



KONDOTEC

CATALOG

GUIDANCE



Guidance

TECHNOLOGY, EQUIPMENT AND DEVELOPMENT POWER THAT KEEPS

KYUSHU FACTORY



KYUSHU FACTORY 1

JIS AUTHORIZATION FACTORY
ISO 9001 AUTHORIZATION FACTORY
SCAFFOLDING AUTHORIZATION FACTORY



KYUSHU FACTORY 2 & 3

SHIGA FACTORY



JIS AUTHORIZATION FACTORY
ISO 9001 AUTHORIZATION FACTORY

JIS AUTHORIZATION

KYUSHU FACTORY



SHIGA FACTORY



KANTO FACTORY



SAPPORO FACTORY



- ▶ JIS A 5540 TURNBUCKLE FOR CONSTRUCTION
- ▶ JIS A 5541 TURNBUCKLE BODY FOR CONSTRUCTION
- ▶ JIS A 5542 TURNBUCKLE BOLT FOR CONSTRUCTION

- ▶ JIS A 5540 TURNBUCKLE FOR CONSTRUCTION
- ▶ JIS A 5542 TURNBUCKLE BOLT FOR CONSTRUCTION

KANTO FACTORY



JIS AUTHORIZATION FACTORY
ISO 9001 AUTHORIZATION FACTORY

SAPPORO FACTORY



JIS AUTHORIZATION FACTORY

KANTO DISTRIBUTION CENTER



ISO 9001 REGISTRATION CERTIFICATION

(REGISTRATION NO. JQA-QM4017)

KYUSHU FACTORY

(REGISTRATION NO. JQA-13365)

SHIGA FACOTRY

(REGISTRATION NO. JSQA 1230)

KANTO FACTORY

(REGISTRATION NO. RQ2117)

SAPPORO FACTORY





PRODUCTION LINE FOR TURNBUCKLE



PRODUCTION LINE FOR CHAIN



PRODUCTION LINE FOR SEPARATOR



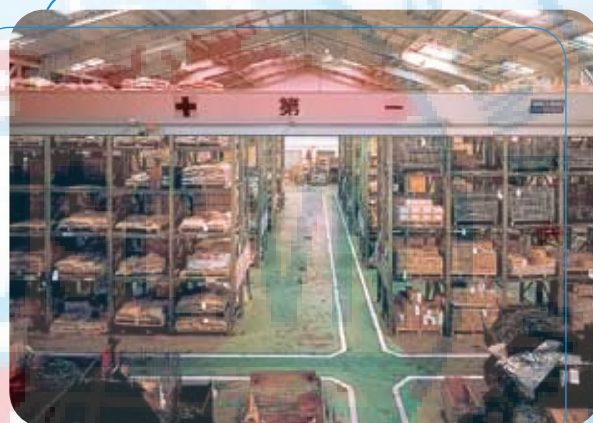
PRODUCTION LINE FOR DROP FORGED

WE 'LL ANSWER CUSTOMER'S NEEDS BY HIGH QUALITY AND LOW COST

PRODUCTS, PRODUCTION LINE



PRODUCTION LINE FOR BRACE



STOCK YARD (FINAL PRODUCTS)



PRODUCTION LINE FOR STEEL PLATE OF CONSTRUCTION



STOCK YARD (MATERIAL)



1	Guidance
2	Wire Ropes, Fiber Ropes, Rope Fittings
3	Lifting Equipments
4	Shackles
5	TurnBuckles
6	Logistical Cargo Handling Instrument
7	Chains
8	Formwork Member
9	Scaffolding Materials
10	Nets and Sheets
11	Ship's Equipments
12	Stainless Steel Products

WIPE ROPES FIBER ROPES ROPE FITTINGS



Wire Ropes, Fiber Ropes, Rope Fittings



JIS Standard Steel Wire Rope (JIS G3525-1998)

2

Wire Ropes, Fiber Ropes, Rope Fittings

6×7

Construction	6×7
Section	

Dia mm	Breaking Load		Approx Weight Kg/m
	GALV Grade G	UN-GALV Grade A	
	kN	kN	
6	19.0	21.4	0.134
8	33.8	38.1	0.237
9	42.8	48.2	0.300
10	52.8	59.5	0.371
12	76.0	85.6	0.534
14	103	117	0.727
16	135	152	0.950
18	171	193	1.20
20	211	238	1.48
22	256	288	1.80
24	304	343	2.14
26	357	402	2.51
28	414	466	2.91
30	475	535	3.34
32	541	609	3.80

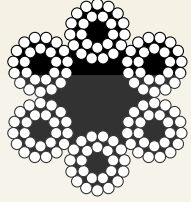
6×19

Construction	6×19
Section	

Dia mm	Breaking Load		Approx Weight Kg/m
	GALV Grade G	UN-GALV Grade A	
	kN	kN	
6	18.1	19.4	0.131
8	32.1	34.6	0.233
9	40.7	43.8	0.295
10	50.2	54.0	0.364
12	72.3	77.8	0.524
14	98.4	106	0.713
16	128	138	0.932
18	163	175	1.18
20	201	216	1.46
22	243	261	1.76
24	289	311	2.10
26	339	365	2.46
28	393	424	2.85

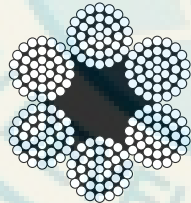
JIS Standard Steel Wire Rope (JIS G 3525-1998)

6×24

Construction	6×24
Section	

Dia mm	Breaking Load		Approx Weight Kg/m
	GALV	UN-GALV	
	Grade G kN	Grade A kN	
6	16.5	17.7	0.120
8	29.3	31.6	0.212
9	37.1	39.9	0.269
10	45.8	49.3	0.332
12	65.9	71.0	0.478
14	89.7	96.6	0.651
16	117	126	0.850
18	148	160	1.08
20	183	197	1.33
22	222	239	1.61
24	264	284	1.91
26	309	333	2.24
28	359	387	2.60
30	412	444	2.99
32	469	505	3.40
36	593	639	4.30
40	732	789	5.31

6×37

Construction	6×37
Section	

Dia mm	Breaking Load		Approx Weight Kg/m
	GALV	UN-GALV	
	Grade G kN	Grade A kN	
6	17.8	19.1	0.129
8	31.6	34.0	0.230
9	40.0	43.0	0.291
10	49.4	53.1	0.359
12	71.1	76.5	0.517
14	96.7	104	0.704
16	126	136	0.920
18	160	172	1.16
20	197	212	1.44
22	239	257	1.74
24	284	306	2.07
26	334	359	2.43
28	387	416	2.82
30	444	478	3.23
32	505	544	3.68
36	640	688	4.66
40	790	850	5.75
44	956	1030	6.96
48	1140	1220	8.28
52	1330	1440	9.72
56	1550	1670	11.3
60	1780	1910	12.9



JIS Standard Steel Wire Rope (JIS G 3525-1998)

2

Wire Ropes, Fiber Ropes, Rope Fittings

Construction	6×S (19)	6×W (19)
Section		

Construction	6×Fi (25)	6×WS (26)
Section		

Construction	IWRC 6×S (19)	IWRC 6×W (19)
Section		

Construction	IWRC 6×Fi (25)	IWRC 6×WS (26)
Section		

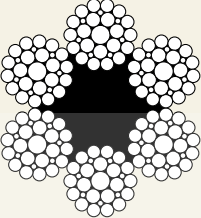
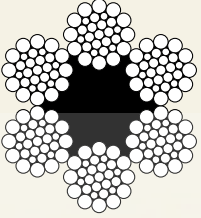
Dia mm	Breaking Load			Approx Weight Kg/m
	GALV / UN-GALV			
	Grade E	Grade A	Grade B	
	kN	kN	kN	
4	—	—	9.29	0.062
5	—	—	14.5	0.096
6	16.1	19.6	20.9	0.139
6.3	17.7	21.6	23.0	0.153
8	28.6	34.9	37.2	0.247
9	36.2	44.1	47.0	0.312
10	44.7	54.5	58.1	0.386
11.2	56.1	68.3	72.8	0.484
12	64.4	78.5	83.7	0.556
12.5	69.9	85.1	90.7	0.603
14	87.7	107	114	0.756
16	115	139	149	0.988
18	145	176	188	1.25
20	179	218	232	1.54
22.4	224	273	291	1.94
25	280	340	363	2.41
28	—	—	455	3.02
30	—	—	523	3.47
31.5	—	—	576	3.83
33.5	—	—	652	4.33
35.5	—	—	732	4.86
37.5	—	—	816	5.43
40	—	—	929	6.17

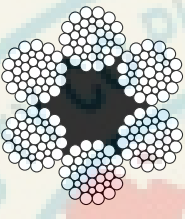
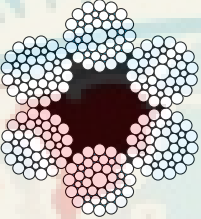
Dia mm	Breaking Load	Approx Weight Kg/m
	GALV / UN-GALV	
	Grade B kN	
10	66.2	0.430
11.2	83.0	0.539
12.5	103	0.672
14	130	0.843
16	169	1.10
18	214	1.39
20	265	1.72
22.4	332	2.16
25	414	2.69
28	519	3.37
30	596	3.87
31.5	657	4.27
33.5	743	4.83
35.5	834	5.42
37.5	931	6.05
40	1060	6.88

JIS Standard Steel Wire Rope (JIS G 3525-1998)

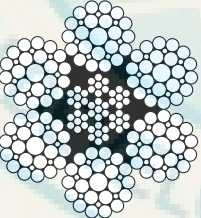
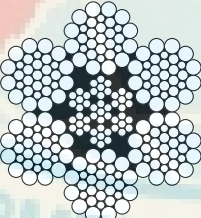
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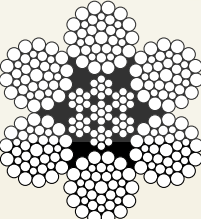
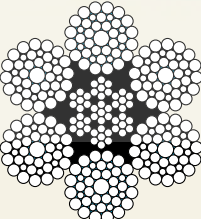
Wire Ropes, Fiber Ropes, Rope Fittings

