

Screws & Nuts

Bolts	Nuts
	
P. 69-1 ~ 17	P. 69-17 ~ 18
Screws	Washers
	
P. 69-18 ~ 22	P. 69-22 ~ 24
Circlips	Keys & Pins
	
P. 69-24	P. 69-24 ~ 27
Hooks/Eyes	
	
P. 69-27	

Bolts & Nuts

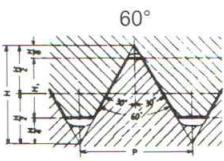
Tornillos y Tuerca ボルト・ナット 螺丝和螺母

Generally speaking items such as bolts and nuts have so many types, materials, thread types, and especially sizes, it is impossible to provide order codes for them all. For this reason, the items described below are standard types and only a few of them are provided with codes.

Thread Information

As metric threads are now most common, all the items below are described by metric standards. However, Whitworth and unified threads are also available upon request. The following thread tables are illustrated for your reference. You can easily find the type of threads you require from this table.

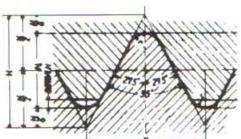
Metric Thread



Coarse		Fine		Coarse		Fine	
Screw Diam.	Pitch						
M 2	0.4	M 2	0.25	M20	2.5	M12	1.5
2.2	0.45	2.2	0.25	22	2.5	12	1.25
2.3	0.4	2.5	0.35	24	3	12	1
2.5	0.45	3	0.35	27	3	14	1.5
2.6	0.45	3.5	0.35	30	3.5	14	1.25
M 3	0.5	M 4	0.5	M33	3.5	M14	1
3.5	0.6	4.5	0.5	36	4	15	1.5
4	0.7	5	0.5	39	4	15	1
4.5	0.75	5.5	0.5	42	4.5	16	1.5
5	0.8	6	0.75	45	4.5	16	1
M 6	1	M 7	0.75	M48	5	M17	1.5
7	1	8	1	52	5	17	1
8	1.25	8	0.75	56	5.5	18	2
9	1.25	9	1	60	5.5	18	1.5
10	1.5	9	0.75	64	6	18	1
M11	1.5	M10	1.25				
12	1.75	10	1				
14	2	10	0.75				
16	2	11	1				
18	2.5	11	0.75				

Whitworth Thread

55°



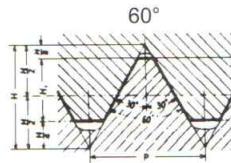
Screw Diam.		Threads Per Inch	Screw Diam.		Threads Per Inch
Inch	Equiv. mm		Inch	Equiv. mm	
W1/8 (1/4) (5/16)	3.175 6.35 7.938	40	W2-1/2 2-3/4	63.5 79.85	4 3-1/2
3/8	9.525	18	3	76.2	3-1/2
1/16	11.112	16	3-1/4	82.55	3-1/4
W1/2 (9/16)	12.7 14.288	12	3-1/2	88.9	3-1/4
5/8	15.875	11	(4-1/4)	107.95	2-7/8
3/4	19.050	10	4-1/2	114.3	2-7/8
7/8	22.225	9	(4-3/4)	120.65	2-3/4

(to be continued)

W1	25.4	8	W5	127.0	2-3/4
1-1/8	28.575	7	(5-1/4)	133.35	2-5/8
1-1/4	31.75	7	5-1/2	139.7	2-5/8
1-3/8	34.925	6	(5-3/4)	146.05	2-1/2
1-1/2	38.1	6	6	152.4	2-1/2
W1-5/8	41.275	5			
1-3/4	44.45	5			
1-7/8	47.625	4-1/2			
2	50.8	4-1/2			
2-1/4	57.15	4			

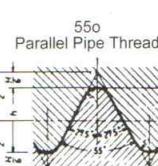
* Size in bracket rarely used.

Unified Thread



UNF		UNC	
Screw No. & Diam.	Threads Per Inch	Screw No. & Diam.	Threads Per Inch
No. 0 - 80 UNF	80	No. 1 - 64 UNC	64
1 - 72 UNF	72	2 - 56 UNC	56
2 - 64 UNF	64	3 - 48 UNC	48
3 - 56 UNF	56	4 - 40 UNC	40
4 - 48 UNF	48	5 - 40 UNC	40
No. 5 - 44 UNF	44	No. 6 - 32 UNC	32
6 - 40 UNF	40	8 - 32 UNC	32
8 - 36 UNF	36	10 - 24 UNC	24
10 - 32 UNF	32	12 - 24 UNC	24
12 - 28 UNF	28	1/4 - 20 UNC	20
No. 1/4 - 28 UNF	28	No. 5/16 - 18 UNC	18
5/16 - 24 UNF	24	3/8 - 16 UNC	16
3/8 - 24 UNF	24	7/16 - 14 UNC	14
7/16 - 20 UNF	20	1/2 - 13 UNC	13
1/2 - 20 UNF	20	9/16 - 12 UNC	12
No. 9/16 - 18 UNF	18	No. 5/8 - 11 UNC	11
5/8 - 18 UNF	18	3/4 - 10 UNC	10
3/4 - 16 UNF	16	7/8 - 9 UNC	9
7/8 - 14 UNF	14	1 - 8 UNC	8
1 - 12 UNF	12	1-1/8 - 7 UNC	7
No. 1-1/8 - 12 UNF	12	No. 1-1/4 - 7 UNC	7
1-1/4 - 12 UNF	12	1-3/8 - 6 UNC	6
1-3/8 - 12 UNF	12	1-1/2 - 6 UNC	6
1-1/2 - 12 UNF	12	1-3/4 - 5 UNC	5
No. 2-4 - 1/2 UNC		2-1/4 - 4-1/2 UNC	4-1/2
2-1/2 - 4 UNC		2-3/4 - 4 UNC	4
3-4 UNC		3-1/4 - 4 UNC	4
No. 3-1/4 - 4 UNC		3-1/2 - 4 UNC	4
3-1/2 - 4 UNC		3-3/4 - 4 UNC	4
3-3/4 - 4 UNC		4 - 4 UNC	4

Pipe Thread

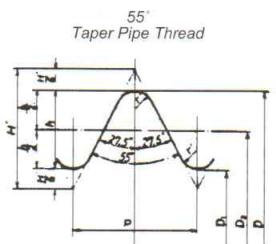


Nominal Size	Thread Per Inch	Out Diam. mm.	Nominal Size	Thread Per Inch	Out Diam. mm.
PF 3/4	14	26.44	PF 5	11	138.43
(7/8)	14	30.20	(5-1/2)	11	151.13
1	11	33.24	6	11	163.83
(1-1/8)	11	37.89	7	11	189.23
1-1/4	11	41.91	8	11	214.63

(to be continued)

Nominal Size	Thread Per Inch	Out Diam. mm.	Nominal Size	Thread Per Inch	Out Diam. mm.
PF 1-1/2	11	47.80	PF 9	11	240.03
(1-3/4)	11	53.74	10	11	265.43
2	11	59.61	12	11	316.23
(2-1/4)	11	65.71			
2-1/2	11	75.18			
PF (2-3/4)	11	81.53			
3	11	87.88			
3-1/2	11	100.33			
4	11	113.03			
(4-1/2)	11	125.73			

* Size in bracket rarely used.
Ref: PF = G (ISO)



Nominal Size	Thread Per Inch	Out Diam. mm.	Nominal Size	Thread Per Inch	Out Diam. mm.
PT 3/4	14	26.44	PT 4	11	113.03
1	11	33.24	5	11	138.43
1-1/4	11	41.91	6	11	163.83
1-1/2	11	47.80	7	11	189.23
2	11	59.61	8	11	214.63
PT 2-1/2	11	75.18	PT 9	11	240.03
3	11	87.88	10	11	265.43
3-1/2	11	100.33	12	11	316.23

Ref: PT = R (ISO)

Abstracted World Screw Thread Designation

	Symbol	Type of Screw Thread	Standard
ISO	M	ISO General purpose metric screw threads	ISO 261
	S	ISO Miniature screw threads	ISO 1501
	UNC	ISO Inch screw threads (coarse screw threads)	ISO 263
	UNF	ISO Inch screw threads (fine screw threads)	"
	UNEF	ISO Inch screw threads (extra-fine screw threads)	"
	UN	ISO Inch screw threads (constant-pitch series)	"
	R	Taper pipe external threads	ISO 7/1
	Rc	Taper pipe internal threads	"
	Rp	Taper pipe parallel internal threads	"
	G	Taper pipe parallel external threads and taper pipe parallel internal threads	ISO 228/1

(to be continued)

Japan	M	Metric coarse screw threads	JIS B 0205
	M	Metric fine screw threads	JIS B 0207
	S	Miniature screw threads	JIS B 0201
	UNC	Unified coarse screw threads	JIS B 0206
	UNF	Unified fine screw threads	JIS B 0208
	R	Taper pipe external threads	JIS B 0203
	Rc	Taper pipe internal threads	JIS B 0203
	Rp	Taper pipe parallel internal threads	JIS B 0203
	G	Parallel pipe threads	JIS B 0202
	PF	Parallel pipe threads not specified in ISO	JIS B 0202 Appendix
USA	PT	Taper pipe threads not specified in ISO	JIS B 0203 Appendix
	CTC	Screw threads for thin steel conduits	JIS B 0204
	CTG	Screw threads for thick steel conduits	JIS B 0204
	E	Screw threads for electric lamps	JIS C 7709
	UN	Unified inch screw threads	ANSI B 1.1
	UNC/UNRC	Unified coarse thread series	ANSI B 1.1
	UNF/UNRF	Unified fine thread series	ANSI B 1.1
	UNEF/UNREF	Unified extra-fine-thread series	ANSI B 1.1
	UN/UNRS	Unified threads of special diameters, pitches and lengths of engagement	ANSI B 1.1
	NR	American National thread with a 0.108p to 0.144p controlled root radius	MIL-B-7838
	Acme	Acme screw threads	ANSI B 1.5
	Sub-Acme	Stub-Acme screw threads	ANSI B 1.8
	Butt	Buttress inch screw threads	ANSI B 1.9

(to be continued)

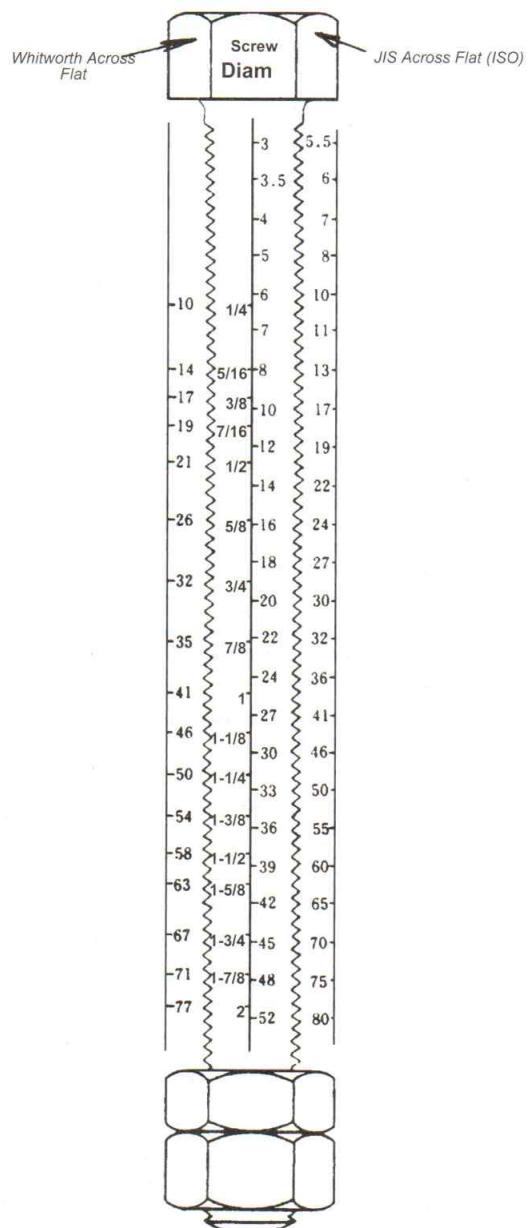
	Symbol	Type of Screw Thread	Standard
USA	UNM	Unified miniature thread series	ANSI B 1.10
	NC5	Class 5 interference-fit thread	ANSI B 1.12
	NPT	American Standard taper pipe threads for general use	ANSI/ASME B 1.20.1
	NPSC	American Standard straight pipe thread in pipe couplings	ANSI/ASME B 1.20.1
	NPSL	American Standard straight pipe threads for loose-fitting mechanical joints with locknuts	ANSI/ASME B 1.20.1
	NPSM	American Standard straight pipe threads for free-fitting mechanical joints for fixtures	ANSI/ASME B 1.20.1
	NPSH	American Standard straight pipe threads for loose-fitting mechanical joints for hose couplings	ANSI/ASME B 1.20.1
	NPTF	Dryseal American Standard taper pipe threads	ANSI B 1.20.3, 1.20.4
	F-PTF	Dryseal fine taper pipe thread series	ANSI B 1.20.3, 1.20.4
	PTF-SAE SHORT	Dryseal SAE short taper threads	ANSI B 1.20.3, 1.20.4
	PTF-SPL SHORT	Dryseal special short taper pipe threads	ANSI B 1.20.3, 1.20.4
	PTF-SPL EXTRA SHORT	Dryseal special extra short taper pipe threads	ANSI B 1.20.3, 1.20.4
	SPL-PTF	Dryseal special taper pipe threads	ANSI B 1.20.3, 1.20.4
	NPSI	Dryseal American Standard intermediate internal straight pipe threads	ANSI B 1.20.3, 1.20.4
	NPSF	Dryseal American Standard fuel internal straight pipe threads	ANSI B 1.20.3, 1.20.4
	NGO	National gas outlet threads	ANSI B 57.1
	NGS	National gas straight threads	ANSI B 57.1
	NGT	National gas taper threads	ANSI B 57.1

(to be continued)

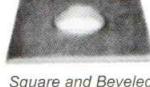
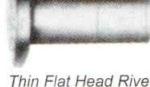
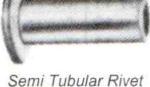
USA	SGT	Special gas taper threads	ANSI B 57.1
	NH	Hose coupling and firehose coupling threads	USAS B 2.4
	NHR	Hose coupling and firehose coupling threads	USAS B 2.4
	NPSH	Hose coupling and firehose coupling threads	USAS B 2.4
United Kingdom	UNS	Unified special series	BS 1580
	B.S.W.	British Standard Whitworth coarse threads	BS 84
	BSF	British Standard fine threads	BS 84
	BSP	British Standard pipe thread	BS 21.2779
	B.A	B. A. - Screw thread	BS 93, 1929
	Acme	Acme threads, general purpose	BS 1104
	Buttress	Buttress thread	BS 1657
	E	Edison screw thread	BS 5042
	GI	Rundgewinde, vorzugsweise für Glasbehältnisse	DIN 168
	S	Sägengewinde (Buttress thread)	DIN 513, 2781, 20401
Germany	Rd	Rundgewinde (Knuckle thread)	DIN 405, 262, 264, 3182, 7273, 15403, 20400
	W	Whitworth-gewinde	DIN 168, 477, 6630, 4668, 49301
	KS, KT	Gewinde, vorzugsweise für Kunststoffbehältnisse	DIN 6063
	E	Elektrogewinde (Edison screw thread)	DIN 40400
	Pg	Stahlpanzerrohrgewinde (Steel conduit thread)	DIN 40430
	Glasg	Glasgewinde (Thread for cover glasses, porcelain and cast iron caps)	DIN 40450
	Gf	Kegeliges Rohrgewinde	DIN 4930
69	Gg	Gestängerohrgewinde, kegelig (Threads for drill pipe)	DIN 4941, 20314
	HA	Gewinde für Knochenschraube	DIN 58810
	RMS	Gewindeanschluß für Mikroskopobjektive	DIN 58888

Bolt Head & Nut Across Flat Size Table

Spanner Opening mm	Applicable Bolt				
	Metric Thread (ISO)			Old Standard	
	Hex Bolt	Small Hex. Bolt	High Tension Bolt	Whitworth Bolt	Metric Bolt
5.5	M3				
6	M3.5				
7	M4				
8	M5				
9					
10	M6				
11	M7				
12		M8			
13	M8				
14		M10			M8
15					
17	M10	M12		W3/8	M10
19	M12	M14		W7/16	
21				W1/2	M12
22	M14	M16	M12		
23					M14
24	M16	M18			
26				W5/8	M16
27	M18	M20	M16		
29					M18
30	M20	M22			
32	M22	M24	M20	W3/4	M20
35				W7/8	
36	M24	M27	M22		
38					M24
41	M27	M30	M24	W1	M27
46	M30	M33		W1-1/8	M30
50	M33	M36		W1-1/4	M33
54				W1-3/8	M36
55	M36	M39			
58				W1-1/2	M39
60	M39				
63				W1-5/8	M42
65	M42				
67				W1-3/4	M45
70	M45				
71				W1-7/8	M48
75	M48				
77				W2	
80	M52				

Bolt & Spanner Reference Table

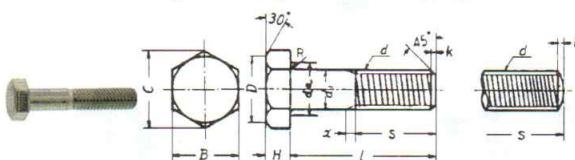
Summary Illustration of Bolts, Screws, Nuts, etc.

Hexagon Head Bolts, Half Threaded

(Ref. JIS B 1180 - 93)

Tornillos Cabeza Hexagonal 六角半ねじボルト 六角螺栓



d	Pitch		d1	H	B	C	L	S	Recommended
	Coarse	Fine							
M 3	0.5		3	2	5.5	6.4	5- 30	12	
M 4	0.7		4	2.8	7	8.1	6- 30	14	
M 5	0.8		5	3.5	8	9.2	8- 50	14	
M 6	1		6	4	10	11.5	8- 70	18	
M 8	1.25	1	8	5.5	13	15	10-100	22	
M10	1.5	1.25	10	7	17	19.6	14-100	26	
M12	1.75	1.25	12	8	19	21.9	20-140	30	
M14	2	1.5	14	9	22	25.4	25-150	34	
M16	2	1.5	16	10	24	27.7	20-140	38	
M18	2.5	1.5	18	12	27	31.2	25-200	42	
M20	2.5	1.5	20	13	30	34.6	25-200	50	
M22	2.5	1.5	22	14	32	37	30-200	54	
M24	3	2	24	15	36	41.6	30-200	54- 60	
M27	3	2	27	17	41	47.3	50-200	62	
M30	3.5	2	30	19	46	53.1	40-220	66- 72	
M33	3.5	2	33	21	50	57.7	70-240	74	
M36	4	3	36	23	55	63.5	50-240	78- 84	
M42	4.5		42	26	65	75	55-325	90- 96	
M48	5		48	30	75	86.5	60-325	102-108	
M56	5.5		56	35	85	98.1	130-400	124-137	
M64	6		64	40	95	110	130-400	140-153	
M72	6		72	45	105	121	130-400	156-169	
M80	6		80	50	115	133	130-400	172-185	

Material: Steel, Stainless Steel, Bronze & Brass

Steel, Ungalv.

How to order: CODE

Bolt, hex head, steel, ungalv., half threaded,

DIAM x LENGTH mm

or

Bolt with nut, hex head, steel, ungalv., half threaded,

DIAM x LENGTH mm

If you require WHOLE THREADED, please specify.

