

## Studbolts - threaded rods - heavy hexagon nuts for the petrochemical- and off shore industry

### Grades

For studbolts and threaded rods Grade B7 acc. to ASTM A193 is the most popular Grade. Also ferritic steel Grade B16 acc. to ASTM A193 (for higher temperatures), Grade L7 acc. to ASTM A320 (for lower temperatures) and austenetic stainless steel Grade B8, B8M and B8T acc. to ASTM A193 (applicable for a very wide temperature range), can be supplied. For the matching heavy hex. nuts is Grade 2H acc. to ASTM A194 the most popular Grade. Also ferritic steel Grade 4 and Grade 7 acc. to ASTM A194 and austenetic stainless steel Grade B8, B8M and B8T acc. to ASTM A194 can be supplied ex-stock.

### Mechanical properties

ASTM A193 Grade B8, B8M en B8T comply with Class 1. Class 2 can be supplied on request. The mechanical properties mentioned below of ASTM A193 Grade B7 and B16 as well as ASTM A320 Grade L7, apply to diameters of 2 1/2 inch or 65 mm.

### Temperature range

Recommended max. operating temperature acc. to BS 4882: Grade B7 and L7 = 400°C / Grade B16 = 525°C / Grade B8, B8M and B8T = 575°C.

The cold-resistant steel A320 Grade L7 complies with a min. impact value of 20J at -101°C (average min. 27J).

### Certificates

Occasionally with the delivery of studbolts and heavy hex nuts a 3.1 certificate acc. to EN 10204 (DIN 50049) is required.

### Specials

Studbolts and heavy hex nuts with a corrosion resistant surface treatment such as zinc plated, hot dip galvanised, Xylan 1070 (PTFE coating), zinc flake (f.i. Dacromet 500) etc. can be supplied on request. Even less usual materials such as Duplex ASTM A453 Grade 660, Monel etc. can be supplied on request.

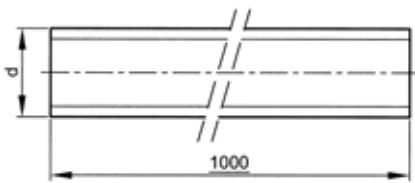
### Studbolts and threaded bolts

Most important chemical elements									Corresponding materials			
Standard	Grade	C	Mn	Cr	Ni	Mo	V	Ti	AISI	AFNOR	DIN	BS
<b>Ferittic steel</b>												
ASTM A193	B7	0,37-0,49	0,65-1,10	0,75-1,20	-	0,15-0,25	-	-	4140/4142/4145	42CD4	42CrMo4	1506-621 Gr A
ASTM A193	B16	0,36-0,47	0,45-0,70	0,80-1,15	-	0,50-0,65	0,25-0,35	-	-	40CDV4-06	24CrMoV55	1506-661
ASTM A320	L7	0,38-0,48	0,75-1,00	0,80-1,10	-	0,15-0,25	-	-	4142/4145	42CD4	42CrMo4	1506-621 Gr A
<b>Austenetic stainless steel</b>												
ASTM A193	B8	max. 0,08	max. 2,00	18,0-20,0	8,0-10,5	-	-	-	304	Z6CN18-09	X5CrNi18-09	1506-801 Gr B
ASTM A193	B8M	max. 0,08	max. 2,00	16,0-18,0	10,0-14,0	2,0-3,0	-	-	316	Z6CND17-11	X5CrNiMo18-10	1506-845
ASTM A193	B8T	max. 0,08	max. 2,00	17,0-19,0	9,0-12,0	-	-	min. 5 x C%	321	Z6CNT18-11	X10CrNiTi18-09	1506-821 Gr Ti
<b>Mechanical properties</b>												
Norm	Grade	Tensile strength N/mm <sup>2</sup>		0,2% yieldstrength N/mm <sup>2</sup>		Elongation min. %		Reduction of area min. %		Hardness HB		
<b>Ferittic steel</b>												
ASTM A193	B7	860		720		16		50		max. 321		
ASTM A193	B16	860		725		18		50		max. 321		
ASTM A320	L7	860		725		16		50		-		
<b>Austenetic stainless steel</b>												
ASTM A193	B8	515		205		30		50		max. 223		
ASTM A193	B8M	515		205		30		50		max. 223		
ASTM A193	B8T	515		205		30		50		max. 223		

### Hexagon nuts

Most important elements									Corresponding materials			
Standard	Grade	C	Mn	Cr	Ni	Mo	Ti	Hardness HB	AISI	AFNOR	DIN	BS
<b>Ferittic steel</b>												
ASTM A194	2H	min. 0,40	max.1,00	-	-	-	-	248-352	-	C45d	C45	1506-162
ASTM A194	4	0,40-0,50	0,70-0,90	-	-	0,20-0,30	-	248-352	-	-	24CrMo5	1506-240
ASTM A194	7	0,37-0,49	0,65-1,10	0,75-1,20	-	0,15-0,25	-	248-352	4140/4142/4145	42CD4	42CrMo4	1506-621 Gr A
<b>Austenetic stainless steel</b>												
ASTM A194	8	max. 0,08	max. 2,00	18,0-20,0	8,0-10,5	-	-	126-300	304	Z6CN18-09	X5CrNi18-09	1506-801 Gr B
ASTM A194	8M	max. 0,08	max. 2,00	16,0-18,0	10,0-14,0	2,0-3,0	-	max. 223	316	Z6CND17-11	X5CrNiMo18-10	1506-845
ASTM A194	8T	max. 0,08	max. 2,00	17,0-19,0	9,0-12,0	-	min.5xC%	126-300	321	Z6CNT18-11	X10CrNiTi18-09	1506-821 Gr Ti

## Threaded rod ASTM



### Technical data

d	P	d	P	d	P
M8	1,25	M20	2,5	M36	4
M10	1,5	M22	2,5	M39	4
M12	1,75	M24	3	M42	4,5
M14	2	M27	3	M45	4,5
M16	2	M30	3,5	M48	5
M18	2,5	M33	3,5	M52	5

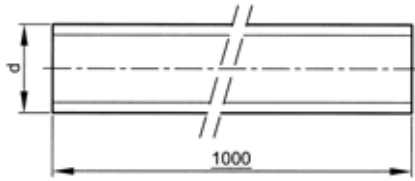
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22100 Threaded rod ASTM		G09A
<b>Thread</b>	Metric thread	
<b>Material</b>	Steel ASTM A193	
<b>Class</b>	Gr.B7	
<b>Packaging</b>	Standard	



d	☒	Art.number	d	☒	Art.number	d	☒	Art.number
M10	1	<a href="#">22100.100.001</a>	M22	1	<a href="#">22100.220.001</a>	M39	1	<a href="#">22100.390.001</a>
M12	1	<a href="#">22100.120.001</a>	M24	1	<a href="#">22100.240.001</a>	M42	1	<a href="#">22100.420.001</a>
M14	1	<a href="#">22100.140.001</a>	M27	1	<a href="#">22100.270.001</a>	M45	1	<a href="#">22100.450.001</a>
M16	1	<a href="#">22100.160.001</a>	M30	1	<a href="#">22100.300.001</a>	M48	1	<a href="#">22100.480.001</a>
M18	1	<a href="#">22100.180.001</a>	M33	1	<a href="#">22100.330.001</a>	M52	1	<a href="#">22100.520.001</a>
M20	1	<a href="#">22100.200.001</a>	M36	1	<a href="#">22100.360.001</a>			

## Threaded rod ASTM A193 Grade B7



### Technical data

d	Threads per inch	d	Threads per inch	d	Threads per inch
1/4	20	7/8	9	1.5/8	8
5/16	18	1.IN.	8	1.3/4	8
3/8	16	1.1/8	8	1.7/8	8
1/2	13	1.1/4	8	2.IN.	8
5/8	11	1.3/8	8		
3/4	10	1.1/2	8		

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### Article groups


Thread	Material	Class		Packaging	Code	Page
UNC	St ASTM A193	Gr.B7	1 meter	Standard	22180	4-34
8 UN	St ASTM A193	Gr.B7	1 meter	Standard	22190	4-34

22180 Threaded rod ASTM A193 Grade B7		G09A
<b>Thread</b>	Unified National Coarse	
<b>Material</b>	Steel ASTM A193	
<b>Class</b>	Gr.B7	
<b>Packaging</b>	Standard	



d	☒	Art.number	d	☒	Art.number	d	☒	Art.number
1/4	1	<a href="#">22180.063.001</a>	1/2	1	<a href="#">22180.127.001</a>	7/8	1	<a href="#">22180.222.001</a>
5/16	1	<a href="#">22180.079.001</a>	5/8	1	<a href="#">22180.158.001</a>	1.IN.	1	<a href="#">22180.254.001</a>
3/8	1	<a href="#">22180.096.001</a>	3/4	1	<a href="#">22180.191.001</a>			

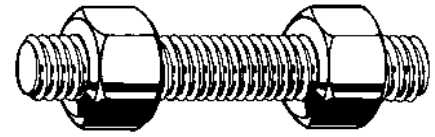
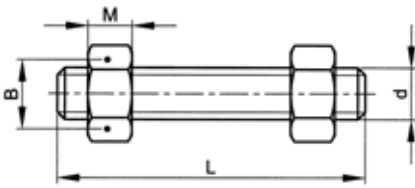
22190 Threaded rod ASTM A193 Grade B7		G09A
<b>Thread</b>	8 Unified National	
<b>Material</b>	Steel ASTM A193	
<b>Class</b>	Gr.B7	
<b>Packaging</b>	Standard	



d	☒	Art.number	d	☒	Art.number	d	☒	Art.number
1.1/8	1	<a href="#">22190.285.001</a>	1.1/2	1	<a href="#">22190.381.001</a>	1.7/8	1	<a href="#">22190.476.001</a>
1.1/4	1	<a href="#">22190.317.001</a>	1.5/8	1	<a href="#">22190.412.001</a>	2.IN.	1	<a href="#">22190.508.001</a>
1.3/8	1	<a href="#">22190.349.001</a>	1.3/4	1	<a href="#">22190.444.001</a>			

## Studbolt with 2 hexagon nuts

BS 4882



### Technical data

d	P	M	B
M12	1,75	12	19
M14	2	14	22
M16	2	16	24
M18	2,5	18	27

d	P	M	B
M20	2,5	20	30
M22	2,5	22	32
M24	3	24	36
M27	3	27	41

d	P	M	B
M30	3,5	30	46
M33	3,5	33	50

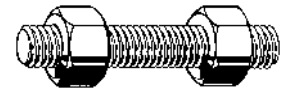
- Nut height 'M' is not acc. to BS 4882.
- L is the nominal length of the studbolt including the chamfered ends.