Construction	6×Fi (29)	6×WS (31)
Section		

Construction	6×WS (36)	6×WS (41)
Section		

Dia mm	Breaking Load	Approx Weight Kg/m
	GALV / UN-GALV	
	Grade B kN	
8	37.9	0.253
9	48.0	0.321
10	59.2	0.396
11.2	74.3	0.496
12.5	92.5	0.618
14	116	0.776
16	152	1.01
18	192	1.28
20	237	1.58
22.4	297	1.99
25	370	2.47
28	464	3.10
30	533	3.56
31.5	588	3.93
33.5	665	4.44
35.5	746	4.99
37.5	833	5.57
40	948	6.33
42.5	1070	7.15
45	1200	8.01
47.5	1340	8.93
50	1480	9.90
53	1660	11.1
56	1860	12.4
60	2130	14.2

Construction	IWRC 6×Fi (29)	IWRC 6×WS (31)
Section		

Construction	IWRC 6×WS (36)	IWRC 6×WS (41)
Section		

Dia mm	Breaking Load	Approx Weight Kg/m
	GALV / UN-GALV	
	Grade B kN	
10	67.7	0.440
11.2	84.9	0.552
12.5	106	0.688
14	133	0.863
16	173	1.13
18	219	1.43
20	271	1.76
22.4	340	2.21
25	423	2.75
28	531	3.45
30	609	3.96
31.5	672	4.37
33.5	760	4.94
35.5	853	5.55
37.5	952	6.19
40	1080	7.04
42.5	1220	7.95
45	1370	8.91
47.5	1530	9.93
50	1690	11.0
53	1900	12.4
56	2120	13.8
60	2440	15.8



JIS Standard Steel Wire Rope

JIS Standard Steel Wire Rope (JIS G 3525-1998)

2

Wire Ropes, Fiber Ropes, Rope Fittings

■ Breking Load of 8×S (19), 8×W (19), 8×Fi (25)

Construction	8×S (19)	8×W (19)
Section		

Dia mm	Breaking Load			Approx Weight Kg/m
	GALV / UN-GALV			
	Grade E	Grade A	Grade B	
	kN	kN	kN	
8	26.0	30.8	32.8	0.220
10	40.6	48.1	51.3	0.343
11.2	51.0	60.3	64.3	0.430
12	58.5	69.2	73.8	0.494
12.5	63.5	75.1	80.1	0.536
14	79.6	94.3	100	0.672
16	104	123	131	0.878
18	132	156	166	1.11
20	162	192	205	1.37
22.4	204	241	257	1.72
25	254	301	320	2.14

■ Breaking Load of 19×7

Dia mm	Breaking Load	Approx Weight Kg/m
	GALV / UN-GALV	
	Grade A kN	
12	84.7	0.612
14	115	0.833
16	151	1.09
18	191	1.38
20	235	1.70
22	285	2.06

Construction	8×Fi (25)	19×7
Section		

The Others Special Rope

Construction	7×7	7×19	7×37	T6×7
Section				

Construction	3×F (40)	4×F (30)	4×F (24)	4×F (40)
Section				



Wire Rope Sling

Wire Rope Sling Capacity S.F = 6

2

Wire Ropes, Fiber Ropes, Rope Fittings

Dia	Breaking Load		2 leg vertical		2 leg 30 degree		2 leg 60 degree		2 leg 90 degree	
	kN	tf	kN	tf	kN	tf	kN	tf	kN	tf
6	17.7	1.81	5.90	0.600	5.60	0.570	5.01	0.510	4.12	0.420
8	31.6	3.22	10.5	1.07	9.99	1.02	8.94	0.912	7.36	0.751
9	39.9	4.07	13.3	1.35	12.6	1.28	11.3	1.15	9.30	0.949
10	49.3	5.03	16.4	1.67	15.5	1.59	13.9	1.42	11.5	1.17
12	71.0	7.24	23.6	2.40	22.4	2.28	20.0	2.04	16.5	1.68
14	96.5	9.85	32.2	3.28	30.5	3.11	27.3	2.78	22.4	2.29
16	126.4	12.9	42.0	4.28	39.9	4.06	35.7	3.63	29.3	2.99
18	159.7	16.3	53.2	5.42	50.5	5.14	45.2	4.60	37.1	3.79
20	197.0	20.1	65.6	6.68	62.3	6.34	55.7	5.67	45.8	4.67
22	238.1	24.3	79.6	8.12	75.6	7.71	67.6	6.90	55.7	5.68
24	283.2	28.9	94.6	9.64	89.8	9.15	80.4	8.19	66.1	6.74
26	332.2	33.9	111	11.3	105	10.7	94.3	9.60	77.5	7.91
28	386.1	39.4	129	13.1	122	12.4	109	11.1	90.1	9.19
30	443.0	45.2	148	15.0	140	14.3	125	12.8	103	10.5
32	502.7	51.3	168	17.1	159	16.3	142	14.5	118	12.0
36	637.0	65.0	212	21.6	201	20.5	180	18.3	148	15.1
40	787.9	80.4	262	26.8	248	25.4	222	22.7	183	18.7

Dia	3&4 leg						4 leg			
	30 degree		60 degree		90 degree		30 degree		60 degree	
	kN	tf	kN	tf	kN	tf	kN	tf	kN	tf
6	8.26	0.840	7.37	0.750	6.17	0.630	11.2	1.14	10.0	1.02
8	14.7	1.50	13.1	1.34	11.0	1.12	19.9	2.04	17.8	1.82
9	18.6	1.89	16.6	1.69	13.9	1.42	25.2	2.57	22.6	2.30
10	22.9	2.34	20.5	2.09	17.2	1.75	31.1	3.18	27.9	2.84
12	33.0	3.36	29.5	3.00	24.7	2.52	44.8	4.56	40.1	4.08
14	45.0	4.59	40.2	4.10	33.7	3.44	61.1	6.23	54.7	5.57
16	58.8	5.99	52.5	5.35	44.0	4.49	79.8	8.13	71.4	7.27
18	74.4	7.58	66.5	6.77	55.8	5.69	101	10.2	90.4	9.21
20	91.8	9.35	82.0	8.35	68.7	7.01	124	12.6	111	11.3
22	111	11.3	99.5	10.1	83.5	8.52	151	15.4	135	13.8
24	132	13.4	118	12.0	99.0	10.1	179	18.3	160	16.3
26	155	15.8	138	14.1	116	11.8	210	21.4	188	19.2
28	180	18.3	161	16.4	134	13.7	245	24.9	219	22.3
30	207	21.1	185	18.8	155	15.8	281	28.6	251	25.6
32	235	24.0	210	21.4	176	18.0	319	32.6	285	29.1
36	296	30.2	265	27.0	221	22.6	402	41.0	360	36.7
40	366	37.5	327	33.5	275	28.1	497	50.9	445	45.5

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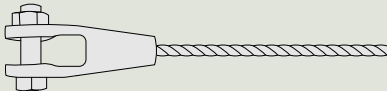
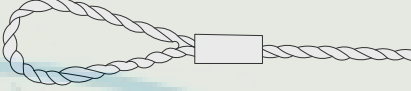
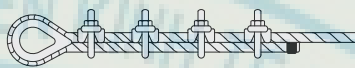
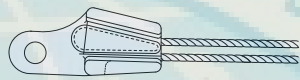


Wire Rope Sling

2

Wire Ropes, Fiber Ropes, Rope Fittings

Rope End Fitting

Processing	Efficiency	Methord
Socket	100%	
Eye Plice	75~95%	
Rocked	95%	
Clips	about 80%	
Wedge	65~70%	
Splice With Rocked	95%	

Classified Code 052B540

JIS Rocked Wire Rope



Dia	1m			2m			3m			4m		
	Product Code	Weight (kg)	Price	Product Code	Weight (kg)	Price	Product Code	Weight (kg)	Price	Product Code	Weight (kg)	Price
6	061	0.21		062	0.33		063	0.45		064	0.57	
8	081	0.39		082	0.61		083	0.82		084	1.03	
9	091	0.50		092	0.77		093	1.04		094	1.31	
10	101	0.68		102	1.01		103	1.34		104	1.67	
12	121	1.01		122	1.48		123	1.96		124	2.44	
14	141	1.49		142	2.14		143	2.79		144	3.44	
16	161	1.97		162	2.82		163	3.67		164	4.52	
18	181	2.68		182	3.76		183	4.84		184	5.92	
20	201	3.33		202	4.66		203	5.99		204	7.32	
22	221	4.17		222	5.78		223	7.39		224	9.00	

Dia	5m			6m			8m			10m		
	Product Code	Weight (kg)	Price	Product Code	Weight (kg)	Price	Product Code	Weight (kg)	Price	Product Code	Weight (kg)	Price
6	065	0.69		066	0.81		068	1.05		0610	1.29	
8	085	1.24		086	1.45		088	1.88		0810	2.30	
9	095	1.57		096	1.84		098	2.38		0910	2.92	
10	105	2.01		106	2.34		108	3.00		1010	3.67	
12	125	2.92		126	3.40		128	4.35		1210	5.31	
14	145	4.09		146	4.74		148	6.05		1410	7.35	
16	165	5.37		166	6.22		168	7.92		1610	9.62	
18	185	7.00		186	8.08		188	9.16		1810	11.32	
20	205	8.65		206	9.98		208	12.64		2010	15.30	
22	225	10.61		226	12.22		228	15.44		2210	18.66	



Aluminium Ferrule



Mandrel Seamless Tube, Double Type

(According to JISB8817)
JISH4080/5052
Aluminium
Seamless Tube



Mandrel Seamless Tube, Single Type

Size	Length (mm)	Q'ty	Price
6	24	600	
8	31.5	500	
9	36	400	
10	40	250	
12	48	200	
14	56	140	
16	64	100	
18	72	70	
20	80	50	
22	88	40	
24	96	30	
26	104	28	
28	112	21	
30	120	17	
32	128	13	

Size	Length (mm)
6	29
8	39
9	44
10	48
12	58
14	68
16	77

Hydraulic Wire Rope Cutter



- No necessity of the auxiliary tool in work, and it will be possible to cut in a few seconds.
- Grinding and substitution of the cutting blade can be easily done.
- The oil leakage is prevented by adopting the new method for packing
- The state of oil planes from the oil gauge on the tank side and understands.
- The oil can be easily replenished

Type	Capacity (mm)	Size (L)X(W)X(H)	Weight (kg)	Price
A	20	310 × 90 × 152	10	
B	30	380 × 105 × 180	15	
C	40	400 × 120 × 200	20	
D	50	485 × 130 × 220	30	
E	60	630 × 175 × 270	70	
L	100	1000 × 600 × 360	200	



Wire Rope Clip

Classified Code 061A2

Drop Forged Steel Wire Rope Clip (JIS Standard F Type) JIS B2809-1996

2

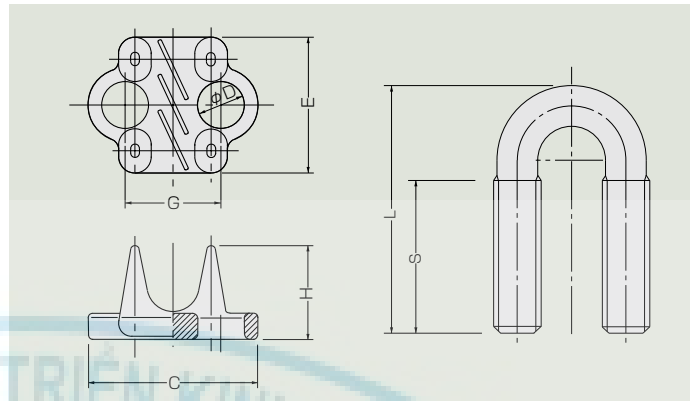
Wire Ropes, Fiber Ropes, Rope Fittings



Self Color



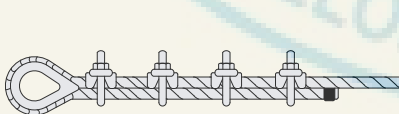
HOT DIPPED GALV.



