Unified National Coarse
Material	Steel
Class	Grade 5
Surface treatment	Zinc plated
Packaging	Standard

- Grade 5 acc. to the American standards SAE J429/ASTM A449 (marking sign) corresponds much the same with property class 8.8 acc. to ISO 898-1. When the bolts are also marked with 8.8, then they meet the properties of property class 8.8. Depending on availability also the equal class S acc. to BS 1768 (marking sign S) can be supplied.

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1.IN.	200	02420.063.025	3/8X2.1/2	100	02420.096.063	1/2X2.3/4	100	02420.127.069
1/4X1.1/4	200	02420.063.031	3/8X2.3/4	100	02420.096.069	1/2X3.IN.	100	02420.127.076
1/4X1.1/2	200	02420.063.038	3/8X3.IN.	100	02420.096.076	1/2X3.1/4	50	02420.127.082
1/4X1.3/4	200	02420.063.044	3/8X3.1/4	100	02420.096.082	1/2X3.1/2	50	02420.127.088
1/4X2.IN.	200	02420.063.050	3/8X3.1/2	100	02420.096.088	1/2X3.3/4	50	02420.127.095
1/4X2.1/4	200	02420.063.057	3/8X3.3/4	100	02420.096.095	1/2X4.IN.	50	02420.127.101
1/4X2.1/2	200	02420.063.063	3/8X4.IN.	100	02420.096.101	1/2X4.1/2	50	02420.127.114
1/4X2.3/4	200	02420.063.069	3/8X4.1/2	100	02420.096.114	1/2X5.IN.	50	02420.127.127
1/4X3.IN.	200	02420.063.076	3/8X5.IN.	100	02420.096.127	1/2X5.1/2	50	02420.127.139
1/4X3.1/2	100	02420.063.088	3/8X5.1/2	50	02420.096.139	1/2X6.IN.	50	02420.127.152
1/4X4.IN.	100	02420.063.101	3/8X6.IN.	50	02420.096.152	1/2X6.1/2	50	02420.127.165
1/4X4.1/2	100	02420.063.114	3/8X6.1/2	50	02420.096.165	1/2X7.IN.	50	02420.127.177
1/4X5.IN.	100	02420.063.127	3/8X7.IN.	50	02420.096.177	1/2X7.1/2	50	02420.127.190
1/4X6.IN.	100	02420.063.152	3/8X7.1/2	50	02420.096.190	1/2X8.IN.	50	02420.127.203
5/16X1.1/4	200	02420.079.031	7/16X1.1/2	100	02420.111.038	9/16X2.IN.	50	02420.142.050
5/16X1.1/2	200	02420.079.038	7/16X1.3/4	100	02420.111.044	9/16X2.1/4	25	02420.142.057
5/16X1.3/4	200	02420.079.044	7/16X2.IN.	100	02420.111.050	9/16X2.1/2	25	02420.142.063
5/16X2.IN.	200	02420.079.050	7/16X2.1/4	100	02420.111.057	9/16X3.IN.	25	02420.142.076
5/16X2.1/4	200	02420.079.057	7/16X2.1/2	100	02420.111.063	9/16X3.1/2	25	02420.142.088
5/16X2.1/2	200	02420.079.063	7/16X2.3/4	100	02420.111.069	9/16X4.IN.	25	02420.142.101
5/16X2.3/4	200	02420.079.069	7/16X3.IN.	100	02420.111.076	9/16X4.1/2	25	02420.142.114
5/16X3.IN.	200	02420.079.076	7/16X3.1/4	50	02420.111.082	9/16X5.IN.	25	02420.142.127
5/16X3.1/4	100	02420.079.082	7/16X3.1/2	50	02420.111.088	9/16X6.IN.	25	02420.142.152
5/16X3.1/2	100	02420.079.088	7/16X3.3/4	50	02420.111.095			
5/16X3.3/4	100	02420.079.095	7/16X4.IN.	50	02420.111.101	5/8X2.IN.	50	02420.158.050
5/16X4.IN.	100	02420.079.101	7/16X4.1/2	50	02420.111.114	5/8X2.1/4	50	02420.158.057
5/16X4.1/2	100	02420.079.114	7/16X5.IN.	50	02420.111.127	5/8X2.1/2	50	02420.158.063
5/16X5.IN.	100	02420.079.127	7/16X5.1/2	50	02420.111.139	5/8X2.3/4	50	02420.158.069
5/16X6.IN.	50	02420.079.152	7/16X6.IN.	50	02420.111.152	5/8X3.IN.	50	02420.158.076
						5/8X3.1/4	50	02420.158.082
3/8X1.1/2	200	02420.096.038	1/2X1.3/4	100	02420.127.044	5/8X3.1/2	25	02420.158.088
3/8X1.3/4	200	02420.096.044	1/2X2.IN.	100	02420.127.050	5/8X3.3/4	25	02420.158.095
3/8X2.IN.	200	02420.096.050	1/2X2.1/4	100	02420.127.057	5/8X4.IN.	25	02420.158.101
3/8X2.1/4	100	02420.096.057	1/2X2.1/2	100	02420.127.063			

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02420 Hexagon head bolt UNC

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
5/8X5.IN.	25	02420.158.127	3/4X7.IN.	10	02420.191.177	1.IN.X4.1/2	10	02420.254.114
5/8X5.1/2	25	02420.158.139	3/4X7.1/2	10	02420.191.190	1.IN.X5.IN.	10	02420.254.127
5/8X6.IN.	25	02420.158.152	3/4X8.IN.	10	02420.191.203	1.IN.X5.1/2	10	02420.254.139
5/8X6.1/2	25	02420.158.165				1.IN.X6.IN.	10	02420.254.152
5/8X7.IN.	25	02420.158.177	7/8X3.IN.	25	02420.222.076	1.IN.X6.1/2	10	02420.254.165
5/8X8.IN.	25	02420.158.203	7/8X3.1/4	25	02420.222.082	1.IN.X7.IN.	10	02420.254.177
5/8X10.IN.	25	02420.158.254	7/8X3.1/2	25	02420.222.088	1.IN.X7.1/2	100	02420.254.190
			7/8X4.IN.	25	02420.222.101	1.IN.X8.IN.	10	02420.254.203
3/4X2.1/4	50	02420.191.057	7/8X4.1/2	25	02420.222.114	1.IN.X10.IN.	10	02420.254.254
3/4X2.1/2	50	02420.191.063	7/8X5.IN.	25	02420.222.127			
3/4X2.3/4	25	02420.191.069	7/8X5.1/2	25	02420.222.139	1.1/4X3.1/2	5	02420.317.088
3/4X3.IN.	25	02420.191.076	7/8X6.IN.	25	02420.222.152	1.1/4X5.1/2	5	02420.317.139
3/4X3.1/4	25	02420.191.082	7/8X6.1/2	10	02420.222.165	1.1/4X6.IN.	5	02420.317.152
3/4X3.1/2	25	02420.191.088	7/8X7.IN.	10	02420.222.177	1.1/4X6.1/2	5	02420.317.165
3/4X3.3/4	25	02420.191.095	7/8X8.IN.	10	02420.222.203	1.1/4X7.IN.	5	02420.317.177
3/4X4.IN.	25	02420.191.101	7/8X10.IN.	10	02420.222.254	1.1/4X10.IN.	5	02420.317.254
3/4X4.1/2	25	02420.191.114				1.1/4X12.IN.	5	02420.317.304
3/4X5.IN.	25	02420.191.127	1.IN.X3.IN.	10	02420.254.076			
3/4X5.1/2	25	02420.191.139	1.IN.X3.1/4	10	02420.254.082	1.1/2X4.IN.	5	02420.381.101
3/4X6.IN.	25	02420.191.152	1.IN.X3.1/2	10	02420.254.088			
3/4X6.1/2	10	02420.191.165	1.IN.X4.IN.	10	02420.254.101			

51006 Hexagon head bolt UNC X15A

Thread	Unified National Coarse
Material	Stainless steel A2
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1.IN.	100	51006.063.025	3/8X3.1/2	25	51006.096.088	5/8X3.IN.	5	51006.158.076
1/4X1.1/4	100	51006.063.031	3/8X3.3/4	25	51006.096.095	5/8X3.1/4	5	51006.158.082
1/4X1.1/2	100	51006.063.038	3/8X4.IN.	25	51006.096.101	5/8X3.1/2	5	51006.158.088
1/4X1.3/4	50	51006.063.044	3/8X4.1/2	25	51006.096.114	5/8X3.3/4	5	51006.158.095
1/4X2.IN.	50	51006.063.050	3/8X5.IN.	25	51006.096.127	5/8X4.IN.	5	51006.158.101
1/4X2.1/4	50	51006.063.057	3/8X6.IN.	25	51006.096.152	5/8X4.1/2	5	51006.158.114
1/4X2.1/2	50	51006.063.063	3/8X7.IN.	25	51006.096.177	5/8X5.IN.	5	51006.158.127
1/4X2.3/4	50	51006.063.069				5/8X5.1/2	5	51006.158.139
1/4X3.IN.	50	51006.063.076	7/16X3/4	25	51006.111.019	5/8X6.IN.	5	51006.158.152
1/4X3.1/2	50	51006.063.088	7/16X1.IN.	25	51006.111.025	5/8X6.1/2	5	51006.158.165
1/4X4.IN.	50	51006.063.101	7/16X1.1/4	25	51006.111.031	5/8X7.IN.	5	51006.158.177
1/4X4.1/2	50	51006.063.114	7/16X1.1/2	25	51006.111.038			
1/4X5.IN.	50	51006.063.127	7/16X1.3/4	25	51006.111.044	3/4X2.IN.	5	51006.191.050
			7/16X2.IN.	25	51006.111.050	3/4X2.1/4	5	51006.191.057
5/16X1.IN.	100	51006.079.025	7/16X4.IN.	25	51006.111.101	3/4X2.1/2	5	51006.191.063
5/16X1.1/2	100	51006.079.038				3/4X2.3/4	5	51006.191.069
5/16X1.3/4	50	51006.079.044	1/2X1.3/4	25	51006.127.044	3/4X3.IN.	5	51006.191.076
5/16X2.IN.	50	51006.079.050	1/2X2.IN.	25	51006.127.050	3/4X3.1/4	5	51006.191.082
5/16X2.1/4	50	51006.079.057	1/2X2.1/4	25	51006.127.057	3/4X3.1/2	5	51006.191.088
5/16X2.1/2	50	51006.079.063	1/2X2.1/2	25	51006.127.063	3/4X4.IN.	5	51006.191.101
5/16X2.3/4	50	51006.079.069	1/2X2.3/4	10	51006.127.069	3/4X4.1/2	5	51006.191.114
5/16X3.IN.	50	51006.079.076	1/2X3.IN.	10	51006.127.076	3/4X5.IN.	5	51006.191.127
5/16X3.1/2	50	51006.079.088	1/2X3.1/4	10	51006.127.082	3/4X6.IN.	5	51006.191.152
5/16X4.IN.	50	51006.079.101	1/2X3.1/2	10	51006.127.088			
5/16X4.1/2	50	51006.079.114	1/2X3.3/4	10	51006.127.095	7/8X2.1/2	5	51006.222.063
5/16X5.IN.	50	51006.079.127	1/2X4.IN.	10	51006.127.101	7/8X3.IN.	5	51006.222.076
			1/2X4.1/2	10	51006.127.114	7/8X4.IN.	5	51006.222.101
3/8X1.1/4	50	51006.096.031	1/2X5.IN.	10	51006.127.127			
3/8X1.1/2	50	51006.096.038	1/2X5.1/2	10	51006.127.139	1.IN.X2.IN.	5	51006.254.050
3/8X1.3/4	50	51006.096.044	1/2X6.IN.	10	51006.127.152	1.IN.X2.3/4	5	51006.254.069
3/8X2.IN.	50	51006.096.050				1.IN.X3.IN.	5	51006.254.076
3/8X2.1/4	25	51006.096.057	5/8X1.3/4	10	51006.158.044	1.IN.X4.IN.	5	51006.254.101
3/8X2.1/2	25	51006.096.063	5/8X2.IN.	10	51006.158.050	1.IN.X5.IN.	5	51006.254.127
3/8X2.3/4	25	51006.096.069	5/8X2.1/4	10	51006.158.057	1.IN.X5.1/2	5	51006.254.139
3/8X3.IN.	25	51006.096.076	5/8X2.1/2	10	51006.158.063	1.IN.X6.IN.	5	51006.254.152
3/8X3.1/4	25	51006.096.082	5/8X2.3/4	10	51006.158.069			

• Depending on availability the austenitic steel type is comparable to AISI 304 with mechanical properties acc. to ASTM F593.

55006 Hexagon head bolt UNC X15A

Thread	Unified National Coarse
Material	Stainless steel A4
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1.1/4	100	55006.063.031	1/4X2.1/2	50	55006.063.063	5/16X1.1/4	100	55006.079.031
1/4X1.1/2	100	55006.063.038	1/4X3.IN.	50	55006.063.076	5/16X1.1/2	100	55006.079.038
1/4X1.3/4	50	55006.063.044	1/4X3.1/2	50	55006.063.088	5/16X1.3/4	50	55006.079.044
1/4X2.IN.	50	55006.063.050				5/16X2.IN.	50	55006.079.050
1/4X2.1/4	50	55006.063.057	5/16X1.IN.	100	55006.079.025	5/16X2.1/4	50	55006.079.057

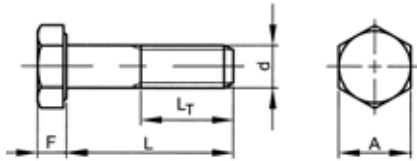
55006 Hexagon head bolt UNC ←

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
5/16X2.1/2	50	55006.079.063	1/2X2.3/4	10	55006.127.069	3/4X2.1/4	5	55006.191.057
5/16X3.IN.	50	55006.079.076	1/2X3.IN.	10	55006.127.076	3/4X2.1/2	5	55006.191.063
5/16X3.1/2	50	55006.079.088	1/2X3.1/2	10	55006.127.088	3/4X2.3/4	5	55006.191.069
5/16X4.IN.	50	55006.079.101	1/2X4.IN.	10	55006.127.101	3/4X3.IN.	5	55006.191.076
			1/2X4.1/2	10	55006.127.114	3/4X3.1/2	5	55006.191.088
3/8X1.1/4	50	55006.096.031	1/2X5.IN.	10	55006.127.127	3/4X4.IN.	5	55006.191.101
3/8X1.1/2	50	55006.096.038				3/4X4.1/2	5	55006.191.114
3/8X1.3/4	50	55006.096.044	5/8X1.3/4	10	55006.158.044	3/4X5.IN.	5	55006.191.127
3/8X2.IN.	50	55006.096.050	5/8X2.IN.	10	55006.158.050	3/4X6.IN.	5	55006.191.152
3/8X2.1/2	25	55006.096.063	5/8X2.1/4	10	55006.158.057			
3/8X2.3/4	25	55006.096.069	5/8X2.1/2	10	55006.158.063	7/8X2.1/2	20	55006.222.063
3/8X3.IN.	25	55006.096.076	5/8X2.3/4	10	55006.158.069	7/8X3.IN.	5	55006.222.076
3/8X3.1/2	25	55006.096.088	5/8X3.IN.	5	55006.158.076	7/8X3.1/2	20	55006.222.088
3/8X4.IN.	25	55006.096.101	5/8X3.1/4	5	55006.158.082	7/8X4.IN.	10	55006.222.101
3/8X4.1/2	10	55006.096.114	5/8X3.1/2	5	55006.158.088	7/8X4.1/2	5	55006.222.114
3/8X5.IN.	10	55006.096.127	5/8X3.3/4	5	55006.158.095	7/8X5.IN.	5	55006.222.127
3/8X6.IN.	10	55006.096.152	5/8X4.IN.	5	55006.158.101			
			5/8X5.IN.	5	55006.158.127	1.IN.X2.IN.	1	55006.254.050
1/2X1.1/2	10	55006.127.038	5/8X6.IN.	5	55006.158.152	1.IN.X3.IN.	1	55006.254.076
1/2X1.3/4	25	55006.127.044	5/8X7.IN.	10	55006.158.177	1.IN.X4.IN.	1	55006.254.101
1/2X2.IN.	25	55006.127.050						
1/2X2.1/2	25	55006.127.063	3/4X2.IN.	5	55006.191.050			

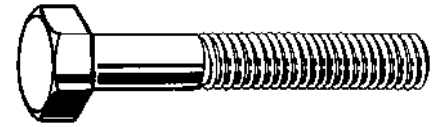
• Depending on availability the austenitic steel type is comparable to AISI 316 with mechanical properties acc. to ASTM F593.

Hexagon head bolt UNF

1



ANSI ≈ B18.2.1
BS ≈ 1768



Technical data

d	Threads per inch	L _T (min.): L ≤ 6.IN.	L _T (min.): L > 6.IN.	F	A
No.10	32	-	-	3	5/16
1/4	28	19	25	4	7/16
5/16	24	22	29	5,2	1/2
3/8	24	25	32	6	9/16
7/16	20	29	35	7,1	5/8
1/2	20	32	38	7,9	3/4
9/16	18	35	41	9,1	13/16
5/8	18	38	44	9,9	15/16
3/4	16	44	51	11,9	1.1/8
7/8	14	51	57	13,9	1.5/16
1.IN.-12G	12	57	64	15,5	1.1/2
1.IN.-14G	14	57	64	15,5	1.1/2
1.1/4	12	70	76	19,8	1.7/8
1.1/2	12	83	89	23,8	2.1/4

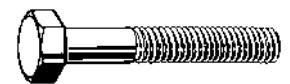
Article groups


Thread	Driving features	Material	Class	Surface treatment	Packaging	Code	Page
UNF	hexagon	St	Grade 5		Standard	02000	1-42
UNF	hexagon	St	Grade 5	Zipl	Standard	02120	1-43
UNF	hexagon	St.St. A2			Standard	51007	1-43

02000 Hexagon head bolt UNF

X01A

Thread	Unified National Fine
Material	Steel
Class	Grade 5
Packaging	Standard



- Grade 5 acc. to the American standards SAE J429/ASTM A449 (marking sign ) corresponds much the same with property class 8.8 acc. to ISO 898-1. When the bolts are also marked with 8.8, then they meet the properties of property class 8.8. Depending on availability also the equal class S acc. to BS 1768 (marking sign S) can be supplied.
- If when ordering, UNF 1 inch-12 is not stated, then we supply the type with 14 threads per inch (UNS).

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1.1/2	200	02000.063.038	1/2X2.1/4	50	02000.127.057	3/4X3.IN.	25	02000.191.076
5/16X1.1/4	200	02000.079.031	1/2X2.1/2	50	02000.127.063	3/4X3.1/4	25	02000.191.082
5/16X1.1/2	200	02000.079.038	1/2X3.IN.	50	02000.127.076	3/4X3.1/2	25	02000.191.088
5/16X2.IN.	100	02000.079.050	1/2X3.1/2	50	02000.127.088	3/4X4.IN.	25	02000.191.101
5/16X2.1/4	100	02000.079.057	1/2X4.IN.	50	02000.127.101	3/4X4.1/2	10	02000.191.114
5/16X2.1/2	100	02000.079.063	1/2X4.1/2	50	02000.127.114	3/4X5.IN.	25	02000.191.127
			1/2X7.IN.	25	02000.127.177	3/4X5.1/2	10	02000.191.139
			1/2X8.IN.	25	02000.127.203	3/4X6.IN.	25	02000.191.152
						3/4X7.IN.	25	02000.191.177
			9/16X2.1/2	25	02000.142.063			
			5/8X2.1/4	25	02000.158.057	7/8X2.1/2	25	02000.222.063
			5/8X2.1/2	25	02000.158.063	7/8X3.IN.	25	02000.222.076
			5/8X2.3/4	25	02000.158.069	7/8X3.1/2	10	02000.222.088
			5/8X3.IN.	25	02000.158.076	7/8X4.IN.	25	02000.222.101
			5/8X3.1/4	25	02000.158.082	7/8X4.1/2	10	02000.222.114
			5/8X3.1/2	25	02000.158.088	7/8X5.IN.	10	02000.222.127
			5/8X3.3/4	10	02000.158.095	7/8X5.1/2	10	02000.222.139
			5/8X4.IN.	25	02000.158.101	7/8X6.IN.	10	02000.222.152
			5/8X4.1/2	25	02000.158.114	7/8X7.IN.	10	02000.222.177
			5/8X5.IN.	25	02000.158.127	7/8X8.IN.	5	02000.222.203
			5/8X5.1/2	25	02000.158.139	7/8X10.IN.	5	02000.222.254
			5/8X6.IN.	25	02000.158.152			
			5/8X7.IN.	25	02000.158.177			
						1-12GX3.1/2	25	02000.255.088
						1-12GX4.IN.	25	02000.255.101
			3/4X2.1/4	25	02000.191.057	1-12GX4.1/2	10	02000.255.114
			3/4X2.1/2	25	02000.191.063	1-12GX5.IN.	10	02000.255.127

02000 Hexagon head bolt UNF ←


d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1-12GX6.IN.	10	02000.255.152	1-14GX3.1/2	25	02000.256.088	1-14GX7.IN.	10	02000.256.177
1-12GX7.IN.	10	02000.255.177	1-14GX4.IN.	10	02000.256.101	1-14GX8.IN.	10	02000.256.203
1-12GX8.IN.	10	02000.255.203	1-14GX5.IN.	10	02000.256.127	1-14GX10.IN.	5	02000.256.254
1-14GX3.IN.	25	02000.256.076	1-14GX5.1/2	5	02000.256.139			
			1-14GX6.IN.	10	02000.256.152			

1

02120 Hexagon head bolt UNF X01A

Thread	Unified National Fine
Material	Steel
Class	Grade 5
Surface treatment	Zinc plated
Packaging	Standard




- Grade 5 acc. to the American standards SAE J429/ASTM A449 (marking sign ) corresponds much the same with property class 8.8 acc. to ISO 898-1. When the bolts are also marked with 8.8, then they meet the properties of property class 8.8. Depending on availability also the equal class S acc. to BS 1768 (marking sign S) can be supplied.
- If when ordering, UNF 1 inch-12 is not stated, then we supply the type with 14 threads per inch (UNS).