CODE	Size	Unit	CODE	Size	Unit
Steel ungalv. Bolt only					
69 01 01	M3 x 5 mm	Pc.	69 09 01	M3 x 5 mm	Set
02	" x 6 "	"	02	" x 6 "	"
03	" x 8 "	"	03	" x 8 "	"
04	" x 10 "	"	04	" x 10 "	"
05	" x 12 "	"	05	" x 12 "	"
69 01 06	M3 x 15 mm	Pc.	69 09 06	M3 x 15 mm	Set
07	" x 16 "	"	07	" x 16 "	"
08	" x 20 "	"	08	" x 20 "	"
09	" x 25 "	"	09	" x 25 "	"
10	" x 30 "	"	10	" x 30 "	"
69 01 11	M3 x 40 mm	Pc.	69 09 11	M3 x 40 mm	Set
12	" x 50 "	"	12	" x 50 "	"
13	" x 60 "	"	13	" x 60 "	"
14	" x 70 "	"	14	" x 70 "	"
15	" x 80 "	"	15	" x 80 "	"
69 01 16	M3 x 90 mm	Pc.	69 09 16	M3 x 90 mm	Set
17	" x 100 "	"	17	" x 100 "	"
18	" x 110 "	"	18	" x 110 "	"
19	" x 120 "	"	19	" x 120 "	"
20	" x 130 "	"	20	" x 130 "	"
69 01 21	M3 x 140 mm	Pc.	69 09 21	M3 x 140 mm	Set
22	" x 150 "	"	22	" x 150 "	"

(to be continued)

69 01 25	M4 x 6 mm	Pc.	69 09 25	M4 x 6 mm	Set
26	" x 8 "	"	26	" x 8 "	"
27	" x 10 "	"	27	" x 10 "	"
28	" x 12 "	"	28	" x 12 "	"
29	" x 14 "	"	29	" x 14 "	"
69 01 30	M4 x 15 mm	Pc.	69 09 30	M4 x 15 mm	Set
31	" x 16 "	"	31	" x 16 "	"
32	" x 18 "	"	32	" x 18 "	"
33	" x 20 "	"	33	" x 20 "	"
34	" x 25 "	"	34	" x 25 "	"
69 01 35	M4 x 30 mm	Pc.	69 09 35	M4 x 30 mm	Set
36	" x 35 "	"	36	" x 35 "	"
37	" x 40 "	"	37	" x 40 "	"
38	" x 45 "	"	38	" x 45 "	"
39	" x 50 "	"	39	" x 50 "	"
69 01 40	M4 x 60 mm	Pc.	69 09 40	M4 x 60 mm	Set
41	" x 70 "	"	41	" x 70 "	"
42	" x 80 "	"	42	" x 80 "	"
43	" x 90 "	"	43	" x 90 "	"
44	" x 100 "	"	44	" x 100 "	"
69 01 45	M4 x 110 mm	Pc.	69 09 45	M4 x 110 mm	Set
46	" x 120 "	"	46	" x 120 "	"
47	" x 130 "	"	47	" x 130 "	"
48	" x 140 "	"	48	" x 140 "	"
49	" x 150 "	"	49	" x 150 "	"
69 01 51	M5 x 6 mm	Pc.	69 09 51	M5 x 6 mm	Set
52	" x 8 "	"	52	" x 8 "	"
53	" x 10 "	"	53	" x 10 "	"
54	" x 12 "	"	54	" x 12 "	"
55	" x 14 "	"	55	" x 14 "	"
69 01 56	M5 x 15 mm	Pc.	69 09 56	M5 x 15 mm	Set
57	" x 16 "	"	57	" x 16 "	"
58	" x 18 "	"	58	" x 18 "	"
59	" x 20 "	"	59	" x 20 "	"
60	" x 22 "	"	60	" x 22 "	"
69 01 61	M5 x 25 mm	Pc.	69 09 61	M5 x 25 mm	Set
62	" x 30 "	"	62	" x 30 "	"
63	" x 35 "	"	63	" x 35 "	"
64	" x 40 "	"	64	" x 40 "	"
65	" x 45 "	"	65	" x 45 "	"
69 01 66	M5 x 50 mm	Pc.	69 09 66	M5 x 50 mm	Set
67	" x 60 "	"	67	" x 60 "	"
68	" x 70 "	"	68	" x 70 "	"
69	" x 80 "	"	69	" x 80 "	"
70	" x 90 "	"	70	" x 90 "	"
69 01 71	M5 x 100 mm	Pc.	69 09 71	M5 x 100 mm	Set
72	" x 110 "	"	72	" x 110 "	"
73	" x 120 "	"	73	" x 120 "	"
74	" x 130 "	"	74	" x 130 "	"
75	" x 140 "	"	75	" x 140 "	"
69 01 76	M5 x 150 mm	Pc.	69 09 76	M5 x 150 mm	Set
69 01 81	M6 x 8 mm	Pc.	69 11 01	M6 x 8 mm	Set
82	" x 10 "	"	02	" x 10 "	"
83	" x 12 "	"	03	" x 12 "	"
84	" x 14 "	"	04	" x 14 "	"
85	" x 15 "	"	05	" x 15 "	"
69 01 86	M6 x 16 mm	Pc.	69 11 06	M6 x 16 mm	Set
87	" x 18 "	"	07	" x 18 "	"
88	" x 20 "	"	08	" x 20 "	"
89	" x 22 "	"	09	" x 22 "	"
90	" x 25 "	"	10	" x 25 "	"
69 01 91	M6 x 30 mm	Pc.	69 11 11	M6 x 30 mm	Set
92	" x 35 "	"	12	" x 35 "	"
93	" x 40 "	"	13	" x 40 "	"
94	" x 45 "	"	14	" x 45 "	"
95	" x 50 "	"	15	" x 50 "	"
69 01 96	M6 x 55 mm	Pc.	69 11 16	M6 x 55 mm	Set
97	" x 60 "	"	17	" x 60 "	"
98	" x 65 "	"	18	" x 65 "	"
99	" x 70 "	"	19	" x 70 "	"
69 02 00	" x 75 "	"	20	" x 75 "	"
69 02 01	M6 x 80 mm	Pc.	69 11 21	M6 x 80 mm	Set
02	" x 85 "	"	22	" x 85 "	"
03	" x 90 "	"	23	" x 90 "	"
04	" x 95 "	"	24	" x 95 "	"
05	" x 100 "	"	25	" x 100 "	"

(to be continued)

CODE	Size	Unit	CODE	Size	Unit
Steel ungalv. Bolt only			Steel ungalv. Bolt with Nut		
69 02 06	M6 × 110 mm	Pc.	69 11 26	M6 × 110 mm	Set
07	" × 120 "	"	27	" × 120 "	"
08	" × 130 "	"	28	" × 130 "	"
09	" × 140 "	"	29	" × 140 "	"
10	" × 150 "	"	30	" × 150 "	"
69 02 11	M8 × 10 mm	Pc.	69 11 31	M8 × 10 mm	Set
12	" × 12 "	"	32	" × 12 "	"
13	" × 14 "	"	33	" × 14 "	"
14	" × 15 "	"	34	" × 15 "	"
15	" × 16 "	"	35	" × 16 "	"
69 02 16	M8 × 18 mm	Pc.	69 11 36	M8 × 18 mm	Set
17	" × 20 "	"	37	" × 20 "	"
18	" × 22 "	"	38	" × 22 "	"
19	" × 25 "	"	39	" × 25 "	"
20	" × 28 "	"	40	" × 28 "	"
69 02 21	M8 × 30 mm	Pc.	69 11 41	M8 × 30 mm	Set
22	" × 35 "	"	42	" × 35 "	"
23	" × 40 "	"	43	" × 40 "	"
24	" × 45 "	"	44	" × 45 "	"
25	" × 50 "	"	45	" × 50 "	"
69 02 26	M8 × 55 mm	Pc.	69 11 46	M8 × 55 mm	Set
27	" × 60 "	"	47	" × 60 "	"
28	" × 65 "	"	48	" × 65 "	"
29	" × 70 "	"	49	" × 70 "	"
30	" × 75 "	"	50	" × 75 "	"
69 02 31	M8 × 80 mm	Pc.	69 11 51	M8 × 80 mm	Set
32	" × 85 "	"	52	" × 85 "	"
33	" × 90 "	"	53	" × 90 "	"
34	" × 95 "	"	54	" × 95 "	"
35	" × 100 "	"	55	" × 100 "	"
69 02 36	M8 × 110 mm	Pc.	69 11 56	M8 × 110 mm	Set
37	" × 120 "	"	57	" × 120 "	"
38	" × 130 "	"	58	" × 130 "	"
39	" × 140 "	"	59	" × 140 "	"
40	" × 150 "	"	60	" × 150 "	"
69 02 41	M8 × 160 mm	Pc.	69 11 61	M8 × 160 mm	Set
42	" × 170 "	"	62	" × 170 "	"
43	" × 180 "	"	63	" × 180 "	"
44	" × 190 "	"	64	" × 190 "	"
45	" × 200 "	"	65	" × 200 "	"
69 02 51	M10 × 10 mm	Pc.	69 11 71	M10 × 10 mm	Set
52	" × 12 "	"	72	" × 12 "	"
53	" × 14 "	"	73	" × 14 "	"
54	" × 15 "	"	74	" × 15 "	"
55	" × 16 "	"	75	" × 16 "	"
69 02 56	M10 × 18 mm	Pc.	69 11 76	M10 × 18 mm	Set
57	" × 20 "	"	77	" × 20 "	"
58	" × 25 "	"	78	" × 25 "	"
59	" × 30 "	"	79	" × 30 "	"
60	" × 35 "	"	80	" × 35 "	"
69 02 61	M10 × 40 mm	Pc.	69 11 81	M10 × 40 mm	Set
62	" × 45 "	"	82	" × 45 "	"
63	" × 50 "	"	83	" × 50 "	"
64	" × 55 "	"	84	" × 55 "	"
65	" × 60 "	"	85	" × 60 "	"
69 02 66	M10 × 65 mm	Pc.	69 11 86	M10 × 65 mm	Set
67	" × 70 "	"	87	" × 70 "	"
68	" × 75 "	"	88	" × 75 "	"
69	" × 80 "	"	89	" × 80 "	"
70	" × 85 "	"	90	" × 85 "	"
69 02 71	M10 × 90 mm	Pc.	69 11 91	M10 × 90 mm	Set
72	" × 95 "	"	92	" × 95 "	"
73	" × 100 "	"	93	" × 100 "	"
74	" × 105 "	"	94	" × 105 "	"
75	" × 110 "	"	95	" × 110 "	"
69 02 76	M10 × 115 mm	Pc.	69 11 96	M10 × 115 mm	Set
77	" × 120 "	"	97	" × 120 "	"
78	" × 125 "	"	98	" × 125 "	"
79	" × 130 "	"	99	" × 130 "	"
80	" × 140 "	"	69 12 00	" × 140 "	"

(to be continued)

69 02 81	M10 × 150 mm	Pc.	69 12 01	M10 × 150 mm	Set
82	" × 160 "	"	02	" × 160 "	"
83	" × 170 "	"	03	" × 170 "	"
84	" × 180 "	"	04	" × 180 "	"
85	" × 190 "	"	05	" × 190 "	"
69 02 86	M10 × 200 mm	Pc.	69 12 06	M10 × 200 mm	Set
87	" × 210 "	"	07	" × 210 "	"
88	" × 220 "	"	08	" × 220 "	"
89	" × 230 "	"	09	" × 230 "	"
90	" × 240 "	"	10	" × 240 "	"
69 02 91	M10 × 250 mm	Pc.	69 12 11	M10 × 250 mm	Set
92	" × 300 "	"	12	" × 300 "	"
69 02 95	M12 × 10 mm	Pc.	69 12 15	M12 × 10 mm	Set
96	" × 20 "	"	16	" × 20 "	"
97	" × 25 "	"	17	" × 25 "	"
98	" × 30 "	"	18	" × 30 "	"
99	" × 35 "	"	19	" × 35 "	"
69 03 00	M12 × 40 mm	Pc.	69 12 20	M12 × 40 mm	Set
01	" × 45 "	"	21	" × 45 "	"
02	" × 50 "	"	22	" × 50 "	"
03	" × 55 "	"	23	" × 55 "	"
04	" × 60 "	"	24	" × 60 "	"
69 03 05	M12 × 65 mm	Pc.	69 12 25	M12 × 65 mm	Set
06	" × 70 "	"	26	" × 70 "	"
07	" × 75 "	"	27	" × 75 "	"
08	" × 80 "	"	28	" × 80 "	"
09	" × 85 "	"	29	" × 85 "	"
69 03 10	M12 × 90 mm	Pc.	69 12 30	M12 × 90 mm	Set
11	" × 95 "	"	31	" × 95 "	"
12	" × 100 "	"	32	" × 100 "	"
13	" × 105 "	"	33	" × 105 "	"
14	" × 110 "	"	34	" × 110 "	"
69 03 15	M12 × 115 mm	Pc.	69 12 35	M12 × 115 mm	Set
16	" × 120 "	"	36	" × 120 "	"
17	" × 125 "	"	37	" × 125 "	"
18	" × 130 "	"	38	" × 130 "	"
19	" × 140 "	"	39	" × 140 "	"
69 03 20	M12 × 150 mm	Pc.	69 12 40	M12 × 150 mm	Set
21	" × 160 "	"	41	" × 160 "	"
22	" × 170 "	"	42	" × 170 "	"
23	" × 180 "	"	43	" × 180 "	"
24	" × 190 "	"	44	" × 190 "	"
69 03 25	M12 × 200 mm	Pc.	69 12 45	M12 × 200 mm	Set
26	" × 210 "	"	46	" × 210 "	"
27	" × 220 "	"	47	" × 220 "	"
28	" × 230 "	"	48	" × 230 "	"
29	" × 240 "	"	49	" × 240 "	"
69 03 30	M12 × 250 mm	Pc.	69 12 50	M12 × 250 mm	Set
31	" × 260 "	"	51	" × 260 "	"
32	" × 270 "	"	52	" × 270 "	"
33	" × 280 "	"	53	" × 280 "	"
34	" × 290 "	"	54	" × 290 "	"
69 03 35	M12 × 300 mm	Pc.	69 12 55	M12 × 300 mm	Set
36	" × 310 "	"	56	" × 310 "	"
37	" × 320 "	"	57	" × 320 "	"
38	" × 330 "	"	58	" × 330 "	"
39	" × 340 "	"	59	" × 340 "	"
69 03 40	M12 × 350 mm	Pc.	69 12 60	M12 × 350 mm	Set
69 03 41	M14 × 25 mm	Pc.	69 12 61	M14 × 25 mm	Set
42	" × 30 "	"	62	" × 30 "	"
43	" × 40 "	"	63	" × 40 "	"
44	" × 45 "	"	64	" × 45 "	"
45	" × 50 "	"	65	" × 50 "	"
69 03 46	M14 × 55 mm	Pc.	69 12 66	M14 × 55 mm	Set
47	" × 60 "	"	67	" × 60 "	"
48	" × 65 "	"	68	" × 65 "	"
49	" × 70 "	"	69	" × 70 "	"
50	" × 75 "	"	70	" × 75 "	"
69 03 51	M14 × 80 mm	Pc.	69 12 71	M14 × 80 mm	Set
52	" × 90 "	"	72	" × 90 "	"
53	" × 100 "	"	73	" × 100 "	"
69 03 55	M16 × 10 mm	Pc.	69 12 75	M16 × 10 mm	Set
56	" × 20 "	"	76	" × 20 "	"
57	" × 25 "	"	77	" × 25 "	"
58	" × 30 "	"	78	" × 30 "	"
59	" × 40 "	"	79	" × 40 "	"

(to be continued)

CODE	Size	Unit	CODE	Size	Unit
Steel ungalv. Bolt only			Steel ungalv. Bolt with Nut		
69 03 60	M16 × 45 mm	Pc.	69 12 80	M16 × 45 mm	Set
61	" × 50 "	"	81	" × 50 "	"
62	" × 55 "	"	82	" × 55 "	"
63	" × 60 "	"	83	" × 60 "	"
64	" × 65 "	"	84	" × 65 "	"
69 03 65	M16 × 70 mm	Pc.	69 12 85	M16 × 70 mm	Set
66	" × 75 "	"	86	" × 75 "	"
67	" × 80 "	"	87	" × 80 "	"
68	" × 85 "	"	88	" × 85 "	"
69	" × 90 "	"	89	" × 90 "	"
69 03 70	M16 × 95 mm	Pc.	69 12 90	M16 × 95 mm	Set
71	" × 100 "	"	91	" × 100 "	"
72	" × 105 "	"	92	" × 105 "	"
73	" × 110 "	"	93	" × 110 "	"
74	" × 115 "	"	94	" × 115 "	"
69 03 75	M16 × 120 mm	Pc.	69 12 95	M16 × 120 mm	Set
76	" × 125 "	"	96	" × 125 "	"
77	" × 130 "	"	97	" × 130 "	"
78	" × 140 "	"	98	" × 140 "	"
79	" × 150 "	"	99	" × 150 "	"
69 03 80	M16 × 160 mm	Pc.	69 13 00	M16 × 160 mm	Set
81	" × 170 "	"	01	" × 170 "	"
82	" × 180 "	"	02	" × 180 "	"
83	" × 190 "	"	03	" × 190 "	"
84	" × 200 "	"	04	" × 200 "	"
69 03 85	M16 × 210 mm	Pc.	69 13 05	M16 × 210 mm	Set
86	" × 220 "	"	06	" × 220 "	"
87	" × 230 "	"	07	" × 230 "	"
88	" × 240 "	"	08	" × 240 "	"
89	" × 250 "	"	09	" × 250 "	"
69 03 91	M18 × 30 mm	Pc.	69 13 11	M18 × 30 mm	Set
92	" × 60 "	"	12	" × 60 "	"
93	" × 65 "	"	13	" × 65 "	"
94	" × 70 "	"	14	" × 70 "	"
95	" × 75 "	"	15	" × 75 "	"
69 03 96	M18 × 80 mm	Pc.	69 13 16	M18 × 80 mm	Set
97	" × 85 "	"	17	" × 85 "	"
98	" × 90 "	"	18	" × 90 "	"
99	" × 100 "	"	19	" × 100 "	"
69 04 00	" × 120 "	"	20	" × 120 "	"
69 04 01	M20 × 10 mm	Pc.	69 13 21	M20 × 10 mm	Set
02	" × 20 "	"	22	" × 20 "	"
03	" × 30 "	"	23	" × 30 "	"
04	" × 40 "	"	24	" × 40 "	"
05	" × 50 "	"	25	" × 50 "	"
69 04 06	M20 × 55 mm	Pc.	69 13 26	M20 × 55 mm	Set
07	" × 60 "	"	27	" × 60 "	"
08	" × 65 "	"	28	" × 65 "	"
09	" × 70 "	"	29	" × 70 "	"
10	" × 75 "	"	30	" × 75 "	"
69 04 11	M20 × 80 mm	Pc.	69 13 31	M20 × 80 mm	Set
12	" × 85 "	"	32	" × 85 "	"
13	" × 90 "	"	33	" × 90 "	"
14	" × 95 "	"	34	" × 95 "	"
15	" × 100 "	"	35	" × 100 "	"
69 04 16	M20 × 105 mm	Pc.	69 13 36	M20 × 105 mm	Set
17	" × 110 "	"	37	" × 110 "	"
18	" × 115 "	"	38	" × 115 "	"
19	" × 120 "	"	39	" × 120 "	"
20	" × 125 "	"	40	" × 125 "	"
69 04 21	M20 × 130 mm	Pc.	69 13 41	M20 × 130 mm	Set
22	" × 140 "	"	42	" × 140 "	"
23	" × 150 "	"	43	" × 150 "	"
24	" × 160 "	"	44	" × 160 "	"
25	" × 170 "	"	45	" × 170 "	"
69 04 26	M20 × 180 mm	Pc.	69 13 46	M20 × 180 mm	Set
27	" × 190 "	"	47	" × 190 "	"
28	" × 200 "	"	48	" × 200 "	"
29	" × 210 "	"	49	" × 210 "	"
30	" × 230 "	"	50	" × 230 "	"
69 04 31	M20 × 260 mm	Pc.	69 13 51	M20 × 260 mm	Set