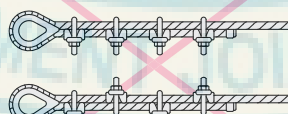
Size	BODY				U-BOLT/NUT			Weight (g)	Price	
	C	E	G	H	Thread	L	S		Self Color	HOT DIPPED GALV.
6	30	24.5	14	16	M6	35	20	47		
8	36	31	18	19	8	40	20	80		
9	41	29	22	19	10	46	24	112		
10	45	35	22	23	10	50	28	150		
12	51	39	26	27	12	60	35	220		
14	53	45	28	31	12	65	40	260		
16	60	48	32	35	14	75	45	380		
18	62	53	34	37	14	80	50	450		
20-22	78	62	44	43	18	100	60	800		
24-25	86	68	48	47	20	110	65	1100		
26-28	94	75	54	53	22	120	70	1500		
30-32	98	79	58	58	22	130	75	1600		
33-38	120	93	70	65	27	150	85	2800		
40-45	136	100	80	72	30	175	95	4400		
47-50	150	115	89	81	33	195	100	6100		
53-60	170	128	101	96	36	240	125	8900		
63-70	191	142	116	105	39	270	130	10900		
73-80	212	156	128	114	42	300	150	14600		

Method of installing wire rope clip

- Please install the wire rope clip correctly.
- It was tightened by correct torque then the retention efficiency is 80%.



Correct



Wrong

The slipping is caused in the tightening parts if the wrong instruction or tightening torque is not proper and it causes an accident due to the decrease in retentivity.

Notes

- Please use what suitable for JIS rope diameter (please do not use the rope of different kinds & diameter with the same wire rope clips)
- Please remove if the sand on the clips and please do not use the rusted.
- Please bring a wire rope clip that is the nearest the eye of the thimble close the thimble as much as possible.
- Moreover, please give the length of the wire rope of the part of the terminal end of the wire rope clip as 6 times the diameter.
Please tighten with the torque wrench by correct torque. Moreover, please tighten one by one dividing from the wire rope clip of the terminal into 3 times or more in the same order.
- Please fasten in the diameter's become thin and slipperiness
- Please mark with the paint or others, and sometimes confirm the presence of slipping after installation ends.
- Please do not use the wire rope clip for the Vinyl cora wire rope when the load.

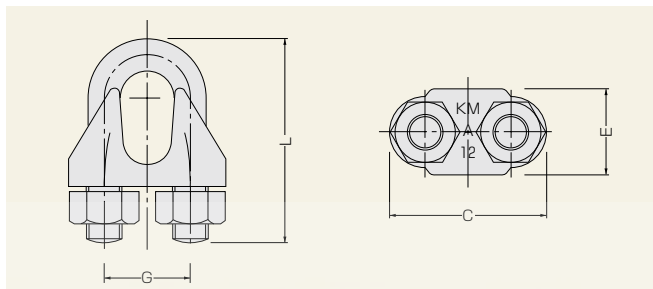
Fitting Standard (FOR 6X24 / 6X37)

Rope Dia (mm)	Fitting Q'ty	Space (mm)	Torque (kgf·cm)
6	4	40	100
8	4	50	120
10	4	70	160
12	4	80	240
14	4	90	380
16	4	100	530
18	5	120	680
20	5	130	840
24	5	160	1210
26	5	170	1400
30	6	200	1900
36	7	230	2660
40	7	260	3050
48	8	310	4050

Malleable Iron Cast Wire Rope Clip



Self Color



Galvanized

Please use the drop forged wire rope clip (JIS type) when the heavy loading

Size (mm)	U-BOLT/NUT (W)	Weight (g)	Price	
			Self Color	Galvanized
3	3/16	15		
4.5	1/4	27		
6	5/16	55		
8	5/16	62		
9	3/8	105		
12	3/8	130		
16	1/2	254		
19	1/2	295		
19KL	1/2	272		
22	5/8	545		
25	5/8	650		

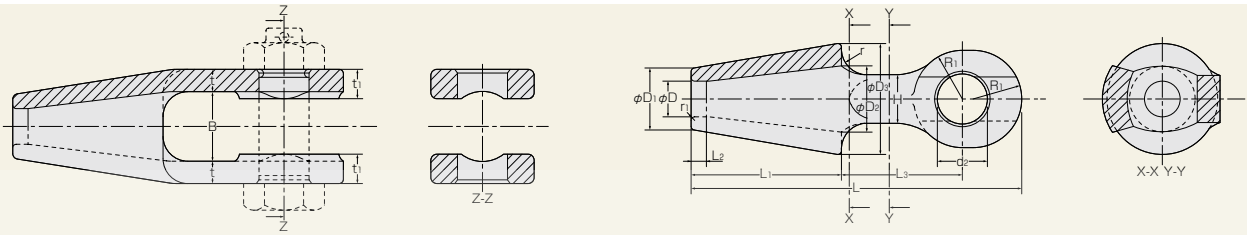
The KL clip is the small size and light for the lashing wire

	C	E	G	L
KM19	61	32	33	74
KL19	56	28	32	73



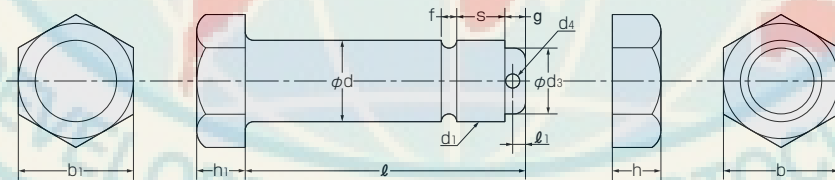
Wire rope socket (Open type) JIS F 3432-1995

Wire Rope Socket Open Type



Size	Rope Dia	D	D ₁	D ₂	D ₃	B	L	L ₁	L ₂	L ₃	H	t	t ₁	R ₁	r	r ₁	d ₂	WLL KN (tf)	Weight (kg)
16	16	20	26	37	55	40	193	88	8	74	24	9	13	26	12	2	26	25.5 (2.6)	1.04
18	18	23	30	40	62	43	210	95	9	81	27	11	15	29	13	2	29	32.4 (3.3)	1.49
20	20	25	35	44	69	47	227	103	10	86	30	13	18	32	15	2	32	40.2 (4.1)	2.13
22	22.4	30	40	49	77	52	245	111	11	93	33	14	20	35	17	2	35	50.0 (5.1)	2.84
24	24	32	44	52	84	56	262	119	12	98	36	16	22	38	18	2	38	57.9 (5.9)	3.77
25	25	33	49	56	91	60	281	127	13	106	39	18	24	41	20	2	41	67.7 (6.9)	4.83
28	28	36	53	61	98	65	298	135	14	111	41	19	26	44	21	2	44	78.5 (8.0)	5.92
30	30	38	58	64	106	68	316	143	15	118	44	21	28	47	23	3	47	90.2 (9.2)	7.50
32	31.5	40	62	68	113	72	335	151	16	125	47	23	31	50	25	3	50	103.0 (10.5)	9.21
34	33.5	42	67	71	120	75	353	159	17	131	50	25	33	54	26	3	54	112.8 (11.5)	11.3
36	35.5	44	71	76	127	80	373	168	18	138	53	26	35	57	28	3	57	127.5 (13.0)	13.1
38	37.5	47	76	80	134	84	392	177	19	144	56	27	36	60	29	3	60	142.2 (14.5)	15.4
40	40	49	80	84	141	88	413	186	20	153	59	29	38	63	31	4	63	161.8 (16.5)	18.0
42	42.5	52	84	88	148	92	434	196	21	160	61	30	40	66	33	4	66	181.4 (18.5)	20.9
45	45	54	92	96	162	101	474	214	23	175	67	33	44	72	36	4	72	205.9 (21.0)	27.5
48	47.5	57	96	99	169	104	494	223	24	183	70	35	46	75	37	4	75	225.6 (23.0)	31.4
50	50	60	99	104	176	109	516	233	25	191	73	36	48	78	39	5	78	250.1 (25.5)	35.1
53	53	63	102	108	183	113	536	242	26	199	76	38	50	81	40	5	81	274.6 (28.0)	39.3
56	56	66	108	114	193	119	567	256	28	211	80	40	53	85	42	5	85	308.9 (31.5)	46.9
60	60	70	116	124	210	129	619	279	30	232	87	43	57	92	46	6	92	353.0 (36.0)	59.4
63	63	74	120	128	216	133	641	289	31	240	90	44	58	95	47	6	95	392.3 (40.0)	64.5

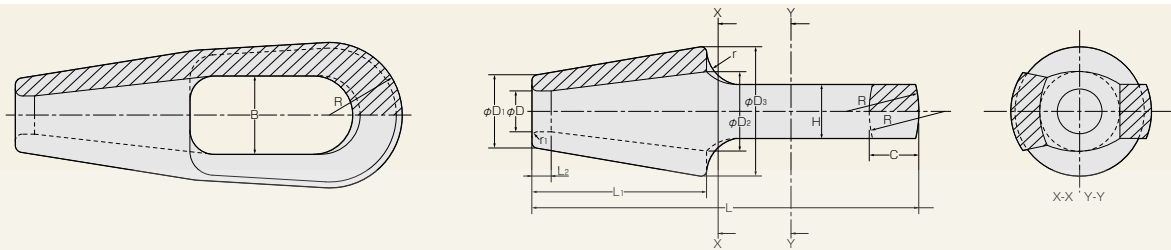
Hexagonal Bolt And Nut For Wire Rope Socket Open Type