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### 22060 Studbolt with 2 hexagon nuts

G09A

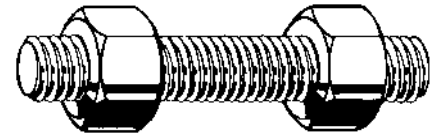
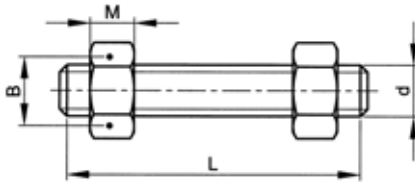
**Thread** Metric thread  
**Material** Steel ASTM A193 - ASTM A194  
**Class** Gr.B7 - Gr.2H  
**Packaging** Standard



d x L	✉	Art.number	d x L	✉	Art.number	d x L	✉	Art.number
M12X55	1	<a href="#">22060.120.055</a>	M16X95	1	<a href="#">22060.160.095</a>	M20X160	1	<a href="#">22060.200.160</a>
M12X60	1	<a href="#">22060.120.060</a>	M16X100	1	<a href="#">22060.160.100</a>	M20X165	1	<a href="#">22060.200.165</a>
M12X65	1	<a href="#">22060.120.065</a>	M16X110	1	<a href="#">22060.160.110</a>	M20X170	1	<a href="#">22060.200.170</a>
M12X70	1	<a href="#">22060.120.070</a>	M16X120	1	<a href="#">22060.160.120</a>	M20X180	1	<a href="#">22060.200.180</a>
M12X75	1	<a href="#">22060.120.075</a>	M16X130	1	<a href="#">22060.160.130</a>	M20X190	1	<a href="#">22060.200.190</a>
M12X80	1	<a href="#">22060.120.080</a>	M16X140	1	<a href="#">22060.160.140</a>	M20X200	1	<a href="#">22060.200.200</a>
M12X85	1	<a href="#">22060.120.085</a>	M16X150	1	<a href="#">22060.160.150</a>	M20X210	1	<a href="#">22060.200.210</a>
M12X90	1	<a href="#">22060.120.090</a>						
M12X95	1	<a href="#">22060.120.095</a>	M20X75	1	<a href="#">22060.200.075</a>	M24X115	1	<a href="#">22060.240.115</a>
M12X100	1	<a href="#">22060.120.100</a>	M20X80	1	<a href="#">22060.200.080</a>	M24X120	1	<a href="#">22060.240.120</a>
			M20X85	1	<a href="#">22060.200.085</a>	M24X125	1	<a href="#">22060.240.125</a>
M14X65	1	<a href="#">22060.140.065</a>	M20X90	1	<a href="#">22060.200.090</a>	M24X130	1	<a href="#">22060.240.130</a>
M14X70	1	<a href="#">22060.140.070</a>	M20X95	1	<a href="#">22060.200.095</a>	M24X140	1	<a href="#">22060.240.140</a>
M14X75	1	<a href="#">22060.140.075</a>	M20X100	1	<a href="#">22060.200.100</a>	M24X150	1	<a href="#">22060.240.150</a>
M14X80	1	<a href="#">22060.140.080</a>	M20X105	1	<a href="#">22060.200.105</a>	M24X160	1	<a href="#">22060.240.160</a>
M14X90	1	<a href="#">22060.140.090</a>	M20X110	1	<a href="#">22060.200.110</a>	M24X170	1	<a href="#">22060.240.170</a>
M14X100	1	<a href="#">22060.140.100</a>	M20X115	1	<a href="#">22060.200.115</a>	M24X180	1	<a href="#">22060.240.180</a>
			M20X120	1	<a href="#">22060.200.120</a>	M24X190	1	<a href="#">22060.240.190</a>
M16X65	1	<a href="#">22060.160.065</a>	M20X125	1	<a href="#">22060.200.125</a>	M24X200	1	<a href="#">22060.240.200</a>
M16X70	1	<a href="#">22060.160.070</a>	M20X130	1	<a href="#">22060.200.130</a>	M24X220	1	<a href="#">22060.240.220</a>
M16X75	1	<a href="#">22060.160.075</a>	M20X135	1	<a href="#">22060.200.135</a>	M24X230	1	<a href="#">22060.240.230</a>
M16X80	1	<a href="#">22060.160.080</a>	M20X140	1	<a href="#">22060.200.140</a>	M24X240	1	<a href="#">22060.240.240</a>
M16X85	1	<a href="#">22060.160.085</a>	M20X145	1	<a href="#">22060.200.145</a>	M24X250	1	<a href="#">22060.240.250</a>
M16X90	1	<a href="#">22060.160.090</a>	M20X150	1	<a href="#">22060.200.150</a>			

## Studbolt with 2 hexagon nuts

ANSI B16.5  
BS 4882



### Technical data

d	Threads per inch	M	B
1/2	13	12,8	7/8
5/8	11	16,02	1.1/16
3/4	10	19,25	1.1/4
7/8	9	22,47	1.7/16
1.IN.	8	25,7	1.5/8
1.1/8	8	28,93	1.13/16
1.1/4	8	31,77	2.IN.
1.3/8	8	35	2.3/16
1.1/2	8	38,22	2.3/8
1.5/8	8	41,25	2.9/16
1.3/4	8	44,47	2.3/4
1.7/8	8	47,9	2.15/16
2.IN.	8	51,13	3.1/8

- Tolerances of the total length of the studbolts acc. to ASTM A 193 Par. 11.
- L is the nominal length of the studbolt of the first to the last full thread excluding the chamfered at each end.

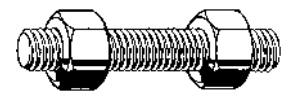
### Article groups

Thread	Driving features	Material	Class	Surface treatment	Packaging	Code	Page
UNC	hexagon	St ASTM A193 - ASTM A194	Gr.B7 - Gr.2H		Standard	22080	4-36
UNC	hexagon	St ASTM A193 - ASTM A194	Gr.B7 - Gr.2H	Zipl	Standard	22082	4-37
8 UN	hexagon	St ASTM A193 - ASTM A194	Gr.B7 - Gr.2H		Standard	22090	4-37
UNC	hexagon	St ASTM A320 - ASTM A194	Gr.L7 - Gr.4		Standard	22320	4-38
8 UN	hexagon	St ASTM A320 - ASTM A194	Gr.L7 - Gr.4		Standard	22330	4-39
UNC	hexagon	St.St. ASTM A193 - ASTM A194	Gr.B8CL1 - Gr.8		Standard	22534	4-39
UNC	hexagon	St.St. ASTM A193 - ASTM A194	Gr.B8MCL2 - Gr.8M		Standard	22538	4-39
UNC	hexagon	St ASTM A193 - ASTM A194	Gr.B16 - Gr.2H		Standard	22551	4-40
UNC	hexagon	St ASTM A193 - ASTM A194	Gr.B16 - Gr.4		Standard	22554	4-40

### 22080 Studbolt with 2 hexagon nuts

G09A

**Thread** Unified National Coarse  
**Material** Steel ASTM A193 - ASTM A194  
**Class** Gr.B7 - Gr.2H  
**Packaging** Standard