69 04 35	M22 × 40 mm	Pc.	69 13 55	M22 × 40 mm	Set
36	" × 45 "	"	56	" × 45 "	"
37	" × 50 "	"	57	" × 50 "	"
38	" × 55 "	"	58	" × 55 "	"
39	" × 60 "	"	59	" × 60 "	"
69 04 40	M22 × 65 mm	Pc.	69 13 60	M22 × 65 mm	Set
41	" × 70 "	"	61	" × 70 "	"
42	" × 75 "	"	62	" × 75 "	"
43	" × 80 "	"	63	" × 80 "	"
44	" × 85 "	"	64	" × 85 "	"
69 04 45	M22 × 90 mm	Pc.	69 13 65	M22 × 90 mm	Set
46	" × 95 "	"	66	" × 95 "	"
47	" × 100 "	"	67	" × 100 "	"
48	" × 105 "	"	68	" × 105 "	"
49	" × 110 "	"	69	" × 110 "	"
69 04 50	M22 × 115 mm	Pc.	69 13 70	M22 × 115 mm	Set
51	" × 120 "	"	71	" × 120 "	"
52	" × 125 "	"	72	" × 125 "	"
53	" × 130 "	"	73	" × 130 "	"
54	" × 140 "	"	74	" × 140 "	"
69 04 55	M22 × 150 mm	Pc.	69 13 75	M22 × 150 mm	Set
56	" × 160 "	"	76	" × 160 "	"
57	" × 170 "	"	77	" × 170 "	"
58	" × 200 "	"	78	" × 200 "	"
59	" × 220 "	"	79	" × 220 "	"
69 04 60	M22 × 230 mm	Pc.	69 13 80	M22 × 230 mm	Set
61	" × 260 "	"	81	" × 260 "	"
69 04 65	M24 × 10 mm	Pc.	69 13 85	M24 × 10 mm	Set
66	" × 20 "	"	86	" × 20 "	"
67	" × 30 "	"	87	" × 30 "	"
68	" × 40 "	"	88	" × 40 "	"
69	" × 45 "	"	89	" × 45 "	"
69 04 70	M24 × 50 mm	Pc.	69 13 90	M24 × 50 mm	Set
71	" × 55 "	"	91	" × 55 "	"
72	" × 60 "	"	92	" × 60 "	"
73	" × 65 "	"	93	" × 65 "	"
74	" × 70 "	"	94	" × 70 "	"
69 04 75	M24 × 75 mm	Pc.	69 13 95	M24 × 75 mm	Set
76	" × 80 "	"	96	" × 80 "	"
77	" × 85 "	"	97	" × 85 "	"
78	" × 90 "	"	98	" × 90 "	"
79	" × 95 "	"	99	" × 95 "	"
69 04 80	M24 × 100 mm	Pc.	69 14 00	M24 × 100 mm	Set
81	" × 105 "	"	01	" × 105 "	"
82	" × 110 "	"	02	" × 110 "	"
83	" × 115 "	"	03	" × 115 "	"
84	" × 120 "	"	04	" × 120 "	"
69 04 85	M24 × 125 mm	Pc.	69 14 05	M24 × 125 mm	Set
86	" × 130 "	"	06	" × 130 "	"
87	" × 140 "	"	07	" × 140 "	"
88	" × 150 "	"	08	" × 150 "	"
89	" × 170 "	"	09	" × 170 "	"
69 04 90	M24 × 220 mm	Pc.	69 14 10	M24 × 220 mm	Set
91	" × 250 "	"	11	" × 250 "	"
92	" × 260 "	"	12	" × 260 "	"
69 08 01	M27 × 90 mm	Pc.	69 14 15	M27 × 90 mm	Set
02	" × 100 "	"	16	" × 100 "	"
03	" × 110 "	"	17	" × 110 "	"
04	" × 120 "	"	18	" × 120 "	"
05	" × 130 "	"	19	" × 130 "	"
69 08 06	M27 × 180 mm	Pc.	69 14 20	M27 × 180 mm	Set
69 08 11	M30 × 75 mm	Pc.	69 14 21	M30 × 75 mm	Set
12	" × 80 "	"	22	" × 80 "	"
13	" × 85 "	"	23	" × 85 "	"
14	" × 100 "	"	24	" × 100 "	"
15	" × 110 "	"	25	" × 110 "	"
69 08 16	M30 × 120 mm	Pc.	69 14 26	M30 × 120 mm	Set
17	" × 130 "	"	27	" × 130 "	"
18	" × 140 "	"	28	" × 140 "	"
19	" × 150 "	"	29	" × 150 "	"
20	" × 200 "	"	30	" × 200 "	"
69 08 21	M30 × 250 mm	Pc.	69 14 31	M30 × 250 mm	Set
69 08 25	M36 × 100 mm	Pc.	69 14 35	M36 × 100 mm	Set
26	" × 140 "	"	36	" × 140 "	"
27	" × 150 "	"	37	" × 150 "	"
28	" × 180 "	"	38	" × 180 "	"

(to be continued)

Stainless Steel**How to order: CODE**

Bolt, hex head, stainless steel, half threaded,

DIAM x LENGTH mm

or

Bolt with nut, hex head, stainless steel, half threaded,

DIAM x LENGTH mm

If you require WHOLE THREADED, please specify.

CODE	Size	Unit	CODE	Size	Unit
Stainless Steel Bolt only					
69 16 01	M3 × 5 mm	Pc.	69 23 01	M3 × 5 mm	Set
02	" × 6 "	"	02	" × 6 "	"
03	" × 8 "	"	03	" × 8 "	"
04	" × 10 "	"	04	" × 10 "	"
05	" × 12 "	"	05	" × 12 "	"
69 16 06	M3 × 15 mm	Pc.	69 23 06	M3 × 15 mm	Set
07	" × 16 "	"	07	" × 16 "	"
08	" × 20 "	"	08	" × 20 "	"
09	" × 25 "	"	09	" × 25 "	"
10	" × 30 "	"	10	" × 30 "	"
69 16 11	M3 × 40 mm	Pc.	69 23 11	M3 × 40 mm	Set
12	" × 50 "	"	12	" × 50 "	"
13	" × 60 "	"	13	" × 60 "	"
14	" × 70 "	"	14	" × 70 "	"
15	" × 80 "	"	15	" × 80 "	"
69 16 16	M3 × 90 mm	Pc.	69 23 16	M3 × 90 mm	Set
17	" × 100 "	"	17	" × 100 "	"
18	" × 110 "	"	18	" × 110 "	"
19	" × 120 "	"	19	" × 120 "	"
20	" × 130 "	"	20	" × 130 "	"
69 16 21	M3 × 140 mm	Pc.	69 23 21	M3 × 140 mm	Set
22	" × 150 "	"	22	" × 150 "	"
69 16 25	M4 × 6 mm	Pc.	69 23 25	M4 × 6 mm	Set
26	" × 8 "	"	26	" × 8 "	"
27	" × 10 "	"	27	" × 10 "	"
28	" × 12 "	"	28	" × 12 "	"
29	" × 14 "	"	29	" × 14 "	"
69 16 30	M4 × 15 mm	Pc.	69 23 30	M4 × 15 mm	Set
31	" × 16 "	"	31	" × 16 "	"
32	" × 18 "	"	32	" × 18 "	"
33	" × 20 "	"	33	" × 20 "	"
34	" × 25 "	"	34	" × 25 "	"
69 16 35	M4 × 30 mm	Pc.	69 23 35	M4 × 30 mm	Set
36	" × 35 "	"	36	" × 35 "	"
37	" × 40 "	"	37	" × 40 "	"
38	" × 45 "	"	38	" × 45 "	"
39	" × 50 "	"	39	" × 50 "	"
69 16 40	M4 × 60 mm	Pc.	69 23 40	M4 × 60 mm	Set
41	" × 70 "	"	41	" × 70 "	"
42	" × 80 "	"	42	" × 80 "	"
43	" × 90 "	"	43	" × 90 "	"
44	" × 100 "	"	44	" × 100 "	"
69 16 45	M4 × 110 mm	Pc.	69 23 45	M4 × 110 mm	Set
46	" × 120 "	"	46	" × 120 "	"
47	" × 130 "	"	47	" × 130 "	"
48	" × 140 "	"	48	" × 140 "	"
49	" × 150 "	"	49	" × 150 "	"
69 16 51	M5 × 6 mm	Pc.	69 23 51	M5 × 6 mm	Set
52	" × 8 "	"	52	" × 8 "	"
53	" × 10 "	"	53	" × 10 "	"
54	" × 12 "	"	54	" × 12 "	"
55	" × 14 "	"	55	" × 14 "	"
69 16 56	M5 × 15 mm	Pc.	69 23 56	M5 × 15 mm	Set
57	" × 16 "	"	57	" × 16 "	"
58	" × 18 "	"	58	" × 18 "	"
59	" × 20 "	"	59	" × 20 "	"
60	" × 22 "	"	60	" × 22 "	"
69 16 61	M5 × 25 mm	Pc.	69 23 61	M5 × 25 mm	Set
62	" × 30 "	"	62	" × 30 "	"
63	" × 35 "	"	63	" × 35 "	"
64	" × 40 "	"	64	" × 40 "	"
65	" × 45 "	"	65	" × 45 "	"

(to be continued)

69 16 66	M5 × 50 mm	Pc.	69 23 66	M5 × 50 mm	Set
67	" × 60 "	"	67	" × 60 "	"
68	" × 70 "	"	68	" × 70 "	"
69	" × 80 "	"	69	" × 80 "	"
70	" × 90 "	"	70	" × 90 "	"
69 16 71	M5 × 100 mm	Pc.	69 23 71	M5 × 100 mm	Set
72	" × 110 "	"	72	" × 110 "	"
73	" × 120 "	"	73	" × 120 "	"
74	" × 130 "	"	74	" × 130 "	"
75	" × 140 "	"	75	" × 140 "	"
69 16 76	M5 × 150 mm	Pc.	69 23 76	M5 × 150 mm	Set
69 16 81	M6 × 8 mm	Pc.	69 25 01	M6 × 8 mm	Set
82	" × 10 "	"	82	" × 10 "	"
83	" × 12 "	"	83	" × 12 "	"
84	" × 14 "	"	84	" × 14 "	"
85	" × 15 "	"	85	" × 15 "	"
69 16 86	M6 × 16 mm	Pc.	69 25 06	M6 × 16 mm	Set
87	" × 18 "	"	87	" × 18 "	"
88	" × 20 "	"	88	" × 20 "	"
89	" × 22 "	"	89	" × 22 "	"
90	" × 25 "	"	90	" × 25 "	"
69 16 91	M6 × 30 mm	Pc.	69 25 11	M6 × 30 mm	Set
92	" × 35 "	"	92	" × 35 "	"
93	" × 40 "	"	93	" × 40 "	"
94	" × 45 "	"	94	" × 45 "	"
95	" × 50 "	"	95	" × 50 "	"
69 16 96	M6 × 55 mm	Pc.	69 25 16	M6 × 55 mm	Set
97	" × 60 "	"	97	" × 60 "	"
98	" × 65 "	"	98	" × 65 "	"
99	" × 70 "	"	99	" × 70 "	"
69 17 00	" × 75 "	"	69 17 00	" × 75 "	"
69 17 01	M6 × 80 mm	Pc.	69 25 21	M6 × 80 mm	Set
02	" × 85 "	"	02	" × 85 "	"
03	" × 90 "	"	03	" × 90 "	"
04	" × 95 "	"	04	" × 95 "	"
05	" × 100 "	"	05	" × 100 "	"
69 17 06	M6 × 110 mm	Pc.	69 25 26	M6 × 110 mm	Set
07	" × 120 "	"	07	" × 120 "	"
08	" × 130 "	"	08	" × 130 "	"
09	" × 140 "	"	09	" × 140 "	"
10	" × 150 "	"	10	" × 150 "	"
69 17 11	M8 × 10 mm	Pc.	69 25 31	M8 × 10 mm	Set
12	" × 12 "	"	12	" × 12 "	"
13	" × 14 "	"	13	" × 14 "	"
14	" × 15 "	"	14	" × 15 "	"
15	" × 16 "	"	15	" × 16 "	"
69 17 16	M8 × 18 mm	Pc.	69 25 36	M8 × 18 mm	Set
17	" × 20 "	"	17	" × 20 "	"
18	" × 22 "	"	18	" × 22 "	"
19	" × 25 "	"	19	" × 25 "	"
20	" × 28 "	"	20	" × 28 "	"
69 17 21	M8 × 30 mm	Pc.	69 25 41	M8 × 30 mm	Set
22	" × 35 "	"	22	" × 35 "	"
23	" × 40 "	"	23	" × 40 "	"
24	" × 45 "	"	24	" × 45 "	"
25	" × 50 "	"	25	" × 50 "	"
69 17 26	M8 × 55 mm	Pc.	69 25 46	M8 × 55 mm	Set
27	" × 60 "	"	27	" × 60 "	"
28	" × 65 "	"	28	" × 65 "	"
29	" × 70 "	"	29	" × 70 "	"
30	" × 75 "	"	30	" × 75 "	"
69 17 31	M8 × 80 mm	Pc.	69 25 51	M8 × 80 mm	Set
32	" × 85 "	"	32	" × 85 "	"
33	" × 90 "	"	33	" × 90 "	"
34	" × 95 "	"	34	" × 95 "	"
35	" × 100 "	"	35	" × 100 "	"
69 17 36	M8 × 110 mm	Pc.	69 25 56	M8 × 110 mm	Set
37	" × 120 "	"	37	" × 120 "	"
38	" × 130 "	"	38	" × 130 "	"
39	" × 140 "	"	39	" × 140 "	"
40	" × 150 "	"	40	" × 150 "	"

(to be continued)

CODE	Size	Unit	CODE	Size	Unit
Stainless Steel Bolt only					
Stainless Steel Bolt with Nut					
69 17 41	M8 × 160 mm	Pc.	69 25 61	M8 × 160 mm	Set
42	" × 170 "	"	62	" × 170 "	"
43	" × 180 "	"	63	" × 180 "	"
44	" × 190 "	"	64	" × 190 "	"
45	" × 200 "	"	65	" × 200 "	"
69 17 51	M10 × 10 mm	Pc.	69 27 01	M10 × 10 mm	Set
52	" × 12 "	"	02	" × 12 "	"
53	" × 14 "	"	03	" × 14 "	"
54	" × 15 "	"	04	" × 15 "	"
55	" × 16 "	"	05	" × 16 "	"
69 17 56	M10 × 18 mm	Pc.	69 27 06	M10 × 18 mm	Set
57	" × 20 "	"	07	" × 20 "	"
58	" × 25 "	"	08	" × 25 "	"
59	" × 30 "	"	09	" × 30 "	"
60	" × 35 "	"	10	" × 35 "	"
69 17 61	M10 × 40 mm	Pc.	69 27 11	M10 × 40 mm	Set
62	" × 45 "	"	12	" × 45 "	"
63	" × 50 "	"	13	" × 50 "	"
64	" × 55 "	"	14	" × 55 "	"
65	" × 60 "	"	15	" × 60 "	"
69 17 66	M10 × 65 mm	Pc.	69 27 16	M10 × 65 mm	Set
67	" × 70 "	"	17	" × 70 "	"
68	" × 75 "	"	18	" × 75 "	"
69	" × 80 "	"	19	" × 80 "	"
70	" × 85 "	"	20	" × 85 "	"
69 17 71	M10 × 90 mm	Pc.	69 27 21	M10 × 90 mm	Set
72	" × 95 "	"	22	" × 95 "	"
73	" × 100 "	"	23	" × 100 "	"
74	" × 105 "	"	24	" × 105 "	"
75	" × 110 "	"	25	" × 110 "	"
69 17 76	M10 × 115 mm	Pc.	69 27 26	M10 × 115 mm	Set
77	" × 120 "	"	27	" × 120 "	"
78	" × 125 "	"	28	" × 125 "	"
79	" × 130 "	"	29	" × 130 "	"
80	" × 140 "	"	30	" × 140 "	"
69 17 81	M10 × 150 mm	Pc.	69 27 31	M10 × 150 mm	Set
82	" × 160 "	"	32	" × 160 "	"
83	" × 170 "	"	33	" × 170 "	"
84	" × 180 "	"	34	" × 180 "	"
85	" × 190 "	"	35	" × 190 "	"
69 17 86	M10 × 200 mm	Pc.	69 27 36	M10 × 200 mm	Set
87	" × 210 "	"	37	" × 210 "	"
88	" × 220 "	"	38	" × 220 "	"
89	" × 230 "	"	39	" × 230 "	"
90	" × 240 "	"	40	" × 240 "	"
69 17 91	M10 × 250 mm	Pc.	69 27 41	M10 × 250 mm	Set
92	" × 300 "	"	42	" × 300 "	"
69 17 95	M12 × 10 mm	Pc.	69 27 45	M12 × 10 mm	Set
96	" × 20 "	"	46	" × 20 "	"
97	" × 25 "	"	47	" × 25 "	"
98	" × 30 "	"	48	" × 30 "	"
99	" × 35 "	"	49	" × 35 "	"
69 18 00	M12 × 40 mm	Pc.	69 27 50	M12 × 40 mm	Set
01	" × 45 "	"	51	" × 45 "	"
02	" × 50 "	"	52	" × 50 "	"
03	" × 55 "	"	53	" × 55 "	"
04	" × 60 "	"	54	" × 60 "	"
69 18 05	M12 × 65 mm	Pc.	69 27 55	M12 × 65 mm	Set
06	" × 70 "	"	56	" × 70 "	"
07	" × 75 "	"	57	" × 75 "	"
08	" × 80 "	"	58	" × 80 "	"
09	" × 85 "	"	59	" × 85 "	"
69 18 10	M12 × 90 mm	Pc.	69 27 60	M12 × 90 mm	Set
11	" × 95 "	"	61	" × 95 "	"
12	" × 100 "	"	62	" × 100 "	"
13	" × 105 "	"	63	" × 105 "	"
14	" × 110 "	"	64	" × 110 "	"
69 18 15	M12 × 115 mm	Pc.	69 27 65	M12 × 115 mm	Set
16	" × 120 "	"	66	" × 120 "	"
17	" × 125 "	"	67	" × 125 "	"
18	" × 130 "	"	68	" × 130 "	"
19	" × 140 "	"	69	" × 140 "	"

69 18 20	M12 × 150 mm	Pc.	69 27 70	M12 × 150 mm	Set
21	" × 160 "	"	71	" × 160 "	"
22	" × 170 "	"	72	" × 170 "	"
23	" × 180 "	"	73	" × 180 "	"
24	" × 190 "	"	74	" × 190 "	"
69 18 25	M12 × 200 mm	Pc.	69 27 75	M12 × 200 mm	Set
26	" × 210 "	"	76	" × 210 "	"
27	" × 220 "	"	77	" × 220 "	"
28	" × 230 "	"	78	" × 230 "	"
29	" × 240 "	"	79	" × 240 "	"
69 18 30	M12 × 250 mm	Pc.	69 27 80	M12 × 250 mm	Set
31	" × 260 "	"	81	" × 260 "	"
32	" × 270 "	"	82	" × 270 "	"
33	" × 280 "	"	83	" × 280 "	"
34	" × 290 "	"	84	" × 290 "	"
69 18 35	M12 × 300 mm	Pc.	69 27 85	M12 × 300 mm	Set
36	" × 310 "	"	86	" × 310 "	"
37	" × 320 "	"	87	" × 320 "	"
38	" × 330 "	"	88	" × 330 "	"
39	" × 340 "	"	89	" × 340 "	"
69 18 40	M12 × 350 mm	Pc.	69 27 90	M12 × 350 mm	Set
69 18 41	M14 × 25 mm	Pc.	69 29 01	M14 × 25 mm	Set
42	" × 30 "	"	02	" × 30 "	"
43	" × 40 "	"	03	" × 40 "	"
44	" × 45 "	"	04	" × 45 "	"
45	" × 50 "	"	05	" × 50 "	"
69 18 46	M14 × 55 mm	Pc.	69 29 06	M14 × 55 mm	Set
47	" × 60 "	"	07	" × 60 "	"
48	" × 65 "	"	08	" × 65 "	"
49	" × 70 "	"	09	" × 70 "	"
50	" × 75 "	"	10	" × 75 "	"
69 18 51	M14 × 80 mm	Pc.	69 29 11	M14 × 80 mm	Set
52	" × 90 "	"	12	" × 90 "	"
53	" × 100 "	"	13	" × 100 "	"
69 18 55	M16 × 10 mm	Pc.	69 29 15	M16 × 10 mm	Set
56	" × 20 "	"	16	" × 20 "	"
57	" × 25 "	"	17	" × 25 "	"
58	" × 30 "	"	18	" × 30 "	"
59	" × 40 "	"	19	" × 40 "	"
69 18 60	M16 × 45 mm	Pc.	69 29 20	M16 × 45 mm	Set
61	" × 50 "	"	21	" × 50 "	"
62	" × 55 "	"	22	" × 55 "	"
63	" × 60 "	"	23	" × 60 "	"
64	" × 65 "	"	24	" × 65 "	"
69 18 65	M16 × 70 mm	Pc.	69 29 25	M16 × 70 mm	Set
66	" × 75 "	"	26	" × 75 "	"
67	" × 80 "	"	27	" × 80 "	"
68	" × 85 "	"	28	" × 85 "	"
69	" × 90 "	"	29	" × 90 "	"
69 18 70	M16 × 95 mm	Pc.	69 29 30	M16 × 95 mm	Set
71	" × 100 "	"	31	" × 100 "	"
72	" × 105 "	"	32	" × 105 "	"
73	" × 110 "	"	33	" × 110 "	"
74	" × 115 "	"	34	" × 115 "	"
69 18 75	M16 × 120 mm	Pc.	69 29 35	M16 × 120 mm	Set
76	" × 125 "	"	36	" × 125 "	"
77	" × 130 "	"	37	" × 130 "	"
78	" × 140 "	"	38	" × 140 "	"
79	" × 150 "	"	39	" × 150 "	"
69 18 80	M16 × 160 mm	Pc.	69 29 40	M16 × 160 mm	Set
81	" × 170 "	"	41	" × 170 "	"
82	" × 180 "	"	42	" × 180 "	"
83	" × 190 "	"	43	" × 190 "	"
84	" × 200 "	"	44	" × 200 "	"
69 18 85	M16 × 210 mm	Pc.	69 29 45	M16 × 210 mm	Set
86	" × 220 "	"	46	" × 220 "	"
87	" × 230 "	"	47	" × 230 "	"
88	" × 240 "	"	48	" × 240 "	"
89	" × 250 "	"	49	" × 250 "	"
69 18 91	M18 × 30 mm	Pc.	69 29 51	M18 × 30 mm	Set
92	" × 60 "	"	52	" × 60 "	"
93	" × 65 "	"	53	" × 65 "	"
94	" × 70 "	"	54	" × 70 "	"
95	" × 75 "	"	55	" × 75 "	"