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1.IN.	200	02120.063.025	7/16X1.3/4	100	02120.111.044	5/8X3.1/2	25	02120.158.088
1/4X1.1/4	200	02120.063.031	7/16X2.IN.	100	02120.111.050	5/8X3.3/4	25	02120.158.095
1/4X1.1/2	200	02120.063.038	7/16X2.1/4	100	02120.111.057	5/8X4.IN.	25	02120.158.101
1/4X1.3/4	200	02120.063.044	7/16X2.1/2	100	02120.111.063	5/8X4.1/2	25	02120.158.114
1/4X2.IN.	200	02120.063.050	7/16X2.3/4	100	02120.111.069	5/8X5.IN.	25	02120.158.127
1/4X2.1/4	200	02120.063.057	7/16X3.IN.	100	02120.111.076	5/8X5.1/2	25	02120.158.139
1/4X2.1/2	200	02120.063.063	7/16X3.1/4	50	02120.111.082	5/8X6.IN.	25	02120.158.152
1/4X2.3/4	200	02120.063.069	7/16X3.1/2	50	02120.111.088	5/8X7.IN.	25	02120.158.177
1/4X3.IN.	200	02120.063.076	7/16X4.IN.	50	02120.111.101	5/8X8.IN.	25	02120.158.203
1/4X3.1/2	100	02120.063.088	7/16X4.1/2	50	02120.111.114			
1/4X4.IN.	100	02120.063.101	7/16X5.IN.	50	02120.111.127	3/4X2.1/4	50	02120.191.057
1/4X5.IN.	100	02120.063.127	7/16X5.1/2	50	02120.111.139	3/4X2.1/2	50	02120.191.063
1/4X6.IN.	100	02120.063.152	7/16X6.IN.	50	02120.111.152	3/4X2.3/4	25	02120.191.069
						3/4X3.IN.	25	02120.191.076
5/16X1.1/4	200	02120.079.031	1/2X1.3/4	100	02120.127.044	3/4X3.1/4	25	02120.191.082
5/16X1.1/2	200	02120.079.038	1/2X2.IN.	100	02120.127.050	3/4X3.1/2	25	02120.191.088
5/16X1.3/4	200	02120.079.044	1/2X2.1/4	100	02120.127.057	3/4X3.3/4	25	02120.191.095
5/16X2.IN.	200	02120.079.050	1/2X2.1/2	100	02120.127.063	3/4X4.IN.	25	02120.191.101
5/16X2.1/4	200	02120.079.057	1/2X2.3/4	100	02120.127.069	3/4X4.1/2	25	02120.191.114
5/16X2.1/2	100	02120.079.063	1/2X3.IN.	50	02120.127.076	3/4X5.IN.	25	02120.191.127
5/16X2.3/4	100	02120.079.069	1/2X3.1/4	50	02120.127.082	3/4X5.1/2	25	02120.191.139
5/16X3.IN.	100	02120.079.076	1/2X3.1/2	50	02120.127.088	3/4X6.IN.	25	02120.191.152
5/16X3.1/4	200	02120.079.082	1/2X3.3/4	50	02120.127.095	3/4X7.IN.	25	02120.191.177
5/16X3.1/2	100	02120.079.088	1/2X4.IN.	50	02120.127.101	3/4X8.IN.	10	02120.191.203
5/16X4.IN.	100	02120.079.101	1/2X4.1/2	50	02120.127.114			
5/16X5.IN.	50	02120.079.127	1/2X5.IN.	50	02120.127.127	7/8X2.1/2	25	02120.222.063
5/16X5.1/2	50	02120.079.139	1/2X5.1/2	50	02120.127.139	7/8X3.IN.	25	02120.222.076
5/16X6.IN.	50	02120.079.152	1/2X6.IN.	50	02120.127.152	7/8X3.1/2	25	02120.222.088
			1/2X7.IN.	50	02120.127.177	7/8X4.IN.	25	02120.222.101
3/8X1.1/2	200	02120.096.038	1/2X8.IN.	50	02120.127.203	7/8X5.IN.	25	02120.222.127
3/8X1.3/4	200	02120.096.044				7/8X6.IN.	25	02120.222.152
3/8X2.IN.	200	02120.096.050	9/16X1.3/4	50	02120.142.044	7/8X7.IN.	10	02120.222.177
3/8X2.1/4	100	02120.096.057	9/16X2.IN.	50	02120.142.050	7/8X8.IN.	10	02120.222.203
3/8X2.1/2	100	02120.096.063	9/16X2.1/4	50	02120.142.057	7/8X10.IN.	10	02120.222.254
3/8X2.3/4	100	02120.096.069	9/16X2.1/2	50	02120.142.063			
3/8X3.IN.	100	02120.096.076	9/16X3.IN.	50	02120.142.076	1-14GX3.IN.	25	02120.256.076
3/8X3.1/4	100	02120.096.082	9/16X3.1/4	50	02120.142.082	1-14GX3.1/2	25	02120.256.088
3/8X3.1/2	100	02120.096.088	9/16X3.1/2	50	02120.142.088	1-14GX4.IN.	10	02120.256.101
3/8X3.3/4	100	02120.096.095	9/16X4.IN.	50	02120.142.101	1-14GX5.IN.	10	02120.256.127
3/8X4.IN.	100	02120.096.101	9/16X5.IN.	50	02120.142.127	1-14GX6.IN.	10	02120.256.152
3/8X4.1/2	50	02120.096.114				1-14GX7.IN.	10	02120.256.177
3/8X5.IN.	100	02120.096.127	5/8X2.1/4	50	02120.158.057	1-14GX8.IN.	10	02120.256.203
3/8X6.IN.	50	02120.096.152	5/8X2.1/2	50	02120.158.063	1-14GX10.IN.	10	02120.256.254
3/8X7.IN.	50	02120.096.177	5/8X2.3/4	50	02120.158.069			
			5/8X3.IN.	50	02120.158.076			
7/16X1.1/2	100	02120.111.038	5/8X3.1/4	50	02120.158.082			

51007 Hexagon head bolt UNF X15A

Thread	Unified National Fine
Material	Stainless steel A2
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1.1/4	100	51007.063.031	1/4X2.1/2	50	51007.063.063	5/16X2.1/2	50	51007.079.063
1/4X1.1/2	100	51007.063.038				5/16X3.IN.	50	51007.079.076
1/4X1.3/4	50	51007.063.044	5/16X1.1/2	50	51007.079.038			
1/4X2.IN.	50	51007.063.050	5/16X1.3/4	50	51007.079.044	3/8X1.1/2	25	51007.096.038
1/4X2.1/4	50	51007.063.057	5/16X2.IN.	50	51007.079.050	3/8X1.3/4	50	51007.096.044

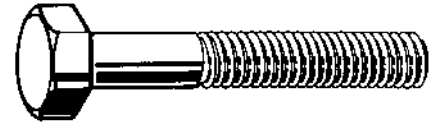
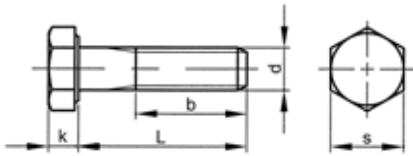
1

51007 Hexagon head bolt UNF								
d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
3/8X2.IN.	50	51007.096.050	1/2X2.IN.	25	51007.127.050	5/8X3.1/2	5	51007.158.088
3/8X2.1/2	25	51007.096.063	1/2X2.1/2	25	51007.127.063	5/8X4.IN.	5	51007.158.101
3/8X3.IN.	25	51007.096.076	1/2X3.IN.	10	51007.127.076			
			1/2X3.1/2	10	51007.127.088	3/4X2.1/2	5	51007.191.063
7/16X2.IN.	25	51007.111.050	1/2X4.IN.	10	51007.127.101	3/4X3.IN.	5	51007.191.076
7/16X2.1/2	25	51007.111.063				3/4X3.1/2	5	51007.191.088
7/16X3.IN.	25	51007.111.076	5/8X2.IN.	10	51007.158.050	3/4X4.IN.	5	51007.191.101
			5/8X2.1/2	10	51007.158.063			
1/2X1.3/4	25	51007.127.044	5/8X3.IN.	5	51007.158.076			

- Depending on availability the austenitic steel type is comparable to AISI 304 with mechanical properties acc. to ASTM F593.

Hexagon head bolt BSW

DIN ≈931 (1954)
NEN ≈2336 (1961)



Technical data

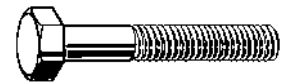
d	Threads per inch	k	s
1/4	20	5	11
5/16	18	6	14
3/8	16	7	17
7/16	14	8	19
1/2	12	9	22
5/8	11	11	27
3/4	10	13	32
7/8	9	16	36
1.IN.	8	18	41

- Whitworth thread (BSW/BSF) is not internationally recommended. It is advised to use metric (M/MF) or unified threads (UNC/UNF).
- Depending on availability the dimensions may deviate.

03400 Hexagon head bolt BSW

X03A

Thread British Standard Whitworth
Material Steel
Class 8.8
Packaging Standard

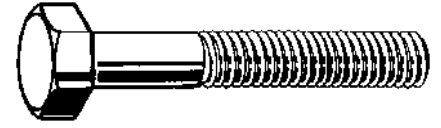
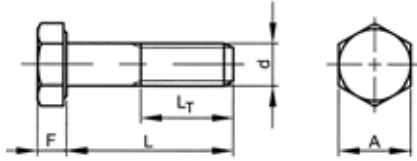


d x L/b	☒	Art.number	d x L/b	☒	Art.number	d x L/b	☒	Art.number
1/2X35/25	50	03400.127.035	5/8X60/28	25	03400.158.060	7/8X70/38	10	03400.222.070
1/2X50/25	50	03400.127.050	3/4X50/32	10	03400.191.050	1.IN.X70/40	10	03400.254.070
1/2X60/25	50	03400.127.060	3/4X60/32	10	03400.191.060	1.IN.X80/40	10	03400.254.080
1/2X70/25	50	03400.127.070	3/4X70/32	10	03400.191.070	1.IN.X100/55	10	03400.254.100
1/2X75/30	50	03400.127.075	3/4X80/32	10	03400.191.080			
1/2X80/30	50	03400.127.080	3/4X80/32	10	03400.191.080			
1/2X100/30	50	03400.127.100	3/4X100/40	10	03400.191.100			
5/8X50/28	25	03400.158.050	7/8X60/38	10	03400.222.060			

Hexagon head bolt BSF

1

BS ≈1083 (1965)



Technical data

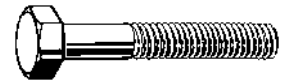
d	Threads per inch	L _T (min.)	F	A (Inch dec.)
1/4	26	13	4,6	0,445
5/16	22	16	5,5	0,525
3/8	20	19	6,6	0,6
7/16	18	22	7,7	0,71
1/2	16	25,5	8,7	0,82
9/16	16	28,5	9,5	0,92
5/8	14	32	10,6	1,01
3/4	12	38	12,7	1,2

- Whitworth thread (BSW/BSF) is not internationally recommended. It is advised to use metric (M/MF) or unified threads (UNC/UNF).
- Minimum Grade R acc. to ≈ BS 1083 (1965) corresponds much the same with property class 6.8 acc. to DIN ISO 898-1. The bolthead is marked with the symbol of property class R.

03000 Hexagon head bolt BSF

X90A

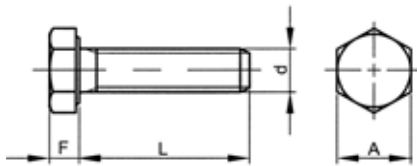
Thread	British Standard Fine
Material	Steel
Class	≥Grade R
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1.IN.	200	03000.063.025	3/8X1.1/4	100	03000.096.031	1/2X3.IN.	50	03000.127.076
1/4X2.IN.	100	03000.063.050	3/8X1.1/2	100	03000.096.038	5/8X2.IN.	25	03000.158.050
1/4X2.1/2	100	03000.063.063	3/8X1.3/4	100	03000.096.044	3/4X2.IN.	25	03000.191.050
1/4X3.IN.	100	03000.063.076	3/8X2.IN.	100	03000.096.050	3/4X2.1/2	25	03000.191.063
5/16X1.1/2	200	03000.079.038	3/8X3.IN.	100	03000.096.076	3/4X3.IN.	25	03000.191.076
5/16X1.3/4	100	03000.079.044	7/16X1.1/2	100	03000.111.038			
5/16X2.IN.	100	03000.079.050	1/2X1.1/2	50	03000.127.038			
5/16X2.1/4	100	03000.079.057	1/2X1.3/4	50	03000.127.044			
5/16X3.IN.	100	03000.079.076	1/2X2.IN.	50	03000.127.050			
			1/2X2.1/2	50	03000.127.063			

Hexagon head screw UNC

ANSI=B18.2.1
BS ≈1768



1

Technical data

d	Threads per inch	F	A
1/4	20	4	7/16
5/16	18	5,2	1/2
3/8	16	6	9/16
7/16	14	7,1	5/8
1/2	13	7,9	3/4
9/16	12	9,1	13/16
5/8	11	9,9	15/16
3/4	10	11,9	1.1/8
7/8	9	13,9	1.5/16
1.IN.	8	15,5	1.1/2
1.1/8	7	17,5	1.11/16
1.1/4	7	19,8	1.7/8
1.1/2	6	23,8	2.1/4

Article groups


Thread	Driving features	Material	Class	Surface treatment	Packaging	Code	Page
UNC	hexagon	St	Grade 5		Standard	02410	1-47
UNC	hexagon	St	Grade 5	Zipl	Standard	02430	1-48
UNC	hexagon	St.St. A2			Standard	51016	1-48
UNC	hexagon	St.St. A4			Standard	55016	1-48

02410 Hexagon head screw UNC

X01A

Thread	Unified National Coarse
Material	Steel
Class	Grade 5
Packaging	Standard




- Grade 5 acc. to the American standards SAE J429/ASTM A449 (marking sign ) corresponds much the same with property class 8.8 acc. to ISO 898-1. When the bolts are also marked with 8.8, then they meet the properties of property class 8.8. Depending on availability also the equal class S acc. to BS 1768 (marking sign S) can be supplied.

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1/2	200	02410.063.012	3/8X1.3/4	100	02410.096.044	5/8X2.1/2	25	02410.158.063
1/4X5/8	200	02410.063.015	3/8X2.IN.	100	02410.096.050	5/8X3.IN.	25	02410.158.076
1/4X3/4	200	02410.063.019	3/8X2.1/2	100	02410.096.063			
1/4X7/8	200	02410.063.022				3/4X1.1/2	25	02410.191.038
1/4X1.IN.	200	02410.063.025	7/16X3/4	100	02410.111.019	3/4X1.3/4	25	02410.191.044
1/4X1.1/2	200	02410.063.038	7/16X1.IN.	100	02410.111.025	3/4X2.IN.	10	02410.191.050
			7/16X1.1/4	100	02410.111.031			
			7/16X1.1/2	100	02410.111.038	7/8X2.IN.	10	02410.222.050
			7/16X2.IN.	100	02410.111.050	7/8X2.1/4	10	02410.222.057
5/16X1/2	200	02410.079.012				7/8X2.1/2	10	02410.222.063
5/16X5/8	200	02410.079.015	1/2X3/4	100	02410.127.019			
5/16X3/4	200	02410.079.019	1/2X1.IN.	100	02410.127.025	1.IN.X2.IN.	10	02410.254.050
5/16X7/8	200	02410.079.022	1/2X1.1/4	50	02410.127.031	1.IN.X2.1/2	10	02410.254.063
5/16X1.IN.	200	02410.079.025	1/2X1.1/2	50	02410.127.038	1.IN.X2.3/4	10	02410.254.069
5/16X1.1/4	200	02410.079.031	1/2X2.IN.	50	02410.127.050			
5/16X1.1/2	200	02410.079.038	1/2X2.1/2	50	02410.127.063	1.1/8X2.3/4	4	02410.285.069
5/16X2.IN.	100	02410.079.050	1/2X3.IN.	50	02410.127.076	1.1/4X2.1/2	2	02410.317.063
						1.1/4X3.IN.	2	02410.317.076
3/8X5/8	100	02410.096.015	5/8X1.IN.	50	02410.158.025			
3/8X3/4	100	02410.096.019	5/8X1.1/4	50	02410.158.031	1.1/2X3.1/4	2	02410.381.082
3/8X7/8	100	02410.096.022	5/8X1.1/2	50	02410.158.038	1.1/2X3.1/2	2	02410.381.088
3/8X1.IN.	100	02410.096.025	5/8X1.3/4	50	02410.158.044			
3/8X1.1/8	100	02410.096.028	5/8X2.IN.	50	02410.158.050			
3/8X1.1/4	100	02410.096.031						
3/8X1.1/2	100	02410.096.038						

1

02430 Hexagon head screw UNC		X01A
Thread	Unified National Coarse	
Material	Steel	
Class	Grade 5	
Surface treatment	Zinc plated	
Packaging	Standard	

- Grade 5 acc. to the American standards SAE J429/ASTM A449 (marking sign ) corresponds much the same with property class 8.8 acc. to ISO 898-1. When the bolts are also marked with 8.8, then they meet the properties of property class 8.8. Depending on availability also the equal class S acc. to BS 1768 (marking sign S) can be supplied.

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1/2	200	02430.063.012	3/8X2.IN.	200	02430.096.050	5/8X1.IN.	50	02430.158.025
1/4X5/8	200	02430.063.015	3/8X2.1/2	200	02430.096.063	5/8X1.1/4	50	02430.158.031
1/4X3/4	200	02430.063.019	3/8X3.IN.	200	02430.096.076	5/8X1.1/2	50	02430.158.038
1/4X7/8	200	02430.063.022				5/8X1.3/4	50	02430.158.044
1/4X1.IN.	200	02430.063.025	7/16X3/4	100	02430.111.019	5/8X2.IN.	50	02430.158.050
1/4X1.1/2	200	02430.063.038	7/16X7/8	100	02430.111.022	5/8X2.1/2	50	02430.158.063
			7/16X1.IN.	100	02430.111.025	5/8X3.IN.	50	02430.158.076
5/16X1/2	200	02430.079.012	7/16X1.1/4	100	02430.111.031			
5/16X5/8	200	02430.079.015	7/16X1.1/2	100	02430.111.038			
5/16X3/4	200	02430.079.019				3/4X1.IN.	50	02430.191.025
5/16X7/8	200	02430.079.022	1/2X3/4	100	02430.127.019	3/4X1.1/2	50	02430.191.038
5/16X1.IN.	200	02430.079.025	1/2X7/8	100	02430.127.022	3/4X1.3/4	50	02430.191.044
5/16X1.1/2	200	02430.079.038	1/2X1.IN.	100	02430.127.025	3/4X2.IN.	10	02430.191.050
5/16X2.IN.	200	02430.079.050	1/2X1.1/4	100	02430.127.031			
5/16X2.1/2	200	02430.079.063	1/2X1.1/2	100	02430.127.038	7/8X2.IN.	25	02430.222.050
			1/2X2.IN.	100	02430.127.050	7/8X2.1/2	25	02430.222.063
3/8X1/2	200	02430.096.012	1/2X2.1/2	100	02430.127.063			
3/8X5/8	200	02430.096.015	1/2X3.IN.	100	02430.127.076			
3/8X3/4	200	02430.096.019				1.IN.X2.IN.	25	02430.254.050
3/8X7/8	200	02430.096.022	9/16X1.IN.	50	02430.142.025	1.IN.X2.1/4	25	02430.254.057
3/8X1.IN.	200	02430.096.025	9/16X1.1/4	50	02430.142.031	1.IN.X2.1/2	25	02430.254.063
3/8X1.1/4	200	02430.096.031	9/16X1.1/2	50	02430.142.038	1.IN.X2.3/4	25	02430.254.069
3/8X1.1/2	200	02430.096.038	9/16X1.3/4	50	02430.142.044			

51016 Hexagon head screw UNC		X15A
Thread	Unified National Coarse	
Material	Stainless steel A2	
Packaging	Standard	

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1/2	100	51016.063.012	3/8X7/8	50	51016.096.022	5/8X1.IN.	25	51016.158.025
1/4X5/8	100	51016.063.015	3/8X1.IN.	50	51016.096.025	5/8X1.1/4	25	51016.158.031
1/4X3/4	100	51016.063.019	3/8X1.1/4	50	51016.096.031	5/8X1.1/2	25	51016.158.038
			3/8X1.1/2	100	51016.096.038	5/8X1.3/4	25	51016.158.044
5/16X1/2	100	51016.079.012	3/8X2.IN.	50	51016.096.050			
5/16X5/8	100	51016.079.015				3/4X1.1/2	5	51016.191.038
5/16X3/4	100	51016.079.019	1/2X3/4	25	51016.127.019	3/4X1.3/4	5	51016.191.044
5/16X1.IN.	100	51016.079.025	1/2X1.IN.	25	51016.127.025	3/4X2.IN.	5	51016.191.050
5/16X1.1/2	100	51016.079.038	1/2X1.1/4	25	51016.127.031			
			1/2X1.1/2	25	51016.127.038			
3/8X3/4	50	51016.096.019						

- Depending on availability the austenitic steel type is comparable to AISI 304 with mechanical properties acc. to ASTM F593.

55016 Hexagon head screw UNC		X15A
Thread	Unified National Coarse	
Material	Stainless steel A4	
Packaging	Standard	

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1/2	100	55016.063.012	5/16X3/4	100	55016.079.019	3/8X1.1/4	50	55016.096.031
1/4X5/8	100	55016.063.015	5/16X1IN	100	55016.079.025	3/8X1.1/2	50	55016.096.038
1/4X3/4	100	55016.063.019	5/16X1.1/4	100	55016.079.031			
1/4X1IN	100	55016.063.025	5/16X1.1/2	100	55016.079.038	1/2X3/4	25	55016.127.019
						1/2X1IN	25	55016.127.025
5/16X1/2	100	55016.079.012	3/8X3/4	50	55016.096.019	1/2X1.1/4	25	55016.127.031
5/16X5/8	100	55016.079.015	3/8X1IN	50	55016.096.025	1/2X1.1/2	25	55016.127.038

55016 Hexagon head screw UNC

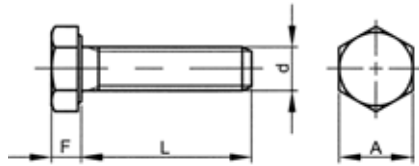
d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/2X1.3/4	25	55016.127.044	5/8X1.1/2	25	55016.158.038	3/4X1.1/2	5	55016.191.038
1/2X2IN	25	55016.127.050	5/8X1.3/4	25	55016.158.044	3/4X2IN	5	55016.191.050
5/8X1IN	25	55016.158.025	5/8X2IN	10	55016.158.050			
5/8X1.1/4	25	55016.158.031	5/8X2.1/2	10	55016.158.063			

- Depending on availability the austenitic steel type is comparable to AISI 316 with mechanical properties acc. to ASTM F593.