d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number
1/2X50 (2)	1	<a href="#">22080.127.050</a>	5/8X50 (2)	1	<a href="#">22080.158.050</a>	5/8X175 (6.7/8)	1	<a href="#">22080.158.175</a>
1/2X55 (2.1/4)	1	<a href="#">22080.127.057</a>	5/8X55 (2.1/4)	1	<a href="#">22080.158.057</a>	5/8X180 (7)	1	<a href="#">22080.158.177</a>
1/2X60 (2.3/8)	1	<a href="#">22080.127.060</a>	5/8X60 (2.3/8)	1	<a href="#">22080.158.060</a>	5/8X185 (7.1/4)	1	<a href="#">22080.158.184</a>
1/2X65 (2.1/2)	1	<a href="#">22080.127.063</a>	5/8X65 (2.1/2)	1	<a href="#">22080.158.063</a>	5/8X190 (7.1/2)	1	<a href="#">22080.158.190</a>
1/2X70 (2.3/4)	1	<a href="#">22080.127.069</a>	5/8X70 (2.3/4)	1	<a href="#">22080.158.069</a>	5/8X195 (7.3/4)	1	<a href="#">22080.158.196</a>
1/2X75 (3)	1	<a href="#">22080.127.076</a>	5/8X75 (3)	1	<a href="#">22080.158.076</a>	5/8X200 (8)	1	<a href="#">22080.158.203</a>
1/2X80 (3.1/4)	1	<a href="#">22080.127.082</a>	5/8X80 (3.1/4)	1	<a href="#">22080.158.082</a>	5/8X205 (8.1/8)	1	<a href="#">22080.158.205</a>
1/2X85 (3.3/8)	1	<a href="#">22080.127.085</a>	5/8X85 (3.3/8)	1	<a href="#">22080.158.085</a>	5/8X210 (8.1/4)	1	<a href="#">22080.158.209</a>
1/2X90 (3.1/2)	1	<a href="#">22080.127.088</a>	5/8X90 (3.1/2)	1	<a href="#">22080.158.088</a>	5/8X215 (8.1/2)	1	<a href="#">22080.158.215</a>
1/2X95 (3.3/4)	1	<a href="#">22080.127.095</a>	5/8X95 (3.3/4)	1	<a href="#">22080.158.095</a>	5/8X220 (8.3/4)	1	<a href="#">22080.158.222</a>
1/2X100 (4)	1	<a href="#">22080.127.101</a>	5/8X100 (4)	1	<a href="#">22080.158.101</a>	5/8X230 (9)	1	<a href="#">22080.158.228</a>
1/2X105 (4.1/8)	1	<a href="#">22080.127.105</a>	5/8X105 (4.1/8)	1	<a href="#">22080.158.105</a>	5/8X240 (9.1/2)	1	<a href="#">22080.158.241</a>
1/2X110 (4.1/4)	1	<a href="#">22080.127.107</a>	5/8X110 (4.1/4)	1	<a href="#">22080.158.107</a>	5/8X250 (9.3/4)	1	<a href="#">22080.158.247</a>
1/2X115 (4.1/2)	1	<a href="#">22080.127.114</a>	5/8X115 (4.1/2)	1	<a href="#">22080.158.114</a>	5/8X260 (10.1/4)	1	<a href="#">22080.158.260</a>
1/2X120 (4.3/4)	1	<a href="#">22080.127.120</a>	5/8X120 (4.3/4)	1	<a href="#">22080.158.120</a>			
1/2X125 (5)	1	<a href="#">22080.127.127</a>	5/8X125 (5)	1	<a href="#">22080.158.127</a>			
1/2X130 (5.1/8)	1	<a href="#">22080.127.130</a>	5/8X130 (5.1/8)	1	<a href="#">22080.158.130</a>	3/4X55 (2.1/4)	1	<a href="#">22080.191.057</a>
1/2X135 (5.1/4)	1	<a href="#">22080.127.133</a>	5/8X135 (5.1/4)	1	<a href="#">22080.158.133</a>	3/4X60 (2.3/8)	1	<a href="#">22080.191.060</a>
1/2X140 (5.1/2)	1	<a href="#">22080.127.139</a>	5/8X140 (5.1/2)	1	<a href="#">22080.158.139</a>	3/4X65 (2.1/2)	1	<a href="#">22080.191.063</a>
1/2X145 (5.3/4)	1	<a href="#">22080.127.146</a>	5/8X145 (5.3/4)	1	<a href="#">22080.158.146</a>	3/4X70 (2.3/4)	1	<a href="#">22080.191.069</a>
1/2X150 (6)	1	<a href="#">22080.127.152</a>	5/8X150 (6)	1	<a href="#">22080.158.152</a>	3/4X75 (3)	1	<a href="#">22080.191.076</a>
1/2X155 (6.1/8)	1	<a href="#">22080.127.155</a>	5/8X155 (6.1/8)	1	<a href="#">22080.158.155</a>	3/4X80 (3.1/4)	1	<a href="#">22080.191.082</a>
1/2X160 (6.1/4)	1	<a href="#">22080.127.158</a>	5/8X160 (6.1/4)	1	<a href="#">22080.158.158</a>	3/4X85 (3.3/8)	1	<a href="#">22080.191.085</a>
1/2X165 (6.1/2)	1	<a href="#">22080.127.166</a>	5/8X165 (6.1/2)	1	<a href="#">22080.158.165</a>	3/4X90 (3.1/2)	1	<a href="#">22080.191.088</a>
5/8X170 (6.3/4)	1	<a href="#">22080.158.171</a>	5/8X170 (6.3/4)	1	<a href="#">22080.158.171</a>	3/4X95 (3.3/4)	1	<a href="#">22080.191.095</a>
						3/4X100 (4)	1	<a href="#">22080.191.101</a>

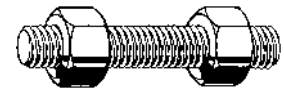
**22080 Studbolt with 2 hexagon nuts** ←

d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number
3/4X105 (4.1/8)	1	<a href="#">22080.191.105</a>	7/8X120 (4.3/4)	1	<a href="#">22080.222.120</a>	1X140 (5.1/2)	1	<a href="#">22080.254.139</a>
3/4X110 (4.1/4)	1	<a href="#">22080.191.107</a>	7/8X125 (5)	1	<a href="#">22080.222.127</a>	1X145 (5.3/4)	1	<a href="#">22080.254.146</a>
3/4X115 (4.1/2)	1	<a href="#">22080.191.114</a>	7/8X130 (5.1/8)	1	<a href="#">22080.222.130</a>	1X150 (6)	1	<a href="#">22080.254.152</a>
3/4X120 (4.3/4)	1	<a href="#">22080.191.120</a>	7/8X135 (5.1/4)	1	<a href="#">22080.222.133</a>	1X160 (6.1/4)	1	<a href="#">22080.254.158</a>
3/4X125 (5)	1	<a href="#">22080.191.127</a>	7/8X140 (5.1/2)	1	<a href="#">22080.222.139</a>	1X165 (6.1/2)	1	<a href="#">22080.254.165</a>
3/4X130 (5.1/8)	1	<a href="#">22080.191.130</a>	7/8X145 (5.3/4)	1	<a href="#">22080.222.146</a>	1X170 (6.3/4)	1	<a href="#">22080.254.171</a>
3/4X135 (5.1/4)	1	<a href="#">22080.191.133</a>	7/8X150 (6)	1	<a href="#">22080.222.152</a>	1X180 (7)	1	<a href="#">22080.254.177</a>
3/4X140 (5.1/2)	1	<a href="#">22080.191.139</a>	7/8X155 (6.1/8)	1	<a href="#">22080.222.155</a>	1X185 (7.1/4)	1	<a href="#">22080.254.184</a>
3/4X145 (5.3/4)	1	<a href="#">22080.191.146</a>	7/8X160 (6.1/4)	1	<a href="#">22080.222.158</a>	1X190 (7.1/2)	1	<a href="#">22080.254.190</a>
3/4X150 (6)	1	<a href="#">22080.191.152</a>	7/8X165 (6.1/2)	1	<a href="#">22080.222.165</a>	1X195 (7.3/4)	1	<a href="#">22080.254.196</a>
3/4X160 (6.1/4)	1	<a href="#">22080.191.158</a>	7/8X170 (6.3/4)	1	<a href="#">22080.222.171</a>	1X200 (8)	1	<a href="#">22080.254.203</a>
3/4X165 (6.1/2)	1	<a href="#">22080.191.165</a>	7/8X180 (7)	1	<a href="#">22080.222.177</a>	1X205 (8.1/8)	1	<a href="#">22080.254.205</a>
3/4X170 (6.3/4)	1	<a href="#">22080.191.171</a>	7/8X185 (7.1/4)	1	<a href="#">22080.222.184</a>	1X210 (8.1/4)	1	<a href="#">22080.254.209</a>
3/4X175 (6.7/8)	1	<a href="#">22080.191.175</a>	7/8X190 (7.1/2)	1	<a href="#">22080.222.190</a>	1X215 (8.1/2)	1	<a href="#">22080.254.215</a>
3/4X180 (7)	1	<a href="#">22080.191.177</a>	7/8X195 (7.3/4)	1	<a href="#">22080.222.196</a>	1X220 (8.3/4)	1	<a href="#">22080.254.222</a>
3/4X185 (7.1/4)	1	<a href="#">22080.191.184</a>	7/8X200 (8)	1	<a href="#">22080.222.203</a>	1X230 (9)	1	<a href="#">22080.254.228</a>
3/4X190 (7.1/2)	1	<a href="#">22080.191.190</a>	7/8X205 (8.1/8)	1	<a href="#">22080.222.205</a>	1X235 (9.1/4)	1	<a href="#">22080.254.234</a>
3/4X195 (7.3/4)	1	<a href="#">22080.191.196</a>	7/8X210 (8.1/4)	1	<a href="#">22080.222.209</a>	1X240 (9.1/2)	1	<a href="#">22080.254.241</a>
3/4X200 (8)	1	<a href="#">22080.191.203</a>	7/8X215 (8.1/2)	1	<a href="#">22080.222.215</a>	1X250 (9.3/4)	1	<a href="#">22080.254.247</a>
3/4X205 (8.1/8)	1	<a href="#">22080.191.205</a>	7/8X220 (8.3/4)	1	<a href="#">22080.222.222</a>	1X250 (10)	1	<a href="#">22080.254.254</a>
3/4X210 (8.1/4)	1	<a href="#">22080.191.209</a>	7/8X230 (9)	1	<a href="#">22080.222.228</a>	1X260 (10.1/4)	1	<a href="#">22080.254.260</a>
3/4X215 (8.1/2)	1	<a href="#">22080.191.215</a>	7/8X235 (9.1/4)	1	<a href="#">22080.222.234</a>	1X265 (10.1/2)	1	<a href="#">22080.254.266</a>
3/4X220 (8.3/4)	1	<a href="#">22080.191.222</a>	7/8X240 (9.1/2)	1	<a href="#">22080.222.241</a>	1X275 (10.3/4)	1	<a href="#">22080.254.273</a>
3/4X230 (9)	1	<a href="#">22080.191.228</a>	7/8X250 (9.3/4)	1	<a href="#">22080.222.247</a>	1X280 (11)	1	<a href="#">22080.254.279</a>
3/4X235 (9.1/4)	1	<a href="#">22080.191.234</a>	7/8X250 (10)	1	<a href="#">22080.222.254</a>	1X285 (11.1/4)	1	<a href="#">22080.254.285</a>
3/4X235 (9.1/2)	1	<a href="#">22080.191.241</a>	7/8X260 (10.1/4)	1	<a href="#">22080.222.260</a>	1X290 (11.3/8)	1	<a href="#">22080.254.290</a>
3/4X245 (9.5/8)	1	<a href="#">22080.191.245</a>	7/8X265 (10.1/2)	1	<a href="#">22080.222.266</a>	1X295 (11.1/2)	1	<a href="#">22080.254.292</a>
3/4X250 (9.3/4)	1	<a href="#">22080.191.247</a>	7/8X270	1	<a href="#">22080.222.270</a>	1X300 (11.3/4)	1	<a href="#">22080.254.298</a>
3/4X255 (10)	1	<a href="#">22080.191.254</a>	7/8X275 (10.3/4)	1	<a href="#">22080.222.273</a>	1X305 (12)	1	<a href="#">22080.254.304</a>
3/4X265 (10.1/2)	1	<a href="#">22080.191.266</a>	7/8X280 (11)	1	<a href="#">22080.222.279</a>	1X310 (12.1/4)	1	<a href="#">22080.254.311</a>
3/4X275 (10.3/4)	1	<a href="#">22080.191.273</a>	7/8X285 (11.1/4)	1	<a href="#">22080.222.285</a>	1X315 (12.1/2)	1	<a href="#">22080.254.317</a>
3/4X280 (11)	1	<a href="#">22080.191.279</a>	7/8X295 (11.1/2)	1	<a href="#">22080.222.292</a>	1X325 (12.3/4)	1	<a href="#">22080.254.323</a>
3/4X285 (11.1/4)	1	<a href="#">22080.191.285</a>	7/8X300 (11.3/4)	1	<a href="#">22080.222.298</a>	1X330 (13)	1	<a href="#">22080.254.330</a>
3/4X295 (11.1/2)	1	<a href="#">22080.191.292</a>	7/8X305 (12)	1	<a href="#">22080.222.304</a>	1X345 (13.1/2)	1	<a href="#">22080.254.342</a>
3/4X300 (11.3/4)	1	<a href="#">22080.191.298</a>				1X350 (13.3/4)	1	<a href="#">22080.254.349</a>
3/4X305 (12)	1	<a href="#">22080.191.304</a>	1X100 (4)	1	<a href="#">22080.254.101</a>	1X355 (14)	1	<a href="#">22080.254.355</a>
			1X110 (4.1/4)	1	<a href="#">22080.254.107</a>	1X360 (14.1/4)	1	<a href="#">22080.254.361</a>
			1X115 (4.1/2)	1	<a href="#">22080.254.114</a>	1X370 (14.1/2)	1	<a href="#">22080.254.368</a>
			1X120 (4.3/4)	1	<a href="#">22080.254.120</a>	1X375 (14.3/4)	1	<a href="#">22080.254.374</a>
			1X125 (5)	1	<a href="#">22080.254.127</a>	1X380 (15)	1	<a href="#">22080.254.381</a>
			1X130 (5.1/8)	1	<a href="#">22080.254.130</a>			
			1X135 (5.1/4)	1	<a href="#">22080.254.133</a>			