Size	Rope Dia	d	Thread d ₁	ℓ	ℓ ₁	S	g	h	b	d ₃	Dia of Cotter Pin d ₄	f	h ₁	Weight (kg)
16	16	25	M22	81	6.5	13	10	13	32	17	5	4	14	0.50
18	18	28	M24	89	6.5	14	10	14	36	19	5	5	15	0.69
20	20	31	M27	101	8	16	12	16	41	22	5	5	17	0.80
22	22.4	34	M30	110	8	18	12	18	46	25	6	5	19	1.12
24	24	37	M33	120	8	20	12	20	50	27	6	6	21	1.44
25	25	40	M39	134	10	23	15	23	60	30	8	6	25	2.09
28	28	43	M42	143	10	25	15	25	63	32	8	7	26	2.49
30	30	46	M45	152	10	27	15	27	67	35	8	7	28	3.17
32	31.5	49	M48	162	10	29	15	29	71	35	8	8	30	3.73
34	33.5	52	M48	169	10	29	15	29	71	38	8	8	30	4.06
36	35.5	55	M52	178	10	31	15	31	77	40	8	8	32	4.83
38	37.5	58	M56	190	12	34	18	34	85	46	10	9	35	6.15
40	40	61	M56	198	12	34	18	34	85	46	10	9	35	6.63
42	42.5	64	M60	206	12	36	18	36	90	50	10	9	38	7.84
45	45	70	M68	225	12	40	18	40	100	58	10	10	42	10.5
48	47.5	73	M68	232	12	40	18	40	100	58	10	10	42	11.1
50	50	76	M72×6	241	12	42	18	42	105	58	10	10	45	12.6
53	53	79	M76×6	253	12	46	18	46	110	64	10	10	48	14.3
56	56	83	M80×6	265	12	48	18	48	115	68	10	11	50	17.1
60	60	90	M85×6	287	14	50	22	50	120	75	13	11	52	20.4
63	63	93	M85×6	293	14	50	22	50	120	75	13	11	52	21.8

Wire rope socket (Closed type) JIS F 3432-1995

■Wire rope socket Closed type



Size	Rope Dia	D	D ₁	D ₂	D ₃	B	L	L ₁	L ₂	H	C	R	r	r ₁	WLL KN (tf)	Weight (kg)
16	16	20	26	37	55	40	193	88	8	24	21	38	12	2	25.5 (2.6)	1.18
18	18	23	30	40	62	43	210	95	9	27	24	41	13	2	32.4 (3.3)	1.64
20	20	25	35	44	69	47	227	103	10	30	26	44	15	2	40.2 (4.1)	2.24
22	22.4	30	40	49	77	52	245	111	11	33	29	48	17	2	50.0 (5.1)	2.95
24	24	32	44	52	84	56	262	119	12	36	31	51	18	2	57.9 (5.9)	3.84
25	25	33	49	56	91	60	281	127	13	39	34	54	20	2	67.7 (6.9)	4.89
28	28	36	53	61	98	65	298	135	14	41	36	58	21	2	78.5 (8.0)	5.87
30	30	38	58	64	106	68	316	143	15	44	39	61	23	3	90.2 (9.2)	7.37
32	31.5	40	62	68	113	72	335	151	16	47	42	64	25	3	103.0 (10.5)	8.97
34	33.5	42	67	71	120	75	353	159	17	50	44	68	26	3	112.8 (11.5)	10.8
36	35.5	44	71	76	127	80	373	168	18	53	47	72	28	3	127.5 (13.0)	12.6
38	37.5	47	76	80	134	84	392	177	19	56	49	75	29	3	142.2 (14.5)	15.0
40	40	49	80	84	141	88	413	186	20	59	52	79	31	4	161.8 (16.5)	17.5
42	42.5	52	84	88	148	92	434	196	21	61	54	83	33	4	181.4 (18.5)	20.3
45	45	54	92	96	162	101	474	214	23	67	60	91	36	4	205.9 (21.0)	26.6
48	47.5	57	96	99	169	104	494	223	24	70	62	95	37	4	225.6 (23.0)	30.5
50	50	60	99	104	176	109	516	233	25	73	65	99	39	5	250.1 (25.5)	34.1
53	53	63	102	108	183	113	536	242	26	76	67	103	40	5	274.6 (28.0)	38.0
56	56	66	108	114	193	119	567	256	28	80	71	109	42	5	308.9 (31.5)	45.2
60	60	70	116	124	210	129	619	279	30	87	78	119	46	6	353.0 (36.0)	58.3
63	63	74	120	128	216	133	641	289	31	90	81	123	47	6	392.3 (40.0)	64.0

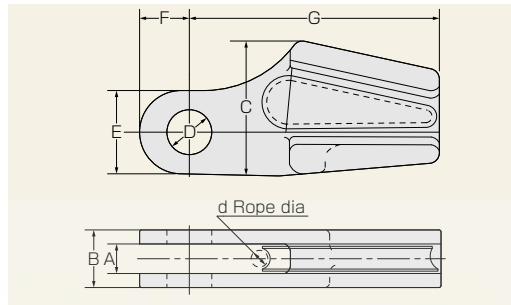


Classified Code 06507

Wedging Socket

2

Wire Ropes, Fiber Ropes, Rope Fittings



Size	Rope Dia d (mm)	D	A	B	E	F	G	C	Weight (kg)	Price
10	10~12	25	19	37	50	30	150	84	3.1	
14	14~16	29	24	50	58	35	195	106	5.0	
18	18~20	32	28	64	64	40	235	128	8.7	
22	22~24	40	34	78	80	48	280	154	16.2	
26	26~28	45	38	90	90	55	330	178	23.8	
30	30~32	50	42	104	100	60	380	203	38.2	
34	34~36	60	48	118	120	75	420	233	53.8	
38	38~40	65	52	128	130	80	450	260		
42	42~44	70	54	142	140	85	480	286		

LIFTING EQUIPMENTS



Lifting Equipments



Necessaries of Safe cargo
Handling operation

"Kondo" Hooks & Rings Made By Drop Forged Products



Drop Forged Hook / Ring

Drop Forged Hook / Ring

The other mould is dropped by compress air by the rapidity degree with the material heated up to 1200°C put on the mold in one side it presses it (this is called drop forged. The material is formed to a hook and round ring of the precise measurement thus by discipline very strongly.

It is to more stickiness and to be able to increase about 20% strength, and to complete the lifting goods of drop forged the best for the safety work more strongly if the material is strickenduring hot.

Please do not use the welded round rings for avoid dangerous. Beacause the strength of round rings is low. In an important security parts, lifting goods such as hooks or rings have to use the drop forged products.

《GRADE》

The grade of the hook are M ~ V grade. There are five grades (refer to the table below)
The hook number corresponding to the working load limit is in each grade, and minimum dimension is fixed a standard.

The hook with our drop forged round ring is Class P. (the material : S45C with heat treatment)

Grade	M Grade	P Grade	S Grade	T Grade	V Grade
(kg/mil)	40	50	63	80	100

《WLL》

The safety factor for the crane lifting is a working load limited according to the labor standards law

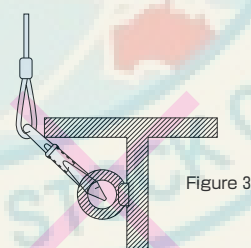
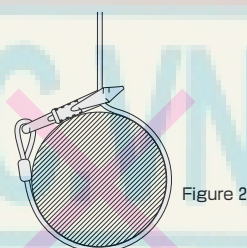
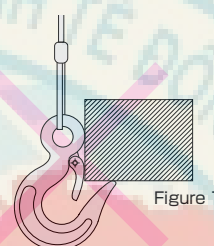
$$S.F = \frac{BL}{WLL} = 5$$

Our company can use it at ease because it confirms presence and a permanent transformation of abnormality are within 0.25% with the proof loading examination is done by the extraction when the manufacturing it, and the proof force added.



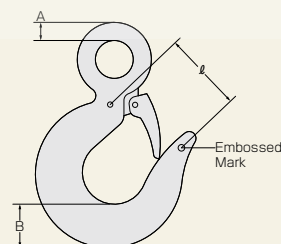
⚠ NOTICE

- ① Please use it by the basic working load limited, (WLL ○ ton by stamp)
- ② The load must hang to the center of the hook correctly.
 - Use by horizontal load hook (figure 3) in state that state (figure 2) to wrap up to tip load (figure 1) and hook around lifting load and hook are fixed.
- ③ Please do not put the shock loading.
 - An unexpected overload is generated in the ground and landing. Especially, please note it.
- ④ Please do not do the following additional remodeling .
 - Expand and transform the eye & hook by the machining or heating.
 - Additional of heat treatment
 - Additional of galvanized
 - Additional of welding
- ⑤ Use in the environment that receives the heat influence and environment that use the medicine and the acid causes a remarkable deterioration of strength, and the size is improved according to the situation or please use the hook of stainless steel.
- ⑥ Please do not use the earth of the welding operation substituting.
- ⑦ Please do not drag and do not throw it away when you carry. (It causes the transformation, wear-out, and the coming off stop damage)
- ⑧ It dose not expose to rain/drew, and it dose not leave it in a, oist place. (It causes the rust development and wear-out)
- ⑨ As for use in the state of the udnerwater reaching flood, the basic load decreases greatly.



■ INSPECTION / REJECTION

- ① There is an emboss mark shown in the figure below. Please measure with calipers and abandon the one whose emboss mark after it uses it is larger than nominal measurement (L) without using it. (permanent transformation occurs)
- ② Please abandon the one that is exceeded a standard size by A and size B and worn out without using it.
- ③ Please abandon the one that the crack occurs without using it.
- ④ Please do not use what a decrease in thickness exceeds by corrosion or wear-out by 5% or more.
- ⑤ Please do not use the one with the arc strike (earth wound because of the welding)
- ⑥ The one that the effect of the coming off stop was lost must change and use the coming off stop.