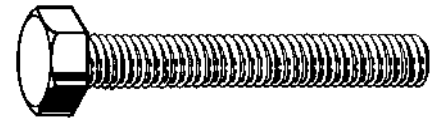
1

Hexagon head screw UNF

1



ANSI ≈B18.2.1
BS ≈1768



Technical data

d	Threads per inch	F	A
No.10	32	3	5/16
1/4	28	4	7/16
5/16	24	5,2	1/2
3/8	24	6	9/16
7/16	20	7,1	5/8
1/2	20	7,9	3/4
9/16	18	9,1	13/16
5/8	18	9,9	15/16
3/4	16	11,9	1.1/8
7/8	14	13,9	1.5/16
1.IN.-12G	12	15,5	1.1/2
1.IN.-14G	14	15,5	1.1/2

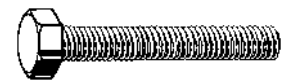
Article groups


Thread	Driving features	Material	Class	Surface treatment	Packaging	Code	Page
UNF	hexagon	St	Grade 5		Standard	02010	1-50
UNF	hexagon	St	Grade 5	Zipl	Standard	02130	1-51
UNF	hexagon	St.St. A2			Standard	51017	1-51

02010 Hexagon head screw UNF

X01A


Thread	Unified National Fine
Material	Steel
Class	Grade 5
Packaging	Standard



- Grade 5 acc. to the American standards SAE J429/ASTM A449 (marking sign ) corresponds much the same with property class 8.8 acc. to ISO 898-1. When the bolts are also marked with 8.8, then they meet the properties of property class 8.8. Depending on availability also the equal class S acc. to BS 1768 (marking sign S) can be supplied.
- If when ordering, UNF 1 inch-12 is not stated, then we supply the type with 14 threads per inch (UNS).

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
NO.10X1/2	200	02010.048.012	3/8X7/8	100	02010.096.022	9/16X1.IN.	50	02010.142.025
NO.10X5/8	200	02010.048.015	3/8X1.IN.	100	02010.096.025	9/16X1.1/2	50	02010.142.038
NO.10X3/4	200	02010.048.019	3/8X1.1/4	100	02010.096.031			
NO.10X1.IN.	200	02010.048.025	3/8X1.1/2	100	02010.096.038			
NO.10X1.1/4	200	02010.048.031	3/8X1.3/4	100	02010.096.044	5/8X1.1/4	50	02010.158.031
1/4X1/2	200	02010.063.012	3/8X2.IN.	100	02010.096.050	5/8X1.1/2	50	02010.158.038
1/4X5/8	200	02010.063.015	3/8X2.1/4	100	02010.096.057	5/8X1.3/4	50	02010.158.044
1/4X3/4	200	02010.063.019				5/8X2.IN.	50	02010.158.050
1/4X7/8	200	02010.063.022	7/16X3/4	100	02010.111.019			
1/4X1.IN.	200	02010.063.025	7/16X1.IN.	100	02010.111.025	3/4X1.1/2	25	02010.191.038
			7/16X1.1/4	100	02010.111.031	3/4X2.IN.	25	02010.191.050
			7/16X1.1/2	100	02010.111.038			
5/16X5/8	200	02010.079.015				7/8X2.IN.	25	02010.222.050
5/16X3/4	200	02010.079.019	1/2X3/4	100	02010.127.019	1-12GX2.IN.	25	02010.255.050
5/16X7/8	200	02010.079.022	1/2X1.IN.	100	02010.127.025	1-14GX2.IN.	25	02010.256.050
5/16X1.IN.	200	02010.079.025	1/2X1.1/4	100	02010.127.031			
5/16X1.1/4	200	02010.079.031	1/2X1.1/2	50	02010.127.038			
5/16X2.IN.	100	02010.079.050	1/2X2.IN.	50	02010.127.050			

02130	Hexagon head screw UNF	X01A
Thread	Unified National Fine	
Material	Steel	
Class	Grade 5	
Surface treatment	Zinc plated	
Packaging	Standard	

- Grade 5 acc. to the American standards SAE J429/ASTM A449 (marking sign ) corresponds much the same with property class 8.8 acc. to ISO 898-1. When the bolts are also marked with 8.8, then they meet the properties of property class 8.8. Depending on availability also the equal class S acc. to BS 1768 (marking sign S) can be supplied.
- If when ordering, UNF 1 inch-12 is not stated, then we supply the type with 14 threads per inch (UNS).

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1/2	200	02130.063.012	3/8X1.IN.	200	02130.096.025	9/16X1.IN.	100	02130.142.025
1/4X5/8	200	02130.063.015	3/8X1.1/4	200	02130.096.031	9/16X1.1/4	100	02130.142.031
1/4X3/4	200	02130.063.019	3/8X1.1/2	200	02130.096.038	9/16X1.1/2	100	02130.142.038
1/4X7/8	200	02130.063.022	3/8X1.3/4	200	02130.096.044			
1/4X1.IN.	200	02130.063.025	3/8X2.IN.	200	02130.096.050			
1/4X1.1/4	200	02130.063.031	3/8X2.1/4	200	02130.096.057			
1/4X1.1/2	200	02130.063.038						
			7/16X3/4	100	02130.111.019	5/8X1.IN.	50	02130.158.025
5/16X1/2	200	02130.079.012	7/16X7/8	100	02130.111.022	5/8X1.1/4	50	02130.158.031
5/16X5/8	200	02130.079.015	7/16X1.IN.	100	02130.111.025	5/8X1.1/2	50	02130.158.038
5/16X3/4	200	02130.079.019	7/16X1.1/4	100	02130.111.031	5/8X1.3/4	50	02130.158.044
5/16X7/8	200	02130.079.022	7/16X1.1/2	100	02130.111.038	5/8X2.IN.	50	02130.158.050
5/16X1.IN.	200	02130.079.025	7/16X2.IN.	100	02130.111.050	5/8X2.1/2	50	02130.158.063
5/16X1.1/4	200	02130.079.031				3/4X1.IN.	50	02130.191.025
5/16X1.1/2	200	02130.079.038	1/2X3/4	100	02130.127.019	3/4X1.1/4	50	02130.191.031
5/16X2.IN.	200	02130.079.050	1/2X7/8	100	02130.127.022	3/4X1.1/2	50	02130.191.038
			1/2X1.IN.	100	02130.127.025	3/4X1.3/4	50	02130.191.044
3/8X1/2	200	02130.096.012	1/2X1.1/4	100	02130.127.031	3/4X2.IN.	50	02130.191.050
3/8X5/8	200	02130.096.015	1/2X1.1/2	100	02130.127.038			
3/8X3/4	200	02130.096.019	1/2X1.3/4	100	02130.127.044			
3/8X7/8	200	02130.096.022	1/2X2.IN.	100	02130.127.050			
						7/8X2.IN.	25	02130.222.050

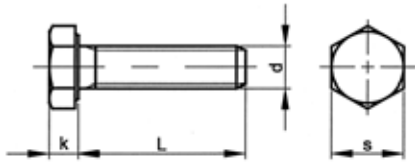
51017	Hexagon head screw UNF	X15A
Thread	Unified National Fine	
Material	Stainless steel A2	
Packaging	Standard	

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X1/2	100	51017.063.012	3/8X3/4	50	51017.096.019	1/2X1.1/2	25	51017.127.038
1/4X5/8	100	51017.063.015	3/8X1IN	50	51017.096.025	5/8X1IN	25	51017.158.025
1/4X3/4	100	51017.063.019	3/8X1.1/2	50	51017.096.038	5/8X1.1/4	25	51017.158.031
1/4X1.IN.	100	51017.063.025				5/8X1.1/2	25	51017.158.038
1/4X1.1/2	100	51017.063.038	7/16X1IN	25	51017.111.025	5/8X1.3/4	25	51017.158.044
			7/16X1.1/2	25	51017.111.038			
5/16X1/2	100	51017.079.012	7/16X2IN	25	51017.111.050	3/4X1.1/2	25	51017.191.038
5/16X5/8	100	51017.079.015				3/4X2IN	25	51017.191.050
5/16X3/4	100	51017.079.019	1/2X1.1/4	25	51017.127.031			
5/16X1.IN.	100	51017.079.025						
5/16X1.1/2	100	51017.079.038						

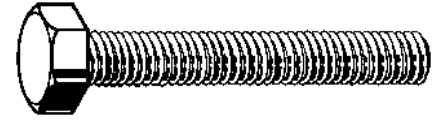
- Depending on availability the austenitic steel type is comparable to AISI 304 with mechanical properties acc. to ASTM F593.

Hexagon head screw BSW

1



DIN ≈933 (1954)
 NEN ≈2337 (1961)



Technical data

d	Threads per inch	k	s
1/4	20	5	11
5/16	18	6	14
3/8	16	7	17
1/2	12	9	22
5/8	11	11	27
3/4	10	13	32
7/8	9	16	36

- Whitworth thread (BSW/BSF) is not internationally recommended. It is advised to use metric (M/MF) or unified threads (UNC/UNF).
- Depending on availability the dimensions may deviate.

Article groups

Thread	Driving features	Material	Class	Packaging	Code	Page
BSW	hexagon	St	8.8	Standard	03410	1-52
BSW	hexagon	Br Cu2		Standard	46210	1-52

03410 Hexagon head screw BSW

X03A

Thread	British Standard Whitworth
Material	Steel
Class	8.8
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X10MM	100	03410.063.010	3/8X15MM	100	03410.096.015	1/2X50MM	50	03410.127.050
1/4X15MM	100	03410.063.015	3/8X20MM	100	03410.096.020	1/2X55MM	50	03410.127.055
1/4X20MM	100	03410.063.020	3/8X25MM	100	03410.096.025	1/2X60MM	50	03410.127.060
1/4X25MM	100	03410.063.025	3/8X30MM	100	03410.096.030	1/2X70MM	50	03410.127.070
1/4X30MM	100	03410.063.030	3/8X35MM	100	03410.096.035			
1/4X40MM	100	03410.063.040	3/8X40MM	100	03410.096.040	5/8X30MM	50	03410.158.030
1/4X50MM	100	03410.063.050	3/8X50MM	100	03410.096.050	5/8X40MM	25	03410.158.040
			3/8X60MM	100	03410.096.060	5/8X50MM	25	03410.158.050
5/16X20MM	100	03410.079.020	3/8X70MM	100	03410.096.070	5/8X60MM	25	03410.158.060
5/16X25MM	100	03410.079.025						
5/16X30MM	100	03410.079.030	1/2X20MM	100	03410.127.020	3/4X50MM	10	03410.191.050
5/16X40MM	100	03410.079.040	1/2X25MM	100	03410.127.025	3/4X60MM	10	03410.191.060
5/16X50MM	100	03410.079.050	1/2X30MM	100	03410.127.030	3/4X70MM	10	03410.191.070
5/16X60MM	100	03410.079.060	1/2X35MM	100	03410.127.035			
			1/2X40MM	50	03410.127.040			

46210 Hexagon head screw BSW

X08A

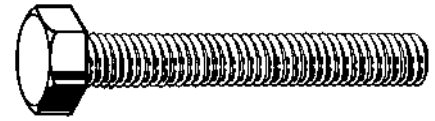
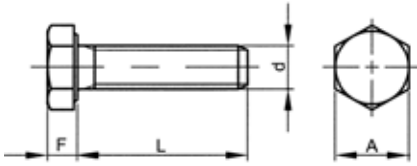
Thread	British Standard Whitworth
Material	Brass Cu2
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X10MM	100	46210.063.010	5/16X25MM	100	46210.079.025	1/2X25MM	25	46210.127.025
1/4X12MM	100	46210.063.012	5/16X30MM	50	46210.079.030	1/2X30MM	25	46210.127.030
1/4X15MM	100	46210.063.015	5/16X40MM	50	46210.079.040	1/2X40MM	25	46210.127.040
1/4X20MM	100	46210.063.020	5/16X50MM	50	46210.079.050	1/2X50MM	25	46210.127.050
1/4X25MM	100	46210.063.025						
1/4X30MM	100	46210.063.030	3/8X20MM	50	46210.096.020	5/8X16MM	25	46210.158.016
1/4X40MM	50	46210.063.040	3/8X25MM	50	46210.096.025	5/8X40MM	10	46210.158.040
1/4X50MM	50	46210.063.050	3/8X30MM	25	46210.096.030	5/8X50MM	10	46210.158.050
			3/8X40MM	25	46210.096.040			
5/16X16MM	100	46210.079.016	3/8X50MM	25	46210.096.050			
5/16X20MM	100	46210.079.020						

Hexagon head screw BSF

BS ≈1083 (1965)



Technical data

d	Threads per inch	F	A
1/4	26	4,6	0.445
5/16	22	5,5	0.525
3/8	20	6,6	0.6
1/2	16	8,7	0.82

- Whitworth thread (BSW/BSF) is not internationally recommended. It is advised to use metric (M/MF) or unified threads (UNC/UNF).
- Minimum Grade R acc. to ≈ BS 1083 (1965) corresponds much the same with property class 6.8 acc. to DIN ISO 898-1. The bolthead is marked with the symbol of property class R.

03010 Hexagon head screw BSF

X90A

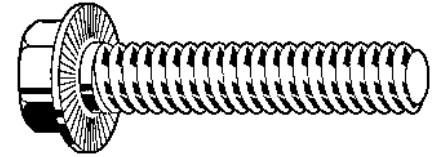
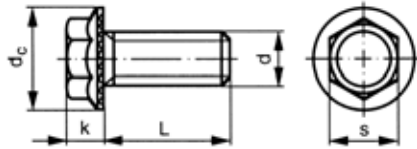
Thread British Standard Fine
Material Steel
Class ≥Grade R
Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
1/4X5/8	200	03010.063.015	5/16X3/4	200	03010.079.019	3/8X3/4	100	03010.096.019
1/4X3/4	200	03010.063.019	5/16X1.IN.	200	03010.079.025	3/8X1.IN.	100	03010.096.025
1/4X1.IN.	200	03010.063.025	5/16X1.1/4	200	03010.079.031			
1/4X1.1/4	200	03010.063.031	5/16X1.1/2	200	03010.079.038	1/2X1.IN.	100	03010.127.025
1/4X1.1/2	200	03010.063.038				1/2X1.1/4	50	03010.127.031
5/16X5/8	200	03010.079.015	3/8X1/2	100	03010.096.012			
			3/8X5/8	100	03010.096.015			

Self-locking hexagon bolt with flange

1



Technical data

d	P	k	s	d _c
M5	0,8	4,3	8	11,2
M6	1	5,5	10	14,2
M8	1,25	7	13	18,2
M10	1,5	8,5	15	21
M12	1,75	10	17	24
M16	2	14	22	31

Special features of RIPP self-locking hexagon bolts with flange:

- the serrated flange eliminates surface damage during assembly, prevents self-loosening and reduces relaxation
- the flange enables built up forces under the bolt head to be spread over a larger area, consequently resulting in lower surface pressure
- large holes (oversized) and/or tooling holes can be covered by the flange
- a washer and/or a locking element is not necessary

ASSEMBLY PRE-LOAD F_M in kN and TIGHTENING TORQUE M_A in Nm

Class	Mating material	M5		M6		M8		M10		M12		M16	
		F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A
100	Steel ($R_m < 800 \text{ N/mm}^2$)	9	11	12,6	19	23,2	42	37	85	54	130	102	330
	Steel ($R_m \geq 800 \text{ N/mm}^2$)	9	10	12,6	18	23,2	37	37	80	54	120	102	310
	Malleable iron	9	9	12,6	16	23,2	35	37	75	54	115	102	300

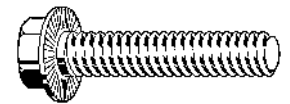
Article groups

Thread	Driving features	Material	Class	Surface treatment	Packaging	Code	Page
M	hexagon	St	100		Standard	04400	1-54
M	hexagon	St	100	Zipl	Standard	04410	1-55
M	hexagon	St	100	FLZNNC-NC6	Standard	04405	1-55

04400 RIPP Self-locking hexagon bolt with flange

A92A

Thread Metric thread
Material Steel
Class 100
Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M5X10	500	04400.050.010	M8X25	200	04400.080.025	M12X35	100	04400.120.035
M5X12	500	04400.050.012	M8X30	200	04400.080.030	M12X40	100	04400.120.040
M5X16	500	04400.050.016	M8X35	200	04400.080.035	M12X45	100	04400.120.045
M5X20	500	04400.050.020	M8X40	200	04400.080.040	M12X50	100	04400.120.050
M6X10	500	04400.060.010	M10X16	200	04400.100.016	M16X25	50	04400.160.025
M6X12	500	04400.060.012	M10X20	200	04400.100.020	M16X30	50	04400.160.030
M6X16	500	04400.060.016	M10X25	200	04400.100.025	M16X35	50	04400.160.035
M6X20	500	04400.060.020	M10X30	200	04400.100.030	M16X40	50	04400.160.040
M6X25	500	04400.060.025	M10X35	100	04400.100.035	M16X45	50	04400.160.045
M6X30	500	04400.060.030	M10X40	100	04400.100.040	M16X50	50	04400.160.050
M8X12	200	04400.080.012	M12X20	100	04400.120.020	M16X55	50	04400.160.055
M8X16	200	04400.080.016	M12X25	100	04400.120.025	M16X60	50	04400.160.060
M8X20	200	04400.080.020	M12X30	100	04400.120.030	M16X70	25	04400.160.070

- RIPP self-locking hexagon bolts with flange are designated with the property class 100 with a min. tensile strength of 1040 N/mm^2 , they are case hardened and therefore cannot be classified in the usual class 10.9.
- WARNING: electro-galvanizing of these products may cause hydrogen embrittlement.

04410 RIPP Self-locking hexagon bolt with flange		A92A
Thread	Metric thread	
Material	Steel	
Class	100	
Surface treatment	Zinc plated	
Packaging	Standard	

d x L	✉	Art.number	d x L	✉	Art.number	d x L	✉	Art.number
M5X10	500	04410.050.010	M8X25	200	04410.080.025	M12X30	100	04410.120.030
M5X12	500	04410.050.012	M8X30	200	04410.080.030	M12X35	100	04410.120.035
M5X16	500	04410.050.016	M8X35	200	04410.080.035	M12X40	100	04410.120.040
			M8X40	200	04410.080.040	M12X45	100	04410.120.045
M6X10	500	04410.060.010				M12X50	100	04410.120.050
M6X12	500	04410.060.012	M10X16	200	04410.100.016	M16X30	50	04410.160.030
M6X14	500	04410.060.014	M10X20	200	04410.100.020	M16X35	50	04410.160.035
M6X16	500	04410.060.016	M10X22	200	04410.100.022	M16X40	50	04410.160.040
M6X20	500	04410.060.020	M10X25	200	04410.100.025	M16X45	50	04410.160.045
M6X25	500	04410.060.025	M10X30	200	04410.100.030	M16X50	50	04410.160.050
			M10X35	100	04410.100.035	M16X60	50	04410.160.060
M8X12	200	04410.080.012	M10X40	100	04410.100.040	M16X70	25	04410.160.070
M8X14	200	04410.080.014						
M8X16	200	04410.080.016	M12X20	100	04410.120.020			
M8X20	200	04410.080.020	M12X25	100	04410.120.025			

- RIPP self-locking hexagon bolts with flange are designated with the property class 100 with a min. tensile strength of 1040 N/mm², they are case hardened and therefore cannot be classified in the usual class 10.9.
- WARNING: electro-galvanizing of these products may cause hydrogen embrittlement.

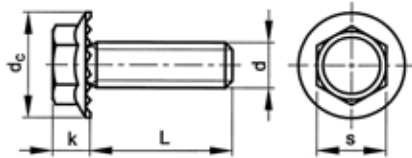
04405 RIPP Self-locking hexagon bolt with flange		A95A
Thread	Metric thread	
Material	Steel	
Class	100	
Surface treatment	Zinc flake Cr6+ free - ISO 10683 flZnnc	
Packaging	Standard	

d x L	✉	Art.number	d x L	✉	Art.number	d x L	✉	Art.number
M5X10	200	04405.050.010	M8X20	200	04405.080.020	M12X35	100	04405.120.035
M5X12	200	04405.050.012	M8X25	200	04405.080.025	M12X40	100	04405.120.040
M5X16	200	04405.050.016	M8X30	200	04405.080.030	M12X50	100	04405.120.050
M5X20	200	04405.050.020	M8X35	200	04405.080.035			
M6X10	200	04405.060.010				M16X30	50	04405.160.030
M6X12	200	04405.060.012	M10X20	200	04405.100.020	M16X35	50	04405.160.035
M6X16	200	04405.060.016	M10X25	200	04405.100.025	M16X40	50	04405.160.040
M6X20	200	04405.060.020	M10X30	200	04405.100.030	M16X45	50	04405.160.045
M6X25	200	04405.060.025	M10X35	100	04405.100.035	M16X50	50	04405.160.050
			M10X40	100	04405.100.040	M16X60	50	04405.160.060
M8X16	200	04405.080.016				M16X70	50	04405.160.070
			M12X30	100	04405.120.030			

- Technical brochure available on request.