(to be continued)

(to be continued)

CODE	Size	Unit	CODE	Size	Unit
Stainless Steel Bolt only			Stainless Steel Bolt with Nut		
69 18 96	M18 × 80 mm	Pc.	69 29 56	M18 × 80 mm	Set
97	" × 85 "	"	57	" × 85 "	"
98	" × 90 "	"	58	" × 90 "	"
99	" × 100 "	"	59	" × 100 "	"
69 19 00	" × 120 "	"	60	" × 120 "	"
69 19 01	M20 × 10 mm	Pc.	69 29 61	M20 × 10 mm	Set
02	" × 20 "	"	62	" × 20 "	"
03	" × 30 "	"	63	" × 30 "	"
04	" × 40 "	"	64	" × 40 "	"
05	" × 50 "	"	65	" × 50 "	"
69 19 06	M20 × 55 mm	Pc.	69 29 66	M20 × 55 mm	Set
07	" × 60 "	"	67	" × 60 "	"
08	" × 65 "	"	68	" × 65 "	"
09	" × 70 "	"	69	" × 70 "	"
10	" × 75 "	"	70	" × 75 "	"
69 19 11	M20 × 80 mm	Pc.	69 29 71	M20 × 80 mm	Set
12	" × 85 "	"	72	" × 85 "	"
13	" × 90 "	"	73	" × 90 "	"
14	" × 95 "	"	74	" × 95 "	"
15	" × 100 "	"	75	" × 100 "	"
69 19 16	M20 × 105 mm	Pc.	69 29 76	M20 × 105 mm	Set
17	" × 110 "	"	77	" × 110 "	"
18	" × 115 "	"	78	" × 115 "	"
19	" × 120 "	"	79	" × 120 "	"
20	" × 125 "	"	80	" × 125 "	"
69 19 21	M20 × 130 mm	Pc.	69 29 81	M20 × 130 mm	Set
22	" × 140 "	"	82	" × 140 "	"
23	" × 150 "	"	83	" × 150 "	"
24	" × 160 "	"	84	" × 160 "	"
25	" × 170 "	"	85	" × 170 "	"
69 19 26	M20 × 180 mm	Pc.	69 29 86	M20 × 180 mm	Set
27	" × 190 "	"	87	" × 190 "	"
28	" × 200 "	"	88	" × 200 "	"
29	" × 210 "	"	89	" × 210 "	"
30	" × 230 "	"	90	" × 230 "	"
69 19 31	M20 × 260 mm	Pc.	69 29 91	M20 × 260 mm	Set
69 19 35	M22 × 40 mm	Pc.	69 31 01	M22 × 40 mm	Set
36	" × 45 "	"	02	" × 45 "	"
37	" × 50 "	"	03	" × 50 "	"
38	" × 55 "	"	04	" × 55 "	"
39	" × 60 "	"	05	" × 60 "	"
69 19 40	M22 × 65 mm	Pc.	69 31 06	M22 × 65 mm	Set
41	" × 70 "	"	07	" × 70 "	"
42	" × 75 "	"	08	" × 75 "	"
43	" × 80 "	"	09	" × 80 "	"
44	" × 85 "	"	10	" × 85 "	"
69 19 45	M22 × 90 mm	Pc.	69 31 11	M22 × 90 mm	Set
46	" × 95 "	"	12	" × 95 "	"
47	" × 100 "	"	13	" × 100 "	"
48	" × 105 "	"	14	" × 105 "	"
49	" × 110 "	"	15	" × 110 "	"
69 19 50	M22 × 115 mm	Pc.	69 31 16	M22 × 115 mm	Set
51	" × 120 "	"	17	" × 120 "	"
52	" × 125 "	"	18	" × 125 "	"
53	" × 130 "	"	19	" × 130 "	"
54	" × 140 "	"	20	" × 140 "	"
69 19 55	M22 × 150 mm	Pc.	69 31 21	M22 × 50 mm	Set
56	" × 160 "	"	22	" × 160 "	"
57	" × 170 "	"	23	" × 170 "	"
58	" × 200 "	"	24	" × 200 "	"
59	" × 220 "	"	25	" × 220 "	"
69 19 60	M22 × 230 mm	Pc.	69 31 26	M22 × 230 mm	Set
61	" × 260 "	"	27	" × 260 "	"
69 19 65	M24 × 10 mm	Pc.	69 31 31	M24 × 10 mm	Set
66	" × 20 "	"	32	" × 20 "	"
67	" × 30 "	"	33	" × 30 "	"
68	" × 40 "	"	34	" × 40 "	"
69	" × 45 "	"	35	" × 45 "	"

(to be continued)

CODE	Size	Unit	CODE	Size	Unit			
Brass Bolt only			Brass Bolt with Nut					
69 19 70	M24 × 50 mm	Pc.	69 31 36	M24 × 50 mm	Set			
71	" × 55 "	"	37	" × 55 "	"			
72	" × 60 "	"	38	" × 60 "	"			
73	" × 65 "	"	39	" × 65 "	"			
74	" × 70 "	"	40	" × 70 "	"			
69 19 75	M24 × 75 mm	Pc.	69 31 41	M24 × 75 mm	Set			
76	" × 80 "	"	42	" × 80 "	"			
77	" × 85 "	"	43	" × 85 "	"			
78	" × 90 "	"	44	" × 90 "	"			
79	" × 95 "	"	45	" × 95 "	"			
69 19 80	M24 × 100 mm	Pc.	69 31 46	M24 × 100 mm	Set			
81	" × 105 "	"	47	" × 105 "	"			
82	" × 110 "	"	48	" × 110 "	"			
83	" × 115 "	"	49	" × 115 "	"			
84	" × 120 "	"	50	" × 120 "	"			
69 19 85	M24×125mm	Pc.	69 31 51	M24 × 125 mm	Set			
86	" × 130 "	"	52	" × 130 "	"			
87	" × 140 "	"	53	" × 140 "	"			
88	" × 150 "	"	54	" × 150 "	"			
89	" × 170 "	"	55	" × 170 "	"			
69 19 90	M24 × 220 mm	Pc.	69 31 56	M24 × 220 mm	Set			
91	" × 250 "	"	57	" × 250 "	"			
92	" × 260 "	"	58	" × 260 "	"			
69 21 01	M27 × 90 mm	Pc.	69 31 61	M27 × 90 mm	Set			
02	" × 100 "	"	62	" × 100 "	"			
03	" × 110 "	"	63	" × 110 "	"			
04	" × 120 "	"	64	" × 120 "	"			
05	" × 130 "	"	65	" × 130 "	"			
69 21 06	M27 × 180 mm	Pc.	69 31 66	M27 × 180 mm	Set			
69 21 11	M30 × 75 mm	Pc.	69 31 71	M30 × 75 mm	Set			
12	" × 80 "	"	72	" × 80 "	"			
13	" × 85 "	"	73	" × 85 "	"			
14	" × 100 "	"	74	" × 100 "	"			
15	" × 110 "	"	75	" × 110 "	"			
69 21 16	M30 × 120 mm	Pc.	69 31 76	M30 × 120 mm	Set			
17	" × 130 "	"	77	" × 130 "	"			
18	" × 140 "	"	78	" × 140 "	"			
19	" × 150 "	"	79	" × 150 "	"			
20	" × 200 "	"	80	" × 200 "	"			
69 21 21	M30 × 250 mm	Pc.	69 31 81	M30 × 250 mm	Set			
69 21 25	M36 × 100 mm	Pc.	69 31 85	M36 × 100 mm	Set			
26	" × 140 "	"	86	" × 140 "	"			
27	" × 150 "	"	87	" × 150 "	"			
28	" × 180 "	"	88	" × 180 "	"			
Brass			How to order: CODE					
Bolt, hex head, brass, half threaded, DIAM x LENGTH mm								
or								
Bolt with nut, hex head, brass, half threaded, DIAM x LENGTH mm								
If you require WHOLE THREADED, please specify.								
CODE	Size	Unit	CODE	Size	Unit			
Brass Bolt only			Brass Bolt with Nut					
69 32 01	M3 × 5 mm	Pc.	69 41 01	M3 × 5 mm	Set			
02	" × 6 "	"	02	" × 6 "	"			
03	" × 8 "	"	03	" × 8 "	"			
04	" × 10 "	"	04	" × 10 "	"			
05	" × 12 "	"	05	" × 12 "	"			
69 32 06	M3 × 15 mm	Pc.	69 41 06	M3 × 15 mm	Set			
07	" × 16 "	"	07	" × 16 "	"			
08	" × 20 "	"	08	" × 20 "	"			
09	" × 25 "	"	09	" × 25 "	"			
10	" × 30 "	"	10	" × 30 "	"			
69 32 11	M3 × 40 mm	Pc.	69 41 11	M3 × 40 mm	Set			
12	" × 50 "	"	12	" × 50 "	"			
13	" × 60 "	"	13	" × 60 "	"			
14	" × 70 "	"	14	" × 70 "	"			
15	" × 80 "	"	15	" × 80 "	"			

(to be continued)

CODE	Size	Unit	CODE	Size	Unit
Brass Bolt only			Brass Bolt with Nut		
Brass Bolt only					
69 32 16	M3 × 90 mm	Pc.	69 41 16	M3 × 90 mm	Set
17 "	×100 "	"	17 "	×100 "	"
18 "	×110 "	"	18 "	×110 "	"
19 "	×120 "	"	19 "	×120 "	"
20 "	×130 "	"	20 "	×130 "	"
69 32 21	M3 × 140 mm	Pc.	69 41 21	M3 × 140 mm	Set
22 "	×150 "	"	22 "	×150 "	"
69 32 25	M4 × 6 mm	Pc.	69 41 25	M4 × 6 mm	Set
26 "	× 8 "	"	26 "	× 8 "	"
27 "	× 10 "	"	27 "	× 10 "	"
28 "	× 12 "	"	28 "	× 12 "	"
29 "	× 14 "	"	29 "	× 14 "	"
69 32 30	M4 × 15 mm	Pc.	69 41 30	M4 × 15 mm	Set
31 "	× 16 "	"	31 "	× 16 "	"
32 "	× 18 "	"	32 "	× 18 "	"
33 "	× 20 "	"	33 "	× 20 "	"
34 "	× 25 "	"	34 "	× 25 "	"
69 32 35	M4 × 30 mm	Pc.	69 41 35	M4 × 30 mm	Set
36 "	× 35 "	"	36 "	× 35 "	"
37 "	× 40 "	"	37 "	× 40 "	"
38 "	× 45 "	"	38 "	× 45 "	"
39 "	× 50 "	"	39 "	× 50 "	"
69 32 40	M4 × 60 mm	Pc.	69 41 40	M4 × 60 mm	Set
41 "	× 70 "	"	41 "	× 70 "	"
42 "	× 80 "	"	42 "	× 80 "	"
43 "	× 90 "	"	43 "	× 90 "	"
44 "	× 100 "	"	44 "	× 100 "	"
69 32 45	M4 × 110 mm	Pc.	69 41 45	M4 × 110 mm	Set
46 "	× 120 "	"	46 "	× 120 "	"
47 "	× 130 "	"	47 "	× 130 "	"
48 "	× 140 "	"	48 "	× 140 "	"
49 "	× 150 "	"	49 "	× 150 "	"
69 32 51	M5 × 6 mm	Pc.	69 41 51	M5 × 6 mm	Set
52 "	× 8 "	"	52 "	× 8 "	"
53 "	× 10 "	"	53 "	× 10 "	"
54 "	× 12 "	"	54 "	× 12 "	"
55 "	× 14 "	"	55 "	× 14 "	"
69 32 56	M5 × 15 mm	Pc.	69 41 56	M5 × 15 mm	Set
57 "	× 16 "	"	57 "	× 16 "	"
58 "	× 18 "	"	58 "	× 18 "	"
59 "	× 20 "	"	59 "	× 20 "	"
60 "	× 22 "	"	60 "	× 22 "	"
69 32 61	M5 × 25 mm	Pc.	69 41 61	M5 × 25 mm	Set
62 "	× 30 "	"	62 "	× 30 "	"
63 "	× 35 "	"	63 "	× 35 "	"
64 "	× 40 "	"	64 "	× 40 "	"
65 "	× 45 "	"	65 "	× 45 "	"
69 32 66	M5 × 50 mm	Pc.	69 41 66	M5 × 50 mm	Set
67 "	× 60 "	"	67 "	× 60 "	"
68 "	× 70 "	"	68 "	× 70 "	"
69 "	× 80 "	"	69 "	× 80 "	"
70 "	× 90 "	"	70 "	× 90 "	"
69 32 71	M5 × 100 mm	Pc.	69 41 71	M5 × 100 mm	Set
72 "	× 110 "	"	72 "	× 110 "	"
73 "	× 120 "	"	73 "	× 120 "	"
74 "	× 130 "	"	74 "	× 130 "	"
75 "	× 140 "	"	75 "	× 140 "	"
69 32 76	M5 × 150 mm	Pc.	69 41 76	M5 × 150 mm	Set
69 32 81	M6 × 8 mm	Pc.	69 43 01	M6 × 8 mm	Set
82 "	× 10 "	"	02 "	× 10 "	"
83 "	× 12 "	"	03 "	× 12 "	"
84 "	× 14 "	"	04 "	× 14 "	"
85 "	× 15 "	"	05 "	× 15 "	"
69 32 86	M6 × 16 mm	Pc.	69 43 06	M6 × 16 mm	Set
87 "	× 18 "	"	07 "	× 18 "	"
88 "	× 20 "	"	08 "	× 20 "	"
89 "	× 22 "	"	09 "	× 22 "	"
90 "	× 25 "	"	10 "	× 25 "	"

69 32 91	M6 × 30 mm	Pc.	69 43 11	M6 × 30 mm	Set
92 "	× 35 "	"	12 "	× 35 "	"
93 "	× 40 "	"	13 "	× 40 "	"
94 "	× 45 "	"	14 "	× 45 "	"
95 "	× 50 "	"	15 "	× 50 "	"
69 32 96	M6 × 55 mm	Pc.	69 43 16	M6 × 55 mm	Set
97 "	× 60 "	"	17 "	× 60 "	"
98 "	× 65 "	"	18 "	× 65 "	"
99 "	× 70 "	"	19 "	× 70 "	"
69 33 00	" × 75 "	"	20 "	× 75 "	"
69 33 01	M6 × 80 mm	Pc.	69 43 21	M6 × 80 mm	Set
02 "	× 85 "	"	22 "	× 85 "	"
03 "	× 90 "	"	23 "	× 90 "	"
04 "	× 95 "	"	24 "	× 95 "	"
05 "	× 100 "	"	25 "	× 100 "	"
69 33 06	M6 × 110 mm	Pc.	69 43 26	M6 × 110 mm	Set
07 "	× 120 "	"	27 "	× 120 "	"
08 "	× 130 "	"	28 "	× 130 "	"
09 "	× 140 "	"	29 "	× 140 "	"
10 "	× 150 "	"	30 "	× 150 "	"
69 33 11	M8 × 10 mm	Pc.	69 43 31	M8 × 10 mm	Set
12 "	× 12 "	"	32 "	× 12 "	"
13 "	× 14 "	"	33 "	× 14 "	"
14 "	× 15 "	"	34 "	× 15 "	"
15 "	× 16 "	"	35 "	× 16 "	"
69 33 16	M8 × 18 mm	Pc.	69 43 36	M8 × 18 mm	Set
17 "	× 20 "	"	37 "	× 20 "	"
18 "	× 22 "	"	38 "	× 22 "	"
19 "	× 25 "	"	39 "	× 25 "	"
20 "	× 28 "	"	40 "	× 28 "	"
69 33 21	M8 × 30 mm	Pc.	69 43 41	M8 × 30 mm	Set
22 "	× 35 "	"	42 "	× 35 "	"
23 "	× 40 "	"	43 "	× 40 "	"
24 "	× 45 "	"	44 "	× 45 "	"
25 "	× 50 "	"	45 "	× 50 "	"
69 33 26	M8 × 55 mm	Pc.	69 43 46	M8 × 55 mm	Set
27 "	× 60 "	"	47 "	× 60 "	"
28 "	× 65 "	"	48 "	× 65 "	"
29 "	× 70 "	"	49 "	× 70 "	"
30 "	× 75 "	"	50 "	× 75 "	"
69 33 31	M8 × 80 mm	Pc.	69 43 51	M8 × 80 mm	Set
32 "	× 85 "	"	52 "	× 85 "	"
33 "	× 90 "	"	53 "	× 90 "	"
34 "	× 95 "	"	54 "	× 95 "	"
35 "	× 100 "	"	55 "	× 100 "	"
69 33 36	M8 × 110 mm	Pc.	69 43 56	M8 × 110 mm	Set
37 "	× 120 "	"	57 "	× 120 "	"
38 "	× 130 "	"	58 "	× 130 "	"
39 "	× 140 "	"	59 "	× 140 "	"
40 "	× 150 "	"	60 "	× 150 "	"
69 33 41	M8 × 160 mm	Pc.	69 43 61	M8 × 160 mm	Set
42 "	× 170 "	"	62 "	× 170 "	"
43 "	× 180 "	"	63 "	× 180 "	"
44 "	× 190 "	"	64 "	× 190 "	"
45 "	× 200 "	"	65 "	× 200 "	"
69 33 51	M10 × 10 mm	Pc.	69 45 01	M10 × 10 mm	Set
52 "	× 12 "	"	02 "	× 12 "	"
53 "	× 14 "	"	03 "	× 14 "	"
54 "	× 15 "	"	04 "	× 15 "	"
55 "	× 16 "	"	05 "	× 16 "	"
69 33 56	M10 × 18 mm	Pc.	69 45 06	M10 × 18 mm	Set
57 "	× 20 "	"	07 "	× 20 "	"
58 "	× 25 "	"	08 "	× 25 "	"
59 "	× 30 "	"	09 "	× 30 "	"
60 "	× 35 "	"	10 "	× 35 "	"
69 33 61	M10 × 40 mm	Pc.	69 45 11	M10 × 40 mm	Set
62 "	× 45 "	"	12 "	× 45 "	"
63 "	× 50 "	"	13 "	× 50 "	"
64 "	× 55 "	"	14 "	× 55 "	"
65 "	× 60 "	"	15 "	× 60 "	"
69 33 66	M10 × 65 mm	Pc.	69 45 16	M10 × 65 mm	Set
67 "	× 70 "	"	17 "	× 70 "	"
68 "	× 75 "	"	18 "	× 75 "	"
69 "	× 80 "	"	19 "	× 80 "	"
70 "	× 85 "	"	20 "	× 85 "	"

(to be continued)

(to be continued)