■ Standard

Size	0.32t	0.5t	1t	2t	3.2t	5t	10t	16t	20t
ℓ (mm)	37.5 ^{-0.5} ₊₁	42 ^{-0.5} ₊₁	52.5 ^{-0.5} ₊₁	62 ^{-0.5} ₊₁	69 ^{-0.5} ₊₁	89 ^{-0.5} ₊₁	106 ^{-0.5} ₊₁	146.5 ^{-0.5} _{+1.5}	163 ^{-0.5} ₊₂
A (mm)	8.5 ⁻⁰ _{-0.5}	10 ⁻⁰ _{-0.5}	13 ⁻⁰ _{-0.5}	16 ⁻⁰ ₋₁	20 ⁻⁰ ₋₁	26 ⁻⁰ ₋₁	34 ⁻⁰ ₋₂	40 ⁻⁰ ₋₂	46 ⁻⁰ ₋₂
B (mm)	19 ⁻⁰ ₋₁	23 ⁻⁰ ₋₁	27 ⁻⁰ ₋₁	37 ⁻⁰ ₋₁	41 ⁻⁰ ₋₂	55 ⁻⁰ ₋₂	80 ⁻⁰ ₋₃	95 ⁻⁰ ₋₃	105 ⁻⁰ ₋₃



Drop Forged Eye Hook

Classified Code **063A1·063A2**

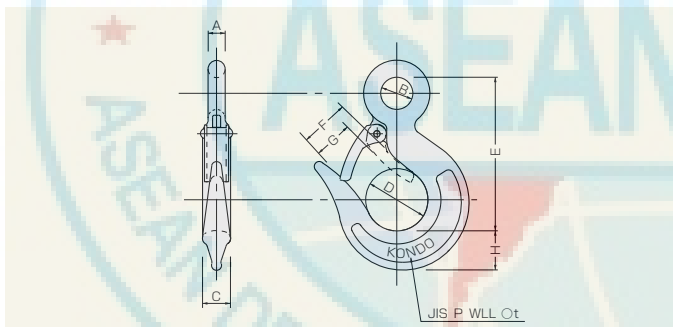
Drop Forged Eye Hook JIS B 2803-1996

3

Lifting Equipments



● MATERIAL : S45C®



Drop Forged Eye Hook

Size (t)	Weight (kg)	Without Safety Latch (Classified Code : 063A1)						With Safety Latch (Classified Code : 063A2)						Parts of safety latch	
		Self Color		Painted		Galvanized		Self Color		Painted		Galvanized		Classified Code : 063A3	
		Code	Price	Code	Price	Code	Price	Code	Price	Code	Price	Code	Price	Code	Price
0.3	0.2	AS3S		TS3S		US3S		AS3S		TS3S		US3S		S3S	
0.5	0.3	AS5S		TS5S		US5S		AS5S		TS5S		US5S		S5S	
1	0.7	A01S		T01S		U01S		A01S		T01S		U01S		01	
2	1.3	A02S		T02S		U02S		A02S		T02S		U02S		02	
3	2.1	A03S		T03S		U03S		A03S		T03S		U03S		03	
5	4.4	A05		T05		U05		A05		T05		U05		5	
10	11.2	A10		T10		U10		A10		T10		U10		10	

Drop Forged Eye Hook

Size	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)
0.32	8.5	16	14	31	76.5	25	21	19.5
0.5	10	20	15.5	35	89.5	28	24	23.5
1	13	25	22	43	110	33	28	27
2	16	34	26.5	49	131.5	39	29	37
3.2	20	41	32.5	54	156	44	32	42
5	26	49	38	69	204	55	39	55
10	34	70	60	90	275	67	56	80
16	40	80	66	107	333.5	84	65	95
20	46	88	80	120	374	92	70	105



Drop Forged Round Ring

Classified Code 065A1

Drop Forged Round Ring



Self Color

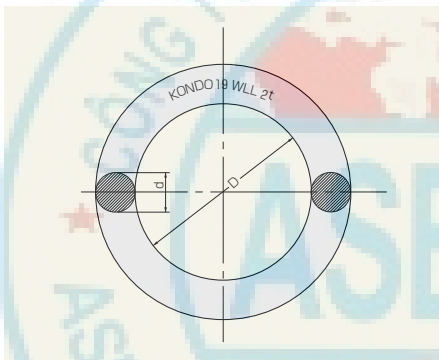


Painted



Galvanized

● MATERIAL : S45C®



- Welding Round Ring Can Not Be Used For The Sling
- Please Choose Forged Goods When Using For The Sling

Size (d)	D: Inside Dia (mm)	WLL (t)	Weight (kg)	Price					
				Self Color		Painted		Galvanized	
				Product Code	Price	Product Code	Price	Product Code	Price
16	70	1	0.5	A16		T16		U16	
19	85	2	0.7	A19		T19		U19	
22	100	2.5	1.24	A22		T22		U22	
25	115	3	1.75	A25		T25		U25	
32	130	5	3.08	A32		T32		U32	
38	150	8	5.70	A38		T38		U38	
50	200	14	13.0	A50		T50		U50	

Classified Code 065A1

LG Round Ring

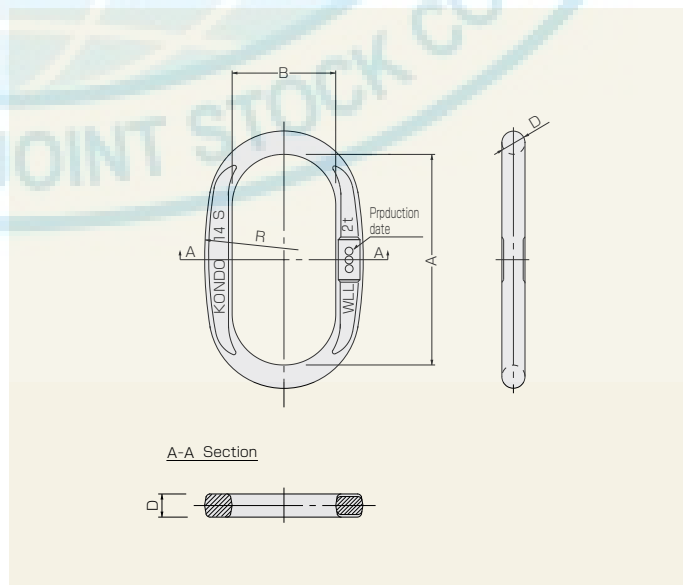


● MATERIAL : S45C®

Product Code	Size (mm)	WLL (t)	Weight (kg)	Price
A19100	19×100	2	0.8	
A22150	22×150	2.5	1.9	
A32200	32×200	5	5.3	

Classified Code 035A2

Master Link MATERIAL : SCM435®



Product Code	WLL (t)	A	B	D	Weight (kg)	Price
A1014S	1t	125	63	14	0.51	
A2014S	2t	125	63	14	0.51	
A3017S	3t	140	71	17	0.91	
A5022S	5t	160	80	22	1.78	

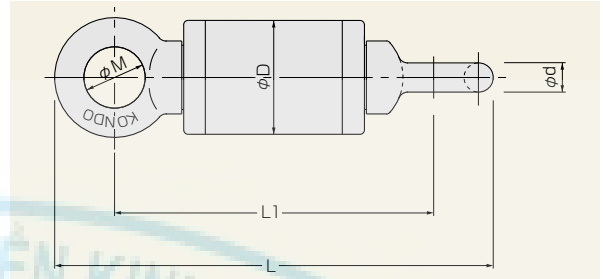


Swivel with Ball Bearing For Wire Rope

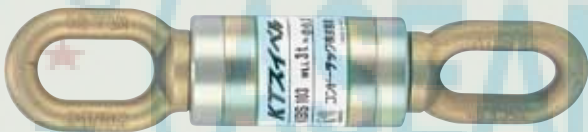


KSS Type (Popular Type)

- The wire rope is used for both eye putting, directly

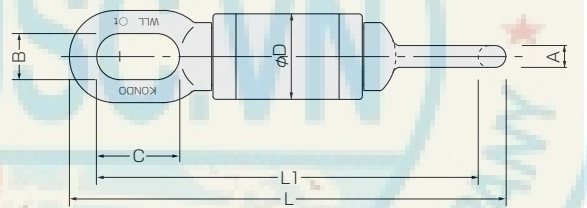


Product Code	Type	L (mm)	L1 (mm)	φD (mm)	φM (mm)	φd (mm)	WLL		Weight (kg)	Price
							kN	tf		
KSS500	KSS-500	170	126	38	24	10	4.9	0.5	0.8	
KSS101	KSS-101	179	135	42	24	10	9.8	1.0	1.0	
KSS102	KSS-102	219	161	52	30	14	19.6	2.0	1.8	
KSS103	KSS-103	236	178	59	30	14	29.4	3.0	2.4	
KSS105	KSS-105	298	216	78	42	20	49.0	5.0	5.7	



KBS Type for Connecting with Shackle (Oval Type)

- General Civil engineering / Sea Anchor for fisherman.

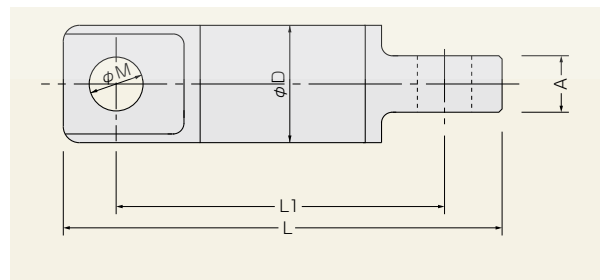


Product Code	Type	L (mm)	L1 (mm)	φD (mm)	A (mm)	B (mm)	C (mm)	WLL		Weight (kg)	Price
								kN	tf		
KBS101	KBS-101	216	190	42	13	21	40	9.8	1.0	1.1	
KBS102	KBS-102	252	222	52	13.5	26	50	19.6	2.0	1.9	
KBS103	KBS-103	312	276	59	17	32	62	29.4	3.0	2.9	
KBS105	KBS-105	396	346	78	21	42	75	49.0	5.0	6.9	
KBS110	KBS-110	520	460	112	28	54	103	98.0	10.0	18	



KAB Type Water Proof, Eye Plate Type

- for Sea under water.
- for Sea Anchor, fowing.