Self-locking hexagon bolt with flange

1



Technical data

d	P	k	s	d _c
M5	0,8	4,3	8	11,2
M6	1	5,5	10	14,2
M8	1,25	7	13	18,2
M10	1,5	7,9	15	21
M12	1,75	8,7	17	24
M16	2	11,2	22	31

Special features of TENSILOCK self-locking hexagon nuts:

- the resilient serrated flange gives excellent self-locking properties
- inside of the resilient flange serration there is an optimal preloading of the construction with minimal settlement
- a washer and/or locking element is not necessary and is even not advisable

ASSEMBLY PRE-LOAD F_M in KN and TIGHTENING TORQUE M_A in Nm

Class	Mating material	M5		M6		M8		M10		M12		M16	
		F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A	F_M	M_A
90	Steel	6,35	9	9	16	16,5	34	26,2	58	--	--	--	--
	Malleable iron	6,35	7	9	13	16,5	28	26,2	49	--	--	--	--
100	Steel	--	--	--	--	--	--	--	--	54	120	102	280
	Malleable iron	--	--	--	--	--	--	--	--	54	105	102	260

Article groups

Thread	Driving features	Material	Class	Surface treatment	Packaging	Code	Page
M	hexagon	St	90/100		Standard	01050	1-56
M	hexagon	St	90/100	Zipl	Standard	01049	1-57
M	hexagon	St	90/100	FLZNNC-NC6	Standard	01055	1-57

01050 TENSILOCK Self-locking hexagon bolt with flange

A92A

Thread Metric thread
 Material Steel
 Class 90/100
 Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M5X10	500	01050.050.010	M8X25	200	01050.080.025	M12X35	100	01050.120.035
M5X12	500	01050.050.012	M8X30	200	01050.080.030	M12X40	100	01050.120.040
M5X16	500	01050.050.016	M8X35	200	01050.080.035	M12X45	100	01050.120.045
M5X20	500	01050.050.020	M8X40	200	01050.080.040	M12X50	100	01050.120.050
M6X10	500	01050.060.010	M10X16	200	01050.100.016	M16X25	50	01050.160.025
M6X12	500	01050.060.012	M10X20	200	01050.100.020	M16X30	50	01050.160.030
M6X16	500	01050.060.016	M10X25	200	01050.100.025	M16X35	50	01050.160.035
M6X20	500	01050.060.020	M10X30	200	01050.100.030	M16X40	50	01050.160.040
M6X25	500	01050.060.025	M10X35	100	01050.100.035	M16X45	50	01050.160.045
M6X30	500	01050.060.030	M10X40	100	01050.100.040	M16X50	50	01050.160.050
M8X12	200	01050.080.012	M12X20	100	01050.120.020	M16X55	50	01050.160.055
M8X16	200	01050.080.016	M12X25	100	01050.120.025	M16X60	50	01050.160.060
M8X20	200	01050.080.020	M12X30	100	01050.120.030	M16X70	25	01050.160.070

01049 TENSILOCK Self-locking hexagon bolt with flange		A92A
Thread	Metric thread	
Material	Steel	
Class	90/100	
Surface treatment	Zinc plated	
Packaging	Standard	

d x L	✉	Art.number	d x L	✉	Art.number	d x L	✉	Art.number
M5X8	500	01049.050.008	M8X12	200	01049.080.012	M12X20	100	01049.120.020
M5X10	500	01049.050.010	M8X14	200	01049.080.014	M12X25	100	01049.120.025
M5X12	500	01049.050.012	M8X16	200	01049.080.016	M12X30	100	01049.120.030
M5X14	500	01049.050.014	M8X18	200	01049.080.018	M12X35	100	01049.120.035
M5X16	500	01049.050.016	M8X22	200	01049.080.022	M12X40	100	01049.120.040
M5X20	500	01049.050.020	M8X25	200	01049.080.025	M16X25	50	01049.160.025
M6X10	500	01049.060.010	M8X30	200	01049.080.030	M16X35	50	01049.160.035
M6X12	500	01049.060.012	M8X35	200	01049.080.035	M16X40	50	01049.160.040
M6X14	500	01049.060.014	M10X18	200	01049.100.018	M16X50	50	01049.160.050
M6X16	500	01049.060.016	M10X20	200	01049.100.020			
M6X20	500	01049.060.020	M10X25	200	01049.100.025			
M6X25	500	01049.060.025	M10X30	200	01049.100.030			
M6X30	500	01049.060.030						

01055 TENSILOCK Self-locking hexagon bolt with flange		A94A
Thread	Metric thread	
Material	Steel	
Class	90/100	
Surface treatment	Zinc flake Cr6+ free - ISO 10683 flZnnc	
Packaging	Standard	

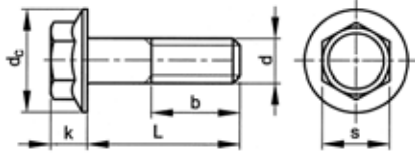
d x L	✉	Art.number	d x L	✉	Art.number	d x L	✉	Art.number
M6X10	500	01055.060.010	M8X20	200	01055.080.020	M12X30	100	01055.120.030
M6X12	500	01055.060.012	M8X25	200	01055.080.025	M12X40	100	01055.120.040
M6X16	500	01055.060.016	M8X30	200	01055.080.030	M12X50	100	01055.120.050
M6X20	500	01055.060.020	M10X25	200	01055.100.025	M16X40	50	01055.160.040
M6X25	500	01055.060.025	M10X30	200	01055.100.030	M16X50	50	01055.160.050
M8X12	200	01055.080.012	M10X40	200	01055.100.040			
M8X16	200	01055.080.016						

- A ISO 10683 Zinc Flake surface coating eliminates the possibilities of damage which can arise due to hydrogen embrittlement.

Hexagon bolt with flange

1

DIN 6921
ANSI B18.2.3.4M



Technical data

d	P	b (min.)	k (max.)	s	d _c (max.)
M5	0,8	16	5,4	8	11,8
M6	1	18	6,6	10	14,2
M8	1,25	22	8,1	13	18
M10	1,5	26	9,2	15	22,3
M12	1,75	30	11,5	16	26,6
M14	2	34	12,8	18	30,5
M16	2	38	14,4	21	35
M20	2,5	46	17,1	27	43

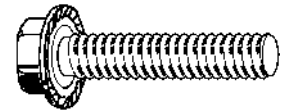
Article groups

Thread	Driving features	Material	Class	Surface treatment	Packaging	Code	Page
M	hexagon	St	8.8	Zipl	Standard	01258	1-58
M	hexagon	St	8.8	Zipl yell.p.	Standard	01256	1-58
M	hexagon	St	10.9		Standard	04132	1-59

01258 Hexagon bolt with toothed flange

A94A

Thread	Metric thread
Material	Steel
Class	8.8
Surface treatment	Zinc plated
Packaging	Standard
	DIN ≈6921



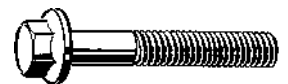
d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X12	200	01258.060.012	M8X25	200	01258.080.025	M12X20	100	01258.120.020
M6X16	200	01258.060.016	M8X30	200	01258.080.030	M12X25	100	01258.120.025
M6X20	200	01258.060.020				M12X30	100	01258.120.030
M6X25	200	01258.060.025	M10X20	200	01258.100.020	M12X35	100	01258.120.035
M6X30	200	01258.060.030	M10X25	200	01258.100.025	M12X40	100	01258.120.040
			M10X30	200	01258.100.030			
M8X16	200	01258.080.016	M10X35	100	01258.100.035			
M8X20	200	01258.080.020	M10X40	100	01258.100.040			

- Special features of hexagon bolts with toothed flange:
- The flange enables built up forces to be spread over a larger area, consequently resulting in lower surface pressure
- Large holes (oversized) and/or tooling holes can be covered by the flange
- A washer is not necessary
- Toothened flangebrim gives excellent self-locking properties

01256 Hexagon bolt with flange

A94A

Thread	Metric thread
Material	Steel
Class	8.8
Surface treatment	Zinc plated yellow passivated
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X12	200	01256.060.012	M8X25	200	01256.080.025	M10X25	200	01256.100.025
M6X16	200	01256.060.016	M8X30	200	01256.080.030	M10X30	200	01256.100.030
M6X20	200	01256.060.020	M8X35	200	01256.080.035	M10X35	200	01256.100.035
M6X25	200	01256.060.025	M8X40	200	01256.080.040	M10X40	100	01256.100.040
M6X30	200	01256.060.030	M8X45	200	01256.080.045	M10X45	100	01256.100.045
M6X40	200	01256.060.040	M8X50	200	01256.080.050	M10X50	100	01256.100.050
M6X45	200	01256.060.045	M8X60	200	01256.080.060	M10X60	100	01256.100.060
M6X50	200	01256.060.050	M8X70	200	01256.080.070	M10X70	100	01256.100.070
			M8X80	100	01256.080.080	M10X80	100	01256.100.080
M8X12	200	01256.080.012	M8X100	100	01256.080.100	M10X100	100	01256.100.100
M8X16	200	01256.080.016						
M8X20	200	01256.080.020	M10X20	200	01256.100.020	M12X25	100	01256.120.025

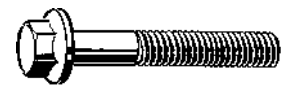
01256 Hexagon bolt with flange ←

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M12X30	100	01256.120.030	M14X35	100	01256.140.035	M16X70	25	01256.160.070
M12X35	100	01256.120.035	M14X40	100	01256.140.040	M16X80	25	01256.160.080
M12X40	100	01256.120.040	M14X45	50	01256.140.045	M16X100	25	01256.160.100
M12X45	100	01256.120.045	M14X50	50	01256.140.050			
M12X50	100	01256.120.050	M14X60	50	01256.140.060	M20X50	25	01256.200.050
M12X60	100	01256.120.060	M14X80	50	01256.140.080	M20X60	25	01256.200.060
M12X70	50	01256.120.070				M20X70	25	01256.200.070
M12X80	50	01256.120.080	M16X35	50	01256.160.035	M20X80	10	01256.200.080
M12X90	50	01256.120.090	M16X40	50	01256.160.040	M20X90	10	01256.200.090
M12X100	50	01256.120.100	M16X45	50	01256.160.045	M20X100	10	01256.200.100
M12X120	50	01256.120.120	M16X50	50	01256.160.050	M20X120	10	01256.200.120
			M16X60	50	01256.160.060			

- Special features of hexagon bolts with flange:
- The flange enables built up forces to be spread over a larger area, consequently resulting in lower surface pressure.
- Large holes (oversized) and/or tooling holes can be covered by the flange.
- A washer is not necessary.

04132 Hexagon bolt with flange A92A

Thread	Metric thread
Material	Steel
Class	10.9
Packaging	Standard

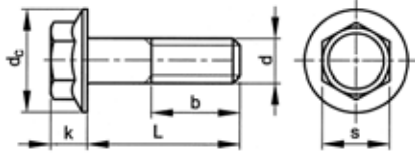


d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X20	200	04132.060.020	M10X40	100	04132.100.040	M14X35	50	04132.140.035
M6X25	200	04132.060.025	M10X50	100	04132.100.050	M14X40	50	04132.140.040
M6X30	200	04132.060.030	M10X60	100	04132.100.060	M14X45	50	04132.140.045
M6X40	200	04132.060.040	M10X70	100	04132.100.070	M14X50	50	04132.140.050
M6X50	200	04132.060.050						
			M12X25	100	04132.120.025	M16X35	50	04132.160.035
M8X20	200	04132.080.020	M12X30	100	04132.120.030	M16X40	50	04132.160.040
M8X25	200	04132.080.025	M12X35	100	04132.120.035	M16X45	50	04132.160.045
M8X30	200	04132.080.030	M12X40	100	04132.120.040	M16X50	50	04132.160.050
M8X40	200	04132.080.040	M12X45	100	04132.120.045	M16X60	50	04132.160.060
M8X50	200	04132.080.050	M12X50	100	04132.120.050	M16X70	25	04132.160.070
			M12X60	100	04132.120.060	M16X80	25	04132.160.080
M10X20	200	04132.100.020	M12X70	50	04132.120.070			
M10X25	200	04132.100.025	M12X80	50	04132.120.080			
M10X30	200	04132.100.030	M12X90	50	04132.120.090			

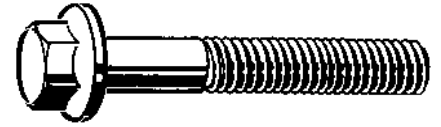
- Special features of hexagon bolts with flange:
- The flange enables built up forces to be spread over a larger area, consequently resulting in lower surface pressure.
- Large holes (oversized) and/or tooling holes can be covered by the flange.
- A washer is not necessary.
- Warning: electro-galvanizing of these products may cause hydrogen embrittlement.

Hexagon bolt with flange MF

1



DIN 6921
ANSI B18.2.3.4M



Technical data

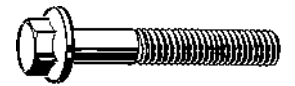
d	b (min.)	k (max.)	s	d _c (max.)
M8	22	8,1	13	18
M10	26	9,2	15	22,3
M12	30	11,5	16	26,6
M14	34	12,8	18	30,5
M16	38	14,4	21	35

- Special features of hexagon bolts with flange:
- The flange enables built up forces to be spread over a larger area, consequently resulting in lower surface pressure.
- Large holes (oversized) and/or tooling holes can be covered by the flange.
- A washer is not necessary.

04135 Hexagon bolt with flange MF

A92A

Thread	Metric fine thread
Material	Steel
Class	10.9
Packaging	Standard



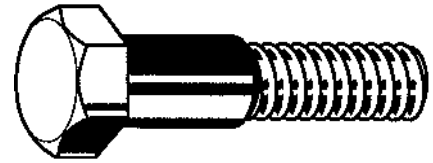
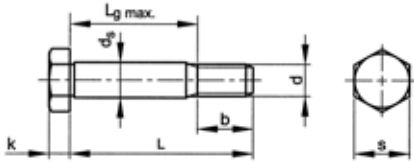
d x P x L	☒	Art.number	d x P x L	☒	Art.number	d x P x L	☒	Art.number
M8X1,00X25	200	04135.080.025	M12X1,50X25	100	04135.120.025	M16X1,50X35	50	04135.160.035
M8X1,00X30	200	04135.080.030	M12X1,50X30	100	04135.120.030	M16X1,50X40	50	04135.160.040
M10X1,25X20	200	04135.100.020	M12X1,50X40	100	04135.120.040	M16X1,50X45	50	04135.160.045
M10X1,25X30	200	04135.100.030	M12X1,50X45	100	04135.120.045	M16X1,50X50	50	04135.160.050
M10X1,25X40	100	04135.100.040	M12X1,50X50	100	04135.120.050	M16X1,50X60	50	04135.160.060
M10X1,25X50	100	04135.100.050	M14X1,50X35	50	04135.140.035			
M10X1,25X60	100	04135.100.060	M14X1,50X40	50	04135.140.040			
M10X1,25X70	100	04135.100.070	M14X1,50X50	50	04135.140.050			
			M14X1,50X60	50	04135.140.060			

- Warning: electro-galvanizing of these products may cause hydrogen embrittlement.

Hexagon fit bolt with long thread

DIN 609

1



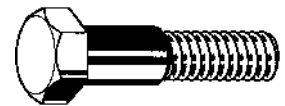
Technical data

	M10	M12	M16	M20	M24
d	M10	M12	M16	M20	M24
P	1,5	1,75	2	2,5	3
b:L≤50mm	17,5	20,5	25	28,5	-
b:50mm<L≤150mm	19,5	22,5	27	30,5	36,5
d_s (k6)	11	13	17	21	25
Tolerance drill ø	H7	H7	H7	H7	H7
k	6,4	7,5	10	12,5	15
s	16	18	24	30	36

01040 Hexagon fit bolt with long thread

A90A

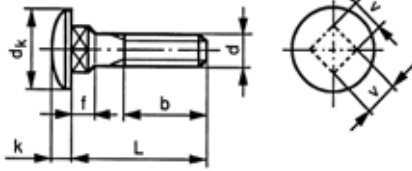
Thread Metric thread
Material Steel
Class 8.8
Packaging Standard



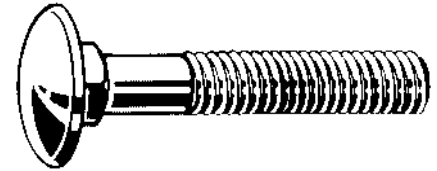
d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M10X30	25	01040.100.030	M12X70	25	01040.120.070	M20X60	5	01040.200.060
M10X35	25	01040.100.035				M20X70	5	01040.200.070
M10X40	25	01040.100.040	M16X40	10	01040.160.040	M20X80	5	01040.200.080
M10X45	25	01040.100.045	M16X45	10	01040.160.045	M20X90	5	01040.200.090
M10X50	25	01040.100.050	M16X50	10	01040.160.050	M20X100	5	01040.200.100
M10X55	25	01040.100.055	M16X55	10	01040.160.055	M20X120	5	01040.200.120
M10X60	25	01040.100.060	M16X60	10	01040.160.060			
			M16X70	10	01040.160.070	M24X55	3	01040.240.055
M12X30	25	01040.120.030	M16X80	10	01040.160.080	M24X60	3	01040.240.060
M12X35	25	01040.120.035	M16X90	10	01040.160.090	M24X70	3	01040.240.070
M12X40	25	01040.120.040	M16X100	10	01040.160.100	M24X80	3	01040.240.080
M12X45	25	01040.120.045				M24X90	3	01040.240.090
M12X50	25	01040.120.050	M20X45	5	01040.200.045	M24X100	3	01040.240.100
M12X55	25	01040.120.055	M20X50	5	01040.200.050	M24X120	3	01040.240.120
M12X60	25	01040.120.060	M20X55	5	01040.200.055			

Mushroom head square neck bolt

1



ISO 8677
DIN 603
 NEN 303
 ANSI B18.5.2.3M
 BS 4933



Technical data

	M5	M6	M8	M10	M12	M16
d						
P	0,8	1	1,25	1,5	1,75	2
b (min.): L≤125mm	16	18	22	26	30	38
b (min.): 125mm<L≤200mm	22	24	28	32	36	44
b (min.): L>200mm	-	-	41	45	49	57
d_k (max.)	13,55	16,55	20,65	24,65	30,65	38,80
f (max.)	4,1	4,6	5,6	6,6	8,75	12,9
k (max.)	3,3	3,88	4,88	5,38	6,95	8,95
v (max.)	5,48	6,48	8,58	10,58	12,7	16,7

- Size 'b' is a guide value, it amounts on the minimum length of the threaded part.

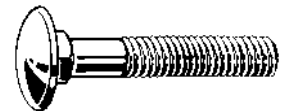
Article groups

Thread	Material	Class	Surface treatment	Packaging	Code	Page
M	St	8.8		Standard	08310	1-62
M	St	8.8	Zipl	Standard	08320	1-62
M	St.St. A2			Standard	51500	1-63
M	St.St. A4			Standard	55500	1-63

08310 Mushroom head square neck bolt

A90A

Thread Metric thread
Material Steel
Class 8.8
Packaging Standard

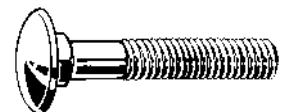


d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X16	200	08310.060.016	M8X60	100	08310.080.060	M12X25	100	08310.120.025
M6X20	200	08310.060.020	M8X70	100	08310.080.070	M12X30	100	08310.120.030
M6X25	200	08310.060.025	M8X80	100	08310.080.080	M12X35	100	08310.120.035
M6X30	200	08310.060.030				M12X40	50	08310.120.040
M6X35	200	08310.060.035	M10X20	100	08310.100.020	M12X45	50	08310.120.045
M6X40	200	08310.060.040	M10X25	100	08310.100.025	M12X50	50	08310.120.050
M6X45	200	08310.060.045	M10X30	100	08310.100.030	M12X55	50	08310.120.055
M6X50	200	08310.060.050	M10X35	100	08310.100.035	M12X60	50	08310.120.060
			M10X40	100	08310.100.040	M12X65	50	08310.120.065
M8X16	200	08310.080.016	M10X45	100	08310.100.045	M12X70	50	08310.120.070
M8X20	200	08310.080.020	M10X50	100	08310.100.050	M12X80	50	08310.120.080
M8X25	200	08310.080.025	M10X55	100	08310.100.055	M12X90	50	08310.120.090
M8X30	200	08310.080.030	M10X60	100	08310.100.060	M12X100	50	08310.120.100
M8X35	200	08310.080.035	M10X70	100	08310.100.070			
M8X40	200	08310.080.040	M10X80	50	08310.100.080	M16X90	25	08310.160.090
M8X45	200	08310.080.045	M10X90	50	08310.100.090	M16X120	25	08310.160.120
M8X50	200	08310.080.050	M10X100	50	08310.100.100			
M8X55	100	08310.080.055						

08320 Mushroom head square neck bolt

A90A

Thread Metric thread
Material Steel
Class 8.8
Surface treatment Zinc plated
Packaging Standard



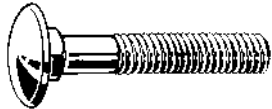
d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X16	200	08320.060.016	M8X20	200	08320.080.020	M8X55	100	08320.080.055
M6X20	200	08320.060.020	M8X25	200	08320.080.025	M8X60	100	08320.080.060
M6X30	200	08320.060.030	M8X30	200	08320.080.030			
M6X40	200	08320.060.040	M8X35	200	08320.080.035	M10X20	100	08320.100.020
M6X50	200	08320.060.050	M8X40	200	08320.080.040	M10X25	100	08320.100.025
			M8X45	200	08320.080.045	M10X30	100	08320.100.030
M8X16	200	08320.080.016	M8X50	200	08320.080.050	M10X35	100	08320.100.035

08320 Mushroom head square neck bolt ←

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M10X40	100	08320.100.040	M12X30	100	08320.120.030	M12X70	50	08320.120.070
M10X50	100	08320.100.050	M12X35	100	08320.120.035	M12X80	50	08320.120.080
M10X60	100	08320.100.060	M12X40	50	08320.120.040	M12X90	50	08320.120.090
M10X70	100	08320.100.070	M12X45	50	08320.120.045	M12X100	50	08320.120.100
M10X80	50	08320.100.080	M12X50	50	08320.120.050			
M10X90	50	08320.100.090	M12X60	50	08320.120.060			
M10X100	50	08320.100.100						

51500 Mushroom head square neck bolt R03A

Thread	Metric thread
Material	Stainless steel A2
Packaging	Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M5X16	50	51500.050.016	M8X170 *	50	51500.080.170	M12X100	10	51500.120.100
M5X20	50	51500.050.020	M8X180 *	50	51500.080.180	M12X110	10	51500.120.110
M5X25	50	51500.050.025	M8X190 *	50	51500.080.190	M12X120	10	51500.120.120
M5X30	50	51500.050.030				M12X160 *	50	51500.120.160
M5X40	50	51500.050.040	M10X16 *	100	51500.100.016	M12X180 *	50	51500.120.180
M5X50	50	51500.050.050	M10X20	25	51500.100.020	M12X200 *	50	51500.120.200
M5X60	50	51500.050.060	M10X25	25	51500.100.025	M12X220 *	50	51500.120.220
			M10X30	25	51500.100.030	M12X240 *	50	51500.120.240
M6X16	50	51500.060.016	M10X35	25	51500.100.035	M12X260 *	50	51500.120.260
M6X20	50	51500.060.020	M10X40	25	51500.100.040	M12X280 *	50	51500.120.280
M6X25	50	51500.060.025	M10X45	25	51500.100.045	M12X300 *	50	51500.120.300
M6X30	50	51500.060.030	M10X50	25	51500.100.050			
M6X35	50	51500.060.035	M10X55	25	51500.100.055	M16X40 *	25	51500.160.040
M6X40	50	51500.060.040	M10X60	10	51500.100.060	M16X45	10	51500.160.045
M6X45	50	51500.060.045	M10X70	10	51500.100.070	M16X50 *	25	51500.160.050
M6X50	50	51500.060.050	M10X80	10	51500.100.080	M16X55 *	25	51500.160.055
M6X60	50	51500.060.060	M10X90	10	51500.100.090	M16X60	10	51500.160.060
M6X70	50	51500.060.070	M10X100	10	51500.100.100	M16X65	10	51500.160.065
M6X80	50	51500.060.080	M10X120	10	51500.100.120	M16X70 *	25	51500.160.070
M6X90	50	51500.060.090	M10X160 *	50	51500.100.160	M16X80 *	25	51500.160.080
M6X100	50	51500.060.100	M10X180 *	50	51500.100.180	M16X90 *	25	51500.160.090
			M10X200 *	50	51500.100.200	M16X100 *	25	51500.160.100
M8X16	50	51500.080.016	M10X220 *	50	51500.100.220	M16X110 *	25	51500.160.110
M8X20	50	51500.080.020	M10X240 *	50	51500.100.240	M16X120 *	25	51500.160.120
M8X25	50	51500.080.025	M10X260 *	50	51500.100.260	M16X130 *	25	51500.160.130
M8X30	50	51500.080.030	M10X280 *	50	51500.100.280	M16X140 *	25	51500.160.140
M8X35	50	51500.080.035	M10X300 *	50	51500.100.300	M16X150 *	25	51500.160.150
M8X40	25	51500.080.040				M16X160 *	25	51500.160.160
M8X50	25	51500.080.050	M12X25	10	51500.120.025	M16X180 *	25	51500.160.180
M8X60	25	51500.080.060	M12X30	10	51500.120.030	M16X200 *	25	51500.160.200
M8X70	25	51500.080.070	M12X40	10	51500.120.040	M16X220 *	25	51500.160.220
M8X80	25	51500.080.080	M12X50	10	51500.120.050	M16X240 *	25	51500.160.240
M8X100	25	51500.080.100	M12X60	10	51500.120.060	M16X260 *	25	51500.160.260
M8X110	25	51500.080.110	M12X70	10	51500.120.070	M16X280 *	25	51500.160.280
M8X120 *	50	51500.080.120	M12X80	10	51500.120.080	M16X300 *	25	51500.160.300
M8X160 *	50	51500.080.160	M12X90	10	51500.120.090			