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**22082 Studbolt with 2 hexagon nuts** G09A

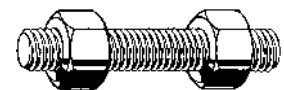
<b>Thread</b>	Unified National Coarse
<b>Material</b>	Steel ASTM A193 - ASTM A194
<b>Class</b>	Gr.B7 - Gr.2H
<b>Surface treatment</b>	Zinc plated
<b>Packaging</b>	Standard



d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number
1/2X65 (2.1/2)	1	<a href="#">22082.127.063</a>	5/8X110 (4.1/4)	1	<a href="#">22082.158.107</a>	3/4X145 (5.3/4)	1	<a href="#">22082.191.146</a>
1/2X70 (2.3/4)	1	<a href="#">22082.127.069</a>	5/8X135 (5.1/4)	1	<a href="#">22082.158.133</a>			
1/2X75 (3)	1	<a href="#">22082.127.076</a>	5/8X145 (5.3/4)	1	<a href="#">22082.158.146</a>	7/8X120 (4.3/4)	1	<a href="#">22082.222.120</a>
1/2X80 (3.1/4)	1	<a href="#">22082.127.082</a>	5/8X165 (6.1/2)	1	<a href="#">22082.158.165</a>	7/8X125 (5)	1	<a href="#">22082.222.127</a>
1/2X90 (3.1/2)	1	<a href="#">22082.127.088</a>				7/8X140 (5.1/2)	1	<a href="#">22082.222.139</a>
			3/4X100 (4)	1	<a href="#">22082.191.101</a>	7/8X145 (5.3/4)	1	<a href="#">22082.222.146</a>
5/8X75 (3)	1	<a href="#">22082.158.076</a>	3/4X110 (4.1/4)	1	<a href="#">22082.191.107</a>	7/8X150 (6)	1	<a href="#">22082.222.152</a>
5/8X80 (3.1/4)	1	<a href="#">22082.158.082</a>	3/4X115 (4.1/2)	1	<a href="#">22082.191.114</a>	7/8X220 (8.3/4)	1	<a href="#">22082.222.222</a>
5/8X90 (3.1/2)	1	<a href="#">22082.158.088</a>	3/4X120 (4.3/4)	1	<a href="#">22082.191.120</a>			
5/8X95 (3.3/4)	1	<a href="#">22082.158.095</a>	3/4X125 (5)	1	<a href="#">22082.191.127</a>			
5/8X100 (4)	1	<a href="#">22082.158.101</a>	3/4X135 (5.1/4)	1	<a href="#">22082.191.133</a>			

**22090 Studbolt with 2 hexagon nuts** G09A

<b>Thread</b>	8 Unified National
<b>Material</b>	Steel ASTM A193 - ASTM A194
<b>Class</b>	Gr.B7 - Gr.2H
<b>Packaging</b>	Standard



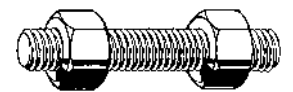
d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number
1.1/8X115 (4.1/2)	1	<a href="#">22090.285.114</a>	1.1/8X175 (6.7/8)	1	<a href="#">22090.285.175</a>	1.1/8X235 (9.1/4)	1	<a href="#">22090.285.234</a>
1.1/8X120 (4.3/4)	1	<a href="#">22090.285.120</a>	1.1/8X180 (7)	1	<a href="#">22090.285.177</a>	1.1/8X240 (9.1/2)	1	<a href="#">22090.285.241</a>
1.1/8X125 (5)	1	<a href="#">22090.285.127</a>	1.1/8X185 (7.1/4)	1	<a href="#">22090.285.184</a>	1.1/8X250 (9.3/4)	1	<a href="#">22090.285.247</a>
1.1/8X130 (5.1/8)	1	<a href="#">22090.285.130</a>	1.1/8X190 (7.1/2)	1	<a href="#">22090.285.190</a>	1.1/8X255 (10)	1	<a href="#">22090.285.254</a>
1.1/8X135 (5.1/4)	1	<a href="#">22090.285.133</a>	1.1/8X195 (7.3/4)	1	<a href="#">22090.285.196</a>	1.1/8X260 (10.1/4)	1	<a href="#">22090.285.260</a>
1.1/8X140 (5.1/2)	1	<a href="#">22090.285.139</a>	1.1/8X200 (8)	1	<a href="#">22090.285.203</a>	1.1/8X265 (10.1/2)	1	<a href="#">22090.285.266</a>
1.1/8X145 (5.3/4)	1	<a href="#">22090.285.146</a>	1.1/8X205 (8.1/8)	1	<a href="#">22090.285.205</a>	1.1/8X275 (10.3/4)	1	<a href="#">22090.285.273</a>
1.1/8X150 (6)	1	<a href="#">22090.285.152</a>	1.1/8X210 (8.1/4)	1	<a href="#">22090.285.209</a>	1.1/8X280 (11)	1	<a href="#">22090.285.279</a>
1.1/8X160 (6.1/4)	1	<a href="#">22090.285.158</a>	1.1/8X215 (8.1/2)	1	<a href="#">22090.285.215</a>	1.1/8X285 (11.1/4)	1	<a href="#">22090.285.285</a>
1.1/8X165 (6.1/2)	1	<a href="#">22090.285.165</a>	1.1/8X220 (8.3/4)	1	<a href="#">22090.285.222</a>	1.1/8X290 (11.3/8)	1	<a href="#">22090.285.290</a>
1.1/8X170 (6.3/4)	1	<a href="#">22090.285.171</a>	1.1/8X230 (9)	1	<a href="#">22090.285.228</a>	1.1/8X295 (11.1/2)	1	<a href="#">22090.285.292</a>