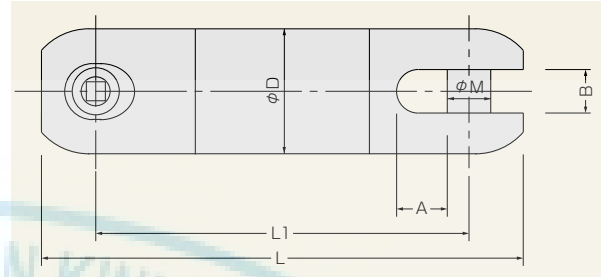
Product Code	Type	L (mm)	L1 (mm)	φD (mm)	φM (mm)	A (mm)	WLL		Weight (kg)	Price
							kN	tf		
KAB110	KAB-110	404	298	108	50	52	98.0	10.0	20	
KAB115	KAB-115	472	342	117	62	66	147.0	15.0	28	
KAB125	KAB-125	585	415	137	79	81	245.0	25.0	48	
KAB150	KAB-150	704	504	167	98	110	490.0	50.0	89	

Swivel with Ball Bearing For Wire Rope



KED Type Water Proof

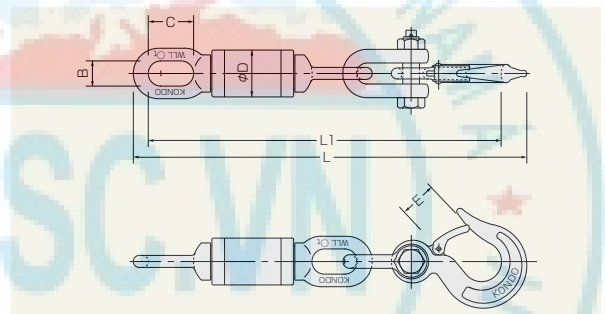
- for Heavy equipment for special.
- It is suitable for a heavy machine and earthdrill in the water proof and oiling type.



Product Code	Type	L (mm)	L1 (mm)	ϕD (mm)	ϕM (mm)	A (mm)	B (mm)	WLL		Weight (kg)	Price
								kN	tf		
KED106	KED-106	342	256	78	28	40	29	58.8	6.0	8.5	
KED112	KED-112	446	336	108	42	54	44	117.6	12.0	22	
KED120	KED-120	532	412	137	45	57.5	48	196.0	20.0	41	

KBF Type

KBF TYPE + STANDARD SHACKLE + DROP FORGED EYE HOOK



FEATURE AND NOTES OF EACH TYPE

KSS TYPE: Round eye figure, wire rope connecting directly and both rotaries. The structure without the oil seal.

KBS TYPE: Oval shape, shackle connection, and both rotaries in the usage Size 101 & 102 without Oil seal, Size 103 - 110 with Oil seal.

KAB TYPE: both eye, one side rotaries

It is a waterproof type on which it works to use a long term as for the oil seal and O ring.

Please replenish grease from the grease nipple, regularly, and the shackle must connect the wire rope with the rotation side because it is one side rotary type.

KED TYPE: For earth drill and heavy equipment/both JAW/side rotaly Muddy water might enter, and check the looseness and the rotating state especially with the replenishment of grease nipple for a severe usage like the impact and wear-out.

Please though it is a waterproof constructio that makes for the earth drill and builds in the oil seal & O ring.

The pin bolt is dangerous when it loosens and tighten enough. Please avoid multiplying the wire rope directly by the pin bolt as much as possible.

We will recommend the thing being used for the wire rope that processes the thimble.

DIRECTIONS

1. CHECK-UP BEFORE STARTING WORK

- The KT SWIVEL uses the bearing. The ring part turns smoothly with the hand in a no load and no abnormal sound is confirmed.
 - Please confirm it is 1mm or less that the ring part is move up and down and right and left and looseness.
 - Next, please confirm the KT SWIVEL turneven if it applies load.
2. Please do not throw, and do not drop the KT SWIVEL.
 3. Please do not use the one with the transformation, wear-out and wound.
 4. Please discontinue using, and change it for the new article if it is a check and abnormality is found.
 5. Please do not take the KT SWIVEL apart.
 6. Please remodel the welding, the machining, heat treatment or neither plating nor the griner or other to part of the KT SWIVEL.
 7. Use as shown in figure comes in contact with the main body of the KT SWIVEL the foreignbody, cause the transformation by the rotation, and please avoid it.

WORKING LOAD LIMITED

The basic working load is displayed in the label of the body part of the KT SWIVEL.

According to use conditions (high temperature the under and causticity atmosphere and impact power or other) in addition, please use it in consideration of the safety coefficient for safety.

SIZE	500	101	102	103	105	106	110	112	115	120	125	150
SIZE (t)	0.5	1	2	3	5	6	10	12	15	20	25	50
WLL(kN)	4.9	9.8	19.6	29.4	49.0	58.8	98.0	118	147	196	254	490



Classified Code **08108**

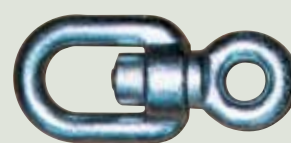
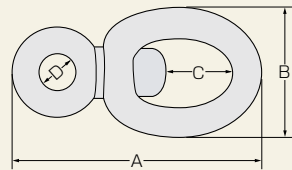
Swivel

Classified Code **08107**

Chain Swivel



SWIVEL 22



CHAIN SWIVEL 22

Size	Swivel					Chain Swivel						WLL	
	A	B	C	Weight (kg)	Price	A	B	C	D	Weight (kg)	Price	kN	tf
9	120	49	23	0.3		98	49	23	15	0.30		3.9	0.4
12	150	58	28	0.6		119	58	28	16	0.45		6.9	0.7
16	180	70	35	1.1		146	70	35	23	0.90		9.8	1.0
19	220	81	48	2.0		185	81	48	24.5	1.30		14.7	1.5
22	250	94	50	2.9		206	94	50	27	1.90		19.6	2.0
25	290	104	59	4.3		225	104	59	31	3.30		24.5	2.5
28	310	118	62	6.0		252	118	62	38	4.20		29.4	3.0
32	360	133	74	7.3		290	133	74	42	6.50		44.1	4.5
38	420	165	78	13.8		328	165	78	43	9.00		58.8	6.0
44	450	172	82	18.0		370	172	82	53	13.00		88.2	9.0
50	500	188	88	26.0		430	188	88	60	18.60		137.2	14.0

SHACKLES



Shackles



How to use Shackles safety

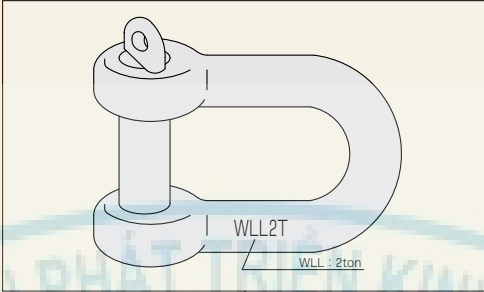
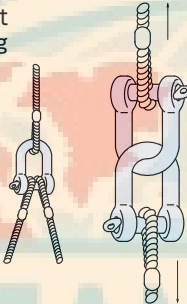
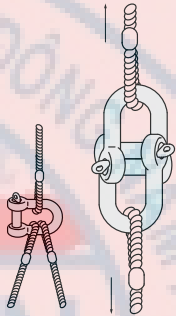
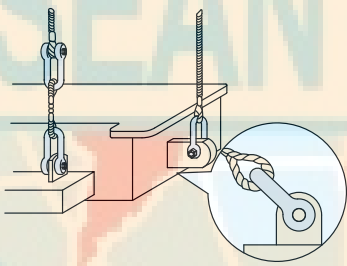
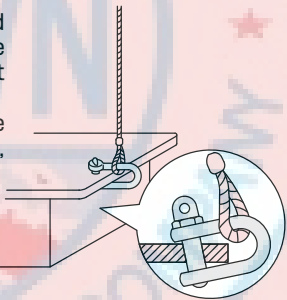
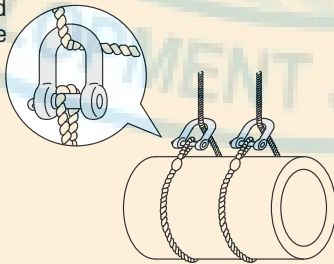
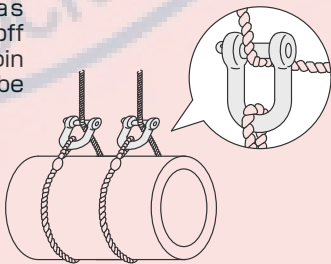
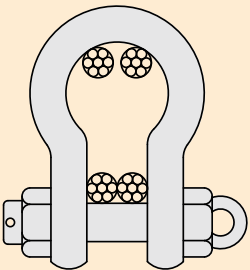
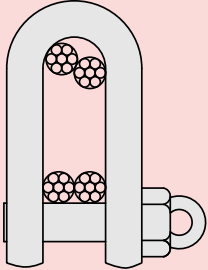


Please read before using certainly

Please don't use by wrong way. It become cause of accident.

4

Shackles

	○ Correct Usage	✗ Wrong Usage
WLL	Using Shackles less than WLL. Please use appropriate shackles for each usage and WLL. 	It becomes cause of accident like falling by damage of shackles if using shackles more than regulative WLL.
How to connect Shackles	Please connect at crown (R part of Body) in case of connecting shackles. 	It becomes unsteady if connecting shackles at Bolt. It may be caused slantwise lighting, impact force and then caused damage. 
Turning up • Reverse • Carrying	Please use Shackles to be vertical Load. 	Please avoid horizontal load because Shackles are produce to endure against vertical load. Horizontal load will be cause about wound of cargo, bolt, and then caused damage. 
Prevention about Turn of Bolt	Please always assemble Bolt of Shackles and motionless side of wire rope. 	It has possibility to be difficult to remove as fasten tightly or come off as loosen because of spin of bolt if wire rope can be moved. 
Assembling with Wire Rope	Please avoid to overlap wire rope in case of assembling with Shackles. 	Wire rope will be damaged like wear or crushing strand if wire rope is overlapped. Please use Bow Shackle in case of overlap. 

We recommend to use JIS Standard products for loading operation.



Attention

⚠️ Looseness

Please ensure that Thread or Nut is tightened completely before using shackles.
Please also ensure that cutter pin is cut in case of Bolt & Nut type before using Shackles.

⚠️ Dangerous act

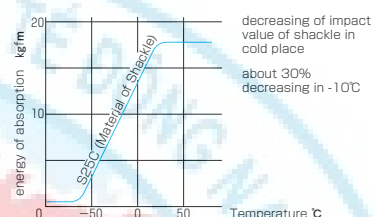
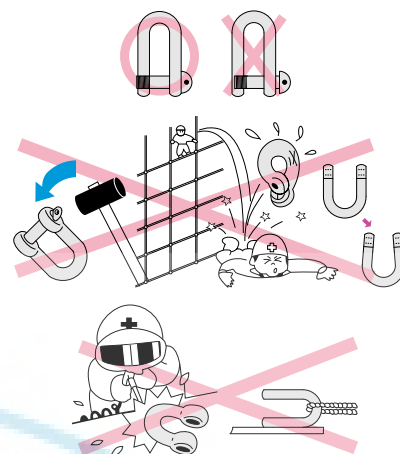
Please don't throw away, hitting by hammer or such tools, and put heavy thing on shackles. It become cause of damage.