CODE	Size	Unit	CODE	Size	Unit
Brass Bolt only					
Brass Bolt with Nut					
69 33 71	M10 × 90 mm	Pc.	69 45 21	M10 × 90 mm	Set
72	" × 95 "	"	22	" × 95 "	"
73	" × 100 "	"	23	" × 100 "	"
74	" × 105 "	"	24	" × 105 "	"
75	" × 110 "	"	25	" × 110 "	"
69 33 76	M10 × 115 mm	Pc.	69 45 26	M10 × 115 mm	Set
77	" × 120 "	"	27	" × 120 "	"
78	" × 125 "	"	28	" × 125 "	"
79	" × 130 "	"	29	" × 130 "	"
80	" × 140 "	"	30	" × 140 "	"
69 33 81	M10 × 150 mm	Pc.	69 45 31	M10 × 150 mm	Set
82	" × 160 "	"	32	" × 160 "	"
83	" × 170 "	"	33	" × 170 "	"
84	" × 180 "	"	34	" × 180 "	"
85	" × 190 "	"	35	" × 190 "	"
69 33 86	M10 × 200 mm	Pc.	69 45 36	M10 × 200 mm	Set
87	" × 210 "	"	37	" × 210 "	"
88	" × 220 "	"	38	" × 220 "	"
89	" × 230 "	"	39	" × 230 "	"
90	" × 240 "	"	40	" × 240 "	"
69 33 91	M10 × 250 mm	Pc.	69 45 41	M10 × 250 mm	Set
92	" × 300 "	"	42	" × 300 "	"
69 36 01	M12 × 10 mm	Pc.	69 45 45	M12 × 10 mm	Set
02	" × 20 "	"	46	" × 20 "	"
03	" × 25 "	"	47	" × 25 "	"
04	" × 30 "	"	48	" × 30 "	"
05	" × 35 "	"	49	" × 35 "	"
69 36 06	M12 × 40 mm	Pc.	69 45 50	M12 × 40 mm	Set
07	" × 45 "	"	51	" × 45 "	"
08	" × 50 "	"	52	" × 50 "	"
09	" × 55 "	"	53	" × 55 "	"
10	" × 60 "	"	54	" × 60 "	"
69 36 11	M12 × 65 mm	Pc.	69 45 55	M12 × 65 mm	Set
12	" × 70 "	"	56	" × 70 "	"
13	" × 75 "	"	57	" × 75 "	"
14	" × 80 "	"	58	" × 80 "	"
15	" × 85 "	"	59	" × 85 "	"
69 36 16	M12 × 90 mm	Pc.	69 45 60	M12 × 90 mm	Set
17	" × 95 "	"	61	" × 95 "	"
18	" × 100 "	"	62	" × 100 "	"
19	" × 105 "	"	63	" × 105 "	"
20	" × 110 "	"	64	" × 110 "	"
69 36 21	M12 × 115 mm	Pc.	69 45 65	M12 × 115 mm	Set
22	" × 120 "	"	66	" × 120 "	"
23	" × 125 "	"	67	" × 125 "	"
24	" × 130 "	"	68	" × 130 "	"
25	" × 140 "	"	69	" × 140 "	"
69 36 26	M12 × 150 mm	Pc.	69 45 70	M12 × 150 mm	Set
27	" × 160 "	"	71	" × 160 "	"
28	" × 170 "	"	72	" × 170 "	"
29	" × 180 "	"	73	" × 180 "	"
30	" × 190 "	"	74	" × 190 "	"
69 36 31	M12 × 200 mm	Pc.	69 45 75	M12 × 200 mm	Set
32	" × 210 "	"	76	" × 210 "	"
33	" × 220 "	"	77	" × 220 "	"
34	" × 230 "	"	78	" × 230 "	"
35	" × 240 "	"	79	" × 240 "	"
69 36 36	M12 × 250 mm	Pc.	69 45 80	M12 × 250 mm	Set
37	" × 260 "	"	81	" × 260 "	"
38	" × 270 "	"	82	" × 270 "	"
39	" × 280 "	"	83	" × 280 "	"
40	" × 290 "	"	84	" × 290 "	"
69 36 41	M12 × 300 mm	Pc.	69 45 85	M12 × 300 mm	Set
42	" × 310 "	"	86	" × 310 "	"
43	" × 320 "	"	87	" × 320 "	"
44	" × 330 "	"	88	" × 330 "	"
45	" × 340 "	"	89	" × 340 "	"
69 36 46	M12 × 350 mm	Pc.	69 45 90	M12 × 350 mm	Set

(to be continued)

69 36 51	M14 × 25 mm	Pc.	69 47 01	M14 × 25 mm	Set
52	" × 30 "	"	02	" × 30 "	"
53	" × 40 "	"	03	" × 40 "	"
54	" × 45 "	"	04	" × 45 "	"
55	" × 50 "	"	05	" × 50 "	"
69 36 56	M14 × 55 mm	Pc.	69 47 06	M14 × 55 mm	Set
57	" × 60 "	"	07	" × 60 "	"
58	" × 65 "	"	08	" × 65 "	"
59	" × 70 "	"	09	" × 70 "	"
60	" × 75 "	"	10	" × 75 "	"
69 36 61	M14 × 80 mm	Pc.	69 47 11	M14 × 80 mm	Set
62	" × 90 "	"	12	" × 90 "	"
63	" × 100 "	"	13	" × 100 "	"
69 36 65	M16 × 10 mm	Pc.	69 47 15	M16 × 10 mm	Set
66	" × 20 "	"	16	" × 20 "	"
67	" × 25 "	"	17	" × 25 "	"
68	" × 30 "	"	18	" × 30 "	"
69	" × 40 "	"	19	" × 40 "	"
69 36 70	M16 × 45 mm	Pc.	69 47 20	M16 × 45 mm	Set
71	" × 50 "	"	21	" × 50 "	"
72	" × 55 "	"	22	" × 55 "	"
73	" × 60 "	"	23	" × 60 "	"
74	" × 65 "	"	24	" × 65 "	"
69 36 75	M16 × 70 mm	Pc.	69 47 25	M16 × 70 mm	Set
76	" × 75 "	"	26	" × 75 "	"
77	" × 80 "	"	27	" × 80 "	"
78	" × 85 "	"	28	" × 85 "	"
79	" × 90 "	"	29	" × 90 "	"
69 36 80	M16 × 95 mm	Pc.	69 47 30	M16 × 95 mm	Set
81	" × 100 "	"	31	" × 100 "	"
82	" × 105 "	"	32	" × 105 "	"
83	" × 110 "	"	33	" × 110 "	"
84	" × 115 "	"	34	" × 115 "	"
69 36 85	M16 × 120 mm	Pc.	69 47 35	M16 × 120 mm	Set
86	" × 125 "	"	36	" × 125 "	"
87	" × 130 "	"	37	" × 130 "	"
88	" × 140 "	"	38	" × 140 "	"
89	" × 150 "	"	39	" × 150 "	"
69 36 90	M16 × 160 mm	Pc.	69 47 40	M16 × 160 mm	Set
91	" × 170 "	"	41	" × 170 "	"
92	" × 180 "	"	42	" × 180 "	"
93	" × 190 "	"	43	" × 190 "	"
94	" × 200 "	"	44	" × 200 "	"
69 36 95	M16 × 210 mm	Pc.	69 47 45	M16 × 210 mm	Set
96	" × 220 "	"	46	" × 220 "	"
97	" × 230 "	"	47	" × 230 "	"
98	" × 240 "	"	48	" × 240 "	"
99	" × 250 "	"	49	" × 250 "	"
69 37 01	M18 × 30 mm	Pc.	69 47 51	M18 × 30 mm	Set
02	" × 60 "	"	52	" × 60 "	"
03	" × 65 "	"	53	" × 65 "	"
04	" × 70 "	"	54	" × 70 "	"
05	" × 75 "	"	55	" × 75 "	"
69 37 06	M18 × 80 mm	Pc.	69 47 56	M18 × 80 mm	Set
07	" × 85 "	"	57	" × 85 "	"
08	" × 90 "	"	58	" × 90 "	"
09	" × 100 "	"	59	" × 100 "	"
10	" × 120 "	"	60	" × 120 "	"
69 37 11	M20 × 10 mm	Pc.	69 47 61	M20 × 10 mm	Set
12	" × 20 "	"	62	" × 20 "	"
13	" × 30 "	"	63	" × 30 "	"
14	" × 40 "	"	64	" × 40 "	"
15	" × 50 "	"	65	" × 50 "	"
69 37 16	M20 × 55 mm	Pc.	69 47 66	M20 × 55 mm	Set
17	" × 60 "	"	67	" × 60 "	"
18	" × 65 "	"	68	" × 65 "	"
19	" × 70 "	"	69	" × 70 "	"
20	" × 75 "	"	70	" × 75 "	"
69 37 21	M20 × 80 mm	Pc.	69 47 71	M20 × 80 mm	Set
22	" × 85 "	"	72	" × 85 "	"
23	" × 90 "	"	73	" × 90 "	"
24	" × 95 "	"	74	" × 95 "	"
25	" × 100 "	"	75	" × 100 "	"

(to be continued)

CODE	Size	Unit	CODE	Size	Unit
Brass Bolt only			Brass Bolt with Nut		
69 37 26 M20 ×105 mm Pcs.			69 47 76 M20 ×105 mm Set		
27 "	×110 "	"	77 "	×110 "	"
28 "	×115 "	"	78 "	×115 "	"
29 "	×120 "	"	79 "	×120 "	"
30 "	×125 "	"	80 "	×125 "	"
69 37 31 M20 ×130 mm Pcs.	69 47 81 M20 ×130 mm Set				
32 " ×140 "	82 " ×140 "	"			
33 " ×150 "	83 " ×150 "	"			
34 " ×160 "	84 " ×160 "	"			
35 " ×170 "	85 " ×170 "	"			
69 37 36 M20 ×180 mm Pcs.	69 47 86 M20 ×180 mm Set				
37 " ×190 "	87 " ×190 "	"			
38 " ×200 "	88 " ×200 "	"			
39 " ×210 "	89 " ×210 "	"			
40 " ×230 "	90 " ×230 "	"			
69 37 41 M20 ×260 mm Pcs.	69 47 91 M20 ×260 mm Set				
69 37 45 M22 × 40 mm Pcs.	69 51 01 M22 × 40 mm Set				
46 " × 45 "	02 " × 45 "	"			
47 " × 50 "	03 " × 50 "	"			
48 " × 55 "	04 " × 55 "	"			
49 " × 60 "	05 " × 60 "	"			
69 37 50 M22 × 65 mm Pcs.	69 51 06 M22 × 65 mm Set				
51 " × 70 "	07 " × 70 "	"			
52 " × 75 "	08 " × 75 "	"			
53 " × 80 "	09 " × 80 "	"			
54 " × 85 "	10 " × 85 "	"			
69 37 55 M22 × 90 mm Pcs.	69 51 11 M22 × 90 mm Set				
56 " × 95 "	12 " × 95 "	"			
57 " × 100 "	13 " × 100 "	"			
58 " × 105 "	14 " × 105 "	"			
59 " × 110 "	15 " × 110 "	"			
69 37 60 M22 × 115 mm Pcs.	69 51 16 M22 × 115 mm Set				
61 " × 120 "	17 " × 120 "	"			
62 " × 125 "	18 " × 125 "	"			
63 " × 130 "	19 " × 130 "	"			
64 " × 140 "	20 " × 140 "	"			
69 37 65 M22 × 150 mm Pcs.	69 51 21 M22 × 150 mm Set				
66 " × 160 "	22 " × 160 "	"			
67 " × 170 "	23 " × 170 "	"			
68 " × 200 "	24 " × 200 "	"			
69 " × 220 "	25 " × 220 "	"			
69 37 70 M22 × 230 mm Pcs.	69 51 26 M22 × 230 mm Set				
71 " × 260 "	27 " × 260 "	"			
69 39 01 M24 × 10 mm Pcs.	69 51 31 M24 × 10 mm Set				
02 " × 20 "	32 " × 20 "	"			
03 " × 30 "	33 " × 30 "	"			
04 " × 40 "	34 " × 40 "	"			
05 " × 45 "	35 " × 45 "	"			
69 39 06 M24 × 50 mm Pcs.	69 51 36 M24 × 50 mm Set				
07 " × 55 "	37 " × 55 "	"			
08 " × 60 "	38 " × 60 "	"			
09 " × 65 "	39 " × 65 "	"			
10 " × 70 "	40 " × 70 "	"			
69 39 11 M24 × 75 mm Pcs.	69 51 41 M24 × 75 mm Set				
12 " × 80 "	42 " × 80 "	"			
13 " × 85 "	43 " × 85 "	"			
14 " × 90 "	44 " × 90 "	"			
15 " × 95 "	45 " × 95 "	"			
69 39 16 M24 × 100 mm Pcs.	69 51 46 M24 × 100 mm Set				
17 " × 105 "	47 " × 105 "	"			
18 " × 110 "	48 " × 110 "	"			
19 " × 115 "	49 " × 115 "	"			
20 " × 120 "	50 " × 120 "	"			
69 39 21 M24 × 125 mm Pcs.	69 51 51 M24 × 125 mm Set				
22 " × 130 "	52 " × 130 "	"			
23 " × 140 "	53 " × 140 "	"			
24 " × 150 "	54 " × 150 "	"			
25 " × 170 "	55 " × 170 "	"			
69 39 26 M24 × 220 mm Pcs.	69 51 56 M24 × 220 mm Set				
27 " × 250 "	57 " × 250 "	"			
28 " × 260 "	58 " × 260 "	"			
69 39 31 M27 × 90 mm Pcs.	69 51 61 M27 × 90 mm Set				
32 " × 100 "	62 " × 100 "	"			
33 " × 110 "	63 " × 110 "	"			
34 " × 120 "	64 " × 120 "	"			
35 " × 130 "	65 " × 130 "	"			

(to be continued)

69 39 36	M27 × 180 mm	Pcs.	69 51 66	M27 × 180 mm	Set
69 39 41 M30 × 75 mm	Pcs.	69 51 71 M30 × 75 mm	Set		
42 " × 80 "	"	72 " × 80 "	"		
43 " × 85 "	"	73 " × 85 "	"		
44 " × 100 "	"	74 " × 100 "	"		
45 " × 110 "	"	75 " × 110 "	"		
69 39 46 M30 × 120 mm	Pcs.	69 51 76 M30 × 120 mm	Set		
47 " × 130 "	"	77 " × 130 "	"		
48 " × 140 "	"	78 " × 140 "	"		
49 " × 150 "	"	79 " × 150 "	"		
50 " × 200 "	"	80 " × 200 "	"		
69 39 51 M30 × 250 mm	Pcs.	69 51 81 M30 × 250 mm	Set		
69 39 55 M36 × 100 mm	Pcs.	69 51 85 M36 × 100 mm	Set		
56 " × 140 "	"	86 " × 140 "	"		
57 " × 150 "	"	87 " × 150 "	"		
58 " × 180 "	"	88 " × 180 "	"		

Hexagon Socket Head Cap Screws

(Ref. JIS B 1176 – 88)

Tornillo Allen 六角穴付きボルト 六角插座头帽螺钉

Nominal Size Coarse Thread	Pitch	d ₁	D	H	B	C Appx.	L	S		
							Recommended			
M3x0.5			3	5.5	3	2.5	0.2	4- 20		
M4x0.7			4	7	4	3	0.3	4- 25		
M5x0.8			5	8.5	5	4	0.3	8- 30		
M 6			6	10	6	5	0.4	10- 50		
M 8			8	13	8	6	0.5	12-100		
M10			10	16	10	8	0.6	14-120		
M12			12	18	12	10	0.7	20-120		
M16			16	24	16	14	1	25-160		
M20			20	30	20	17	1	35-180		
M24			24	36	24	19	1	45-300		
M30			30	45	30	22	1.5	50-300		
M36			36	54	36	27	1.5	70-300		
M42			42	63	42	32	2	80-300		
M48			48	72	48	36	2	90-300		
								102-108-121		

Material: Steel and Stainless Steel

Guide of How to Order

CODE 69 05 01

Name Hexagon socket head cap screw

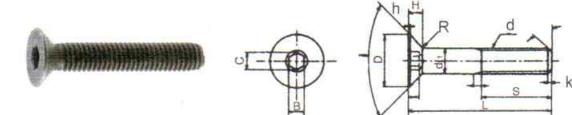
Material..... Steel

Nominal Size & Thread..... M3 × 0.5 Coarse

Length..... 12 mm

Flat Head Socket Screws

Tornillo Allen Cabeza Plana 六角穴付き皿ボルト 扁平头凹头螺钉



Nominal Size	Pitch	Size mm						
		d1	D	H	B	C	Recommended	
		Standard Size		App- rox.		L	s	
M3	0.5	3	6	1.7	2	2.3	6 - 20	12
M4	0.7	4	8	2.3	2.5	2.9	6 - 50	14
M5	0.8	5	10	2.8	3	3.6	8 - 50	16
M6	1	6	12	3.3	4	4.7	8 - 50	18
M8	1.25	8	16	4.4	5	5.9	12 - 70	22
M10	1.5	10	20	5.5	6	7.0	15 - 70	26
M12	1.75	12	24	6.5	8	9.4	20 - 50	30
M16	2	16	30	7.5	10	11.7	25 - 60	38

Guide of How to Order

CODE 69 06 01
 Name Flat head socket screw
 Material Steel
 Nominal Size & Thread M3 × 0.5
 Length 6 mm

Button Head Socket Screws

Tornillo Allen Cabeza Botón 六角穴付きボタンボルト 圆头凹头螺钉

Nominal Size	Pitch	Size mm						
		d1	D	H	B	C	Recommended	
		Standard Size		App- rox.		L		
M3	0.5	3	5.5	2	2	2.3	5 - 20	
M4	0.7	4	7.5	2.6	2.5	2.9	6 - 50	
M5	0.8	5	9.5	3.4	3	3.6	6 - 50	
M6	1	6	10.5	4	4	4.7	8 - 50	
M8	1.25	8	14	5	5	5.9	10 - 50	
M10	1.5	10	18	6	6	7.0	15 - 50	
M12	1.75	12	21	7	8	9.4	20 - 50	
M16	2	16	28	8.5	10	11.7	25 - 60	

Guide of How to Order

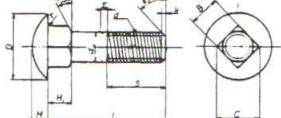
CODE 69 07 01
 Name Button head socket screw
 Material Steel
 Nominal Size & Thread M3 × 0.5
 Length 5 mm

Cap Head Square Neck Bolts**(Carriage Bolts)**

Tornillo Cabeza Abombada y Cuello Cuadrado

角根丸頭ボルト 方颈螺栓

(Ref. JIS B 1171-91)



Nominal Size Coarse Thread	Size mm				
	d ₁	D	H	B	L
M 5x0.8	5	11.5 - 17	2.5 - 5.5	6	25- 50
M 6	6	14 - 20	3 - 6	5	30- 75
M 8	8	18 - 26	4 - 7	8	35-100
M10	10	22 - 32	5 - 8	10	40-100
M12	12	26 - 38	6 - 9	12	45-130
M16	16	32	10	16	55-140

Material: Steel and Stainless Steel

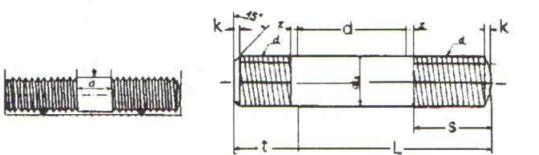
Guide of How to Order

CODE 69 10 01
 Name Cap head square neck bolt
 Material Steel
 Nominal Size & Thread M5 × 0.8 Coarse
 Length 25 mm

Stud Bolts

Espárrago 植込みボルト 双头螺栓

(Ref. JIS B 1173 - 87)



Size mm

Nominal Size (d)	M4	M5	M6	M8	M10	M12	M16	M20	
Pitch	Coarse	0.7	0.8	1	1.25	1.5	1.75	2	2.5
	Fine								
d	4	5	6	8	10	12	16	20	
s	10	12	14	18	20	22	28	32	
No.1						12	15	20	25
No.2	6	7	8	11	15	18	24	30	
No.3	8	10	12	16	20	24	32	40	
K Approx.	0.8	0.8	1	1.2	1.5	2	2	2.5	
L	12-40	12-45	12-50	12-55	16-100	20-100	32-100	32-160	

Material: Steel

Guide of How to Order

CODE 69 15 01
 Name Stud bolt
 Material Steel
 Nominal Size & Thread M4 × 0.7
 Length 12 mm

Studs, Whole Threaded

Espárrago Largo 長ねじ、寸切り 全身螺纹的双头螺栓



Size mm

Nominal Size(d)	Length		Nominal Size(d)	Length	
	Coarse	Fine		Coarse	Fine
M3x0.5			M10	M10x1.25	
M4x0.7			M12	M12x1.25	
M5x0.8			M16	M16x1.5	
M6			M20	M20x1.5	300
M8	M8x1		M24	M24x2	1,000

Material: Steel, Stainless Steel, Bronze, Brass or any other metals

Guide of How to Order

CODE 69 20 01
 Name Stud whole thread
 Material Steel
 Nominal Size & Thread M ____ x ____ Coarse
 Length ____ mm

Most common steel & brass studs are coded below.