55500 Mushroom head square neck bolt R43A

Thread	Metric thread
Material	Stainless steel A4
Packaging	Standard

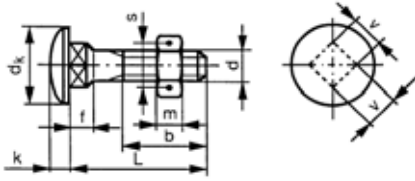


d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M5X16	50	55500.050.016	M6X90	50	55500.060.090	M8X140	10	55500.080.140
M5X20	50	55500.050.020	M6X100	50	55500.060.100	M8X150	10	55500.080.150
M5X30	50	55500.050.030	M6X110	25	55500.060.110			
M5X35	50	55500.050.035	M6X120	25	55500.060.120	M10X20	25	55500.100.020
M5X40	50	55500.050.040				M10X30	25	55500.100.030
M5X50	50	55500.050.050	M8X16	50	55500.080.016	M10X40	25	55500.100.040
M5X60	50	55500.050.060	M8X20	50	55500.080.020	M10X50	25	55500.100.050
M5X70	50	55500.050.070	M8X25	50	55500.080.025	M10X60	10	55500.100.060
			M8X30	50	55500.080.030	M10X70	10	55500.100.070
M6X16	50	55500.060.016	M8X35	50	55500.080.035	M10X80	10	55500.100.080
M6X20	50	55500.060.020	M8X40	25	55500.080.040	M10X100	10	55500.100.100
M6X25	50	55500.060.025	M8X50	25	55500.080.050	M10X110	10	55500.100.110
M6X30	50	55500.060.030	M8X60	25	55500.080.060	M10X120	10	55500.100.120
M6X35	50	55500.060.035	M8X70	25	55500.080.070	M10X130	10	55500.100.130
M6X40	50	55500.060.040	M8X80	25	55500.080.080	M10X140	10	55500.100.140
M6X45	50	55500.060.045	M8X90	25	55500.080.090	M10X150	10	55500.100.150
M6X50	50	55500.060.050	M8X100	25	55500.080.100	M10X160 *	50	55500.100.160
M6X60	50	55500.060.060	M8X110	10	55500.080.110	M10X200 *	50	55500.100.200
M6X70	50	55500.060.070	M8X120	10	55500.080.120			
M6X80	50	55500.060.080	M8X130	10	55500.080.130	M12X30	10	55500.120.030

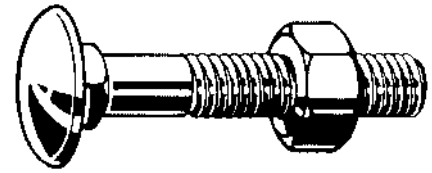
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55500 Mushroom head square neck bolt									
d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number	
M12X40	10	55500.120.040	M12X130	10	55500.120.130	M16X80	5	55500.160.080	
M12X50	10	55500.120.050	M12X140	10	55500.120.140	M16X90	5	55500.160.090	
M12X60	10	55500.120.060	M12X150	10	55500.120.150	M16X100	5	55500.160.100	
M12X70	10	55500.120.070				M16X120	5	55500.160.120	
M12X80	10	55500.120.080	M16X40	10	55500.160.040	M16X130	5	55500.160.130	
M12X90	10	55500.120.090	M16X50	10	55500.160.050	M16X140	5	55500.160.140	
M12X100	10	55500.120.100	M16X55 *	25	55500.160.055	M16X150	5	55500.160.150	
M12X110	10	55500.120.110	M16X60	10	55500.160.060				
M12X120	10	55500.120.120	M16X70	10	55500.160.070				

Mushroom head square neck bolt with hexagon nut



ISO 8677/-
DIN 603/555 (1987)
 NEN 303/697
 ANSI B18.5.2.3M/-
 NF - / E25-402
 BS 4933/-



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Technical data

	M5	M6	M8	M10	M12	M16
d	M5	M6	M8	M10	M12	M16
P	0,8	1	1,25	1,5	1,75	2
b (min.): L≤125mm	16	18	22	26	30	38
b (min.): 125mm<L≤200mm	22	24	28	32	36	44
b (min.): L>200mm	-	-	41	45	49	57
dk (max.)	13,55	16,55	20,65	24,65	30,65	38,8
f (max.)	4,1	4,6	5,6	6,6	8,75	12,9
k (max.)	3,3	3,88	4,88	5,38	6,95	8,95
v (max.)	5,48	6,48	8,58	10,58	12,7	16,7
m	4	5	6,5	8	10	13
s	8	10	13	17	19	24

- Size 'b' is a guide value, it amounts on the minimum length of the threaded part.

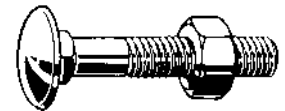
Article groups

Thread	Material	Class	Surface treatment	Packaging	Code	Page
M	St	≥4.6	Zipl	Standard	08250	1-65
M	St	≥4.6	Hot d.g.	Standard	08420	1-66

08250 Mushroom head square neck bolt with hexagon nut

E05A

Thread Metric thread
Material Steel
Class ≥4.6
Surface treatment Zinc plated
Packaging Standard



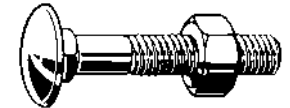
d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M5X16	500	08250.050.016	M8X40	200	08250.080.040	M10X130	50	08250.100.130
M5X20	500	08250.050.020	M8X45	200	08250.080.045	M10X140	50	08250.100.140
M5X25	500	08250.050.025	M8X50	200	08250.080.050	M10X150	50	08250.100.150
M5X30	500	08250.050.030	M8X55	200	08250.080.055	M10X160	50	08250.100.160
M5X35	200	08250.050.035	M8X60	200	08250.080.060	M10X170	50	08250.100.170
M5X40	200	08250.050.040	M8X65	200	08250.080.065	M10X180	50	08250.100.180
M5X45	200	08250.050.045	M8X70	200	08250.080.070	M10X190	50	08250.100.190
M5X50	200	08250.050.050	M8X75	200	08250.080.075	M10X200	50	08250.100.200
M5X60	200	08250.050.060	M8X80	200	08250.080.080	M10X220	25	08250.100.220
M5X65	200	08250.050.065	M8X90	100	08250.080.090	M10X240	25	08250.100.240
M5X70	200	08250.050.070	M8X100	100	08250.080.100	M10X260	25	08250.100.260
M5X80	200	08250.050.080	M8X110	100	08250.080.110	M10X280	25	08250.100.280
			M8X120	100	08250.080.120	M10X300	25	08250.100.300
			M8X130	100	08250.080.130			
M6X16	200	08250.060.016	M8X140	50	08250.080.140	M12X30	100	08250.120.030
M6X20	200	08250.060.020	M8X150	50	08250.080.150	M12X35	100	08250.120.035
M6X25	200	08250.060.025	M8X160	50	08250.080.160	M12X40	100	08250.120.040
M6X30	200	08250.060.030	M8X170	50	08250.080.170	M12X45	100	08250.120.045
M6X35	200	08250.060.035	M8X180	50	08250.080.180	M12X50	100	08250.120.050
M6X40	200	08250.060.040	M8X200	50	08250.080.200	M12X55	100	08250.120.055
M6X45	200	08250.060.045				M12X60	100	08250.120.060
M6X50	200	08250.060.050				M12X65	50	08250.120.065
M6X55	200	08250.060.055	M10X20	200	08250.100.020	M12X70	50	08250.120.070
M6X60	200	08250.060.060	M10X25	200	08250.100.025	M12X75	50	08250.120.075
M6X65	200	08250.060.065	M10X30	200	08250.100.030	M12X80	50	08250.120.080
M6X70	200	08250.060.070	M10X35	100	08250.100.035	M12X85	50	08250.120.085
M6X75	200	08250.060.075	M10X40	100	08250.100.040	M12X90	50	08250.120.090
M6X80	200	08250.060.080	M10X45	100	08250.100.045	M12X95	50	08250.120.095
M6X90	100	08250.060.090	M10X50	100	08250.100.050	M12X100	50	08250.120.100
M6X100	100	08250.060.100	M10X55	100	08250.100.055	M12X105	50	08250.120.105
M6X110	100	08250.060.110	M10X60	100	08250.100.060	M12X110	50	08250.120.110
M6X120	100	08250.060.120	M10X65	100	08250.100.065	M12X115	50	08250.120.115
M6X140	100	08250.060.140	M10X70	100	08250.100.070	M12X120	50	08250.120.120
			M10X75	100	08250.100.075	M12X125	50	08250.120.125
			M10X80	100	08250.100.080	M12X130	50	08250.120.130
M8X16	200	08250.080.016	M10X85	100	08250.100.085	M12X135	50	08250.120.135
M8X20	200	08250.080.020	M10X90	100	08250.100.090	M12X140	50	08250.120.140
M8X25	200	08250.080.025	M10X95	100	08250.100.095	M12X145	50	08250.120.145
M8X30	200	08250.080.030	M10X100	100	08250.100.100	M12X150	50	08250.120.150
M8X35	200	08250.080.035	M10X105	50	08250.100.105	M12X155	50	08250.120.155
			M10X110	50	08250.100.110	M12X160	25	08250.120.160
			M10X120	50	08250.100.120	M12X165	25	08250.120.165
						M12X170	25	08250.120.170
						M12X175	25	08250.120.175
						M12X180	25	08250.120.180
						M12X185	25	08250.120.185
						M12X190	25	08250.120.190
						M12X195	25	08250.120.195
						M12X200	25	08250.120.200
						M12X205	25	08250.120.205
						M12X210	25	08250.120.210
						M12X215	25	08250.120.215
						M12X220	25	08250.120.220

1
08250 Mushroom head square neck bolt with hexagon nut

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M12X240	25	08250.120.240	M16X70	25	08250.160.070	M16X240	10	08250.160.240
M12X250	25	08250.120.250	M16X80	25	08250.160.080	M16X260	10	08250.160.260
M12X260	25	08250.120.260	M16X100	25	08250.160.100	M16X280	10	08250.160.280
M12X280	25	08250.120.280	M16X110	25	08250.160.110	M16X300	10	08250.160.300
M12X300	25	08250.120.300	M16X120	25	08250.160.120	M16X320	10	08250.160.320
M12X320	10	08250.120.320	M16X130	25	08250.160.130	M16X340	10	08250.160.340
M12X340	10	08250.120.340	M16X140	25	08250.160.140	M16X360	10	08250.160.360
M12X360	10	08250.120.360	M16X160	25	08250.160.160	M16X380	10	08250.160.380
M12X380	10	08250.120.380	M16X170	25	08250.160.170	M16X400	10	08250.160.400
M12X400	10	08250.120.400	M16X180	25	08250.160.180			
			M16X200	10	08250.160.200			
M16X60	50	08250.160.060	M16X220	10	08250.160.220			

08420 Mushroom head square neck bolt with hexagon nut oversized thread
E09A

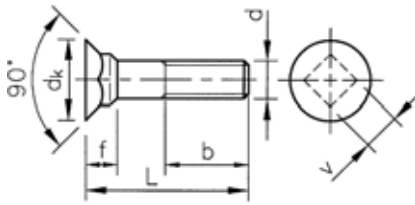
Thread Metric thread
Material Steel
Class ≥4.6
Surface treatment Hot dip galvanized
Packaging Standard



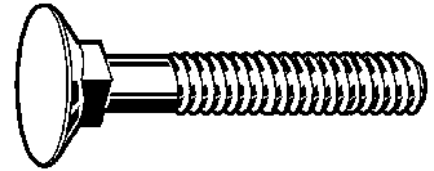
d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M8X50	200	08420.080.050	M10X150	50	08420.100.150	M12X260	25	08420.120.260
M8X60	200	08420.080.060	M10X160	50	08420.100.160	M12X280	25	08420.120.280
M8X70	200	08420.080.070	M10X180	50	08420.100.180	M12X300	25	08420.120.300
M8X80	100	08420.080.080	M10X200	50	08420.100.200	M12X320	10	08420.120.320
M8X90	100	08420.080.090	M10X220	25	08420.100.220	M12X340	10	08420.120.340
M8X100	100	08420.080.100	M10X240	25	08420.100.240	M12X360	10	08420.120.360
M8X110	100	08420.080.110				M12X380	10	08420.120.380
M8X120	100	08420.080.120	M12X60	50	08420.120.060	M12X400	10	08420.120.400
M8X130	100	08420.080.130	M12X70	50	08420.120.070			
M8X140	50	08420.080.140	M12X80	50	08420.120.080	M16X100	25	08420.160.100
M8X160	50	08420.080.160	M12X90	50	08420.120.090	M16X120	25	08420.160.120
M8X180	50	08420.080.180	M12X100	50	08420.120.100	M16X130	25	08420.160.130
			M12X110	50	08420.120.110	M16X140	25	08420.160.140
M10X50	100	08420.100.050	M12X120	50	08420.120.120	M16X150	25	08420.160.150
M10X60	100	08420.100.060	M12X130	50	08420.120.130	M16X160	25	08420.160.160
M10X70	100	08420.100.070	M12X140	50	08420.120.140	M16X180	25	08420.160.180
M10X80	100	08420.100.080	M12X150	50	08420.120.150	M16X200	10	08420.160.200
M10X90	100	08420.100.090	M12X160	25	08420.120.160	M16X220	10	08420.160.220
M10X100	100	08420.100.100	M12X170	25	08420.120.170	M16X240	10	08420.160.240
M10X110	50	08420.100.110	M12X180	25	08420.120.180	M16X260	10	08420.160.260
M10X120	50	08420.100.120	M12X200	25	08420.120.200	M16X280	10	08420.160.280
M10X130	50	08420.100.130	M12X220	25	08420.120.220			
M10X140	50	08420.100.140	M12X240	25	08420.120.240			

- For hot dip galvanized bolts with OVERSIZED thread the zinc layer is applied ON the normal thread, so AFTER galvanizing these bolts are no longer ISO-metric mating, but thicker: so called OVERSIZED.
- The corresponding OVERSIZED nuts have been tapped about 0,3 mm larger AFTER galvanizing running perfectly onto these bolts.

Flat countersunk square neck bolt with short square



DIN ≈608
BS ≈4933



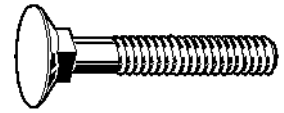
Technical data

d	M10	M12
P	1,5	1,75
b (min.)	26	30
dk (max.)	19,65	24,65
f (max.)	8,45	11,05
v (max.)	10,58	12,7

01036 Flat countersunk square neck bolt with short square

A90A

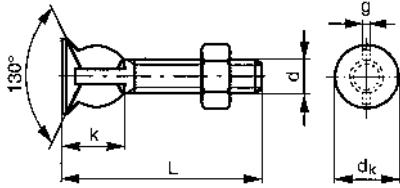
Thread Metric thread
Material Steel
Class 8.8
Packaging Standard



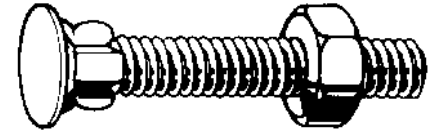
d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M10X25	100	01036.100.025	M10X50	50	01036.100.050	M12X35	50	01036.120.035
M10X30	100	01036.100.030	M10X60	50	01036.100.060	M12X40	50	01036.120.040
M10X35	100	01036.100.035				M12X50	50	01036.120.050
M10X40	100	01036.100.040	M12X30	50	01036.120.030			

1

Flat countersunk wing neck bolt with hexagon nut



DIN - / 555 (1987)
NEN - / 697
NF - / E25-402



Technical data

d	M6	M8
P	1	1,25
dk	11,5	15
k	8	11,5
g	1	1,2
m	5	6,5
s	10	13

- The corresponding hexagon nuts have a property class \geq I4I.

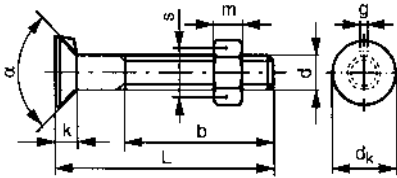
08260	SEHA Flat countersunk wing neck bolt with hexagon nut	E90A
Thread	Metric thread	
Material	Steel	
Surface treatment	Zinc plated	
Packaging	Standard	



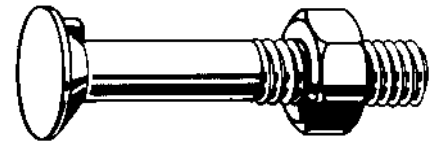
d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X20	200	08260.060.020	M6X40	200	08260.060.040	M8X50	100	08260.080.050
M6X25	200	08260.060.025	M6X50	200	08260.060.050			
M6X30	200	08260.060.030						
M6X35	200	08260.060.035	M8X40	100	08260.080.040			

Flat countersunk nib bolt with hexagon nut

1



DIN 604/555 (1987)
NEN 2355/697
NF - / E25-402
BS 4933/-



Technical data

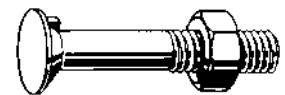
d	M10	M12	M16	M20	M24
P	1,5	1,75	2	2,5	3
b (min.): L≤125mm	26	30	38	46	54
b (min.): 125mm<L≤200mm	32	36	44	52	60
b (min.): L>200mm	45	49	57	65	73
dk (max.)	19,65	24,65	32,8	32,8	38,8
k	5,5	7	9	11,5	13
g (max.)	3,2	3,6	4,2	5,4	6,6
α (min.)	90°	90°	90°	60°	60°
m	8	10	13	16	19
s	17	19	24	30	36

- The corresponding hexagon nuts have a property class ≥ I4I.

08070 Flat countersunk nib bolt with hexagon nut

E01B

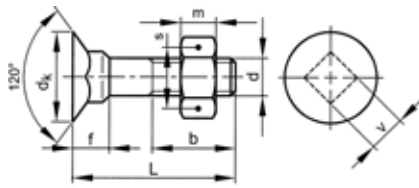
Thread Metric thread
Material Steel
Class ≥4.6
Packaging Standard



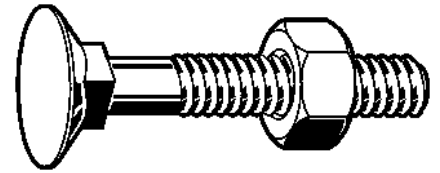
d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M10X25	100	08070.100.025	M12X60	50	08070.120.060	M20X50	25	08070.200.050
M10X30	100	08070.100.030	M12X70	50	08070.120.070	M20X60	25	08070.200.060
M10X35	100	08070.100.035	M12X80	50	08070.120.080	M20X70	25	08070.200.070
M10X40	100	08070.100.040	M12X90	50	08070.120.090	M20X80	25	08070.200.080
M10X45	100	08070.100.045				M20X90	25	08070.200.090
M10X50	100	08070.100.050	M16X35	25	08070.160.035	M20X100	25	08070.200.100
M10X55	100	08070.100.055	M16X40	25	08070.160.040	M20X120	25	08070.200.120
M10X60	100	08070.100.060	M16X45	25	08070.160.045	M20X130	25	08070.200.130
M10X70	100	08070.100.070	M16X50	25	08070.160.050			
M10X80	50	08070.100.080	M16X55	25	08070.160.055	M24X60	25	08070.240.060
M10X90	50	08070.100.090	M16X60	25	08070.160.060	M24X80	25	08070.240.080
			M16X70	25	08070.160.070	M24X90	25	08070.240.090
M12X30	100	08070.120.030	M16X80	25	08070.160.080	M24X100	25	08070.240.100
M12X35	100	08070.120.035	M16X90	25	08070.160.090	M24X110	25	08070.240.110
M12X40	100	08070.120.040	M16X100	25	08070.160.100			
M12X45	100	08070.120.045	M16X140	25	08070.160.140			
M12X50	100	08070.120.050						

1

Flat countersunk square neck bolt with long square with hexagon nut



DIN 605/555 (1987)
NF - / E25-402
BS 4933/-



Technical data

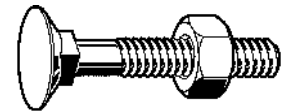
	M6	M8	M10
d	M6	M8	M10
P	1	1,25	1,5
b (min.)	18	22	26
dk (max.)	16,55	20,65	24,65
f (max.)	7,45	9,45	11,55
v (max.)	6,48	8,58	10,58
m	5	6,5	8
s	10	13	17

- The corresponding hexagon nuts have a property class \geq I4I.

08206 Flat countersunk square neck bolt with long square with hexagon nut

E03B

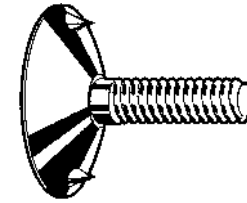
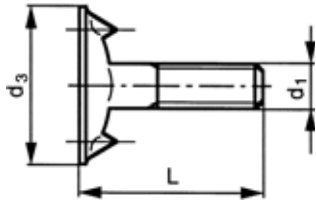
Thread Metric thread
Material Steel
Class 4.6
Surface treatment Zinc plated
Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X30	200	08206.060.030	M8X35	200	08206.080.035	M10X50	100	08206.100.050
M6X35	200	08206.060.035	M8X40	200	08206.080.040	M10X60	100	08206.100.060
M6X40	200	08206.060.040	M8X50	200	08206.080.050			
M6X50	200	08206.060.050	M8X60	200	08206.080.060			
M8X30	200	08206.080.030	M10X40	100	08206.100.040			

Seating screw

DIN 15237



Technical data

d1	M8	M10
P	1,25	1,5
d3	28	35

- Applicable for the attachment of conveyor belts to their rollers.
- The cams under the countersunk head fasten the seating screw while the cupped washer under the belt reinforces the connection.