⚠️ Prevention of Arc Strike(wound by arc welding)and Prohibition of welding

Please don't weld shackle with other products and don't weld around shackles for prevention to occur Arc Strike or attach sputtering.
Otherwise change of material can be happened, then become weak and easy to broken because of above several incident.

⚠️ How to treat in cold place

- Please handle carefully in cold place because impact value is much decreased because of cold brittleness.
- Please don't put outside after finish operation.
- Please disconnect from lifting cargo in night time and then stock at fixed place.



How to inspect shackles and standard of scrap.

	Matter of inspection	Standard of Scrap
1	Please inspect whether there is Arc Strike or not.	Please certainly scrap if there is Arc Strike. (Wound and crack is stimulated rapidly.)
2	① Please check whether deformation is on Body, Bolt, and Pin or not. ② Please check as Body, Bolt, and Pin are assembled. ③ Please calculate deformation ratio by checking caliper or etc if deformation is remarkably. Deformation Ratio (%) = $\frac{(S-S1)}{S} \times 100$ Deformation Ratio (%) = $\frac{(\ell_1 - \ell)}{\ell} \times 100$ S : Original width of bow S1 : Deformed width of bow ℓ : Original Length ℓ1 : Deformed width of bow	① Please scrap if there is deformed Bolt or Pin. ② Please scrap if thread or cutter pin cannot be assembled. ③ Please scrap if deformation ratio is over 8%. Please never repair it by yourself.
3	Please inspect whether there is wound, notch, crack.	Please scrap if the depth is more than 5% against original size after cutting down the wound or notch. Please inspect by Magnetic Particle Testing or Penetrant Inspection. Please scrap if there is crack.
4	Please inspect whether crown and Bolt are wear or not. Wear Ratio (%) = $\frac{d-c}{d} \times 100$ d: Original Diameter c: Diameter after wear	Please scrap if wear ratio is more than 10%.
	● Please wash rust, oils and fats etc... of shackles by kerosene or washing oil to find defect easily when inspecting shackles. ● Please inspect shackles by Magnetic Particle Testing regularly. ● Please remove dust and rust, and daub oil and fats at Thread part after using, and then keep shackles. ● Please keep shackles as avoiding wind and rain. ● Please keep shackles as never touching on the ground. ● Please keep shackles as assembling Body and Bolt. ● Please keep shackles without piling up. (For avoiding wound, and collapse of cargo piles.)	



Light Type Shackle

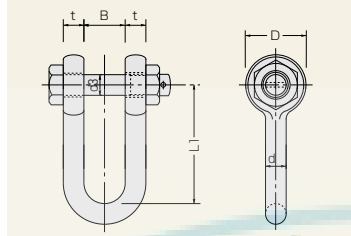
Light Type Shackle RS/RSE/RB/RBE

• "Light Type Shackle" is superior at strength because of using special alloy steel and doing Heat Treatment. So the unit weight is about half against shackle which is regulated in JIS-B2801.

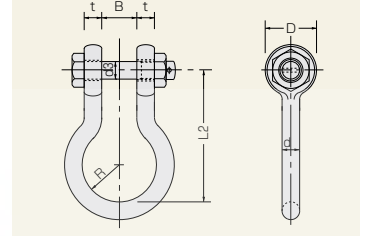
• All of products are done Magnetic Particle Testing, and attach its Inspection Certification. This product can be used for a long time because it has good quality, safety, and good wear resistance, very reasonable.



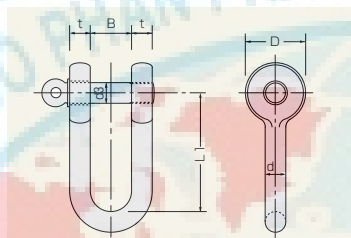
Classified Code	024RS
Type	RS



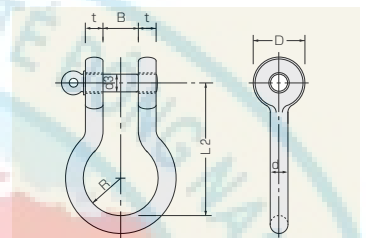
Classified Code	024RB
Type	RB



Classified Code	024RS
Type	RSE



Classified Code	024RB
Type	RBE



Product Code	Type	WLL (tf)	t	d	B	R	D	L1	L2	Dia of Thread	d3	Weight (kg)	Price	
													RS	RS
A005 (E)	RS	5	22	22	44		55	120		M24	26	2.5		
A008 (E)		8	26	26	50		66	144		M30	30	3.6		
A010 (E)		10	30	30	65		75	160		M36	36	5.5		
A016 (E)		16	38	38	80		95	205		M42	42	9.6		
A020 (E)		20	42	42	90		105	230		M48	48	14.1		
A025 (E)		25	50	50	100		120	255		M56	56	21.1		
A032 (E)		32	60	60	115		135	290		M64	64	35.0		
A040 (E)		40	65	65	125		150	320		M72	72	46.5		
A050		50	70	70	140		170	360		M80	80	63.4		
A063		63	80	80	160		190	405		M90	90	91		
A080		80	90	90	180		210	445		M100	100	132		
A100		100	105	105	200		235	510		M110	110	187		
A120		120	120	120	220		270	580		M130	130	295	RB	RB
A005 (E)	RB	5	22	26	44	44	55		156	M24	26	3.5		
A008 (E)		8	26	30	50	52	66		190	M30	30	5		
A010 (E)		10	30	36	65	60	80		210	M36	36	7.4		
A016 (E)		16	38	44	80	75	100		270	M42	42	14.0		
A020 (E)		20	42	55	90	85	110		300	M48	48	21.8		
A025 (E)		25	50	65	100	95	125		335	M56	56	33.0		
A032 (E)		32	60	70	115	110	140		380	M64	64	47.8		
A040 (E)		40	65	80	125	120	160		425	M72	72	67.6		
A050		50	70	90	140	135	180		475	M80	80	94		
A063		63	80	100	160	150	200		530	M90	90	131		
A080		80	90	115	180	170	225		600	M100	100	193		
A100		100	105	125	200	190	250		670	M110	110	259		
A120		120	120	140	220	195	270		700	M130	130	380		

Comparison about Shackle of JIS Standard and Light Type Shackle.



SB40



RS10



BB40



RB10



Super Strong Shackle

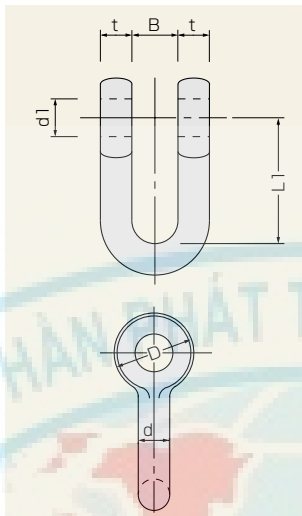
Super Strong Shackle

JIS-B 2801-1996 V class

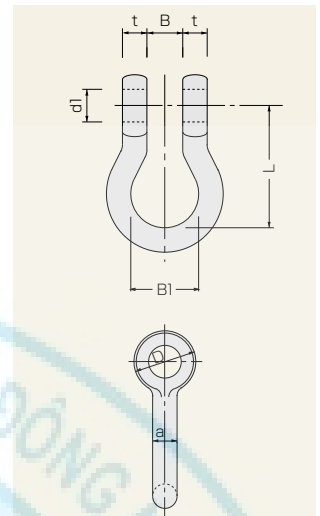
- Super Strong V class Shackle is high quality product which is forged carefully and done Heat Treatment as a Material is structural alloy steel. Safety is preminent because of superior strength, and wear resistance. (SB · BB type only)



SB(V-SB)



BB(V-BB)



Classified Code	024SB
Type	Strong SB (V-SB)

Classified Code	024BB
Type	Strong BB (V-BB)

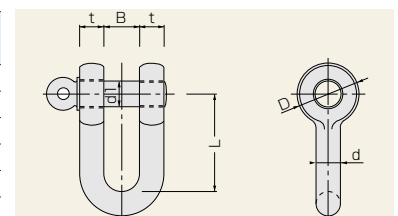
Product Code	(t)	W.L.L		d	a	B	B1	D	d1	L1	L	Dia of pin	Dia of Thread	Weight (kg)		Price	
		tf	kN											SB	BB	SB	BB
A010	10	1.25	(12.25)	10	12	17	30	25	13	40	54	12	M12	0.23	0.3		
A012	12	2.5	(24.5)	12	14	20	35	32	16	48	63	15	M14	0.3	0.38		
A014	14	3.15	(30.87)	14	16	24	40	36	18	56	72	17	M16	0.46	0.56		
A016	16	4	(39.2)	16	18	26	45	40	20	64	80	19	M18	0.65	0.83		
A018	18	5	(49)	18	21	29	53	45	22	72	95	21	M20	0.9	1.23		
A020	20	6.3	(61.74)	20	23	31	58	50	25	80	104	24	M24	1.3	1.8		
A022	22	7	(68.6)	22	26	34	65	55	27	88	117	26	M24	1.9	2.2		
A024	24	8	(78.4)	24	28	39	70	62	31	96	126	30	M30	2.5	3.0		
A026	26	10	(98)	26	30	41	75	66	33	104	135	32	M30	2.8	3.6		
A028	28	12.5	(122.5)	28	32	43	80	70	35	112	144	34	M33	3.5	4.4		
A030	30	14	(137.2)	30	34	45	85	75	37	120	153	36	M36	4.4	5.3		
A032	32	16	(156.8)	32	37	48	93	80	39	128	167	38	M36	5.1	6.75		
A034	34	18	(176.4)	34	39	50	98	85	41	136	176	40	M39	6.2	8.1		
A036	36	20	(196)	36	42	54	105	90	43	144	190	42	M42	7.5	9.8		
A038	38	22	(215.6)	38	44	57	110	95	47	152	198	46	M45	9	11.5		
A040	40	25	(245)	40	47	60	118	100	49	160	212	48	M48	10.5	14.2		
A042	42	27	(264.6)	42	49	63	123	105	53	168	220	51	M48	12	15.9		
A044	44	31.5	(308.7)	44	51	66	128	110	56	176	230	54	M48	13.5	18.8		
A046	46	32	(313.6)	46	53	68	133	115	58	184	240	56	M48	15	20.0		
A048	48	34	(333.2)	48	55	72	138	120	60	192	248	58	M56	18	22.9		
A050	50	40	(392)	50	57	75	143	125	62	200	257	60	M56	20	26.4		
A055	55	45	(441)	55	62	83	155	138	67	220	280	65	M64	26.5	34.8		
A060	60	50	(490)	60	69	90	178	150	72	240	310	70	M64	33	42.6		
A065	65	63	(617.4)	65	75	98	188	164	79	260	338	77	M72	43	55.6		
A070	70	80	(784)	70	81	105	202	178	85	280	360	83	M80	56	73.7		
A075	75	90	(882)	75	87	112	218	192	92	300	387	90	M80	66	87		
A080	80	100	(980)	80	93	120	232	206	98	320	414	96	M90	83	108		
A085	85	110	(1078)	85	99	128	248	220	104	340	440	102	M90	95	126		
A090	90	125	(1225)	90	104	135	260	232	110	360	473	108	M100	115	152		