Metric Coarse Threaded

How to order: CODE

Stud, whole threaded, MATERIAL, THREAD DIAM x PITCH mm, LENGTH

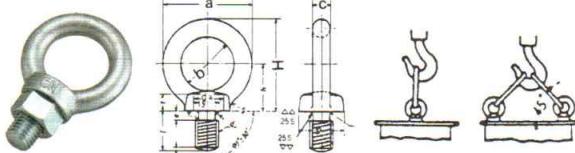
Unit Per Pcs.

Thread Diam.	Pitch of Thread	Steel		Brass	
		Length		Length	
		300 mm	1,000 mm	300 mm	1,000 mm
M 3	0.5	-	-	69 20 51	-
M 4	0.7	69 20 02	-	52	-
M 5	0.8	03	-	53	-
M 6	1.0	04	69 20 24	54	69 20 74
M 8	1.25	05	25	55	75
M10	1.5	69 20 06	69 20 26	69 20 56	69 20 76
M12	1.75	07	27	57	77
M14	2.0	08	28	58	-
M16	2.0	09	29	59	69 20 79
M18	2.5	10	30	60	-
M20	2.5	69 20 11	69 20 31	69 20 61	69 20 81
M22	2.5	12	32	62	-
M24	3.0	13	33	63	-

Eye Bolts, Steel

Tornillo de Cáncamo, Acero アイボルト 钢制孔螺栓

(Ref. JIS B 1168 - 75)



How to order: CODE

Eye bolt, MATERIAL, SIZE

Unit Per Pcs.

CODE	Nominal Size(d)	Size mm				S.W.L. kg	
		a	b	c	H	Vertical	45°x2Pcs
69 22 01	M 8	32.6	20	6.3	39.3	80	80
	02	41	25	8	48.5	150	150
	03	50	30	10	61	220	220
	04	60	35	12.5	72	450	450
	05	72	40	16	86	630	630
69 22 06	M24	90	50	20	111	950	950
	07	110	60	25	135	1,500	1,500
	08	133	70	31.5	161.5	2,300	2,300
	09	170	90	40	208	4,500	4,500
	10	210	110	50	256	9,000	9,000

Material: Steel but stainless steel made also available on application.

Dog Bolts

Tornillo de Perro ドッグボルト 活节螺栓

69

Thread Diam.	Pitch of Thread	Steel		Brass	
		Length		Length	
		300 mm	1,000 mm	300 mm	1,000 mm
M 3	0.5	-	-	69 20 51	-
M 4	0.7	69 20 02	-	52	-
M 5	0.8	03	-	53	-
M 6	1.0	04	69 20 24	54	69 20 74
M 8	1.25	05	25	55	75
M10	1.5	69 20 06	69 20 26	69 20 56	69 20 76
M12	1.75	07	27	57	77
M14	2.0	08	28	58	-
M16	2.0	09	29	59	69 20 79
M18	2.5	10	30	60	-
M20	2.5	69 20 11	69 20 31	69 20 61	69 20 81
M22	2.5	12	32	62	-
M24	3.0	13	33	63	-

Material: Bronze, Steel, Stainless Steel

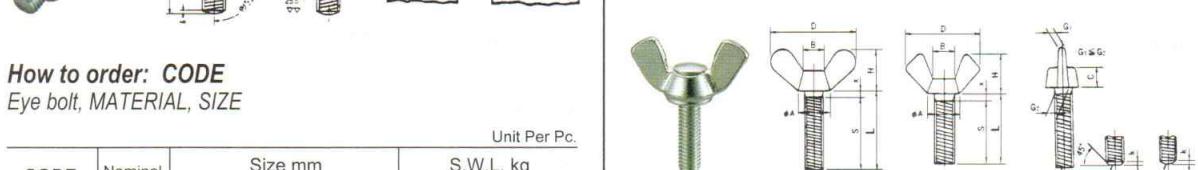
Guide of How to Order

CODE 69 24 01
 Name Dog bolt
 Material Bronze
 Nominal Size & Thread M8 Metric Coarse
 Length 60 mm
 Type of Nut with hex nut

Wing Bolts

Tornillo de Mariposa ちょうボルト 碟形螺栓

(Ref. JIS B 1184 - 87)



Type	Material	No. 1 or No. 2	
		Steel, Cast Iron, Bronze, Brass etc.	M2 - M24
Type	Metric Coarse Thread	No. 1 or No. 2	Metric Coarse Thread
Size mm	D	12 - 112	
	H	6 - 56	
	L	5 - 150	

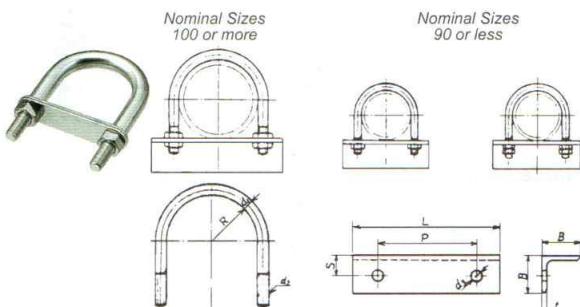
Guide of How to Order

CODE 69 26 01
 Name Wing bolt
 Type No. 1
 Material Steel
 Nominal Size & Thread M2
 Length 10 mm

Ship's Steel Pipe U-Bolts

Pernos-U para Tubería de Acero de Barco

船用鋼管取付け U ボルト 船用钢管 U 形螺栓



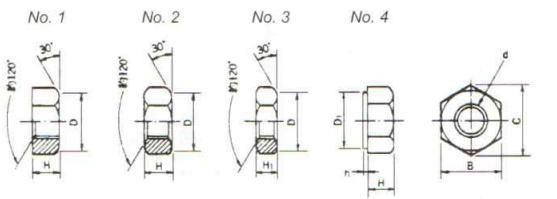
Remark: The seat made from steel angle bar is shown.

CODE		Nominal Size A	Outside Dia. of Pipe mm	Nominal Size of Thread	Unit Per Pc./Set	
Without Seat & Nut (Pc)	With Seat & Nut (Set)					
69 67 01	69 67 31	15A	21.7	M10		
02	32	20A	27.2	M10		
03	33	25A	34.0	M10		
04	34	32A	42.7	M10		
05	35	40A	48.6	M10		
69 67 06	69 67 36	50A	60.5	M10		
07	37	65A	76.3	M12		
08	38	80A	89.1	M12		
09	39	90A	101.6	M12		
10	40	100A	114.3	M16		
69 67 11	69 67 41	125A	139.8	M16		
12	42	150A	165.2	M16		
69 67 13	69 67 43	175A	190.7	M16		
14	44	200A	216.3	M20		
15	45	225A	241.8	M20		
16	46	250A	267.4	M20		
17	47	300A	318.5	M24		
69 67 18	69 67 48	350A	355.6	M24		
19	49	400A	406.4	M24		
20	50	450A	457.2	M30		
21	51	500A	508.0	M30		
22	52	550A	558.8	M30		
69 67 23	69 67 53	600A	609.6	M36		
24	54	650A	660.4	M36		

Hexagon Nuts

Tuerca Hexagonal 六角ナット 六角螺母

(Ref. JIS B 1181 – 93)



Nominal Size	H	H ₁	B	C	D	D ₁
Coarse	Fine	Standard Size			Approx.	Minimum
M 2		1.6	1.2	4	4.6	3.8
M 2.3		1.8	1.4	4.5	5.2	4.3
M 2.5		2	1.6	5	5.8	4.7
M 3x0.5		2.4	1.8	5.5	6.4	5.3
M 4x0.7		3.2	2.4	7	8.1	6.8

(to be continued)

M 5x0.8		4	3.2	8	9.2	7.8	7.2
M 6		5	3.6	10	11.5	9.8	9
M 8	M 8x1	6.5	5	13	15	12.5	11.7
M10	M10x1.25	8	6	17	19.6	16.5	15.8
M12	M12x1.25	10	7	19	21.9	18	17.6
M16	M16x1.5	13	10	24	27.7	23	22.3
M20	M20x1.5	16	12	30	34.6	29	25.6
M24	M24x2	19	14	36	41.6	34	28.5
M30	M30x2	24	18	46	53.1	44	34.2
M36	M36x3	29	21	55	63.5	53	
M42		34	25	65	75	62	
M48		38	29	75	86.5	72	
M56		45	34	85	98.1	82	
M64		51	38	95	110	92	

Material: Steel, Stainless Steel, Bronze or Brass, etc.

How to Order: CODE

Nut, hex head, MATERIAL, SIZE

Unit Per Pc.

Nominal Size	CODE		
	Steel Ungalv.	Stainless Steel	Brass
M 3	69 28 01	69 28 21	69 28 41
4	02	22	42
5	03	23	43
6	04	24	44
8	05	25	45
M10	69 28 06	69 28 26	69 28 46
12	07	27	47
14	08	28	48
16	09	29	49
18	10	30	50
M20	69 28 11	69 28 31	69 28 51
22	12	32	52
24	13	33	53
27	14	34	54
30	15	35	55
M36	69 28 16	69 28 36	69 28 56

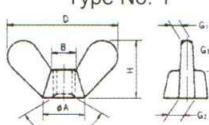
Wing Nuts

Tuerca de Mariposa ちょうナット 碟形螺栓

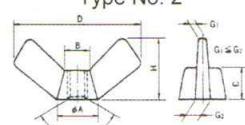
(Ref. JIS B 1185 – 87)



Type No. 1



Type No. 2



Type Material Nominal Size Thread
No. 1 or No. 2
Steel, Cast Iron, Bronze, Brass etc.
M2 - M24
Metric Coarse Thread

Size mm	D	H
	12 - 112	6 - 56

Guide of How to Order

CODE 69 30 01

Name Wing nut

Type No. 1

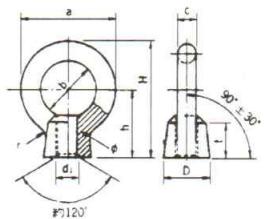
Material Steel

Nominal Size & Thread M2

Eye Nuts

Tuerca de Cáncamo アイナット 吊环螺帽

(Ref. JIS B 1169 – 75)



Unit Per Pc.

CODE	Nominal Size(d)	Size mm			S.W.L. kg	
		a	b	c	H	Vertical
69 34 01	M 8	32.6	20	6.3	39.3	80
02	M10	41	25	8	48.5	150
03	M12	50	30	10	61	220
04	M16	60	35	12.5	72	450
05	M20	72	40	16	86	630
69 34 06	M24	90	50	20	111	950
07	M30	110	60	25	135	1,500
08	M36	133	70	31.5	161.5	2,300
09	M42	151	80	35.5	184.5	3,400
10	M48	170	90	40	208	4,500
69 34 11	M64	210	110	50	256	9,000
						9,000

Thread : Metric Coarse Thread

Material : Steel but stainless steel made also available on application.

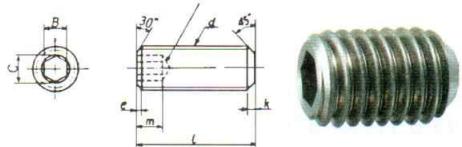


Hexagon Socket Set Screws

Tornillo sin Cabeza allen Extremo Biselado

六角穴付止めねじ 内六角固定螺钉

(Ref. JIS B 1177 - 88)



Material Nominal Size Thread		Steel M3 × 05 - M20 Metric Coarse Thread
Size mm	B	1.5 - 10
	C	1.7 - 11.7
	L	3 - 50

Guide of How to Order

CODE	69 35 01
Name.....	Hexagon socket set screw
Material.....	Steel
Nominal Size & Thread.....	M3 × 0.5
Length.....	6 mm

Heli-Serts

Resortes de Compresión Helizoides ヘリサート 螺纹衬套

Made of stainless steel or bronze.

Instead of building up a thread hole by welding worn out threads or using bushes for rethreading, you just have to clean the hole with a tap and insert these heli-serts.



Tightening procedure is the same as with the original thread. The proper length of the heli-sert should usually be 1 - 2 times the length of the standard bolts being used.

Kind of Thread	Nominal Size
Metric	Coarse M2.2 - M36
	Fine M8 - M30
Whitworth Coarse	W1/4 - W1-1/2
Unity	Coarse U No. 2 - U1-1/2
	Fine U No. 6 - U1-1/2
Parallel Pipe Thread	3/8, 3/4



Guide of How to Order

CODE	69 38 01
Name.....	Heli-Sert
Material.....	Stainless Steel
Nominal Size.....	M10
Thread	Metric coarse thread 1.5
Length.....	32 mm

Material: Stainless Steel
Metric Coarse Thread

Unit Per Pc.

CODE	Size mm Diam. × Pitch × L	CODE	Size mm Diam. × Pitch × L
		69 38 11	69 38 56
12	M2 × 0.4 × 2	57	M10 × 1.5 × 10
13	M2 × 0.4 × 3	58	M10 × 1.5 × 15
14	M2 × 0.4 × 4	59	M10 × 1.5 × 20
15	M2 × 0.4 × 5	60	M10 × 1.5 × 25
69 38 16	M2.5 × 0.45 × 2.5	69 38 61	M12 × 1.75 × 12
17	M2.5 × 0.45 × 4	62	M12 × 1.75 × 18
18	M2.5 × 0.45 × 5	63	M12 × 1.75 × 24
19	M2.5 × 0.45 × 6	64	M12 × 1.75 × 30
20	M2.5 × 0.45 × 7.5	65	M12 × 1.75 × 36
69 38 21	M3 × 0.5 × 3	69 38 66	M14 × 2.0 × 14
22	M3 × 0.5 × 4.5	67	M14 × 2.0 × 21
23	M3 × 0.5 × 6	68	M14 × 2.0 × 28
24	M3 × 0.5 × 7.5	69	M14 × 2.0 × 35
25	M3 × 0.5 × 9	70	M14 × 2.0 × 42
69 38 26	M3.5 × 0.6 × 3.5	69 38 71	M16 × 2.0 × 16
27	M3.5 × 0.6 × 5	72	M16 × 2.0 × 24
28	M3.5 × 0.6 × 7	73	M16 × 2.0 × 32
29	M3.5 × 0.6 × 9	74	M16 × 2.0 × 40
30	M3.5 × 0.6 × 10.5	75	M16 × 2.0 × 48
69 38 31	M4 × 0.7 × 4	69 38 76	M18 × 2.5 × 18
32	M4 × 0.7 × 6	77	M18 × 2.5 × 27
33	M4 × 0.7 × 8	78	M18 × 2.5 × 36
34	M4 × 0.7 × 10	79	M18 × 2.5 × 45
35	M4 × 0.7 × 12	80	M18 × 2.5 × 54
69 38 36	M5 × 0.8 × 5	69 38 81	M20 × 2.5 × 20
37	M5 × 0.8 × 7.5	82	M20 × 2.5 × 30
38	M5 × 0.8 × 10	83	M20 × 2.5 × 40
39	M5 × 0.8 × 12.5	84	M20 × 2.5 × 50
40	M5 × 0.8 × 15	85	M20 × 2.5 × 60
69 38 41	M6 × 1.0 × 6	69 38 86	M22 × 2.5 × 22
42	M6 × 1.0 × 9	87	M22 × 2.5 × 33
43	M6 × 1.0 × 12	88	M22 × 2.5 × 44
44	M6 × 1.0 × 15	89	M22 × 2.5 × 55
45	M6 × 1.0 × 18	90	M22 × 2.5 × 66
69 38 46	M7 × 1.0 × 7	69 38 91	M24 × 3.0 × 24
47	M7 × 1.0 × 10.5	92	M24 × 3.0 × 36
48	M7 × 1.0 × 14	93	M24 × 3.0 × 48
49	M7 × 1.0 × 17.5	94	M24 × 3.0 × 60
50	M7 × 1.0 × 21	95	M24 × 3.0 × 72
69 38 51	M8 × 1.25 × 8	69 38 96	M27 × 3.0 × 40
52	M8 × 1.25 × 12	97	M30 × 3.5 × 45
53	M8 × 1.25 × 16	98	M33 × 3.5 × 49
54	M8 × 1.25 × 20	99	M36 × 4.0 × 54
55	M8 × 1.25 × 24		

Material : Stainless Steel
Metric Fine Thread

Unit Per Pcs.			
CODE	Size mm	CODE	Size mm
	Diam. x Pitch x L		Diam. x Pitch x L
69 53 11	M8 x 1.0 x 8	69 53 51	M18 x 1.5 x 18
12	M8 x 1.0 x 12	52	M18 x 1.5 x 27
13	M8 x 1.0 x 16	53	M18 x 1.5 x 36
14	M8 x 1.0 x 20	54	M18 x 1.5 x 45
15	M8 x 1.0 x 24	55	M18 x 1.5 x 54
69 53 16	M10 x 1.0 x 10	69 53 56	M20 x 1.5 x 20
17	M10 x 1.0 x 15	57	M20 x 1.5 x 30
18	M10 x 1.0 x 20	58	M20 x 1.5 x 40
19	M10 x 1.0 x 25	59	M20 x 1.5 x 50
20	M10 x 1.0 x 30	60	M20 x 1.5 x 60
69 53 21	M10 x 1.25 x 10	69 53 61	M20 x 2.0 x 20
22	M10 x 1.25 x 15	62	M20 x 2.0 x 30
23	M10 x 1.25 x 20	63	M20 x 2.0 x 40
24	M10 x 1.25 x 25	64	M20 x 2.0 x 50
25	M10 x 1.25 x 30	65	M20 x 2.0 x 60
69 53 26	M12 x 1.0 x 12	69 53 66	M22 x 1.5 x 22
27	M12 x 1.0 x 18	67	M22 x 1.5 x 33
28	M12 x 1.0 x 24	68	M22 x 1.5 x 44
29	M12 x 1.0 x 30	69	M22 x 1.5 x 55
30	M12 x 1.0 x 36	70	M22 x 1.5 x 66
69 53 31	M12 x 1.25 x 12	69 53 71	M24 x 1.5 x 24
32	M12 x 1.25 x 18	72	M24 x 1.5 x 36
33	M12 x 1.25 x 24	73	M24 x 1.5 x 48
34	M12 x 1.25 x 30	74	M24 x 1.5 x 60
35	M12 x 1.25 x 36	75	M24 x 1.5 x 72
69 53 36	M12 x 1.5 x 12	69 53 76	M24 x 2.0 x 24
37	M12 x 1.5 x 18	77	M24 x 2.0 x 36
38	M12 x 1.5 x 24	78	M24 x 2.0 x 48
39	M12 x 1.5 x 30	79	M24 x 2.0 x 60
40	M12 x 1.5 x 36	80	M24 x 2.0 x 72
69 53 41	M14 x 1.5 x 14	69 53 81	M27 x 2.0 x 40
42	M14 x 1.5 x 21	82	M28 x 1.5 x 42
43	M14 x 1.5 x 28	83	M30 x 1.5 x 45
44	M14 x 1.5 x 35	84	M30 x 2.0 x 45
45	M14 x 1.5 x 42	85	M33 x 2.0 x 49
69 53 46	M16 x 1.5 x 16	69 53 86	M36 x 1.5 x 54
47	M16 x 1.5 x 24	87	M36 x 2.0 x 54
48	M16 x 1.5 x 32	88	M36 x 3.0 x 54
49	M16 x 1.5 x 40		
50	M16 x 1.5 x 48		

Material: Stainless Steel
BSW

Unit Per Pcs.			
CODE	Size mm	CODE	Size mm
	Diam. x L mm		Diam. x L mm
69 57 11	BSW 1/8" x 5	69 57 17	BSW 1/2" x 19
12	BSW 3/16" x 7	18	BSW 9/16" x 21
13	BSW 1/4" x 9	19	BSW 5/8" x 24
14	BSW 5/16" x 12	20	BSW 3/4" x 29
15	BSW 3/8" x 14	21	BSW 7/8" x 33
69 57 16	BSW 7/16" x 17	69 57 22	BSW 1" x 38

Material: Stainless Steel
BSF

Unit Per Pcs.			
CODE	Size mm	CODE	Size mm
	Diam. x L mm		Diam. x L mm
69 57 26	BSF 3/16" x 7	69 57 32	BSF 9/16" x 21
27	BSF 1/4" x 9	33	BSF 5/8" x 24
28	BSF 5/16" x 12	34	BSF 3/4" x 29
29	BSF 3/8" x 14	35	BSF 7/8" x 33
30	BSF 7/16" x 17	36	BSF 1" x 38
69 57 31	BSF 1/2" x 19		