Article groups

Thread	Material	Packaging	Code	Page
M	St.St. A2	Standard	51505	1-71
M	St.St. A4	Standard	55505	1-71

51505 Seating screw		R03A
Thread	Metric thread	
Material	Stainless steel A2	
Packaging	Standard	

d1 x L	☒	Art.number	d1 x L	☒	Art.number	d1 x L	☒	Art.number
M8X25	10	51505.080.025	M10X30	5	51505.100.030	M10X50	5	51505.100.050
M8X30	10	51505.080.030	M10X35	5	51505.100.035			
M8X35	10	51505.080.035	M10X40	5	51505.100.040			

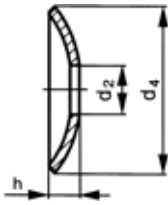
55505 Seating screw		R43A
Thread	Metric thread	
Material	Stainless steel A4	
Packaging	Standard	

d1 x L	☒	Art.number	d1 x L	☒	Art.number	d1 x L	☒	Art.number
M8X25	10	55505.080.025						
M10X50	5	55505.100.050						

1

Cupped washer for seating screw

DIN 15237



Technical data

For nom.size	M8	M10
d ₂	9,5	11,5
d ₄	32	40
h ≈	5,7	7

- Use these cupped washers together with the seating screws.
- Applicable for the attachment of conveyor belts to their rollers.

Article groups

Material	Packaging	Code	Page
St.St. A2	Standard	51506	1-72
St.St. A4	Standard	55506	1-72

51506 Cupped washer for seating screw R09A

Material Stainless steel A2
Packaging Standard



For nom. size	☒	Art.number	For nom. size	☒	Art.number	For nom. size	☒	Art.number
M8	10	51506.080.001						
M10	5	51506.100.001						

55506 Cupped washer for seating screw R49A

Material Stainless steel A4
Packaging Standard

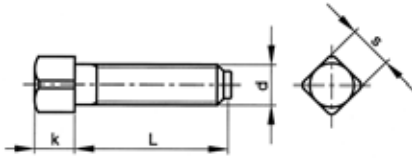


For nom. size	☒	Art.number	For nom. size	☒	Art.number	For nom. size	☒	Art.number
M8	10	55506.080.001						

Square head bolt with short dog point

DIN 479
NF E25-134

1



Technical data

d	P	k	s
M6	1	6	6
M8	1,25	8	8
M10	1,5	10	10
M12	1,75	12	13
M16	2	16	17
M20	2,5	20	22
M24	3	22	24

01030 Square head bolt with short dog point

A90A

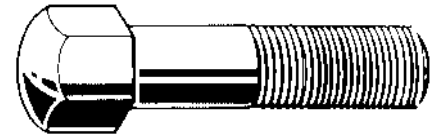
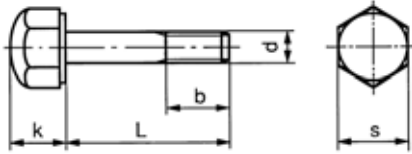
Thread Metric thread
Material Steel
Class 8.8
Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X16	200	01030.060.016	M10X45	100	01030.100.045	M16X70	50	01030.160.070
M6X20	200	01030.060.020	M10X50	100	01030.100.050	M16X80	25	01030.160.080
M6X25	200	01030.060.025	M10X60	100	01030.100.060	M16X90	25	01030.160.090
M6X30	200	01030.060.030	M10X70	100	01030.100.070	M16X100	25	01030.160.100
M6X35	200	01030.060.035	M10X80	50	01030.100.080	M16X120	25	01030.160.120
M6X40	200	01030.060.040	M10X100	50	01030.100.100			
M6X50	200	01030.060.050				M20X50	25	01030.200.050
			M12X20	200	01030.120.020	M20X60	25	01030.200.060
M8X16	200	01030.080.016	M12X25	100	01030.120.025	M20X70	25	01030.200.070
M8X20	200	01030.080.020	M12X30	100	01030.120.030	M20X80	25	01030.200.080
M8X25	200	01030.080.025	M12X35	100	01030.120.035	M20X90	25	01030.200.090
M8X30	200	01030.080.030	M12X40	100	01030.120.040	M20X100	25	01030.200.100
M8X35	200	01030.080.035	M12X50	50	01030.120.050	M20X120	25	01030.200.120
M8X40	200	01030.080.040	M12X60	50	01030.120.060			
M8X50	200	01030.080.050	M12X70	50	01030.120.070	M24X70	25	01030.240.070
M8X60	100	01030.080.060	M12X80	50	01030.120.080	M24X80	25	01030.240.080
			M12X90	50	01030.120.090	M24X90	10	01030.240.090
M10X16	200	01030.100.016	M12X100	50	01030.120.100	M24X100	10	01030.240.100
M10X20	200	01030.100.020				M24X120	10	01030.240.120
M10X25	200	01030.100.025	M16X40	50	01030.160.040	M24X140	50	01030.240.140
M10X30	200	01030.100.030	M16X45	50	01030.160.045			
M10X35	200	01030.100.035	M16X50	50	01030.160.050			
M10X40	100	01030.100.040	M16X60	50	01030.160.060			

1

Trackshoe bolt type caterpillar



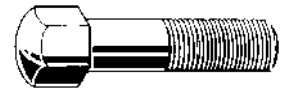
Technical data

d	Threads per inch	k	s
7/16	20	11	16
1/2	20	13	19
9/16	18	14	22
5/8	18	16	24
3/4	16	19	28
7/8	14	22	33,3
1.IN.-14G	14	24	38,1

06000 Trackshoe bolt type caterpillar

Y90A

Thread Unified National Fine
Material Steel
Class 170
Packaging Standard

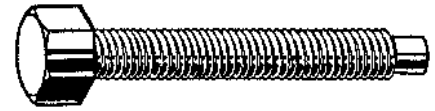
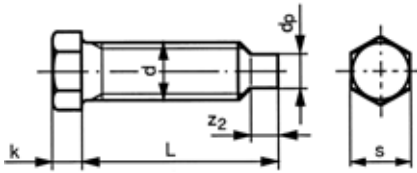


d x L x b	☒	Art.number	d x L x b	☒	Art.number	d x L x b	☒	Art.number
7/16X1.1/2X22MM	50	06000.111.038	5/8X2.IN.X28MM	25	06000.158.050	3/4X2.1/2X30MM	10	06000.191.063
1/2X1.1/2X19MM	50	06000.127.038	5/8X2.1/4X27MM	25	06000.158.057	3/4X2.3/4X38MM	10	06000.191.069
1/2X2.IN.X24MM	50	06000.127.050				1-14GX3.IN.X35MM	10	06000.256.076
9/16X1.5/8X26MM	50	06000.142.041	3/4X2.1/4X29MM	10	06000.191.057			
9/16X1.15/16X28MM	50	06000.142.049	3/4X2.3/8X30MM	10	06000.191.060			

• 170 = minimum tensile strength 170.000 psi = 1200 N/mm².

Hexagon head set screw with small hexagon and dog point

DIN 561
NF E25-133



Technical data

d	M6	M8	M10	M12	M16
P	1	1,25	1,5	1,75	2
k	5	6	7	9	11
s	8	10	13	16	18
d _p (max.)	4	5,5	7	8,5	12
z ₂ (min.)	3	4	5	6	8

01098 Hexagon head set screw with small hexagon and dog point

A90A

Thread Metric thread
Material Steel
Class 8.8
Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M6X12	200	01098.060.012	M10X20	200	01098.100.020	M12X50	100	01098.120.050
M6X16	200	01098.060.016	M10X25	200	01098.100.025	M12X60	100	01098.120.060
M6X20	200	01098.060.020	M10X30	200	01098.100.030			
			M10X35	100	01098.100.035	M16X50	50	01098.160.050
M8X16	200	01098.080.016	M10X40	100	01098.100.040	M16X60	50	01098.160.060
M8X20	200	01098.080.020	M10X50	100	01098.100.050	M16X70	25	01098.160.070
M8X25	200	01098.080.025	M10X60	100	01098.100.060	M16X80	25	01098.160.080
M8X30	200	01098.080.030						
M8X35	200	01098.080.035	M12X25	100	01098.120.025			
M8X40	200	01098.080.040	M12X30	100	01098.120.030			
M8X50	100	01098.080.050	M12X35	100	01098.120.035			
			M12X40	100	01098.120.040			

PEINER High strength structural bolts

General

From September 2007, manufacturers of high strength structural bolts, nuts and washers should produce their products in accordance with the European standard **EN 14399**. Products made based on the old standards DIN 6914, 6915 and 6916 (old 'DIN stocks') can still be used and supplied, but cannot be combined in various assemblies (see 'Assembly') with products that meet the new standard!

The revised standard does not lead to any important dimensional changes (with the exception of the thread length size "b", which now has the maximum value from the old standard and, starting at M24 even somewhat above that). Furthermore, CE marking on the packaging is obliged and the products demand more stringent assembly instructions and traceability. In addition, the impact value has changed from $K_{V,min}=20J$ to $K_{V,min}=27J$ at $-20^{\circ}C$. PEINER 10.9 HV high strength structural bolts, nuts and washers that are included in this catalogue meet the new standards.

Product	Old	New	Marking
HV bolts	DIN 6914	→ EN 14399-4	10.9 HV
HV nuts	DIN 6915	→ EN 14399-4	10 HV
HV washers	DIN 6916	→ EN 14399-6	H

Quality

PEINER is a CE-certified supplier of class 10.9 HV bolts, class 10 HV nuts and washers (hardness 300-370 HV) in the sizes M12-M36 in accordance with standard EN 14399-4 resp. EN 14399-6. These articles are available in both a black and a hot-dip galvanised version. The bolts meet all of the requirements that are set to prevent hydrogen embrittlement.

Assembly

The standard prescribes that the bolt, nut and washer must come from the same manufacturer. Standard EN 14399-2 describes the test method that the bolt/nut/washer combination should fulfill. Due to the more stringent assembly instructions and a classification in k-classes, the manufacturer should ensure that the required preloading force can be achieved in a reliable manner and that overloading is avoided, with reference being made to the assembly methods in standard ENV 1090-1.

For hot-dip galvanised combinations, in the friction class K1, the same tightening torque and preloading forces apply as stated in DIN 18800-7 (2002-09) Table 6, columns 3 and 7, resp. EN 1993-1-8. For hot-dip

galvanised products from the same manufacturer, the various separate elements (in accordance with DIN and EN) can be combined. This is because the values for the tightening torque remain the same!

For the non hot-dip galvanised combinations, according to the new EN standard, the same tightening torques apply as for the hot-dip galvanised combinations, there where DIN 18800-7 (2002-09) Table 6, columns 4 and 8, previously prescribed raised tightening torques. Due to this difference in tightening torque, combining DIN-products with EN-products is **not** allowed.

Peiner high strength structural bolts that meet the new EN standard are supplied in friction class K1. The k-factor describes the linear relationship between the tightening torque (M) and the preloading force achieved for the diameter concerned.

Expressed using the formula: $M = k \times F_v \times d$ (M [Nm], F_v [kN], d [mm])

PEINER preloading products (EN14399-4 and 6) should meet k-class **K1** where $0.1 \leq k \leq 0.16$, irrespective of the surface treatment.

The product packaging mentions assembly guidelines and the friction class. The surface treatment applied by the manufacturer ensures that these conditions are achieved! Additional lubrication or degreasing influences the k-value and is not allowed. With respect to the clamping length of a bolt-nut-washer combination, it must be noted that in the new standard the thickness of the washers is included.

Certificates

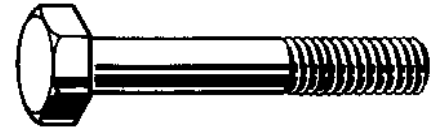
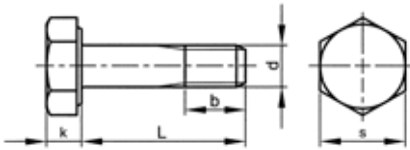
PEINER high strength structural bolts are, on request, available with a 3.1 certificate in accordance with EN 10204.



High-strength structural bolt

EN 14399-4

1



Technical data

d	P	b	k	s
M12	1,75	23	8	22
M16	2	28	10	27
M20	2,5	33	13	32
M22	2,5	34	14	36
M24	3	39	15	41
M27	3	41	17	46
M30	3,5	44	19	50
M36	4	52	23	60
M39	4	68	25	65
M42	4,5	74	26	70
M45	4,5	76	28	75
M48	5	82	30	80
M56	5,5	90	35	90
M64	6	100	40	100

- PEINER HV-bolts in sizes M12 to M36 are specified in EN 14399-4. Bolts from M39 to M64 are defined in DASt guideline 021.
- PEINER HV-bolts with associated HV-nuts and HV-rings may be used only as a set from one and the same supplier.

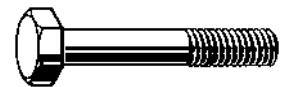
Article groups

Thread	Driving features	Material	Class	Surface treatment	Packaging	Code	Page
M	hexagon	St	10.9		Standard	04005	1-77
M	hexagon	St	10.9	Hot d.g.	Standard	04210	1-78

04005 PEINER High-strength structural bolt

C05A

Thread Metric thread
Material Steel
Class 10.9
Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M12X30	100	04005.120.030	M16X130	25	04005.160.130	M20X200	15	04005.200.200
M12X35	100	04005.120.035	M16X140	25	04005.160.140	M20X210	15	04005.200.210
M12X40	100	04005.120.040	M16X150	25	04005.160.150	M20X220	15	04005.200.220
M12X45	100	04005.120.045	M16X160	25	04005.160.160	M20X230	15	04005.200.230
M12X50	100	04005.120.050	M16X170	25	04005.160.170	M20X240	15	04005.200.240
M12X55	100	04005.120.055	M16X180	25	04005.160.180	M20X250	15	04005.200.250
M12X60	50	04005.120.060	M16X190	25	04005.160.190	M20X260	15	04005.200.260
M12X65	50	04005.120.065	M16X200	25	04005.160.200			
M12X70	50	04005.120.070	M16X210	25	04005.160.210	M22X50	25	04005.220.050
M12X75	50	04005.120.075	M16X220	25	04005.160.220	M22X55	25	04005.220.055
M12X80	50	04005.120.080				M22X60	25	04005.220.060
M12X85	50	04005.120.085	M20X40	25	04005.200.040	M22X65	25	04005.220.065
M12X90	50	04005.120.090	M20X45	25	04005.200.045	M22X70	25	04005.220.070
M12X100	50	04005.120.100	M20X50	25	04005.200.050	M22X75	25	04005.220.075
M12X110	50	04005.120.110	M20X55	25	04005.200.055	M22X80	25	04005.220.080
M12X120	50	04005.120.120	M20X60	25	04005.200.060	M22X85	25	04005.220.085
			M20X65	25	04005.200.065	M22X90	25	04005.220.090
M16X35	50	04005.160.035	M20X70	25	04005.200.070	M22X100	25	04005.220.100
M16X40	50	04005.160.040	M20X75	25	04005.200.075	M22X110	25	04005.220.110
M16X45	50	04005.160.045	M20X80	25	04005.200.080	M22X120	25	04005.220.120
M16X50	50	04005.160.050	M20X85	25	04005.200.085	M22X130	25	04005.220.130
M16X55	50	04005.160.055	M20X90	25	04005.200.090	M22X140	20	04005.220.140
M16X60	50	04005.160.060	M20X100	25	04005.200.100	M22X150	15	04005.220.150
M16X65	50	04005.160.065	M20X110	25	04005.200.110	M22X160	15	04005.220.160
M16X70	50	04005.160.070	M20X120	25	04005.200.120	M22X170	15	04005.220.170
M16X75	50	04005.160.075	M20X130	25	04005.200.130	M22X180	15	04005.220.180
M16X80	25	04005.160.080	M20X140	25	04005.200.140	M22X200	15	04005.220.200
M16X85	25	04005.160.085	M20X150	25	04005.200.150			
M16X90	25	04005.160.090	M20X160	20	04005.200.160	M24X50	25	04005.240.050
M16X100	25	04005.160.100	M20X170	20	04005.200.170	M24X55	25	04005.240.055
M16X110	25	04005.160.110	M20X180	15	04005.200.180	M24X60	25	04005.240.060
M16X120	25	04005.160.120	M20X190	15	04005.200.190	M24X65	25	04005.240.065

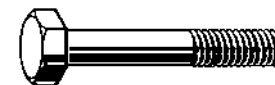
04005 PEINER High-strength structural bolt
1

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M24X70	25	04005.240.070	M27X100	10	04005.270.100	M30X180	5	04005.300.180
M24X75	25	04005.240.075	M27X110	10	04005.270.110	M30X190	5	04005.300.190
M24X80	25	04005.240.080	M27X115	10	04005.270.115	M30X200	5	04005.300.200
M24X85	25	04005.240.085	M27X120	10	04005.270.120	M30X210	5	04005.300.210
M24X90	25	04005.240.090	M27X130	10	04005.270.130	M30X220	5	04005.300.220
M24X100	25	04005.240.100	M27X140	10	04005.270.140	M30X230	5	04005.300.230
M24X105	25	04005.240.105	M27X150	10	04005.270.150	M30X240	5	04005.300.240
M24X110	25	04005.240.110	M27X160	10	04005.270.160	M30X250	5	04005.300.250
M24X120	20	04005.240.120	M27X170	10	04005.270.170	M30X260	5	04005.300.260
M24X130	20	04005.240.130	M27X180	10	04005.270.180			
M24X140	20	04005.240.140	M27X190	10	04005.270.190	M36X80	5	04005.360.080
M24X150	15	04005.240.150	M27X200	10	04005.270.200	M36X90	5	04005.360.090
M24X160	15	04005.240.160	M27X210	10	04005.270.210	M36X100	5	04005.360.100
M24X170	10	04005.240.170	M27X220	10	04005.270.220	M36X110	5	04005.360.110
M24X180	10	04005.240.180	M27X230	10	04005.270.230	M36X120	5	04005.360.120
M24X190	10	04005.240.190	M27X250	10	04005.270.250	M36X130	5	04005.360.130
M24X200	10	04005.240.200	M27X260	10	04005.270.260	M36X140	5	04005.360.140
M24X210	10	04005.240.210				M36X150	5	04005.360.150
M24X220	10	04005.240.220	M30X70	10	04005.300.070	M36X160	5	04005.360.160
M24X230	10	04005.240.230	M30X75	10	04005.300.075	M36X170	5	04005.360.170
M24X240	10	04005.240.240	M30X80	10	04005.300.080	M36X190	5	04005.360.190
M24X250	10	04005.240.250	M30X85	10	04005.300.085	M36X200	5	04005.360.200
M24X260	10	04005.240.260	M30X90	10	04005.300.090	M36X210	5	04005.360.210
			M30X95	10	04005.300.095	M36X220	5	04005.360.220
			M30X100	10	04005.300.100	M36X230	5	04005.360.230
M27X60	10	04005.270.060	M30X110	10	04005.300.110	M36X240	5	04005.360.240
M27X65	10	04005.270.065	M30X120	10	04005.300.120	M36X250	5	04005.360.250
M27X70	10	04005.270.070	M30X130	10	04005.300.130	M36X260	5	04005.360.260
M27X75	10	04005.270.075	M30X140	10	04005.300.140			
M27X80	10	04005.270.080	M30X150	10	04005.300.150			
M27X85	10	04005.270.085	M30X160	10	04005.300.160			
M27X90	10	04005.270.090	M30X170	10	04005.300.170			

• Warning: electro-galvanizing of these products may cause hydrogen embrittlement.

04210 PEINER High-strength structural bolt
C05A

Thread Metric thread
Material Steel
Class 10.9
Surface treatment Hot dip galvanized
Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M12X30	100	04210.120.030	M16X220	25	04210.160.220	M22X95	25	04210.220.095
M12X35	100	04210.120.035				M22X100	25	04210.220.100
M12X40	100	04210.120.040	M20X40	25	04210.200.040	M22X110	25	04210.220.110
M12X45	100	04210.120.045	M20X45	25	04210.200.045	M22X120	25	04210.220.120
M12X50	100	04210.120.050	M20X50	25	04210.200.050	M22X130	25	04210.220.130
M12X55	100	04210.120.055	M20X55	25	04210.200.055	M22X140	20	04210.220.140
M12X60	50	04210.120.060	M20X60	25	04210.200.060	M22X150	15	04210.220.150
M12X65	50	04210.120.065	M20X65	25	04210.200.065	M22X160	15	04210.220.160
M12X70	50	04210.120.070	M20X70	25	04210.200.070	M22X170	15	04210.220.170
M12X75	50	04210.120.075	M20X75	25	04210.200.075	M22X180	15	04210.220.180
M12X80	50	04210.120.080	M20X80	25	04210.200.080	M22X190	15	04210.220.190
M12X85	50	04210.120.085	M20X85	25	04210.200.085	M22X200	15	04210.220.200
M12X90	50	04210.120.090	M20X90	25	04210.200.090			
M12X95	50	04210.120.095	M20X95	25	04210.200.095	M24X50	25	04210.240.050
M12X100	50	04210.120.100	M20X100	25	04210.200.100	M24X55	25	04210.240.055
M12X110	50	04210.120.110	M20X105	25	04210.200.105	M24X60	25	04210.240.060
M12X120	50	04210.120.120	M20X110	25	04210.200.110	M24X65	25	04210.240.065
			M20X115	25	04210.200.115	M24X70	25	04210.240.070
M16X35	50	04210.160.035	M20X120	25	04210.200.120	M24X75	25	04210.240.075
M16X40	50	04210.160.040	M20X125	25	04210.200.125	M24X80	25	04210.240.080
M16X45	50	04210.160.045	M20X130	25	04210.200.130	M24X85	25	04210.240.085
M16X50	50	04210.160.050	M20X140	25	04210.200.140	M24X90	25	04210.240.090
M16X55	50	04210.160.055	M20X150	25	04210.200.150	M24X95	25	04210.240.095
M16X60	50	04210.160.060	M20X160	20	04210.200.160	M24X100	25	04210.240.100
M16X65	50	04210.160.065	M20X170	20	04210.200.170	M24X105	25	04210.240.105
M16X70	50	04210.160.070	M20X180	15	04210.200.180	M24X110	25	04210.240.110
M16X75	50	04210.160.075	M20X190	15	04210.200.190	M24X115	25	04210.240.115
M16X80	25	04210.160.080	M20X200	15	04210.200.200	M24X120	20	04210.240.120
M16X85	25	04210.160.085	M20X210	15	04210.200.210	M24X125	20	04210.240.125
M16X90	25	04210.160.090	M20X220	15	04210.200.220	M24X130	20	04210.240.130
M16X95	25	04210.160.095	M20X230	15	04210.200.230	M24X135	20	04210.240.135
M16X100	25	04210.160.100	M20X240	15	04210.200.240	M24X140	20	04210.240.140
M16X110	25	04210.160.110	M20X250	15	04210.200.250	M24X150	15	04210.240.150
M16X115	25	04210.160.115	M20X260	15	04210.200.260	M24X160	15	04210.240.160
M16X120	25	04210.160.120				M24X170	10	04210.240.170
M16X130	25	04210.160.130	M22X50	25	04210.220.050	M24X180	10	04210.240.180
M16X140	25	04210.160.140	M22X55	25	04210.220.055	M24X190	10	04210.240.190
M16X150	25	04210.160.150	M22X60	25	04210.220.060	M24X200	10	04210.240.200
M16X160	25	04210.160.160	M22X65	25	04210.220.065	M24X210	10	04210.240.210
M16X170	25	04210.160.170	M22X70	25	04210.220.070	M24X220	10	04210.240.220
M16X180	25	04210.160.180	M22X75	25	04210.220.075	M24X230	10	04210.240.230
M16X190	25	04210.160.190	M22X80	25	04210.220.080	M24X240	10	04210.240.240
M16X200	25	04210.160.200	M22X85	25	04210.220.085	M24X250	10	04210.240.250
M16X210	25	04210.160.210	M22X90	25	04210.220.090	M24X260	10	04210.240.260