**22090 Studbolt with 2 hexagon nuts**

d x L mm (L IN.)	Art.number	d x L mm (L IN.)	Art.number	d x L mm (L IN.)	Art.number
1.1/8X300 (11.3/4)	22090.285.298	1.1/4X280 (11)	22090.317.279	1.3/8X370 (14.1/2)	22090.349.368
1.1/8X305 (12)	22090.285.304	1.1/4X285 (11.1/4)	22090.317.285	1.3/8X375 (14.3/4)	22090.349.374
1.1/8X310 (12.1/4)	22090.285.311	1.1/4X295 (11.1/2)	22090.317.292	1.3/8X380 (15)	22090.349.381
1.1/8X315 (12.1/2)	22090.285.317	1.1/4X300 (11.3/4)	22090.317.298	1.3/8X385 (15.1/4)	22090.349.387
1.1/8X325 (12.3/4)	22090.285.323	1.1/4X305 (12)	22090.317.304	1.3/8X395 (15.1/2)	22090.349.393
1.1/8X330 (13)	22090.285.330	1.1/4X310 (12.1/4)	22090.317.311	1.3/8X400 (15.3/4)	22090.349.400
1.1/8X345 (13.1/2)	22090.285.342	1.1/4X315 (12.1/2)	22090.317.317	1.3/8X405 (16)	22090.349.406
1.1/8X350 (13.3/4)	22090.285.349	1.1/4X325 (12.3/4)	22090.317.323		
1.1/8X355 (14)	22090.285.355	1.1/4X330 (13)	22090.317.330	1.1/2X200 (8)	22090.381.203
1.1/8X360 (14.1/4)	22090.285.361	1.1/4X345 (13.1/2)	22090.317.342	1.1/2X210 (8.1/4)	22090.381.209
1.1/8X370 (14.1/2)	22090.285.368	1.1/4X350 (13.3/4)	22090.317.349	1.1/2X215 (8.1/2)	22090.381.215
1.1/8X375 (14.3/4)	22090.285.374	1.1/4X355 (14)	22090.317.355	1.1/2X220 (8.3/4)	22090.381.222
1.1/8X380 (15)	22090.285.381	1.1/4X360 (14.1/4)	22090.317.361	1.1/2X225 (8.7/8)	22090.381.225
1.1/8X385 (15.1/4)	22090.285.387	1.1/4X370 (14.1/2)	22090.317.368	1.1/2X230 (9)	22090.381.228
1.1/8X395 (15.1/2)	22090.285.393	1.1/4X375 (14.3/4)	22090.317.374	1.1/2X235 (9.1/4)	22090.381.234
1.1/8X400 (15.3/4)	22090.285.400	1.1/4X380 (15)	22090.317.381	1.1/2X240 (9.1/2)	22090.381.241
1.1/8X405 (16)	22090.285.406			1.1/2X250 (9.3/4)	22090.381.247
1.1/8X410 (16.1/8)	22090.285.410	1.3/8X160 (6.1/4)	22090.349.158	1.1/2X255 (10)	22090.381.254
		1.3/8X165 (6.1/2)	22090.349.165	1.1/2X260 (10.1/4)	22090.381.260
1.1/4X115 (4.1/2)	22090.317.114	1.3/8X170 (6.3/4)	22090.349.171	1.1/2X265 (10.1/2)	22090.381.266
1.1/4X120 (4.3/4)	22090.317.120	1.3/8X180 (7)	22090.349.177	1.1/2X275 (10.3/4)	22090.381.272
1.1/4X125 (5)	22090.317.127	1.3/8X185 (7.1/4)	22090.349.184	1.1/2X280 (11)	22090.381.279
1.1/4X130 (5.1/8)	22090.317.130	1.3/8X190 (7.1/2)	22090.349.190	1.1/2X285 (11.1/4)	22090.381.285
1.1/4X135 (5.1/4)	22090.317.133	1.3/8X195 (7.3/4)	22090.349.196	1.1/2X290 (11.3/8)	22090.381.290
1.1/4X140 (5.1/2)	22090.317.139	1.3/8X200 (8)	22090.349.203	1.1/2X295 (11.1/2)	22090.381.292
1.1/4X145 (5.3/4)	22090.317.146	1.3/8X210 (8.1/4)	22090.349.209	1.1/2X300 (11.3/4)	22090.381.298
1.1/4X150 (6)	22090.317.152	1.3/8X215 (8.1/2)	22090.349.215	1.1/2X305 (12)	22090.381.304
1.1/4X160 (6.1/4)	22090.317.158	1.3/8X220 (8.3/4)	22090.349.222	1.1/2X310 (12.1/4)	22090.381.311
1.1/4X165 (6.1/2)	22090.317.165	1.3/8X230 (9)	22090.349.228	1.1/2X320 (12.5/8)	22090.381.320
1.1/4X170 (6.3/4)	22090.317.171	1.3/8X235 (9.1/4)	22090.349.234		
1.1/4X175 (6.7/8)	22090.317.175	1.3/8X240 (9.1/2)	22090.349.241	1.5/8X255 (10)	22090.412.254
1.1/4X180 (7)	22090.317.177	1.3/8X250 (9.3/4)	22090.349.247	1.5/8X260 (10.1/4)	22090.412.260
1.1/4X185 (7.1/4)	22090.317.184	1.3/8X255 (10)	22090.349.254	1.5/8X265 (10.1/2)	22090.412.266
1.1/4X190 (7.1/2)	22090.317.190	1.3/8X260 (10.1/4)	22090.349.260	1.5/8X275 (10.3/4)	22090.412.273
1.1/4X195 (7.3/4)	22090.317.196	1.3/8X265 (10.1/2)	22090.349.266	1.5/8X280 (11)	22090.412.279
1.1/4X200 (8)	22090.317.203	1.3/8X275 (10.3/4)	22090.349.273	1.5/8X285 (11.1/4)	22090.412.285
1.1/4X205 (8.1/8)	22090.317.205	1.3/8X280 (11)	22090.349.279	1.5/8X295 (11.1/2)	22090.412.292
1.1/4X210 (8.1/4)	22090.317.209	1.3/8X285 (11.1/4)	22090.349.285	1.5/8X300 (11.3/4)	22090.412.298
1.1/4X215 (8.1/2)	22090.317.215	1.3/8X295 (11.1/2)	22090.349.292	1.5/8X305 (12)	22090.412.304
1.1/4X220 (8.3/4)	22090.317.222	1.3/8X300 (11.3/4)	22090.349.298	1.5/8X310 (12.1/4)	22090.412.311
1.1/4X230 (9)	22090.317.228	1.3/8X305 (12)	22090.349.304	1.5/8X315 (12.1/2)	22090.412.317
1.1/4X235 (9.1/4)	22090.317.234	1.3/8X310 (12.1/4)	22090.349.311	1.5/8X325 (12.3/4)	22090.412.323
1.1/4X240 (9.1/2)	22090.317.241	1.3/8X315 (12.1/2)	22090.349.317	1.5/8X330 (13)	22090.412.330
1.1/4X245 (9.5/8)	22090.317.245	1.3/8X325 (12.3/4)	22090.349.323	1.5/8X335 (13.1/4)	22090.412.337
1.1/4X250 (9.3/4)	22090.317.247	1.3/8X330 (13)	22090.349.330	1.5/8X345 (13.1/2)	22090.412.342
1.1/4X255 (10)	22090.317.254	1.3/8X345 (13.1/2)	22090.349.342	1.5/8X350 (13.3/4)	22090.412.349
1.1/4X260 (10.1/4)	22090.317.260	1.3/8X350 (13.3/4)	22090.349.349	1.5/8X355 (14)	22090.412.355
1.1/4X265 (10.1/2)	22090.317.266	1.3/8X355 (14)	22090.349.355		
1.1/4X275 (10.3/4)	22090.317.273	1.3/8X360 (14.1/4)	22090.349.361		

**22320 Studbolt with 2 hexagon nuts**
**G10A**

**Thread** Unified National Coarse  
**Material** Steel ASTM A320 - ASTM A194  
**Class** Gr.L7 - Gr.4  
**Packaging** Standard



d x L mm (L IN.)	Art.number	d x L mm (L IN.)	Art.number	d x L mm (L IN.)	Art.number
1/2X50 (2)	22320.127.050	5/8X140 (5.1/2)	22320.158.139	7/8X115 (4.1/2)	22320.222.114
1/2X55 (2.1/4)	22320.127.057	5/8X145 (5.3/4)	22320.158.146	7/8X120 (4.3/4)	22320.222.120
1/2X60 (2.3/8)	22320.127.060	5/8X150 (6)	22320.158.152	7/8X125 (5)	22320.222.127
1/2X65 (2.1/2)	22320.127.063	5/8X160 (6.1/4)	22320.158.158	7/8X130 (5.1/8)	22320.222.130
1/2X70 (2.3/4)	22320.127.069	5/8X165 (6.1/2)	22320.158.165	7/8X135 (5.1/4)	22320.222.133
1/2X75 (3)	22320.127.076	5/8X170 (6.3/4)	22320.158.171	7/8X140 (5.1/2)	22320.222.139
1/2X80 (3.1/4)	22320.127.082	5/8X180 (7)	22320.158.177	7/8X145 (5.3/4)	22320.222.146
1/2X90 (3.1/2)	22320.127.088	5/8X185 (7.1/4)	22320.158.184	7/8X150 (6)	22320.222.152
1/2X95 (3.3/4)	22320.127.095			7/8X160 (6.1/4)	22320.222.158
1/2X100 (4)	22320.127.101	3/4X75 (3)	22320.191.076	7/8X165 (6.1/2)	22320.222.165
1/2X110 (4.1/4)	22320.127.107	3/4X80 (3.1/4)	22320.191.082	7/8X170 (6.3/4)	22320.222.171
1/2X115 (4.1/2)	22320.127.114	3/4X90 (3.1/2)	22320.191.088	7/8X180 (7)	22320.222.177
1/2X120 (4.3/4)	22320.127.120	3/4X95 (3.3/4)	22320.191.095	7/8X185 (7.1/4)	22320.222.184
		3/4X100 (4)	22320.191.101	7/8X190 (7.1/2)	22320.222.190
5/8X65 (2.1/2)	22320.158.063	3/4X110 (4.1/4)	22320.191.107	7/8X195 (7.3/4)	22320.222.196
5/8X70 (2.3/4)	22320.158.069	3/4X115 (4.1/2)	22320.191.114	7/8X200 (8)	22320.222.203
5/8X75 (3)	22320.158.076	3/4X120 (4.3/4)	22320.191.120	7/8X210 (8.1/4)	22320.222.209
5/8X80 (3.1/4)	22320.158.082	3/4X125 (5)	22320.191.127	7/8X215 (8.1/2)	22320.222.215
5/8X85 (3.3/8)	22320.158.085	3/4X130 (5.1/8)	22320.191.130	7/8X220 (8.3/4)	22320.222.222
5/8X90 (3.1/2)	22320.158.088	3/4X135 (5.1/4)	22320.191.133	7/8X230 (9)	22320.222.228
5/8X95 (3.3/4)	22320.158.095	3/4X140 (5.1/2)	22320.191.139		
5/8X100 (4)	22320.158.101	3/4X145 (5.3/4)	22320.191.146		
5/8X110 (4.1/4)	22320.158.107	3/4X150 (6)	22320.191.152	1X125 (5)	22320.254.127
5/8X115 (4.1/2)	22320.158.114	3/4X160 (6.1/4)	22320.191.158	1X135 (5.1/4)	22320.254.133
5/8X120 (4.3/4)	22320.158.120	3/4X165 (6.1/2)	22320.191.165	1X140 (5.1/2)	22320.254.139
5/8X125 (5)	22320.158.127	3/4X170 (6.3/4)	22320.191.171	1X145 (5.3/4)	22320.254.146
5/8X130 (5.1/8)	22320.158.130	3/4X180 (7)	22320.191.177	1X150 (6)	22320.254.152
5/8X135 (5.1/4)	22320.158.133	3/4X185 (7.1/4)	22320.191.184	1X160 (6.1/4)	22320.254.158