Material: Stainless Steel
UNC

Unit Per Pcs.			
CODE	Size mm	CODE	Size mm
	Diam. x L mm		Diam. x L mm
69 57 41	UNC 1/4" x 9	69 57 48	UNC 3/4" x 29
42	UNC 5/16" x 12	49	UNC 7/8" x 33
43	UNC 3/8" x 14	50	UNC 1" x 38
44	UNC 7/16" x 17	51	UNC 1-1/8" x 43
45	UNC 1/2" x 19	52	UNC 1-1/4" x 48
69 57 46	UNC 9/16" x 21	69 57 53	UNC 1-3/8" x 52
47	UNC 5/8" x 24	54	UNC 1-1/2" x 57

Material: Stainless Steel
UNF

Unit Per Pcs.			
CODE	Size mm	CODE	Size mm
	Diam. x L mm		Diam. x L mm
69 57 56	UNF 1/4" x 9	69 57 63	UNF 3/4" x 29
57	UNF 5/16" x 12	64	UNF 7/8" x 33
58	UNF 3/8" x 14	65	UNF 1" x 38
59	UNF 7/16" x 17	66	UNF 1-1/8" x 43
60	UNF 1/2" x 19	67	UNF 1-1/4" x 48
69 57 61	UNF 9/16" x 21	69 57 68	UNF 1-3/8" x 52
62	UNF 5/8" x 24	69	UNF 1-1/2" x 57

Material: Stainless Steel
BSP

Unit Per Pcs.			
CODE	Size mm	CODE	Size mm
	Diam. x L mm		Diam. x L mm
69 57 71	BSP 1/8" x 15	69 57 75	BSP 5/8" x 34
72	BSP 1/4" x 19	76	BSP 3/4" x 40
73	BSP 3/8" x 25	77	BSP 7/8" x 45
74	BSP 1/2" x 31	78	BSP 1" x 49

Manual Inserting Tool

Metric Size

Unit Per Pcs.			
CODE	For Heli-sert	CODE	For Heli-sert
	Coarse Thread		Fine Thread
69 59 11	M2 x 0.4	69 59 31	M8 x 1.0
12	M2.5 x 0.45	32	M10 x 1.0
13	M3 x 0.5	33	M10 x 1.25
14	M3.5 x 0.6	34	M12 x 1.0
15	M4 x 0.7	35	M12 x 1.25
69 59 16	M5 x 1.0	69 59 36	M12 x 1.5
17	M6 x 1.0	37	M14 x 1.5
18	M7 x 1.0	38	M16 x 1.5
19	M8 x 1.25	39	M18 x 1.5
20	M10 x 1.5	40	M20 x 1.5
69 59 21	M12 x 1.75	69 59 41	M20 x 2.0
22	M14 x 2.0	42	M22 x 1.5
23	M16 x 2.0	43	M24 x 1.5
24	M18 x 2.5	44	M24 x 2.0
25	M20 x 2.5		
69 59 26	M22 x 2.5		
27	M24 x 3.0		

BSW

Unit Per Pcs.			
CODE	For Heli-sert	CODE	For Heli-sert
	Diam. x L mm		Diam. x L mm
69 59 51	BSW 1/8"	69 59 57	BSW 1/2"
52	BSW 3/16"	58	BSW 9/16"
53	BSW 1/4"	59	BSW 5/8"
54	BSW 5/16"	60	BSW 3/4"
55	BSW 3/8"	61	BSW 7/8"
69 59 56	BSW 7/16"	69 59 62	BSW 1"

BSF

Unit Per Pcs.

CODE	For Heli-sert	CODE	For Heli-sert
69 59 66	BSF 3/16"	69 59 72	BSF 9/16"
67	BSF 1/4"	73	BSF 5/8"
68	BSF 5/16"	74	BSF 3/4"
69	BSF 3/8"	75	BSF 7/8"
70	BSF 7/16"	76	BSF 1"
69 59 71	BSF 1/2"		

UNC

Unit Per Pcs.

CODE	For Heli-sert	CODE	For Heli-sert
69 59 81	UNC 1/4"	69 59 86	UNC 9/16"
82	UNC 5/16"	87	UNC 5/8"
83	UNC 3/8"	88	UNC 3/4"
84	UNC 7/16"	89	UNC 7/8"
85	UNC 1/2"	90	UNC 1"

UNF

Unit Per Pcs.

CODE	For Heli-sert	CODE	For Heli-sert
69 61 11	UNF 1/4"	69 61 16	UNF 9/16"
12	UNF 5/16"	17	UNF 5/8"
13	UNF 3/8"	18	UNF 3/4"
14	UNF 7/16"	19	UNF 7/8"
15	UNF 1/2"	20	UNF 1"

Inserting Tool 1/2"

Metric Size

Unit Per Pcs.

Coarse Thread		Fine Thread	
69 61 21	M27 x 3.0	69 61 26	M27 x 2.0
22	M30 x 3.5	27	M28 x 1.5
23	M33 x 3.5	28	M30 x 1.5
24	M36 x 4.0	29	M30 x 2.0
		30	M33 x 2.0
		69 61 31	M36 x 3.0
		32	M36 x 2.0
		33	M36 x 1.5

UNC / UNF / BSP

Unit Per Pcs.

CODE	For Heli-sert	CODE	For Heli-sert
Inserting Tool 1/2" - UNC		Inserting Tool 1/4" - BSP	
69 61 36	UNC 1-1/8"	69 61 46	BSP 1/8"
37	UNC 1-1/4"	47	BSP 1/4"
38	UNC 1-3/8"	48	BSP 3/8"
39	UNC 1-1/2"	49	BSP 1/2"
Inserting Tool 1/2" - UNF		Inserting Tool 1/2" - BSP	
69 61 41	UNF 1-1/8"	69 61 51	BSP 5/8"
42	UNF 1-1/4"	52	BSP 3/4"
43	UNF 1-3/8"	53	BSP 7/8"
44	UNF 1-1/2"	54	BSP 1"

Manual Removal Tool

Unit Per Pcs.

CODE	For Heli-sert	CODE	For Heli-sert
69 61 56	M3 - M10	69 61 58	3/16" - 3/8"
57	M11 - M24	59	3/8" - 1"

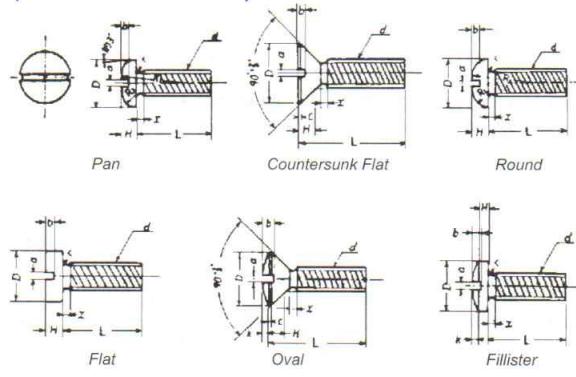
Various Tools for Heli-Sert



Slotted Head Machine Screws

Tornillos Ranurado para Máquina すりわり付小ねじ 一字槽机制螺钉

(Ref. JIS B 1101 - 87)



Size mm

Nominal Size	Pitch	D					L
		Pan, Round	Court, Flat, Fillister	Flat, Oval	Truss	Binding	
M1.0	0.25	2.0	2.0				3-10
M1.2	0.25	2.3	2.4				3-12
M1.6	0.35	3.0	3.2				3-16
M1.7	0.35	3.2	3.4				4-20
M2.0	0.40	3.5	4.0	4.5	4.3		4-20
M2.3	0.40	4.0	4.6	5.2	4.9		5-30
M2.5	0.45	4.5	5.0	5.7	5.3		5-30
M2.6	0.45	4.5	5.2	5.9	5.5		5-30
M3x0.5	0.50	5.5	6.0	6.9	6.3		5-40
M4x0.7	0.70	7.0	6.0	9.4	6.3		6-50
M5x0.8	0.80	9.0	10.0	11.8	10.3		8-50
M6.0	1.00	10.5	12.0	14.0	12.4		8-60
M8.0	1.25	14.0	16.0	17.8	16.4		10-60

Material: Steel, Stainless Steel, Brass

Thread : Metric Coarse Thread

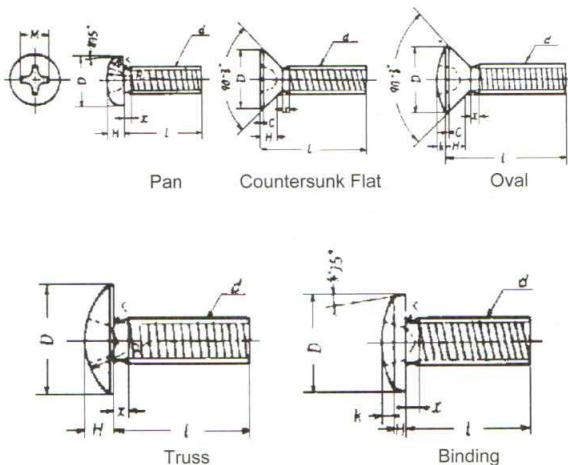
Guide of How to Order

CODE	69 40 01
Name	Machine screw
Material.....	Steel
Shape	Slotted round head
Nominal Size & Thread.....	M1.6
Length.....	8 mm

Cross-Recessed Head Machine Screws

Tornillos Cabeza de Cruz 十字穴付き小ねじ 十字槽机制螺钉

(Ref. JIS B 1111 - 87)



Nominal Size d	Pitch	Cross No.	D				L
			Pan	Count. Oval	Truss	Binding	
M2	0.4		3.5	4	4.5	4.3	4-20
M2.3	0.4		4	4.6	5.2	4.9	5-30
M2.5	0.45		4.5	5	5.7	5.3	5-30
M2.6	0.45		4.5	5.2	5.9	5.5	5-30
M3 x 0.5	0.5		5.5	6	6.9	6.3	5-40
M4 x 0.7	0.7		7	8	9.4	8.3	6-50
M4.5	0.75		8	9	10.6	9.3	6-50
M5 x 0.8	0.8		9	10	11.8	10.3	8-50
M6	1.0		10.5	12	14	12.4	8-60
M8	1.25	3	14	16	17.8	16.4	10-60

Material: Steel, Stainless Steel, Brass
Thread : Metric Coarse Thread

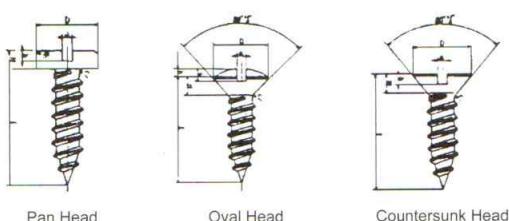
Guide of How to Order

CODE 69 42 01
Name Machine screw
Material Brass
Shape Cross recessed oval head
Nominal Size & Thread M3 x 0.5
Length 20 mm

Tapping Screws (Sheet Metal Screws)

Slotted Head

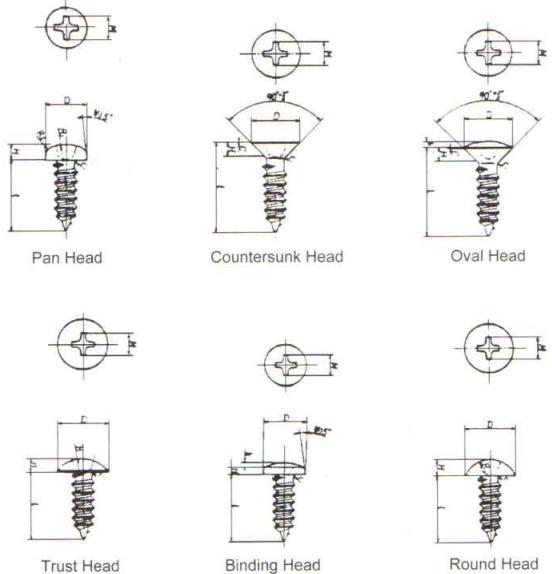
(Ref. JIS B 1115 – 88)



Nominal Size	2 - 6
Material	Steel, Stainless Steel
Length mm	2 - 50

Cross-Recessed Head

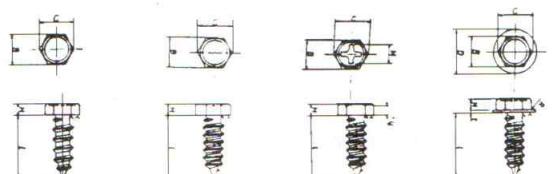
(Ref. JIS B 1122 – 88)



Nominal Size	2 - 6
Material	Steel, Stainless Steel
Length mm	2 - 50

Hexagon Head

(Ref. JIS B 1123 – 88)



Nominal Size	22 - 8
Material	Steel, Stainless Steel
Length mm	5 - 60

Guide of How to Order

CODE 69 44 01
Name Tapping screw
Material Steel
Shape Cross recessed oval head
Nominal Size 2.2 mm
Length 5 mm

Please confirm Thread Type when ordering.

Slotted Head Wood Screws

Tornillos de madera con cabeza ranurada

すりわり付木ねじ 开槽头木螺钉

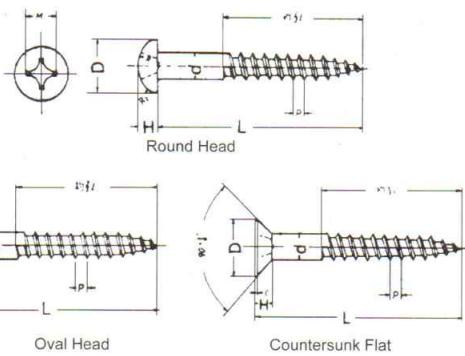
(Ref. JIS B 1135 – 74)

Cross-Recessed Head Wood Screws

Tornillo Rosca Madera Cabeza de Cruz

十字穴付き木ねじ 十字头木螺丝

(Ref. JIS B 1112 – 74)



Nominal Size d	Cross Recessed No.	Size mm					
		D		H (H+K)			L
		Head		Round	Oval	Count.	
1.6 1.8 2.1 2.4 2.7	1	3	3.2	1.3	0.95	1.35	6.3 - 13 6.3 - 20 10 - 20
		3.3	3.6	1.4	1.05	1.45	
		3.9	4.2	1.6	1.25	1.75	
		4.4	4.8	1.8	1.4	2	
		5	5.4	2	1.55	2.25	
3.1 3.5 3.8 4.1 4.5 4.8	2	5.7	6.2	2.3	1.8	2.6	10 - 25
		6.5	7	2.5	2	2.8	13 - 40
		7	7.6	2.7	2.15	3.05	13 - 40
		7.6	8.2	2.9	2.35	3.35	16 - 50
		8.3	9	3.1	2.55	3.65	16 - 63
		8.9	9.6	3.3	2.7	3.8	20 - 70
5.1 5.5 5.8 6.2 6.8	3	9.4	10.2	3.5	2.85	4.05	20 - 70
		10.2	11	3.8	3.05	4.35	20 - 80
		10.7	11.6	4	3.2	4.6	22 - 80
		11.5	12.4	4.2	3.5	4.9	25 - 80
		12.6	13.6	4.6	3.8	5.4	25 - 100
		13.9	15	5	4.15	5.95	25 - 100
7.5 8 9.5	4	14.8	16	5.3	4.4	6.2	32 - 100
		17.6	19	6.3	5.15	7.45	32 - 100

Material: Steel, Stainless Steel, and Brass

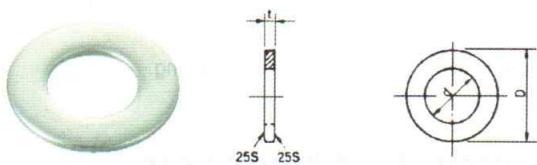
Guide of How to Order

- CODE 69 46 01
 Name Wood screw
 Material Brass
 Head Type Slotted round head
 Nominal Size & Thread 2.4 mm
 Length 10 mm

Plain Washers

Arandela Plana 平座金 平垫圈

(Ref. JIS B 1256 - 78)



Type	Small Size, Polished, Normal
Material	Steel, Stainless Steel, Brass
Nominal Size	1 - 82 mm

Guide of How to Order

- CODE 69 48 01
 Name Round washer
 Material Steel, Stainless steel or Brass
 Nominal Size Specify necessary SIZE

Steel

Unit Per Pcs.

CODE	Size mm			CODE	Size mm		
	I.D.	O.D.	Thick		I.D.	O.D.	Thick
69 48 11	M2.0	6	0.4	69 48 19	M14.0	30	2.6
	12	8	0.5		M16.0	32	2.6
	13	10	0.8		M18.0	36	2.6
	14	12	0.8		M20.0	40	3.2
	15	13	1.0		M22.0	44	3.2
69 48 16	M8.0	18	1.6	69 48 24	M24.0	48	4.0
	17	22	1.6		M27.0	52	4.0
	18	26	2.3		M30.0	58	4.5

Stainless Steel

Unit Per Pcs.

CODE	Size mm			CODE	Size mm		
	I.D.	O.D.	Thick		I.D.	O.D.	Thick
69 48 31	M2.0	6	0.4	69 48 39	M14.0	30	2.6
	32	8	0.5		M16.0	32	2.5
	33	10	0.8		M18.0	36	2.5
	34	12	0.8		M20.0	40	3.0
	35	13	1.0		M22.0	44	3.0
69 48 36	M8.0	18	1.6	69 48 44	M24.0	48	3.0
	37	22	1.6		M27.0	52	3.0
	38	26	2.3		M30.0	58	4.0

Brass

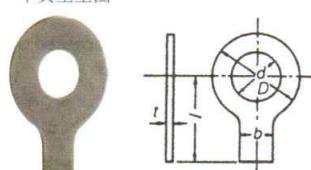
Unit Per Pcs.

CODE	Size mm			CODE	Size mm		
	I.D.	O.D.	Thick		I.D.	O.D.	Thick
69 48 51	M2.0	6	0.4	69 48 59	M14.0	30	2.6
	52	8	0.5		M16.0	32	2.6
	53	10	0.8		M18.0	36	2.6
	54	12	0.8		M20.0	40	3.2
	55	13	1.0		M22.0	44	3.2
69 48 56	M8.0	18	1.6	69 48 64	M24.0	48	4.0
	57	22	1.6		M27.0	52	4.0
	58	26	2.3		M30.0	58	4.5

Single Flapped Washers

Arandela de Seguridad con Una sola Solapa

片舌付き座金 单翼型垫圈



Nominal Size	Size mm						
	Whitworth	Metric	d	D	t	I	b
-	3	3.2	12	0.29	13	4	
-	4	4.3	14	0.29	14	5	
-	5	5.3	17	0.5	15	6	
-	6	6.5	18	0.5	15	6	
-	8	8.5	22	0.5	20	7	
3/8	-	10	26	0.8	22	9	
-	10	26	0.8	22	9		
7/16	11	11.5	28	0.8	24	9	
-	12	12.5	30	0.8	27	10	
1/2	13	13.5	30	0.8	27	10	
9/16	14	15	32	0.8	30	10	
5/8	16	17	38	1.2	32	12	
11/16	17	18	42	1.2	34	14	
-	18	19	42	1.2	34	14	
3/4	19	20	45	1.2	36	15	
-	20	21	45	1.2	36	15	
13/16	-	22	45	1.2	36	15	
7/8	22	23	48	1.2	40	16	
15/16	24	25	52	1.2	44	17	
1	-	27	58	1.6	48	20	

(to be continued)

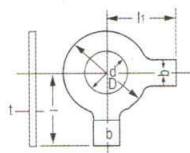
Nominal Size		Size mm				
Whitworth	Metric	d	D	t	I	b
-	27	28	58	1.6	48	20
1-1/8	-	30	62	1.6	52	21
-	30	31	62	1.6	52	21
1-1/4	-	33	68	1.6	55	23
-	33	34	68	1.6	55	23
1-3/8	-	35	75	1.6	60	25
-	36	37	75	1.6	60	25
1-1/2	-	39	80	1.8	65	26
-	39	40	80	1.8	65	26
1-5/8	-	43	85	1.8	70	28
-	42	44	85	1.8	70	28
1-3/4	-	46	90	1.8	75	30
-	45	47	90	1.8	75	30
1-7/8	48	50	95	1.8	85	32
2	-	53	100	1.8	85	34
-	52	54	100	1.8	85	34

Guide of How to Order

CODE 69 49 01
 Name Single flapped washer
 Material Steel
 Nominal Size 3 mm

Double Flapped Washers

Arandelas de Seguridad con Doble Solapa
 両舌付き座金 双翼型垫圈



Nominal Size		Size mm					
Whitworth	Metric	d	D	t	I	I ₁	b
-	3	3.2	7	0.29	13	5	4
-	4	4.3	9	0.29	14	7	5
-	5	5.3	10	0.5	15	8	6
-	6	6.5	13	0.5	15	9	6
-	8	8.5	16	0.5	20	13	7
3/8	-	10	20	0.8	22	14	9
-	10	10.5	20	0.8	22	14	9
7/16	11	11.5	22	0.8	24	17	9
-	12	12.5	24	0.8	27	19	10
1/2	13	13.5	24	0.8	27	19	10
9/16	14	15	26	0.8	30	21	10
5/8	16	17	30	1.2	32	24	12
11/16	17	18	34	1.2	34	26	14
-	18	19	34	1.2	34	26	14
3/4	19	20	38	1.2	36	28	15
-	20	21	38	1.2	36	28	15
13/16	-	22	38	1.2	36	28	15
7/8	22	23	40	1.2	40	32	16
15/16	24	25	44	1.2	44	35	17
1	-	27	48	1.6	48	38	20
-	27	28	48	1.6	48	38	20
1-1/8	-	30	52	1.6	52	42	21
-	30	31	52	1.6	52	42	21
1-1/4	-	33	58	1.6	55	46	23
-	33	34	58	1.6	55	46	23
1-3/8	-	36	62	1.6	60	50	25
-	36	37	62	1.6	60	50	25
1-1/2	-	39	68	1.8	65	55	26
-	39	40	68	1.8	65	55	26
1-5/8	-	43	72	1.8	70	62	28
-	42	44	72	1.8	70	62	28
1-3/4	-	46	78	1.8	75	65	30
-	45	47	78	1.8	75	65	30
1-7/8	48	50	82	1.8	80	70	32
2	-	53	88	1.8	85	75	34
-	52	54	88	1.8	85	75	34

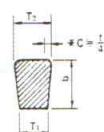
Guide of How to Order

CODE 69 50 01
 Name Double flapped washer
 Material Steel
 Nominal Size 3 mm

Spring Lock Washers

Arandelas de Presión ばね座金 弹簧垫圈

(Ref. JIS B 1251 - 84)

**Guide of How to Order**

Type	No. 2, For General Use
Material	Steel Stainless Steel, Phosphor Bronze
Nominal Size	Metric
Type	No. 3, For Heavy-duty Use
Material	Steel, or Stainless steel
Nominal Size	Specify necessary SIZE

Steel

Unit Per Pcs.