04210 PEINER High-strength structural bolt

d x L	Art.number	d x L	Art.number	d x L	Art.number
M27X60	10 04210.270.060	M36X200	5 04210.360.200	M42X290	1 04210.420.290
M27X65	10 04210.270.065	M36X210	5 04210.360.210	M42X300	1 04210.420.300
M27X70	10 04210.270.070	M36X220	5 04210.360.220	M42X310	1 04210.420.310
M27X75	10 04210.270.075	M36X230	5 04210.360.230	M42X320	1 04210.420.320
M27X80	10 04210.270.080	M36X240	5 04210.360.240	M42X330	1 04210.420.330
M27X85	10 04210.270.085	M36X250	5 04210.360.250	M42X340	1 04210.420.340
M27X90	10 04210.270.090	M36X260	5 04210.360.260	M42X350	1 04210.420.350
M27X95	10 04210.270.095	M36X270	1 04210.360.270	M42X360	1 04210.420.360
M27X100	10 04210.270.100	M36X280	1 04210.360.280	M42X370	1 04210.420.370
M27X110	10 04210.270.110	M36X290	1 04210.360.290	M42X380	1 04210.420.380
M27X115	10 04210.270.115	M36X300	1 04210.360.300	M42X390	1 04210.420.390
M27X120	10 04210.270.120	M36X310	1 04210.360.310	M42X400	1 04210.420.400
M27X125	10 04210.270.125	M36X320	1 04210.360.320	M42X410	1 04210.420.410
M27X130	10 04210.270.130	M36X330	1 04210.360.330	M42X420	1 04210.420.420
M27X140	10 04210.270.140	M36X340	1 04210.360.340	M42X430	1 04210.420.430
M27X150	10 04210.270.150	M36X350	1 04210.360.350	M42X440	1 04210.420.440
M27X160	10 04210.270.160	M36X360	1 04210.360.360	M42X450	1 04210.420.450
M27X170	10 04210.270.170	M36X370	1 04210.360.370	M42X460	1 04210.420.460
M27X180	10 04210.270.180	M36X380	1 04210.360.380	M42X470	1 04210.420.470
M27X190	10 04210.270.190	M36X390	1 04210.360.390	M42X480	1 04210.420.480
M27X200	10 04210.270.200	M36X400	1 04210.360.400	M42X490	1 04210.420.490
M27X210	10 04210.270.210	M36X410	1 04210.360.410	M42X500	1 04210.420.500
M27X220	10 04210.270.220	M36X420	1 04210.360.420		
M27X230	10 04210.270.230	M36X430	1 04210.360.430	M45X120	1 04210.450.120
M27X240	10 04210.270.240	M36X440	1 04210.360.440	M45X130	1 04210.450.130
M27X250	10 04210.270.250	M36X450	1 04210.360.450	M45X140	1 04210.450.140
M27X260	10 04210.270.260	M36X460	1 04210.360.460	M45X150	1 04210.450.150
		M36X470	1 04210.360.470	M45X160	1 04210.450.160
M30X70	10 04210.300.070	M36X480	1 04210.360.480	M45X170	1 04210.450.170
M30X75	10 04210.300.075	M36X490	1 04210.360.490	M45X180	1 04210.450.180
M30X80	10 04210.300.080	M36X500	1 04210.360.500	M45X190	1 04210.450.190
M30X85	10 04210.300.085			M45X200	1 04210.450.200
M30X90	10 04210.300.090	M39X110	1 04210.390.110	M45X210	1 04210.450.210
M30X95	10 04210.300.095	M39X120	1 04210.390.120	M45X220	1 04210.450.220
M30X100	10 04210.300.100	M39X130	1 04210.390.130	M45X230	1 04210.450.230
M30X110	10 04210.300.110	M39X140	1 04210.390.140	M45X240	1 04210.450.240
M30X120	10 04210.300.120	M39X150	1 04210.390.150	M45X250	1 04210.450.250
M30X130	10 04210.300.130	M39X160	1 04210.390.160	M45X260	1 04210.450.260
M30X140	10 04210.300.140	M39X170	1 04210.390.170	M45X270	1 04210.450.270
M30X150	10 04210.300.150	M39X180	1 04210.390.180	M45X280	1 04210.450.280
M30X160	10 04210.300.160	M39X190	1 04210.390.190	M45X290	1 04210.450.290
M30X170	10 04210.300.170	M39X200	1 04210.390.200	M45X300	1 04210.450.300
M30X180	5 04210.300.180	M39X210	1 04210.390.210	M45X310	1 04210.450.310
M30X190	5 04210.300.190	M39X220	1 04210.390.220	M45X320	1 04210.450.320
M30X200	5 04210.300.200	M39X230	1 04210.390.230	M45X330	1 04210.450.330
M30X210	5 04210.300.210	M39X240	1 04210.390.240	M45X340	1 04210.450.340
M30X220	5 04210.300.220	M39X250	1 04210.390.250	M45X350	1 04210.450.350
M30X230	5 04210.300.230	M39X260	1 04210.390.260	M45X360	1 04210.450.360
M30X240	5 04210.300.240	M39X270	1 04210.390.270	M45X370	1 04210.450.370
M30X250	5 04210.300.250	M39X280	1 04210.390.280	M45X380	1 04210.450.380
M30X260	5 04210.300.260	M39X290	1 04210.390.290	M45X390	1 04210.450.390
M30X270	1 04210.300.270	M39X300	1 04210.390.300	M45X400	1 04210.450.400
M30X280	1 04210.300.280	M39X310	1 04210.390.310	M45X410	1 04210.450.410
M30X290	1 04210.300.290	M39X320	1 04210.390.320	M45X420	1 04210.450.420
M30X300	1 04210.300.300	M39X330	1 04210.390.330	M45X430	1 04210.450.430
M30X310	1 04210.300.310	M39X340	1 04210.390.340	M45X440	1 04210.450.440
M30X320	1 04210.300.320	M39X350	1 04210.390.350	M45X450	1 04210.450.450
M30X330	1 04210.300.330	M39X360	1 04210.390.360	M45X460	1 04210.450.460
M30X340	1 04210.300.340	M39X370	1 04210.390.370	M45X470	1 04210.450.470
M30X350	1 04210.300.350	M39X380	1 04210.390.380	M45X480	1 04210.450.480
M30X360	1 04210.300.360	M39X390	1 04210.390.390	M45X490	1 04210.450.490
M30X370	1 04210.300.370	M39X400	1 04210.390.400	M45X500	1 04210.450.500
M30X380	1 04210.300.380	M39X410	1 04210.390.410		
M30X390	1 04210.300.390	M39X420	1 04210.390.420	M48X130	1 04210.480.130
M30X400	1 04210.300.400	M39X430	1 04210.390.430	M48X140	1 04210.480.140
M30X410	1 04210.300.410	M39X440	1 04210.390.440	M48X150	1 04210.480.150
M30X420	1 04210.300.420	M39X450	1 04210.390.450	M48X160	1 04210.480.160
M30X430	1 04210.300.430	M39X460	1 04210.390.460	M48X170	1 04210.480.170
M30X440	1 04210.300.440	M39X470	1 04210.390.470	M48X180	1 04210.480.180
M30X450	1 04210.300.450	M39X480	1 04210.390.480	M48X190	1 04210.480.190
M30X460	1 04210.300.460	M39X490	1 04210.390.490	M48X200	1 04210.480.200
M30X470	1 04210.300.470	M39X500	1 04210.390.500	M48X210	1 04210.480.210
M30X480	1 04210.300.480			M48X220	1 04210.480.220
M30X490	1 04210.300.490	M42X120	1 04210.420.120	M48X230	1 04210.480.230
M30X500	1 04210.300.500	M42X130	1 04210.420.130	M48X240	1 04210.480.240
		M42X140	1 04210.420.140	M48X250	1 04210.480.250
M36X80	5 04210.360.080	M42X150	1 04210.420.150	M48X260	1 04210.480.260
M36X85	5 04210.360.085	M42X160	1 04210.420.160	M48X270	1 04210.480.270
M36X90	5 04210.360.090	M42X170	1 04210.420.170	M48X280	1 04210.480.280
M36X95	5 04210.360.095	M42X180	1 04210.420.180	M48X290	1 04210.480.290
M36X100	5 04210.360.100	M42X190	1 04210.420.190	M48X300	1 04210.480.300
M36X110	5 04210.360.110	M42X200	1 04210.420.200	M48X310	1 04210.480.310
M36X120	5 04210.360.120	M42X210	1 04210.420.210	M48X320	1 04210.480.320
M36X130	5 04210.360.130	M42X220	1 04210.420.220	M48X330	1 04210.480.330
M36X140	5 04210.360.140	M42X230	1 04210.420.230	M48X340	1 04210.480.340
M36X150	5 04210.360.150	M42X240	1 04210.420.240	M48X350	1 04210.480.350
M36X160	5 04210.360.160	M42X245	1 04210.420.245	M48X360	1 04210.480.360
M36X170	5 04210.360.170	M42X250	1 04210.420.250	M48X370	1 04210.480.370
M36X180	5 04210.360.180	M42X260	1 04210.420.260	M48X380	1 04210.480.380
M36X190	5 04210.360.190	M42X270	1 04210.420.270	M48X390	1 04210.480.390
		M42X280	1 04210.420.280	M48X400	1 04210.480.400

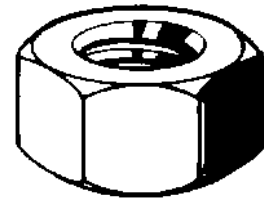
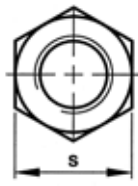
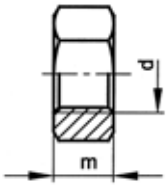
04210 PEINER High-strength structural bolt

1

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M48X410	1	04210.480.410	M56X320	1	04210.560.320	M64X240	1	04210.640.240
M48X420	1	04210.480.420	M56X330	1	04210.560.330	M64X250	1	04210.640.250
M48X430	1	04210.480.430	M56X340	1	04210.560.340	M64X260	1	04210.640.260
M48X440	1	04210.480.440	M56X350	1	04210.560.350	M64X270	1	04210.640.270
M48X450	1	04210.480.450	M56X360	1	04210.560.360	M64X280	1	04210.640.280
M48X460	1	04210.480.460	M56X370	1	04210.560.370	M64X290	1	04210.640.290
M48X470	1	04210.480.470	M56X380	1	04210.560.380	M64X300	1	04210.640.300
M48X480	1	04210.480.480	M56X390	1	04210.560.390	M64X310	1	04210.640.310
M48X490	1	04210.480.490	M56X400	1	04210.560.400	M64X320	1	04210.640.320
M48X500	1	04210.480.500	M56X410	1	04210.560.410	M64X330	1	04210.640.330
			M56X420	1	04210.560.420	M64X340	1	04210.640.340
M56X140	1	04210.560.140	M56X430	1	04210.560.430	M64X350	1	04210.640.350
M56X150	1	04210.560.150	M56X440	1	04210.560.440	M64X360	1	04210.640.360
M56X160	1	04210.560.160	M56X450	1	04210.560.450	M64X370	1	04210.640.370
M56X170	1	04210.560.170	M56X460	1	04210.560.460	M64X380	1	04210.640.380
M56X180	1	04210.560.180	M56X470	1	04210.560.470	M64X390	1	04210.640.390
M56X190	1	04210.560.190	M56X480	1	04210.560.480	M64X400	1	04210.640.400
M56X200	1	04210.560.200	M56X490	1	04210.560.490	M64X410	1	04210.640.410
M56X210	1	04210.560.210	M56X500	1	04210.560.500	M64X420	1	04210.640.420
M56X220	1	04210.560.220				M64X430	1	04210.640.430
M56X230	1	04210.560.230	M64X150	1	04210.640.150	M64X440	1	04210.640.440
M56X240	1	04210.560.240	M64X160	1	04210.640.160	M64X450	1	04210.640.450
M56X250	1	04210.560.250	M64X170	1	04210.640.170	M64X460	1	04210.640.460
M56X260	1	04210.560.260	M64X180	1	04210.640.180	M64X470	1	04210.640.470
M56X270	1	04210.560.270	M64X190	1	04210.640.190	M64X480	1	04210.640.480
M56X280	1	04210.560.280	M64X200	1	04210.640.200	M64X490	1	04210.640.490
M56X290	1	04210.560.290	M64X210	1	04210.640.210	M64X500	1	04210.640.500
M56X300	1	04210.560.300	M64X220	1	04210.640.220			
M56X310	1	04210.560.310	M64X230	1	04210.640.230			

High-strength structural nut

EN 14399-4



Technical data

d	P	m	s	d	P	m	s	d	P	m	s
M12	1,75	10	22	M27	3	22	46	M45	4,5	36	75
M16	2	13	27	M30	3,5	24	50	M48	5	38	80
M20	2,5	16	32	M36	4	29	60	M56	5,5	45	90
M22	2,5	18	36	M39	4	31	65	M64	6	51	100
M24	3	20	41	M42	4,5	34	70				

- Technical brochure available on request.

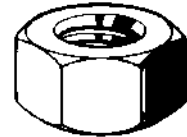
Article groups

Thread	Driving features	Material	Class	Surface treatment	Packaging	Code	Page
M	hexagon	St	[10]		Standard	04025	1-81
M	hexagon	St	[10]	Hot d.g.	Standard	04225	1-81

04025 PEINER High-strength structural nut

C05A

Thread	Metric thread
Material	Steel
Class	[10]
Packaging	Standard

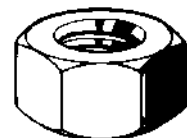


d	☒	Art.number	d	☒	Art.number	d	☒	Art.number
M12	200	04025.120.001	M22	50	04025.220.001	M30	50	04025.300.001
M16	100	04025.160.001	M24	50	04025.240.001	M36	25	04025.360.001
M20	100	04025.200.001	M27	50	04025.270.001			

04225 PEINER High-strength structural nut

C05A

Thread	Metric thread
Material	Steel
Class	[10]
Surface treatment	Hot dip galvanized
Packaging	Standard

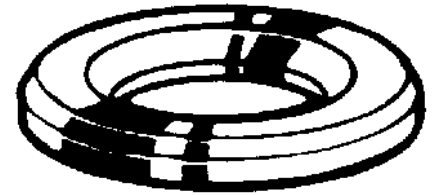
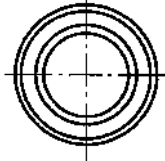
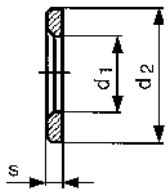


d	☒	Art.number	d	☒	Art.number	d	☒	Art.number
M12	200	04225.120.001	M27	50	04225.270.001	M45	1	04225.450.001
M16	100	04225.160.001	M30	50	04225.300.001	M48	1	04225.480.001
M20	100	04225.200.001	M36	25	04225.360.001	M56	1	04225.560.001
M22	50	04225.220.001	M39	1	04225.390.001	M64	1	04225.640.001
M24	50	04225.240.001	M42	1	04225.420.001			

- Hot dip galvanized high-strength structural nuts acc. EN 14399-4 are supplied lubricated.

High-strength structural washer

EN 14399-6



Technical data

For nom.size	d ₁	d ₂	s
M12	13	24	3
M16	17	30	4
M20	21	37	4
M22	23	39	4
M24	25	44	4
M27	28	50	5
M30	31	56	5
M36	37	66	6
M39	41	72	6
M42	44	78	8
M45	47	85	8
M48	50	92	8
M56	58	105	10
M64	66	115	10

- Technical brochure available on request.

Article groups

Material	Surface treatment	Packaging	Code	Page
St 300-370 HV10		Standard	04035	1-82
St 300-370 HV10	Hot d.g.	Standard	04237	1-82

04035 PEINER High-strength structural washer

C05A

Material Steel 300-370 HV10
 Packaging Standard



For nom. size	☒	Art.number	For nom. size	☒	Art.number	For nom. size	☒	Art.number
M12	400	04035.120.001	M22	200	04035.220.001	M30	100	04035.300.001
M16	200	04035.160.001	M24	200	04035.240.001	M36	50	04035.360.001
M20	200	04035.200.001	M27	100	04035.270.001			

04237 PEINER High-strength structural washer

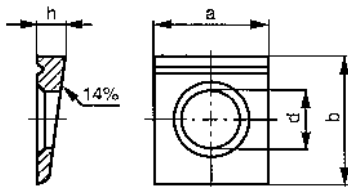
C05A

Material Steel 300-370 HV10
 Surface treatment Hot dip galvanized
 Packaging Standard

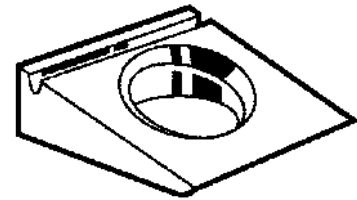


For nom. size	☒	Art.number	For nom. size	☒	Art.number	For nom. size	☒	Art.number
M12	400	04237.120.001	M27	100	04237.270.001	M45	1	04237.450.001
M16	200	04237.160.001	M30	100	04237.300.001	M48	1	04237.480.001
M20	200	04237.200.001	M36	50	04237.360.001	M56	1	04237.560.001
M22	200	04237.220.001	M39	1	04237.390.001	M64	1	04237.640.001
M24	200	04237.240.001	M42	1	04237.420.001			

Square taper washer 14% for I-sections



DIN 6917
NEN 5515



Technical data

For nom.size	d	a	b	h
M12	13	26	30	6,2
M16	17	32	36	7,5
M20	21	40	44	9,2
M22	23	44	50	10
M24	25	56	56	10,8
M27	28	56	56	10,8
M30	31	62	62	11,7
M33 (#DIN)	34	62	62	11,7
M36	37	68	68	12,5

- Technical brochure available on request.

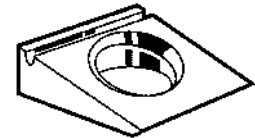
Article groups

Material	Surface treatment	Packaging	Code	Page
St 295-350 HV10		Standard	04040	1-83
St 295-350 HV10	Hot d.g.	Standard	04240	1-83

04040 PEINER Square taper washer 14% for I-sections

C05A

Material Steel 295-350 HV10
Packaging Standard

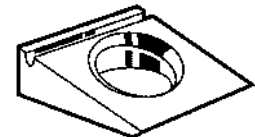


For nom. size	☒	Art.number	For nom. size	☒	Art.number	For nom. size	☒	Art.number
M12	200	04040.120.001	M20	100	04040.200.001	M24	50	04040.240.001
M16	100	04040.160.001	M22	50	04040.220.001	M30	50	04040.300.001

04240 PEINER Square taper washer 14% for I-sections

C05A

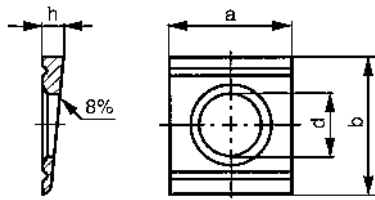
Material Steel 295-350 HV10
Surface treatment Hot dip galvanized
Packaging Standard



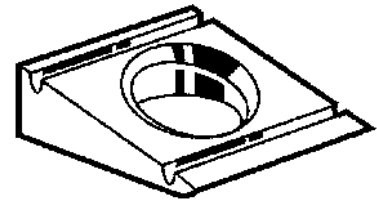
For nom. size	☒	Art.number	For nom. size	☒	Art.number	For nom. size	☒	Art.number
M12	200	04240.120.001	M22	50	04240.220.001	M30	50	04240.300.001
M16	100	04240.160.001	M24	50	04240.240.001	M36	50	04240.360.001
M20	100	04240.200.001	M27	50	04240.270.001			

Square taper washer 8% for U-section

1



DIN 6918
NEN 5514



Technical data

For nom.size	d	a	b	h
M12	13	26	30	4,9
M16	17	32	36	5,9
M20	21	40	44	7
M22	23	44	50	8
M24	25	56	56	8,5
M27	28	56	56	8,5
M30	31	62	62	9
M36	37	68	68	9,4

- Technical brochure available on request.

Article groups

Material	Surface treatment	Packaging	Code	Page
St 295-350 HV10		Standard	04050	1-84
St 295-350 HV10	Hot d.g.	Standard	04250	1-84

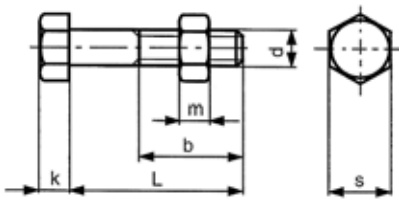
04050 PEINER Square taper washer 8% for U-section		C05A	
Material	Steel 295-350 HV10		
Packaging	Standard		

For nom. size	☒	Art.number	For nom. size	☒	Art.number	For nom. size	☒	Art.number
M12	200	04050.120.001	M20	100	04050.200.001	M24	50	04050.240.001
M16	100	04050.160.001	M22	50	04050.220.001	M27	50	04050.270.001

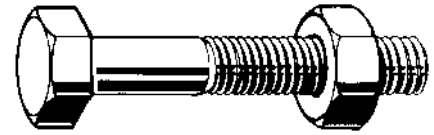
04250 PEINER Square taper washer 8% for U-section		C05A	
Material	Steel 295-350 HV10		
Surface treatment	Hot dip galvanized		
Packaging	Standard		

For nom. size	☒	Art.number	For nom. size	☒	Art.number	For nom. size	☒	Art.number
M12	200	04250.120.001	M22	50	04250.220.001	M30	50	04250.300.001
M16	100	04250.160.001	M24	50	04250.240.001	M36	50	04250.360.001
M20	100	04250.200.001	M27	50	04250.270.001			

Structural assembly set



ISO 4014/4032
EN 15048



1

Technical data

d	P	b (min.): L≤125mm	b (min.): 125mm<L≤200mm	b (min.): L>200mm	k	m (max.)	s
M10	1,5	26	32	45	6,4	8,4	16
M12	1,75	30	36	49	7,5	10,8	18
M16	2	38	44	57	10	14,8	24
M20	2,5	46	52	65	12,5	18	30
M24	3	54	60	73	15	21,5	36
M27	3	60	66	79	17	23,8	41
M30	3,5	66	72	85	18,7	25,6	46
M33	3,5	72	78	91	21	28,7	50
M36	4	78	84	97	22,5	31	55

- Full boxes only.