**22320 Studbolt with 2 hexagon nuts** ←

d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number
1X165 (6.1/2)	1	<a href="#">22320.254.165</a>	1X180 (7)	1	<a href="#">22320.254.177</a>	1X195 (7.3/4)	1	<a href="#">22320.254.196</a>
1X170 (6.3/4)	1	<a href="#">22320.254.171</a>	1X185 (7.1/4)	1	<a href="#">22320.254.184</a>	1X200 (8)	1	<a href="#">22320.254.203</a>
1X175 (6.7/8)	1	<a href="#">22320.254.175</a>	1X190 (7)	1	<a href="#">22320.254.190</a>			

**22330 Studbolt with 2 hexagon nuts** G10A

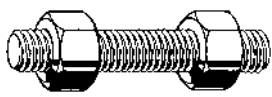
<b>Thread</b>	8 Unified National
<b>Material</b>	Steel ASTM A320 - ASTM A194
<b>Class</b>	Gr.L7 - Gr.4
<b>Packaging</b>	Standard



d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number
1.1/8X145 (5.3/4)	1	<a href="#">22330.285.146</a>	1.1/8X210 (8.1/4)	1	<a href="#">22330.285.209</a>	1.1/4X185 (7.1/4)	1	<a href="#">22330.317.184</a>
1.1/8X150 (6)	1	<a href="#">22330.285.152</a>	1.1/8X215 (8.1/2)	1	<a href="#">22330.285.215</a>	1.1/4X190 (7.1/2)	1	<a href="#">22330.317.190</a>
1.1/8X160 (6.1/4)	1	<a href="#">22330.285.158</a>	1.1/8X220 (8.3/4)	1	<a href="#">22330.285.222</a>	1.1/4X195 (7.3/4)	1	<a href="#">22330.317.196</a>
1.1/8X165 (6.1/2)	1	<a href="#">22330.285.165</a>	1.1/8X230 (9)	1	<a href="#">22330.285.228</a>	1.1/4X200 (8)	1	<a href="#">22330.317.203</a>
1.1/8X170 (6.3/4)	1	<a href="#">22330.285.171</a>	1.1/8X235 (9.1/4)	1	<a href="#">22330.285.234</a>	1.1/4X210 (8.1/4)	1	<a href="#">22330.317.209</a>
1.1/8X180 (7)	1	<a href="#">22330.285.177</a>	1.1/8X240 (9.1/2)	1	<a href="#">22330.285.241</a>	1.1/4X215 (8.1/2)	1	<a href="#">22330.317.215</a>
1.1/8X185 (7.1/4)	1	<a href="#">22330.285.184</a>	1.1/8X245 (9.5/8)	1	<a href="#">22330.285.245</a>	1.1/4X220 (8.3/4)	1	<a href="#">22330.317.222</a>
1.1/8X190 (7.1/2)	1	<a href="#">22330.285.190</a>	1.1/8X310 (12.1/4)	1	<a href="#">22330.285.311</a>	1.1/4X230 (9)	1	<a href="#">22330.317.228</a>
1.1/8X195 (7.3/4)	1	<a href="#">22330.285.196</a>						
1.1/8X200 (8)	1	<a href="#">22330.285.203</a>	1.1/4X180 (7)	1	<a href="#">22330.317.177</a>			

**22534 Studbolt with 2 hexagon nuts** G12A

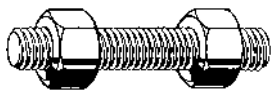
<b>Thread</b>	Unified National Coarse
<b>Material</b>	Stainless steel ASTM A193 - ASTM A194
<b>Class</b>	Gr.B8CL1 - Gr.8
<b>Packaging</b>	Standard



d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number
1/2X50 (2)	1	<a href="#">22534.127.050</a>	5/8X115 (4.1/2)	1	<a href="#">22534.158.114</a>	7/8X115 (4.1/2)	1	<a href="#">22534.222.114</a>
1/2X55 (2.1/4)	1	<a href="#">22534.127.057</a>	5/8X120 (4.3/4)	1	<a href="#">22534.158.120</a>	7/8X120 (4.3/4)	1	<a href="#">22534.222.120</a>
1/2X65 (2.1/2)	1	<a href="#">22534.127.063</a>	5/8X125 (5)	1	<a href="#">22534.158.127</a>	7/8X125 (5)	1	<a href="#">22534.222.127</a>
1/2X70 (2.3/4)	1	<a href="#">22534.127.069</a>	5/8X135 (5.1/4)	1	<a href="#">22534.158.133</a>	7/8X135 (5.1/4)	1	<a href="#">22534.222.133</a>
1/2X75 (3)	1	<a href="#">22534.127.076</a>	5/8X140 (5.1/2)	1	<a href="#">22534.158.139</a>	7/8X140 (5.1/2)	1	<a href="#">22534.222.139</a>
1/2X80 (3.1/4)	1	<a href="#">22534.127.082</a>	5/8X145 (5.3/4)	1	<a href="#">22534.158.146</a>	7/8X145 (5.3/4)	1	<a href="#">22534.222.146</a>
1/2X90 (3.1/2)	1	<a href="#">22534.127.088</a>				7/8X150 (6)	1	<a href="#">22534.222.152</a>
1/2X95 (3.3/4)	1	<a href="#">22534.127.095</a>	3/4X95 (3.3/4)	1	<a href="#">22534.191.095</a>			
1/2X100 (4)	1	<a href="#">22534.127.101</a>	3/4X100 (4)	1	<a href="#">22534.191.101</a>	1X135 (5.1/4)	1	<a href="#">22534.254.133</a>
			3/4X110 (4.1/4)	1	<a href="#">22534.191.107</a>	1X140 (5.1/2)	1	<a href="#">22534.254.139</a>
5/8X65 (2.1/2)	1	<a href="#">22534.158.063</a>	3/4X115 (4.1/2)	1	<a href="#">22534.191.114</a>	1X145 (5.3/4)	1	<a href="#">22534.254.146</a>
5/8X70 (2.3/4)	1	<a href="#">22534.158.069</a>	3/4X120 (4.3/4)	1	<a href="#">22534.191.120</a>	1X150 (6)	1	<a href="#">22534.254.152</a>
5/8X75 (3)	1	<a href="#">22534.158.076</a>	3/4X125 (5)	1	<a href="#">22534.191.127</a>	1X160 (6.1/4)	1	<a href="#">22534.254.158</a>
5/8X80 (3.1/4)	1	<a href="#">22534.158.082</a>	3/4X135 (5.1/4)	1	<a href="#">22534.191.133</a>	1X165 (6.1/2)	1	<a href="#">22534.254.165</a>
5/8X90 (3.1/2)	1	<a href="#">22534.158.088</a>	3/4X140 (5.1/2)	1	<a href="#">22534.191.139</a>	1X170 (6.3/4)	1	<a href="#">22534.254.171</a>
5/8X95 (3.3/4)	1	<a href="#">22534.158.095</a>	3/4X145 (5.3/4)	1	<a href="#">22534.191.146</a>	1X180 (7)	1	<a href="#">22534.254.177</a>
5/8X100 (4)	1	<a href="#">22534.158.101</a>	3/4X150 (6.IN.)	1	<a href="#">22534.191.152</a>			
5/8X110 (4.1/4)	1	<a href="#">22534.158.107</a>						

**22538 Studbolt with 2 hexagon nuts** G12A

<b>Thread</b>	Unified National Coarse
<b>Material</b>	Malleable iron ASTM A193 - ASTM A194
<b>Class</b>	Gr.B8MCL2 - Gr.8M
<b>Packaging</b>	Standard

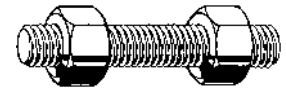


d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number
1/2X50 (2)	1	<a href="#">22538.127.050</a>	5/8X100 (4)	1	<a href="#">22538.158.101</a>	3/4X115 (4.1/2)	1	<a href="#">22538.191.114</a>
1/2X55 (2.1/4)	1	<a href="#">22538.127.057</a>	5/8X110 (4.1/4)	1	<a href="#">22538.158.107</a>	3/4X120 (4.3/4)	1	<a href="#">22538.191.120</a>
1/2X65 (2.1/2)	1	<a href="#">22538.127.063</a>	5/8X115 (4.1/2)	1	<a href="#">22538.158.114</a>	3/4X125 (5)	1	<a href="#">22538.191.127</a>
1/2X70 (2.3/4)	1	<a href="#">22538.127.069</a>	5/8X120 (4.3/4)	1	<a href="#">22538.158.120</a>	3/4X135 (5.1/4)	1	<a href="#">22538.191.133</a>
1/2X75 (3)	1	<a href="#">22538.127.076</a>	5/8X125 (5)	1	<a href="#">22538.158.127</a>	3/4X140 (5.1/2)	1	<a href="#">22538.191.139</a>
1/2X80 (3.1/4)	1	<a href="#">22538.127.082</a>	5/8X135 (5.1/4)	1	<a href="#">22538.158.133</a>	3/4X145 (5.3/4)	1	<a href="#">22538.191.146</a>
1/2X90 (3.1/2)	1	<a href="#">22538.127.088</a>	5/8X140 (5.1/2)	1	<a href="#">22538.158.139</a>	3/4X160 (6.1/4)	1	<a href="#">22538.191.158</a>
1/2X95 (3.3/4)	1	<a href="#">22538.127.095</a>	5/8X145 (5.3/4)	1	<a href="#">22538.158.146</a>	3/4X165 (6.1/2)	1	<a href="#">22538.191.165</a>
1/2X100 (4)	1	<a href="#">22538.127.101</a>	5/8X150 (6)	1	<a href="#">22538.158.152</a>			
1/2X110 (4.1/4)	1	<a href="#">22538.127.107</a>	5/8X165 (6.1/2)	1	<a href="#">22538.158.165</a>	7/8X90 (3.1/2)	1	<a href="#">22538.222.088</a>
1/2X115 (4.1/2)	1	<a href="#">22538.127.114</a>	5/8X170 (6.3/4)	1	<a href="#">22538.158.171</a>	7/8X115 (4.1/2)	1	<a href="#">22538.222.114</a>
						7/8X125 (5)	1	<a href="#">22538.222.127</a>
5/8X65 (2.1/2)	1	<a href="#">22538.158.063</a>	3/4X75 (3)	1	<a href="#">22538.191.076</a>	7/8X140 (5.1/2)	1	<a href="#">22538.222.139</a>
5/8X70 (2.3/4)	1	<a href="#">22538.158.069</a>	3/4X80 (3.1/4)	1	<a href="#">22538.191.082</a>	7/8X145 (5.3/4)	1	<a href="#">22538.222.146</a>
5/8X75 (3)	1	<a href="#">22538.158.076</a>	3/4X90 (3.1/2)	1	<a href="#">22538.191.088</a>	7/8X150 (6)	1	<a href="#">22538.222.152</a>
5/8X80 (3.1/4)	1	<a href="#">22538.158.082</a>	3/4X95 (3.3/4)	1	<a href="#">22538.191.095</a>	7/8X165 (6.1/2)	1	<a href="#">22538.222.165</a>
5/8X90 (3.1/2)	1	<a href="#">22538.158.088</a>	3/4X100 (4)	1	<a href="#">22538.191.101</a>			
5/8X95 (3.3/4)	1	<a href="#">22538.158.095</a>	3/4X110 (4.1/4)	1	<a href="#">22538.191.107</a>	1X140 (5.1/2)	1	<a href="#">22538.254.139</a>