CODE	Size I.D.	CODE	Size I.D.
69 52 11	M2.0	69 52 19	M14.0
12	M3.0	20	M16.0
13	M4.0	21	M18.0
14	M5.0	22	M20.0
15	M6.0	23	M22.0
69 52 16	M8.0	69 52 24	M24.0
17	M10.0	25	M27.0
18	M12.0	26	M30.0

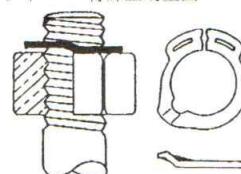
Stainless Steel

Unit Per Pcs.

CODE	Size I.D.	CODE	Size I.D.
69 52 31	M2.0	69 52 39	M14.0
32	M3.0	40	M16.0
33	M4.0	41	M18.0
34	M5.0	42	M20.0
35	M6.0	43	M22.0
69 52 36	M8.0	69 52 44	M24.0
37	M10.0	45	M27.0
38	M12.0	46	M30.0

"Super Lock" Washers

Arandelas de "Super Presión"
 スーパーロックワッシャー 特殊止动垫圈



An ideal locking device for use on bolts, studs and nuts in service where vibration and loosening are a problem.

Uses: Rail maintenance, mining, construction machinery, automotive, general industry.

Manufactured in metrics standard & suit ISO metric, UNC, BS, Whitworth thread forms.

Made of steel.

Unit Per Minimum 100 Pcs.

CODE	Size	CODE	Size	CODE	Size
69 54 01	M 4	69 54 06	M 12	69 54 11	M 24
02	M 5	07	M 16	12	M 25
03	M 6	08	M 19	13	M 30
04	M 8	09	M 20	14	M 33
05	M 10	10	M 22	15	M 36

Steel Retaining Rings (C Type)

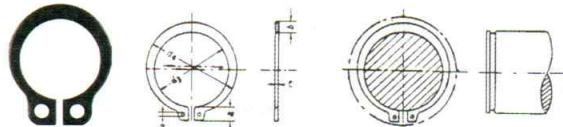
(Circlip)

Anillos Retenedores de Acero (Tipo C) 止め輪 固定圈

(Ref. JIS B 2804 - 78)

External

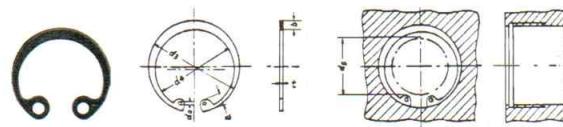
Externo C 形止め輪 (軸用) C 型固定圈 (軸用)



Nominal Size 10 mm through 125 mm

Internal

Interno C 形止め輪 (穴用) C 型固定圈 (内孔用)



Nominal Size 10 mm through 125 mm

Guide of How to Order

CODE 69 55 02
Name Steel retaining ring
Type C type, external
Nominal Size 10 mm

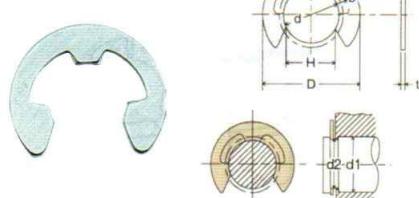
CODE 69 55 03
Name Steel retaining ring
Type C type, internal
Nominal Size 10 mm

Steel Retaining Rings (E Type)

(Circlip)

Anillos Retenedores de Acero (Tipo E)
E 形止め輪 (軸用) E 型固定圈 (軸用)

(Ref. JIS B 2805 - 78)



Nominal Size 0.8 mm through 12 mm

Guide of How to Order

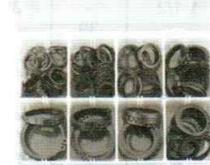
CODE 69 55 01
Name Steel retaining ring
Type E type, external
Nominal Size 10 mm

Circlip Kits

Kit de Anillo de Retención

サークリップキット 弹性檔圈組

Assorted with 3 types of steel circlips, External, Internal and E type, in a compartmented plastic box.



Contents of Kits

Kit 1					
External		Internal		'E' Type	
Nom. Size	Q'ty Pc.	Nom. Size	Q'ty Pc.	Nom. Size	Q'ty Pc.
3	75	8	40	1.4	75
4	70	10	30	2	70
5	65	12	30	3	65
6	60			4	60
8	50			5	50
10	30			6	30
12	30			8	30
				10	30

Kit 2					
External		Internal		'E' Type	
Nom. Size	Q'ty Pc.	Nom. Size	Q'ty Pc.	Nom. Size	Q'ty Pc.
14	25	14	25	11	25
16	25	15	25	13	25
18	25	16	25	16	25
19	25	18	25		
20	25	19	25		
22	25	20	25		
25	25	22	25		
		25	25		

Unit Per Set			
CODE	Kit No.	Total Numbers of Circlips	
69 55 11	1	890	
12	2	450	

Machine Keys

Llave de Máquina マシンキー 機器鑰匙

Made of Steel or Stainless Steel bars with double square ends to make your own machine keys.



Steel (S-45C)

Unit Per P.c.

CODE	Size mm		CODE	Size mm	
	b x h	Length		b x h	Length
69 56 01	3 x 3		69 56 16	25 x 14	
02	4 x 4		17	28 x 16	
03	5 x 5	300	18	32 x 18	
04	6 x 6		19	35 x 22	300
05	7 x 7		20	36 x 20	
69 56 06	8 x 7		69 56 21	38 x 24	
07	10 x 8		22	40 x 22	
08	12 x 8	300	23	42 x 26	300
09	14 x 9		24	45 x 25	
10	15 x 10		25	50 x 28	
69 56 11	16 x 10				
12	18 x 11				
13	20 x 12				
14	22 x 14				
15	24 x 16				

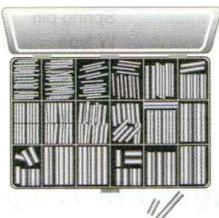
Stainless Steel (SUS-304)

CODE	Size mm		CODE	Size mm		Unit Per Pcs.
	b x h	Length		b x h	Length	
69 56 31	3 x 3	300	69 56 41	12 x 12	300	
32	4 x 4			42		
33	5 x 5			43		
34	6 x 6			44		
35	7 x 7			45		
69 56 36	8 x 8	300	69 56 46	24 x 16	300	
37	10 x 8			47		
38	10 x 10			48		
39	12 x 8			49		
40	12 x 10					

Dowel Pin Kits

Kit de Pin Dowel ダウェルピンキット 定位梢組

Hardened mild steel dowel pin kits of assorted sizes as shown in the table below. Available three patterns of kit for your option, and supplied in a compartmented plastic box.



Diam x Length mm	Q'ty Pcs	Diam x Length mm	Q'ty Pcs
------------------	----------	------------------	----------

Metric Parallel Pins Containing 315 Pins

2.5 x 10	25	6 x 24	12
2.5 x 12	25	6 x 32	12
2.5 x 20	20	6 x 40	10
3 x 12	25	8 x 24	10
3 x 20	20	8 x 40	10
3 x 24	15	8 x 50	8
4 x 20	20	10 x 24	10
4 x 24	20	10 x 40	8
4 x 32	15	10 x 50	8
5 x 20	15		
5 x 28	15		
5 x 36	12		

Metric Tapered Pins Containing 345 Pins

2 x 12	30	4 x 20	20
2 x 16	30	4 x 25	15
2 x 20	30	4 x 30	15
2.5 x 16	25	5 x 25	15
2.5 x 20	25	5 x 30	15
2.5 x 25	20	5 x 40	10
3 x 20	25	6 x 30	10
3 x 25	20	6 x 35	10
3 x 30	20	6 x 40	10

Imperial Parallel Pins Containing 350 Pins

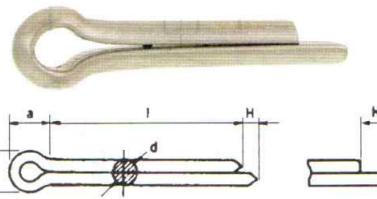
3/32 x 3/8	30	1/4 x 3/4	12
3/32 x 1/2	30	1/4 x 1	12
3/32 x 3/4	30	1/4 x 1-1/2	10
1/8 x 1/2	25	5/16 x 1	10
1/8 x 3/4	25	5/16 x 1-1/2	10
1/8 x 1	20	5/16 x 2	8
5/32 x 1/2	25	3/8 x 1	10
5/32 x 3/4	20	3/8 x 1-1/2	8
5/32 x 1	15	3/8 x 2	8
3/16 x 3/4	15		
3/16 x 1	15		
3/16 x 1-1/4	12		

Unit Per Set		
CODE	Type	Total Q'ty
69 56 51	Metric parallel	315
52	Metric tapered	345
53	Imperial parallel	350

Split Pins

Pasador Aleta 割りピン 开口销

(Ref. JIS B 1351 - 87)



Material	Steel, Stainless Steel, Brass, Copper
Nominal Size	0.6 - 20 mm
Length	4 - 280 mm

Guide of How to Order

CODE	69 58 01
Name	Spring pin (Cotter pin)
Material	Steel
Nominal Size	4 mm
Length	10 mm

Taper Pins

Pasadores Cónicos テーパピン 圆锥销

(Ref. JIS B 1352 - 88)



Nominal Size	d Standard	L	Nominal Size	d	L
				Standard	
0.6	0.6	4-10	6	6	28- 80
0.8	0.8	5-14	8	8	36-125
1	1	6-16	10	10	45-140
1.2	1.2	8-18	13	13	56-160
1.6	1.6	10-25	16	16	70-200
2	2	12-28	20	20	80-225
2.5	2.5	14-36	25	25	100-250
3	3	16-50	30	30	100-280
4	4	18-63	40	40	100-280
5	5	25-70	50	50	100-280

Material: Steel, Stainless Steel

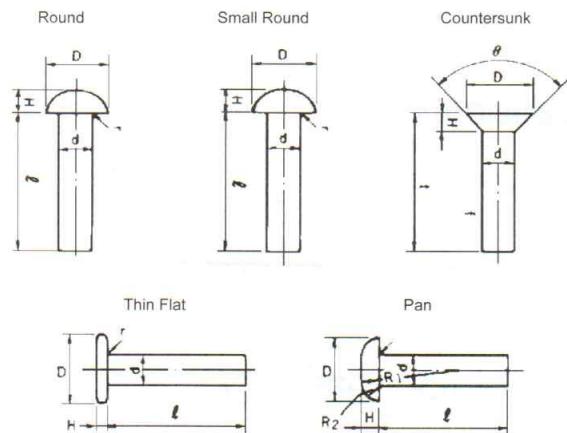
Guide of How to Order

CODE	69 60 01
Name	Taper pin
Material	Steel
Nominal Size	1.2 mm
Length	14 mm

Cold Headed Rivets

Remaches Cabeza Fría 冷間成形リベット 冷锻铆钉

(Ref. JIS B 1213 - 78)



Nominal Size(d)	Standard Size D					L
	Round	S.Round	Count.	T.Flat	Pan	
1		1.8	2			
1.2		2.2	2.4			
1.4		2.5	2.8			
1.6		3.0	3.2			Round 3-70
1.7		3.0	3.4			
2		3.5	4.0	4.0		Small Round 1-30
2.3		4.0	4.6	4.6		
2.5		4.5	5.0	5.0		
2.6		4.5	5.2	5.2		
3	5.7	5.2	6.0	6.0	6.0	Counter Sunk 1.5-70
3.5	6.7	6.2	7.0	7.0	7.0	
4	7.2	7.0	8.0	8.0	8.0	
4.5	8.1	-	9.0	9.0	-	Thin Flat
5	9.0	8.8	10.0	10.0	9.5	
6	10.0		12.0	12.0	10.8	
8	13.3		16.0			2-36
10	16.0		16.0			
12	19.3		19.0			
13	21.0		21.0			
14	22.0		22.0			

Material: Cold Drawn Steel, Brass, Copper, Aluminium

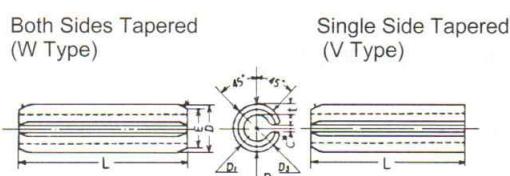
Guide of How to Order

CODE 69 62 01
 Name Cold headed rivet
 Material Steel
 Head Type Round
 Nominal Size 5 mm
 Length 20 mm

Spring Pins

Pasadres Elásticos スプリングピン 弹簧销

(Ref. JIS B 2808 - 78)



Nominal Size	D		t	Applicable Hole Dia	Size mm L
	Max.	Mini			
1	1.2	1.1	0.2	1	4- 10
1.2	1.4	1.3	0.25	1.2	4- 12
1.4	1.6	1.5	0.28	1.4	4- 14
1.5	1.7	1.6	0.3	1.5	4- 14
1.6	1.8	1.7	0.3	1.6	4- 16
2	2.25	2.15	0.4	2	5- 20
2.5	2.75	2.65	0.5	2.5	5- 25
3	3.25	3.15	0.6	3	6- 32
4	4.4	4.2	0.8	4	8- 40
5	5.4	5.2	1	5	10- 50
6	6.4	6.2	1.2	6	12- 63
8	8.6	8.3	1.6	8	16- 80
10	10.6	10.3	2	10	18-100
13	13.7	13.4	2.5	13	22-140

Material: Steel

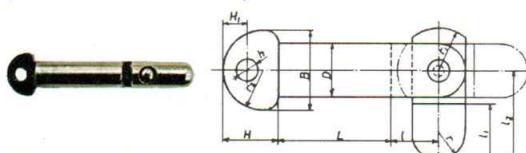
Guide of How to Order

CODE 69 64 01
 Name Spring pin
 Type W type
 Material Steel
 Nominal Size 2 mm
 Length 10 mm

Ship's Toggle Pin A Type

Chaveta Tipo A para Barco 割りピン A型船用套环销

(Ref. JIS F 3905-1975)



Material: Steel

Nominal Size	D	B	L	Nominal Size	D	B	L
6	6	10	12-25	20	20	30	45- 65
8	8	12	18-35	22	22	32	50- 85
10	10	14	20-40	25	25	38	55- 90
12	12	18	25-45	28	28	42	60- 95
14	14	20	30-50	30	30	44	65-100
16	16	24	35-55	35	35	52	75-130
18	18	26	40-60	40	40	60	85-140

Guide of How to Order

CODE 69 68 01
 Name Toggle pin
 Type A
 Material Steel
 Nominal Size 12 mm
 Length 30 mm

Material: Galvanized Steel

Nominal Size	D	B	L	Nominal Size	D	B	L
6	6	10	15- 55	16	16	24	35-100
8	8	12	20- 60	18	18	26	40-100
10	10	14	20-100	20	20	30	45-100
12	12	18	25-100	22	22	32	50- 85
14	14	20	30-100	25	25	38	50- 80

Guide of How to Order

CODE 69 68 02
 Name Toggle pin
 Type A
 Material Galvanized Steel
 Nominal Size 12 mm
 Length 30 mm

Material: Stainless Steel

Nominal Size	D	B	L	Size mm			
				Nominal Size	D	B	L
6	6	10	15-55	16	16	24	35-100
8	8	12	20-100	18	18	26	40-100
10	10	14	20-100	20	20	30	45-100
12	12	18	25-100	22	22	32	50-80
14	14	20	35-100				

Guide of How to Order

CODE 69 68 03
 Name Toggle pin
 Type A
 Material Stainless Steel
 Nominal Size 12 mm
 Length 30 mm

Material: Brass

Nominal Size	D	B	L	Size mm			
				Nominal Size	D	B	L
8	8	12	20-50	16	16	24	35-70
10	10	14	20-65	18	18	26	45-70
12	12	18	25-65	20	20	30	45-75
14	14	20	35-65	22	22	32	50-80

Guide of How to Order

CODE 69 68 04
 Name Toggle pin
 Type A
 Material Brass
 Nominal Size 12 mm
 Length 30 mm

Cup Hooks, Brass

Alcayatas Abiertas Latonadas
 真鍮カップフック 铜帽挂钩

Made of solid brass to assure a rigid made hook.



CODE	No.	Length	CODE	No.	Length	Unit Per Set	
						A	B
69 66 01	13	16 mm	69 66 06	9	32 mm		
02	12	20 mm	07	8	38 mm		
03	12	22 mm	08	7	45 mm		
04	11	25 mm	09	7	50 mm		
05	10	28 mm					

Screw Hooks, Brass

Tornillo de ganchos, Latón
 真鍮 L型フック 铜 L型挂钩

Made of solid brass.



CODE		No.	Length	CODE		No.	Length
69 66 21	13	16 mm	69 66 26	9	32 mm		
22	12	20 mm	27	8	38 mm		
23	12	22 mm	28	7	45 mm		
24	11	25 mm	29	7	50 mm		
25	10	28 mm					

Screw Eyes, Brass

Tornillo con anillo, Latón
 丸フック 铜圆圈挂钩

Made of solid brass.

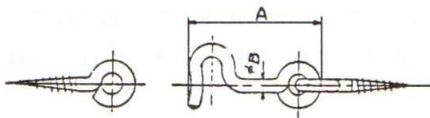


CODE		No.	Length	CODE		No.	Length
69 66 41	00	15 mm	69 66 47	10	40 mm		
42	0	20 mm	48	12	45 mm		
43	2	23 mm	49	14	50 mm		
44	4	25 mm	50	16	60 mm		
45	6	30 mm	51	18	65 mm		
69 66 46	8	35 mm	69 66 52	20	75 mm		

Gate Hooks & Eyes, Brass

Ganchos con Armella Cerrada Latonados

ゲートフックアイ 门钩和耳环



CODE	Size mm		CODE	Size mm	
	A	B		A	B
69 66 61	32	2.9	69 66 64	65	3.5
62	38	3.0	65	90	4.0
63	50	3.2			

Please don't confuse following
 (1) (2) (3) (4) screws when ordering.

1. Hexagon Head Set Screw



2. Hexagon Socket Set Screw



3. Hexagon Socket Head Cap Screw



4. Hexagon Head Cap Screw-U.S.A.
 (Hexagon Head Bolt)