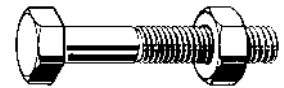
Article groups

Thread	Driving features	Material	Class	Surface treatment		Packaging	Code	Page
M	hexagon	St	8.8	Hot d.g.	iso metric	Standard	01405	1-85
M	hexagon	St	8.8	Zipl		Standard	01222	1-86

01405 Structural assembly set

A96A

Thread Metric thread
Material Steel
Class 8.8
Surface treatment Hot dip galvanized
Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M10X45	100	01405.100.045	M16X80	25	01405.160.080	M20X300	10	01405.200.300
M10X50	100	01405.100.050	M16X90	25	01405.160.090	M24X70	25	01405.240.070
M10X55	100	01405.100.055	M16X100	25	01405.160.100	M24X75	25	01405.240.075
M10X60	100	01405.100.060	M16X110	25	01405.160.110	M24X80	25	01405.240.080
M10X65	100	01405.100.065	M16X120	25	01405.160.120	M24X85	25	01405.240.085
M10X70	100	01405.100.070	M16X130	25	01405.160.130	M24X90	10	01405.240.090
M10X75	100	01405.100.075	M16X140	25	01405.160.140	M24X95	10	01405.240.095
M10X80	100	01405.100.080	M16X150	25	01405.160.150	M24X100	10	01405.240.100
M10X90	100	01405.100.090	M16X160	25	01405.160.160	M24X110	10	01405.240.110
M10X100	100	01405.100.100	M16X170	25	01405.160.170	M24X120	10	01405.240.120
M10X110	50	01405.100.110	M16X180	25	01405.160.180	M24X130	10	01405.240.130
M10X120	50	01405.100.120	M16X200	25	01405.160.200	M24X140	10	01405.240.140
M10X130	50	01405.100.130	M16X220	25	01405.160.220	M24X150	10	01405.240.150
M10X140	50	01405.100.140	M16X240	10	01405.160.240	M24X160	10	01405.240.160
M10X160	50	01405.100.160	M16X260	10	01405.160.260	M24X170	10	01405.240.170
M10X180	50	01405.100.180	M16X280	10	01405.160.280	M24X180	10	01405.240.180
			M16X300	10	01405.160.300	M24X180	10	01405.240.180
M12X50	100	01405.120.050				M24X200	10	01405.240.200
M12X55	100	01405.120.055	M20X65	25	01405.200.065	M24X220	10	01405.240.220
M12X60	100	01405.120.060	M20X70	25	01405.200.070	M24X240	10	01405.240.240
M12X65	50	01405.120.065	M20X75	25	01405.200.075	M24X260	10	01405.240.260
M12X70	50	01405.120.070	M20X80	25	01405.200.080	M24X280	10	01405.240.280
M12X75	50	01405.120.075	M20X85	25	01405.200.085	M24X300	10	01405.240.300
M12X80	50	01405.120.080	M20X90	25	01405.200.090			
M12X90	50	01405.120.090	M20X95	25	01405.200.095	M27X80	10	01405.270.080
M12X100	50	01405.120.100	M20X100	25	01405.200.100	M27X90	10	01405.270.090
M12X110	50	01405.120.110	M20X110	25	01405.200.110	M27X100	10	01405.270.100
M12X120	50	01405.120.120	M20X120	25	01405.200.120	M27X110	10	01405.270.110
M12X130	50	01405.120.130	M20X130	25	01405.200.130	M27X120	10	01405.270.120
M12X140	50	01405.120.140	M20X140	25	01405.200.140	M27X130	10	01405.270.130
M12X150	50	01405.120.150	M20X150	25	01405.200.150	M27X140	10	01405.270.140
M12X160	50	01405.120.160	M20X160	10	01405.200.160	M27X150	10	01405.270.150
M12X180	50	01405.120.180	M20X170	10	01405.200.170	M27X160	10	01405.270.160
			M20X180	10	01405.200.180	M27X180	5	01405.270.180
M16X55	50	01405.160.055	M20X190	10	01405.200.190	M27X200	5	01405.270.200
M16X60	50	01405.160.060	M20X200	10	01405.200.200	M27X220	5	01405.270.220
M16X65	25	01405.160.065	M20X220	10	01405.200.220	M27X230	5	01405.270.230
M16X70	25	01405.160.070	M20X240	10	01405.200.240	M27X240	5	01405.270.240
M16X75	25	01405.160.075	M20X260	10	01405.200.260	M27X260	5	01405.270.260
			M20X280	10	01405.200.280			

1

01405 Structural assembly set ←

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M27X280	5	01405.270.280	M30X130	10	01405.300.130	M36X130	5	01405.360.130
M27X300	5	01405.270.300	M30X140	10	01405.300.140	M36X220	5	01405.360.220
			M30X150	10	01405.300.150			
M30X90	10	01405.300.090	M30X160	10	01405.300.160			
M30X100	10	01405.300.100						
M30X110	10	01405.300.110	M36X110	5	01405.360.110			
M30X120	10	01405.300.120	M36X120	5	01405.360.120			

- New European constructions must comply with the Construction Directive 89/106/EEC in order to ensure safety to persons and objects.
- In most cases this means the application of products according to the harmonized European standards (EN-standards).
- For non-preloaded structural bolting, this means that hexagon bolts and nuts according to EN 15048-1 should be used.
- Compared to the normal bolts ISO 4014/4017 (formerly DIN 931/933) and nuts ISO 4032 (DIN 934) these bolts and nuts have a supplementary marking "SB" (Structural Bolting) and the packaging shows the CE-logo.
- The manufacturers need to be CE-certified for the production of bolts/nuts EN 15048-1.

01222 Structural assembly set A96A

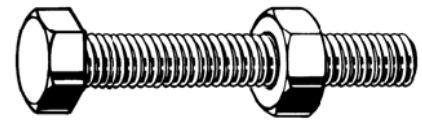
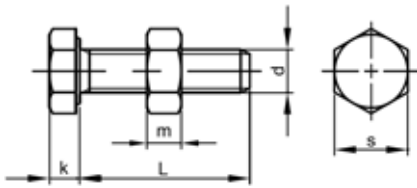
Thread	Metric thread		
Material	Steel		
Class	8.8		
Surface treatment	Zinc plated		
Packaging	Standard		

d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M12X50	100	01222.120.050	M20X65	25	01222.200.065	M27X120	10	01222.270.120
M12X55	100	01222.120.055	M20X70	25	01222.200.070	M27X130	10	01222.270.130
M12X60	75	01222.120.060	M20X75	25	01222.200.075	M27X140	10	01222.270.140
M12X70	75	01222.120.070	M20X80	20	01222.200.080	M27X150	10	01222.270.150
M12X75	50	01222.120.075	M20X85	25	01222.200.085	M27X160	10	01222.270.160
M12X80	50	01222.120.080	M20X90	20	01222.200.090	M27X180	5	01222.270.180
M12X85	50	01222.120.085	M20X100	20	01222.200.100	M27X200	5	01222.270.200
M12X90	50	01222.120.090	M20X110	20	01222.200.110			
M12X100	50	01222.120.100	M20X120	20	01222.200.120	M30X90	10	01222.300.090
M12X110	50	01222.120.110	M20X130	20	01222.200.130	M30X100	10	01222.300.100
M12X120	50	01222.120.120	M20X140	10	01222.200.140	M30X110	10	01222.300.110
M12X30	50	01222.120.130	M20X150	10	01222.200.150	M30X120	10	01222.300.120
M12X140	50	01222.120.140	M20X160	10	01222.200.160	M30X130	10	01222.300.130
M12X150	50	01222.120.150	M20X170	10	01222.200.170	M30X140	10	01222.300.140
M12X160	25	01222.120.160	M20X180	10	01222.200.180	M30X150	10	01222.300.150
M12X170	25	01222.120.170	M20X190	10	01222.200.190	M30X160	10	01222.300.160
M12X180	25	01222.120.180	M20X200	10	01222.200.200	M30X170	5	01222.300.170
M12X190	25	01222.120.190	M20X220	10	01222.200.220	M30X180	5	01222.300.180
M12X200	25	01222.120.200	M20X240	10	01222.200.240	M30X200	5	01222.300.200
M12X220	25	01222.120.220	M20X250	10	01222.200.250	M30X220	5	01222.300.220
M12X240	25	01222.120.240	M20X260	10	01222.200.260	M30X240	5	01222.300.240
M12X250	25	01222.120.250	M20X280	10	01222.200.280	M30X260	5	01222.300.260
M12X260	25	01222.120.260	M20X300	10	01222.200.300	M30X280	5	01222.300.280
M12X280	25	01222.120.280	M20X320	10	01222.200.320	M30X300	5	01222.300.300
M12X300	25	01222.120.300	M20X340	10	01222.200.340			
			M20X360	10	01222.200.360	M33X100	5	01222.330.100
M16X55	50	01222.160.055				M33X110	5	01222.330.110
M16X60	50	01222.160.060	M24X80	10	01222.240.080	M33X120	5	01222.330.120
M16X65	50	01222.160.065	M24X85	10	01222.240.085	M33X130	5	01222.330.130
M16X70	25	01222.160.070	M24X90	10	01222.240.090	M33X140	5	01222.330.140
M16X75	25	01222.160.075	M24X100	10	01222.240.100	M33X150	5	01222.330.150
M16X80	25	01222.160.080	M24X110	10	01222.240.110	M33X160	5	01222.330.160
M16X85	25	01222.160.085	M24X120	10	01222.240.120	M33X180	2	01222.330.180
M16X90	25	01222.160.090	M24X130	10	01222.240.130			
M16X95	25	01222.160.095	M24X140	10	01222.240.140	M36X110	5	01222.360.110
M16X100	25	01222.160.100	M24X150	25	01222.240.150	M36X120	5	01222.360.120
M16X110	25	01222.160.110	M24X160	10	01222.240.160	M36X130	5	01222.360.130
M16X120	25	01222.160.120	M24X170	10	01222.240.170	M36X140	5	01222.360.140
M16X130	25	01222.160.130	M24X180	10	01222.240.180	M36X150	5	01222.360.150
M16X140	25	01222.160.140	M24X200	10	01222.240.200	M36X160	5	01222.360.160
M16X150	25	01222.160.150	M24X220	10	01222.240.220	M36X180	2	01222.360.180
M16X160	25	01222.160.160	M24X240	10	01222.240.240	M36X200	2	01222.360.200
M16X170	25	01222.160.170	M24X260	10	01222.240.260	M36X220	2	01222.360.220
M16X180	25	01222.160.180	M24X280	10	01222.240.280	M36X240	2	01222.360.240
M16X190	25	01222.160.190	M24X300	10	01222.240.300	M36X260	2	01222.360.260
M16X200	25	01222.160.200	M24X320	10	01222.240.320	M36X280	2	01222.360.280
M16X220	25	01222.160.220	M24X340	5	01222.240.340	M36X300	2	01222.360.300
M16X240	10	01222.160.240	M24X360	5	01222.240.360	M36X320	2	01222.360.320
M16X250	10	01222.160.250						
M16X260	10	01222.160.260	M27X80	5	01222.270.080			
M16X280	10	01222.160.280	M27X90	10	01222.270.090			
M16X300	10	01222.160.300	M27X100	10	01222.270.100			
			M27X110	10	01222.270.110			

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Structural assembly set

ISO 4017/4032
EN 15048



1

Technical data

d	P	k	m (max.)	s
M10	1,5	6,4	8,4	16
M12	1,75	7,5	10,8	18
M16	2	10	14,8	24
M20	2,5	12,5	18	30
M24	3	15	21,5	36
M27	3	17	23,8	41
M30	3,5	18,7	25,6	46
M36	4	22,5	31	55

- Full boxes only.

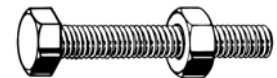
Article groups

Thread	Driving features	Material	Class	Surface treatment		Packaging	Code	Page
M	hexagon	St	8.8	Hot d.g.	iso metric	Standard	01415	1-87
M	hexagon	St	8.8	Zipl		Standard	01232	1-88

01415 Structural assembly set

A96A

Thread Metric thread
Material Steel
Class 8.8
Surface treatment Hot dip galvanized
Packaging Standard



d x L	☒	Art.number	d x L	☒	Art.number	d x L	☒	Art.number
M10X16	200	01415.100.016	M12X120	50	01415.120.120	M20X120	25	01415.200.120
M10X20	200	01415.100.020						
M10X25	200	01415.100.025	M16X25	50	01415.160.025	M24X40	25	01415.240.040
M10X30	200	01415.100.030	M16X30	50	01415.160.030	M24X45	25	01415.240.045
M10X35	100	01415.100.035	M16X35	50	01415.160.035	M24X50	25	01415.240.050
M10X40	100	01415.100.040	M16X40	50	01415.160.040	M24X55	25	01415.240.055
M10X45	100	01415.100.045	M16X45	50	01415.160.045	M24X60	25	01415.240.060
M10X50	100	01415.100.050	M16X50	50	01415.160.050	M24X65	25	01415.240.065
M10X55	100	01415.100.055	M16X55	50	01415.160.055	M24X70	25	01415.240.070
M10X60	100	01415.100.060	M16X60	50	01415.160.060	M24X75	25	01415.240.075
M10X65	100	01415.100.065	M16X65	25	01415.160.065	M24X80	25	01415.240.080
M10X70	100	01415.100.070	M16X70	25	01415.160.070	M24X90	10	01415.240.090
M10X75	100	01415.100.075	M16X75	25	01415.160.075	M24X100	10	01415.240.100
M10X80	100	01415.100.080	M16X80	25	01415.160.080	M24X110	10	01415.240.110
M10X90	100	01415.100.090	M16X90	25	01415.160.090	M24X120	10	01415.240.120
M10X100	100	01415.100.100	M16X100	25	01415.160.100			
			M16X110	25	01415.160.110	M27X50	10	01415.270.050
M12X20	100	01415.120.020	M16X120	25	01415.160.120	M27X60	10	01415.270.060
M12X25	100	01415.120.025				M27X65	10	01415.270.065
M12X30	100	01415.120.030	M20X30	25	01415.200.030	M27X70	10	01415.270.070
M12X35	100	01415.120.035	M20X35	25	01415.200.035	M27X75	10	01415.270.075
M12X40	100	01415.120.040	M20X40	25	01415.200.040	M27X80	10	01415.270.080
M12X45	100	01415.120.045	M20X45	25	01415.200.045	M27X90	10	01415.270.090
M12X50	100	01415.120.050	M20X50	25	01415.200.050	M27X100	10	01415.270.100
M12X55	100	01415.120.055	M20X55	25	01415.200.055	M27X110	10	01415.270.110
M12X60	100	01415.120.060	M20X60	25	01415.200.060	M27X120	10	01415.270.120
M12X65	50	01415.120.065	M20X65	25	01415.200.065			
M12X70	50	01415.120.070	M20X70	25	01415.200.070	M30X65	10	01415.300.065
M12X75	50	01415.120.075	M20X75	25	01415.200.075	M30X70	10	01415.300.070
M12X80	50	01415.120.080	M20X80	25	01415.200.080	M30X80	10	01415.300.080
M12X90	50	01415.120.090	M20X90	25	01415.200.090	M30X90	10	01415.300.090
M12X100	50	01415.120.100	M20X100	25	01415.200.100	M30X100	10	01415.300.100
M12X110	50	01415.120.110	M20X110	25	01415.200.110			

- New European constructions must comply with the Construction Directive 89/106/EEC in order to ensure safety to persons and objects.
- In most cases this means the application of products according to the harmonized European standards (EN-standards).
- For non-preloaded structural bolting, this means that hexagon bolts and nuts according to EN 15048-1 should be used.
- Compared to the normal bolts ISO 4014/4017 (formerly DIN 931/933) and nuts ISO 4032 (DIN 934) these bolts and nuts have a supplementary marking "SB" (Structural Bolting) and the packaging shows the CE-logo.

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01415 Structural assembly set ←

d x L	✉	Art.number	d x L	✉	Art.number	d x L	✉	Art.number
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- The manufacturers need to be CE-certified for the production of bolts/nuts EN 15048-1.

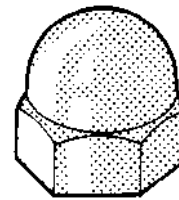
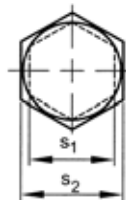
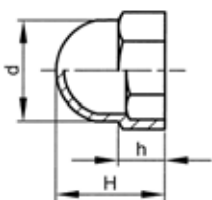
01232 Structural assembly set A96A

Thread	Metric thread		
Material	Steel		
Class	8.8		
Surface treatment	Zinc plated		
Packaging	Standard		

d x L	✉	Art.number	d x L	✉	Art.number	d x L	✉	Art.number
M12X20	100	01232.120.020	M16X80	25	01232.160.080	M24X70	25	01232.240.070
M12X25	100	01232.120.025	M16X90	25	01232.160.090	M24X75	25	01232.240.075
M12X30	100	01232.120.030	M16X100	25	01232.160.100	M24X80	25	01232.240.080
M12X35	100	01232.120.035				M24X90	10	01232.240.090
M12X40	100	01232.120.040	M20X25	25	01232.200.025	M24X100	10	01232.240.100
M12X45	100	01232.120.045	M20X30	25	01232.200.030			
M12X50	100	01232.120.050	M20X35	25	01232.200.035	M27X50	10	01232.270.050
M12X55	100	01232.120.055	M20X40	25	01232.200.040	M27X60	10	01232.270.060
M12X60	100	01232.120.060	M20X45	25	01232.200.045	M27X70	10	01232.270.070
M12X65	50	01232.120.065	M20X50	25	01232.200.050	M27X80	10	01232.270.080
M12X70	50	01232.120.070	M20X55	25	01232.200.055			
M12X80	50	01232.120.080	M20X60	25	01232.200.060	M30X50	10	01232.300.050
			M20X65	25	01232.200.065	M30X60	10	01232.300.060
M16X20	50	01232.160.020	M20X70	25	01232.200.070	M30X70	10	01232.300.070
M16X25	50	01232.160.025	M20X80	25	01232.200.080	M30X80	10	01232.300.080
M16X30	50	01232.160.030	M20X90	25	01232.200.090	M30X90	10	01232.300.090
M16X35	50	01232.160.035	M20X100	25	01232.200.100	M30X100	10	01232.300.100
M16X40	50	01232.160.040						
M16X45	50	01232.160.045	M24X40	25	01232.240.040	M36X70	5	01232.360.070
M16X50	50	01232.160.050	M24X45	25	01232.240.045	M36X80	5	01232.360.080
M16X55	50	01232.160.055	M24X50	20	01232.240.050	M36X90	5	01232.360.090
M16X60	50	01232.160.060	M24X55	25	01232.240.055	M36X100	5	01232.360.100
M16X65	25	01232.160.065	M24X60	10	01232.240.060			
M16X70	25	01232.160.070	M24X65	25	01232.240.065			

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- The manufacturers need to be CE-certified for the production of bolts/nuts EN 15048-1.

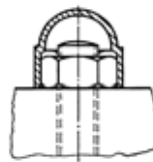
Protecting cap for hexagon bolts, screws and nuts



Technical data

For use with	s	s ₁	s ₂	d	H	h
M4	7	6,8	8,6	7,6	8,1	4,8
M5	8	7,8	9,8	9,5	10,8	6,9
M6	10	9,8	11,6	11	13,3	6,9
M7	11	10,8	12,5	12	14,2	7,4
M8	13	12,8	15	14,3	15,3	8
M10	17	16,7	18,8	18	20,5	10,3
M12	19	18,7	20,8	20,2	22	11,5
M14	22	21,7	24,3	23,5	24,5	13
M16	24	23,7	26,5	26	28	15,1
M20	30	29,8	33	32	34	18
M22	32	31,8	35	34	37	19
M24	36	35,8	39,5	38	41	20
M27	41	40,8	44,5	43	47	22
M30	46	45,8	49,5	48	52	24
M33	50	49	54	53	57,5	36
M36	55	54,5	58,7	57	62,2	38

Example of application



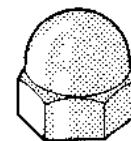
Article groups

Material	Colour	Packaging	Code	Page
Plastic PE	White	Standard	56660	1-89
Plastic PE	Black	Standard	56661	1-90
Plastic PE	Grey	Standard	56662	1-90

56660 Protecting cap for hexagon bolts, screws and nuts

W02G

Material Plastic Polyethylene
Colour White
Packaging Standard



For use with / s	☒	Art.number	For use with / s	☒	Art.number	For use with / s	☒	Art.number
M4/s=7	100	56660.040.001	M12/s=19	50	56660.120.001	M27/s=41	10	56660.270.001
M5/s=8	100	56660.050.001	M14/s=22	50	56660.140.001	M30/s=46	10	56660.300.001
M6/s=10	100	56660.060.001	M16/s=24	50	56660.160.001	M33/s=50	10	56660.330.001
M7/s=11	100	56660.070.001	M20/s=30	25	56660.200.001	M36/s=55	10	56660.360.001
M8/s=13	100	56660.080.001	M22/s=32	25	56660.220.001			
M10/s=17	50	56660.100.001	M24/s=36	25	56660.240.001			

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56661 Protecting cap for hexagon bolts, screws and nuts		W02G
Material	Plastic Polyethylene	
Colour	Black	
Packaging	Standard	

For use with / s	☒	Art.number	For use with / s	☒	Art.number	For use with / s	☒	Art.number
M4/s=7	100	56661.040.001	M10/s=17	50	56661.100.001	M22/s=32	25	56661.220.001
M5/s=8	100	56661.050.001	M12/s=19	50	56661.120.001	M24/s=36	25	56661.240.001
M6/s=10	100	56661.060.001	M14/s=22	50	56661.140.001	M27/s=41	10	56661.270.001
M7/s=11	100	56661.070.001	M16/s=24	50	56661.160.001			
M8/s=13	100	56661.080.001	M20/s=30	25	56661.200.001			

56662 Protecting cap for hexagon bolts, screws and nuts		W03G
Material	Plastic Polyethylene	
Colour	Grey	
Packaging	Standard	

For use with / s	☒	Art.number	For use with / s	☒	Art.number	For use with / s	☒	Art.number
M4/s=7	100	56662.040.001	M8/s=13	100	56662.080.001	M16/s=24	50	56662.160.001
M5/s=8	100	56662.050.001	M10/s=17	50	56662.100.001	M20/s=30	25	56662.200.001
M6/s=10	100	56662.060.001	M12/s=19	50	56662.120.001	M24/s=36	25	56662.240.001
M7/s=11	100	56662.070.001	M14/s=22	50	56662.140.001			