**22551 Studbolt with 2 hexagon nuts**
**G11A**

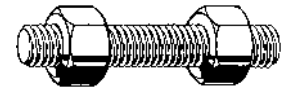
**Thread** Unified National Coarse  
**Material** Steel ASTM A193 - ASTM A194  
**Class** Gr.B16 - Gr.2H  
**Packaging** Standard



d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number
1/2X65 (2.1/2)	1	<a href="#">22551.127.063</a>	5/8X90 (3.1/2)	1	<a href="#">22551.158.088</a>	3/4X120 (4.3/4)	1	<a href="#">22551.191.120</a>
1/2X70 (2.3/4)	1	<a href="#">22551.127.069</a>	5/8X95 (3.3/4)	1	<a href="#">22551.158.095</a>	3/4X125 (5)	1	<a href="#">22551.191.127</a>
1/2X75 (3)	1	<a href="#">22551.127.076</a>	5/8X100 (4)	1	<a href="#">22551.158.101</a>			
1/2X80 (3.1/4)	1	<a href="#">22551.127.082</a>	5/8X110 (4.1/4)	1	<a href="#">22551.158.107</a>	7/8X115 (4.1/2)	1	<a href="#">22551.222.114</a>
1/2X90 (3.1/2)	1	<a href="#">22551.127.088</a>	5/8X115 (4.1/2)	1	<a href="#">22551.158.114</a>	7/8X120 (4.3/4)	1	<a href="#">22551.222.120</a>
1/2X95 (3.3/4)	1	<a href="#">22551.127.095</a>	5/8X120 (4.3/4)	1	<a href="#">22551.158.120</a>	7/8X125 (5)	1	<a href="#">22551.222.127</a>
1/2X100 (4)	1	<a href="#">22551.127.101</a>	5/8X125 (5)	1	<a href="#">22551.158.127</a>	7/8X135 (5.1/4)	1	<a href="#">22551.222.133</a>
						7/8X140 (5.1/2)	1	<a href="#">22551.222.139</a>
5/8X65 (2.1/2)	1	<a href="#">22551.158.063</a>	3/4X95 (3.3/4)	1	<a href="#">22551.191.095</a>	7/8X145 (5.3/4)	1	<a href="#">22551.222.146</a>
5/8X70 (2.3/4)	1	<a href="#">22551.158.069</a>	3/4X100 (4)	1	<a href="#">22551.191.101</a>	7/8X150 (6)	1	<a href="#">22551.222.152</a>
5/8X75 (3)	1	<a href="#">22551.158.076</a>	3/4X110 (4.1/4)	1	<a href="#">22551.191.107</a>			
5/8X80 (3.1/4)	1	<a href="#">22551.158.082</a>	3/4X115 (4.1/2)	1	<a href="#">22551.191.114</a>			

**22554 Studbolt with 2 hexagon nuts**
**G11A**

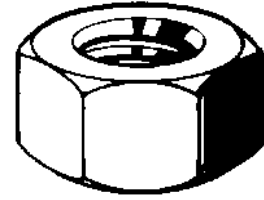
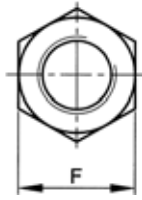
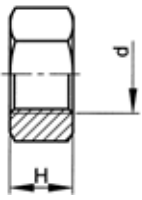
**Thread** Unified National Coarse  
**Material** Steel ASTM A193 - ASTM A194  
**Class** Gr.B16 - Gr.4  
**Packaging** Standard



d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number	d x L mm (L IN.)	☒	Art.number
1/2X50 (2)	1	<a href="#">22554.127.050</a>	5/8X150 (6)	1	<a href="#">22554.158.152</a>	7/8X130 (5.1/8)	1	<a href="#">22554.222.130</a>
1/2X55 (2.1/4)	1	<a href="#">22554.127.057</a>				7/8X135 (5.1/4)	1	<a href="#">22554.222.133</a>
1/2X60 (2.3/8)	1	<a href="#">22554.127.060</a>	3/4X90 (3.1/2)	1	<a href="#">22554.191.088</a>	7/8X140 (5.1/2)	1	<a href="#">22554.222.139</a>
1/2X65 (2.1/2)	1	<a href="#">22554.127.063</a>	3/4X95 (3.3/4)	1	<a href="#">22554.191.095</a>	7/8X145 (5.3/4)	1	<a href="#">22554.222.146</a>
1/2X70 (2.3/4)	1	<a href="#">22554.127.069</a>	3/4X100 (4)	1	<a href="#">22554.191.101</a>	7/8X150 (6)	1	<a href="#">22554.222.152</a>
1/2X75 (3)	1	<a href="#">22554.127.076</a>	3/4X110 (4.1/4)	1	<a href="#">22554.191.107</a>	7/8X160 (6.1/4)	1	<a href="#">22554.222.158</a>
1/2X80 (3.1/4)	1	<a href="#">22554.127.082</a>	3/4X115 (4.1/2)	1	<a href="#">22554.191.114</a>	7/8X165 (6.1/2)	1	<a href="#">22554.222.165</a>
1/2X90 (3.1/2)	1	<a href="#">22554.127.088</a>	3/4X120 (4.3/4)	1	<a href="#">22554.191.120</a>	7/8X170 (6.3/4)	1	<a href="#">22554.222.171</a>
1/2X95 (3.3/4)	1	<a href="#">22554.127.095</a>	3/4X125 (5)	1	<a href="#">22554.191.127</a>			
1/2X100 (4)	1	<a href="#">22554.127.101</a>	3/4X130 (5.1/8)	1	<a href="#">22554.191.130</a>	3/4X180 (7)	1	<a href="#">22554.222.177</a>
			3/4X135 (5.1/4)	1	<a href="#">22554.191.133</a>	1X130 (5.1/8)	1	<a href="#">22554.254.130</a>
5/8X70 (2.3/4)	1	<a href="#">22554.158.069</a>	3/4X140 (5.1/2)	1	<a href="#">22554.191.139</a>	1X140 (5.1/2)	1	<a href="#">22554.254.139</a>
5/8X75 (3)	1	<a href="#">22554.158.076</a>	3/4X145 (5.3/4)	1	<a href="#">22554.191.146</a>	1X145 (5.3/4)	1	<a href="#">22554.254.146</a>
5/8X80 (3.1/4)	1	<a href="#">22554.158.082</a>	3/4X150 (6)	1	<a href="#">22554.191.152</a>	1X150 (6)	1	<a href="#">22554.254.152</a>
5/8X90 (3.1/2)	1	<a href="#">22554.158.088</a>	3/4X160 (6.1/4)	1	<a href="#">22554.191.158</a>	1X160 (6.1/4)	1	<a href="#">22554.254.158</a>
5/8X95 (3.3/4)	1	<a href="#">22554.158.095</a>	3/4X165 (6.1/2)	1	<a href="#">22554.191.165</a>	1X165 (6.1/2)	1	<a href="#">22554.254.165</a>
5/8X100 (4)	1	<a href="#">22554.158.101</a>	3/4X170 (6.3/4)	1	<a href="#">22554.191.171</a>	1X170 (6.3/4)	1	<a href="#">22554.254.171</a>
5/8X110 (4.1/4)	1	<a href="#">22554.158.107</a>	3/4X180 (7)	1	<a href="#">22554.191.177</a>	1X180 (7)	1	<a href="#">22554.254.177</a>
5/8X115 (4.1/2)	1	<a href="#">22554.158.114</a>	3/4X185 (7.1/4)	1	<a href="#">22554.191.184</a>	1X185 (7.1/4)	1	<a href="#">22554.254.184</a>
5/8X120 (4.3/4)	1	<a href="#">22554.158.120</a>	3/4X190 (7.1/2)	1	<a href="#">22554.191.190</a>	1X190 (7.1/2)	1	<a href="#">22554.254.190</a>
5/8X125 (5)	1	<a href="#">22554.158.127</a>				1X195 (7.3/4)	1	<a href="#">22554.254.196</a>
5/8X135 (5.1/4)	1	<a href="#">22554.158.133</a>	7/8X115 (4.1/2)	1	<a href="#">22554.222.114</a>	1X200 (8)	1	<a href="#">22554.254.203</a>
5/8X140 (5.1/2)	1	<a href="#">22554.158.139</a>	7/8X120 (4.3/4)	1	<a href="#">22554.222.120</a>			
5/8X145 (5.3/4)	1	<a href="#">22554.158.146</a>	7/8X125 (5)	1	<a href="#">22554.222.127</a>			

**4**

## Hexagon nut ASTM A194 Grade 2H



### Technical data

d	P	H	F
M10	1,5	10	17
M12	1,75	12	19
M14	2	14	22
M16	2	16	24
M18	2,5	18	27
M20	2,5	20	30

d	P	H	F
M22	2,5	22	32
M24	3	24	36
M27	3	27	41
M30	3,5	30	46
M33	3,5	33	50
M36	4	36	55

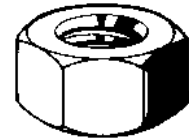
d	P	H	F
M39	4	39	60
M42	4,5	42	65
M45	4,5	45	70
M48	5	48	75
M52	5	52	80

4

### 22200 Hexagon nut ASTM A194 Grade 2H

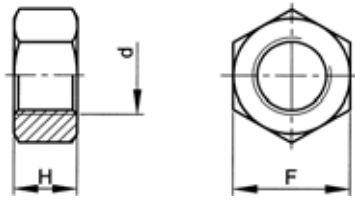
G09A

**Thread** Metric thread  
**Material** Steel ASTM A194  
**Class** Gr.2H  
**Packaging** Standard

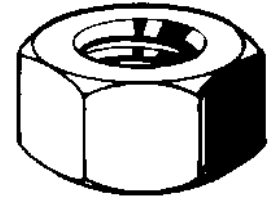


d	✉	Art.number	d	✉	Art.number	d	✉	Art.number
M10	1	<a href="#">22200.100.001</a>	M22	1	<a href="#">22200.220.001</a>	M39	1	<a href="#">22200.390.001</a>
M12	1	<a href="#">22200.120.001</a>	M24	1	<a href="#">22200.240.001</a>	M42	1	<a href="#">22200.420.001</a>
M14	1	<a href="#">22200.140.001</a>	M27	1	<a href="#">22200.270.001</a>	M45	1	<a href="#">22200.450.001</a>
M16	1	<a href="#">22200.160.001</a>	M30	1	<a href="#">22200.300.001</a>	M48	1	<a href="#">22200.480.001</a>
M18	1	<a href="#">22200.180.001</a>	M33	1	<a href="#">22200.330.001</a>	M52	1	<a href="#">22200.520.001</a>
M20	1	<a href="#">22200.200.001</a>	M36	1	<a href="#">22200.360.001</a>			

## Hexagon nut ASTM A194



ANSI B18.2.2  
BS 1769



### Technical data

d	Threads per inch	H	F
3/8	16	9	11/16
1/2	13	12,3	7/8
5/8	11	15,5	1.1/16
3/4	10	18,65	1.1/4
7/8	9	21,85	1.7/16
1.IN.	8	25	1.5/8
1.1/8	8	28,2	1.13/16
1.1/4	8	30,95	2.IN.
1.3/8	8	34,15	2.3/16
1.1/2	8	37,3	2.3/8
1.5/8	8	40,5	2.9/16
1.3/4	8	43,65	2.3/4
1.7/8	8	46,85	2.15/16
2.IN.	8	50	3.1/8
2.1/4	8	55,95	3.1/2
2.1/2	8	62,3	3.7/8
2.3/4	8	68,25	4.1/4
3.IN.	8	75	4.5/8

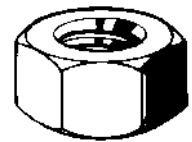
### Article groups

Thread	Driving features	Material	Class	Packaging	Code	Page
UNC	hexagon	St ASTM A194	Gr.2H	Standard	22280	4-42
8 UN	hexagon	St ASTM A194	Gr.2H	Standard	22290	4-42
UNC	hexagon	St ASTM A194	Gr.4	Standard	22380	4-43
8 UN	hexagon	St ASTM A194	Gr.4	Standard	22390	4-43
UNC	hexagon	St ASTM A194	Gr.7	Standard	22382	4-43
UNC	hexagon	St.St. ASTM A194	Gr.8	Standard	22383	4-43
8 UN	hexagon	St.St. ASTM A194	Gr.8	Standard	22393	4-43
UNC	hexagon	St.St. ASTM A194	Gr.8M	Standard	22384	4-43
UNC	hexagon	St.St. ASTM A194	Gr.8T	Standard	22386	4-44

#### 22280 Hexagon nut ASTM A194

G09A

<b>Thread</b>	Unified National Coarse
<b>Material</b>	Steel ASTM A194
<b>Class</b>	Gr.2H
<b>Packaging</b>	Standard

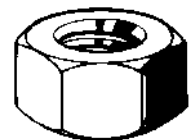


d	☒	Art.number	d	☒	Art.number	d	☒	Art.number
1/2	1	<a href="#">22280.127.001</a>	3/4	1	<a href="#">22280.191.001</a>	1.IN.	1	<a href="#">22280.254.001</a>
5/8	1	<a href="#">22280.158.001</a>	7/8	1	<a href="#">22280.222.001</a>			

#### 22290 Hexagon nut ASTM A194

G09A

<b>Thread</b>	8 Unified National
<b>Material</b>	Steel ASTM A194
<b>Class</b>	Gr.2H
<b>Packaging</b>	Standard



d	☒	Art.number	d	☒	Art.number	d	☒	Art.number
1.1/8	1	<a href="#">22290.285.001</a>	1.5/8	1	<a href="#">22290.412.001</a>	2.1/4	1	<a href="#">22290.571.001</a>
1.1/4	1	<a href="#">22290.317.001</a>	1.3/4	1	<a href="#">22290.444.001</a>	2.1/2	1	<a href="#">22290.635.001</a>
1.3/8	1	<a href="#">22290.349.001</a>	1.7/8	1	<a href="#">22290.476.001</a>	2.3/4	1	<a href="#">22290.698.001</a>
1.1/2	1	<a href="#">22290.381.001</a>	2.IN.	1	<a href="#">22290.508.001</a>	3.IN.	1	<a href="#">22290.762.001</a>

<b>22380</b>	<b>Hexagon nut ASTM A194</b>		<b>G10A</b>	
<b>Thread</b>	Unified National Coarse			
<b>Material</b>	Steel ASTM A194			
<b>Class</b>	Gr.4			
<b>Packaging</b>	Standard			

d	☒	Art.number	d	☒	Art.number	d	☒	Art.number
3/8	1	<a href="#">22380.096.001</a>	5/8	1	<a href="#">22380.158.001</a>	7/8	1	<a href="#">22380.222.001</a>
1/2	1	<a href="#">22380.127.001</a>	3/4	1	<a href="#">22380.191.001</a>	1.IN.	1	<a href="#">22380.254.001</a>

<b>22390</b>	<b>Hexagon nut ASTM A194</b>		<b>G10A</b>	
<b>Thread</b>	8 Unified National			
<b>Material</b>	Steel ASTM A194			
<b>Class</b>	Gr.4			
<b>Packaging</b>	Standard			

d	☒	Art.number	d	☒	Art.number	d	☒	Art.number
1.1/8	1	<a href="#">22390.285.001</a>	1.1/2	1	<a href="#">22390.381.001</a>	1.7/8	1	<a href="#">22390.476.001</a>
1.1/4	1	<a href="#">22390.317.001</a>	1.5/8	1	<a href="#">22390.412.001</a>	2.IN.	1	<a href="#">22390.508.001</a>
1.3/8	1	<a href="#">22390.349.001</a>	1.3/4	1	<a href="#">22390.444.001</a>			

<b>22382</b>	<b>Hexagon nut ASTM A194</b>		<b>G10A</b>	
<b>Thread</b>	Unified National Coarse			
<b>Material</b>	Steel ASTM A194			
<b>Class</b>	Gr.7			
<b>Packaging</b>	Standard			

d	☒	Art.number	d	☒	Art.number	d	☒	Art.number
1/2	1	<a href="#">22382.127.001</a>	3/4	1	<a href="#">22382.191.001</a>	1.IN.	1	<a href="#">22382.254.001</a>
5/8	1	<a href="#">22382.158.001</a>	7/8	1	<a href="#">22382.222.001</a>			

<b>22383</b>	<b>Hexagon nut ASTM A194</b>		<b>G12A</b>	
<b>Thread</b>	Unified National Coarse			
<b>Material</b>	Stainless steel ASTM A194			
<b>Class</b>	Gr.8			
<b>Packaging</b>	Standard			

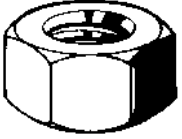
d	☒	Art.number	d	☒	Art.number	d	☒	Art.number
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5/8	1	<a href="#">22383.158.001</a>	7/8	1	<a href="#">22383.222.001</a>			

<b>22393</b>	<b>Hexagon nut ASTM A194</b>		<b>G12A</b>	
<b>Thread</b>	8 Unified National			
<b>Material</b>	Stainless steel ASTM A194			
<b>Class</b>	Gr.8			
<b>Packaging</b>	Standard			

d	☒	Art.number	d	☒	Art.number	d	☒	Art.number
1.1/8	1	<a href="#">22393.285.001</a>	1.3/8	1	<a href="#">22393.349.001</a>			
1.1/4	1	<a href="#">22393.317.001</a>	1.1/2	1	<a href="#">22393.381.001</a>			

<b>22384</b>	<b>Hexagon nut ASTM A194</b>		<b>G12A</b>	
<b>Thread</b>	Unified National Coarse			
<b>Material</b>	Stainless steel ASTM A194			
<b>Class</b>	Gr.8M			
<b>Packaging</b>	Standard			

d	☒	Art.number	d	☒	Art.number	d	☒	Art.number
1/2	1	<a href="#">22384.127.001</a>	3/4	1	<a href="#">22384.191.001</a>	1.IN.	1	<a href="#">22384.254.001</a>
5/8	1	<a href="#">22384.158.001</a>	7/8	1	<a href="#">22384.222.001</a>			

<b>22386</b>	<b>Hexagon nut ASTM A194</b>						<b>G12A</b>
<b>Thread</b>	Unified National Coarse						
<b>Material</b>	Stainless steel ASTM A194						
<b>Class</b>	Gr.8T						
<b>Packaging</b>	Standard						

<b>d</b>	✉	<b>Art.number</b>	<b>d</b>	✉	<b>Art.number</b>	<b>d</b>	✉	<b>Art.number</b>
3/8	1	<a href="#">22386.096.001</a>	5/8	1	<a href="#">22386.158.001</a>	7/8	1	<a href="#">22386.222.001</a>
1/2	1	<a href="#">22386.127.001</a>	3/4	1	<a href="#">22386.191.001</a>	1.IN.	1	<a href="#">22386.254.001</a>

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