Classified Code **024SE**

Super Strong SE Type Shackle

JIS-B 2801-1996

Product Code	(t)	W.L.L		d	B	D	L	d1 (Dia of pin)	Price
		tf	kN						
A016	16	4	(39.2)	16	26	40	64	19	
A018	18	5	(49)	18	29	45	72	21	
A022	22	7	(68.6)	22	34	55	88	26	
A026	26	10	(98)	26	41	66	104	32	
A032	32	16	(156.8)	32	48	80	128	38	
A036	36	20	(196)	36	54	90	144	42	





US Type Strong Shackle

US Type Strong Shackle

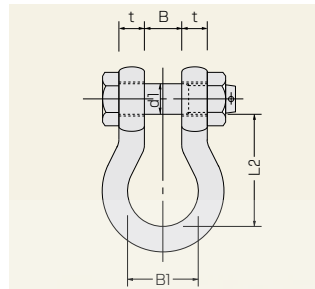
4

Shackles



KS-1130

Classified Code	024US
Type	KS-1130

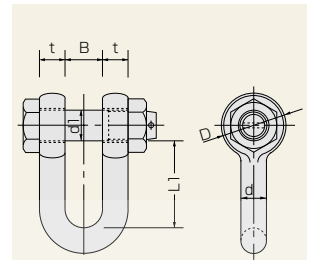


KG-1130
KS-1130



KS-1150

Classified Code	024US
Type	KS-1150

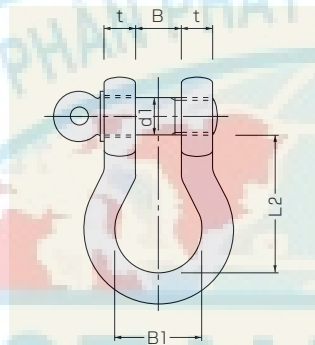


KG-1150
KS-1150



KS-109

Classified Code	024US
Type	KS-109

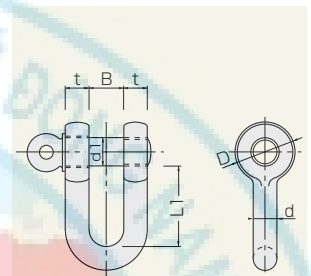


KS-109



KS-100

Classified Code	024US
Type	KS-100



KS-100

■ Bolt · Nut Type (KS-1130/KS-1150) +100ton, 130ton, 150ton are Round Head type with Handle.

(mm)

Product Code		Size	W.L.L		d (t)	d1	B	B1	L1	L2	D	Weight (kg)		Price	
1130	1150		t	kN								1130	1150	1130	1150
		1/2	2	(19.6)	13	16	21	33.5	42	48	30	0.395	0.35		
		5/8	3 1/4	(31.85)	16	19	27	43	51	61	40	0.726	0.71		
		3/4	4 3/4	(46.55)	19	22	32	51	61	72	48	1.2	1.1		
		7/8	6 1/2	(63.7)	22	25	37	58	72	85	54	1.8	1.66		
		1	8 1/2	(83.3)	25	28	43	69	81	96	60	2.5	2.35		
		1 1/8	9 1/2	(93.1)	28	32	46	74	91	108	67	3.56	3.4		
		1 1/4	12	(117.6)	32	36	52	83	100	119	76	5.1	4.8		
		1 3/8	13 1/2	(132.3)	36	38	58	92	113	134	84	7	6.65		
		1 1/2	17	(166.6)	38	42	61	99	124	146	92	8.6	8.1		
		1 3/4	25	(245)	46	50	73	127	146	178	110	14	14		
		2	35	(343)	50	57	83	146	172	197	127	22	21		
		2 1/2	50	(490)	65	70	105	184	204	267	153	43	38		
		3	75	(735)	75	83	127	200	216	330	165	66	56		
		3 1/2	+100	(980)	90	96	134	228	266	372	203	115	100		
		4	+130	(1274)	100	108	140	254	305	418	228	163	121		
		4 3/8	+150	(1470)	110	120	165	275	351	464	246	238	204		

■ Screw Type (KS-109/KS-100)

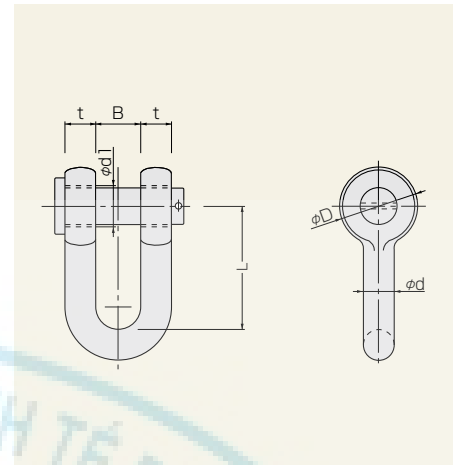
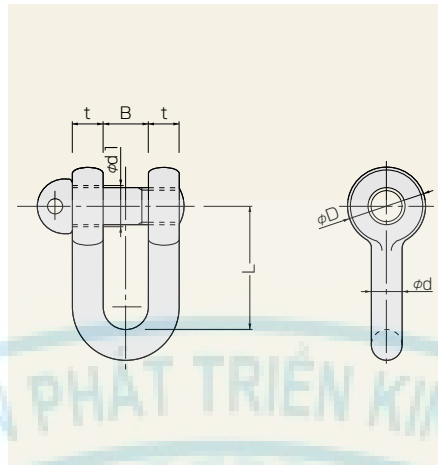
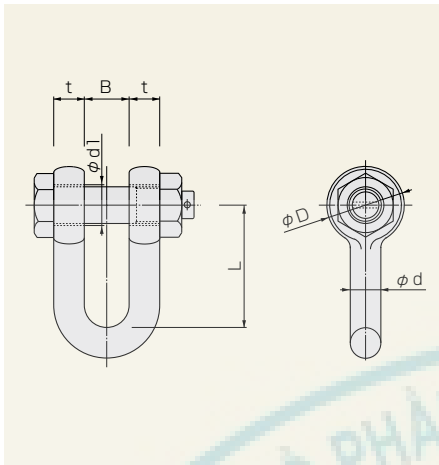
(mm)

Product Code		Size	W.L.L		d (t)	d1	B	B1	L1	L2	D	Weight (kg)		Price	
109	100		t	kN								109	100	109	100
		1/2	2	(19.6)	13	16	21	33.5	42	48	30	0.34	0.3		
		5/8	3 1/4	(31.85)	16	19	27	43	51	61	40	0.65	0.57		
		3/4	4 3/4	(46.55)	19	22	32	51	61	72	48	1.1	1		
		7/8	6 1/2	(63.7)	22	25	37	58	72	85	54	1.6	1.45		
		1	8 1/2	(83.3)	25	28	43	69	81	96	60	2.3	2.1		
		1 1/8	9 1/2	(93.1)	28	32	46	74	91	108	67	3.3	2.9		
		1 1/4	12	(117.6)	32	36	52	83	100	119	76	4.65	4.1		
		1 3/8	13 1/2	(132.3)	36	38	58	92	113	134	84	6.2	5.3		
		1 1/2	17	(166.6)	38	42	61	99	124	146	92	7.7	7.01		
		1 3/4	25	(245)	46	50	73	127	146	178	110	13	12		
		2	35	(343)	50	57	83	146	172	197	127	19.5	18		
		2 1/2	50	(490)	65	70	105	184	204	267	153	40	35		



JIS Standard Shackle

JIS Standard Shackle (SB Shackle / SC Shackle / SA Shackle) JIS-B 2801-1977



Classified Code	022SB
Type	SB
Size	(10mm)~90mm

Classified Code	022SC
Type	SC
Size	6mm~40mm

Classified Code	022SA
Type	SA
Size	34mm~90mm



SB



SC

SB Shackle / SC Shackle / SA Shackle

(mm)

Product Code	t	W.L.L		B	D	L	d1	Dia of pin	Dia of Thread	Weight (kg)			Price		
		tf	kN							SB	SC	SA	SB	SC	SA
A006	6	0.2 (1.96)	11	17	24	9	8	M8			0.04				
A008	8	0.35 (3.43)	14	21	32	11	10	M10			0.08				
A010	10	0.6 (5.88)	17	25	40	13	12	M12	(0.3)		0.14				
A012	12	0.9 (8.82)	20	32	48	16	15	M14	(0.35)		0.28				
A014	14	1.2 (11.76)	24	36	56	18	17	M16	(0.5)		0.4				
A016	16	1.5 (14.7)	26	40	64	20	19	M18	(0.65)		0.57				
A018	18	2 (19.6)	29	45	72	22	21	M20	(0.9)		0.78				
A020	20	2.5 (24.5)	31	50	80	25	24	M24		1.3	1.05				
A022	22	3 (29.4)	34	55	88	27	26	M24		1.9	1.45				
A024	24	3.6 (35.28)	39	62	96	31	30	M30		2.55	2.05				
A026	26	4.2 (41.16)	41	66	104	33	32	M30		2.85	2.5				
A028	28	4.8 (47.04)	43	70	112	35	34	M33		3.55	3.0				
A030	30	5.4 (52.92)	45	75	120	37	36	M36		4.35	3.65				
A032	32	6.2 (60.76)	48	80	128	39	38	M36		5.06	4.5				
A034	34	7 (68.6)	50	85	136	41	40	M39		6.15	5.2	5.6			
A036	36	8 (78.4)	54	90	144	43	42	M42		7.47	6.5	6.7			
A038	38	9 (88.2)	57	95	152	47	46	M45		9.0	7.5	7.8			
A040	40	10 (98)	60	100	160	49	48	M48		10.6	8.8	9			
A042	42	11 (107.8)	63	105	168	53	51	M48		11.9		10.6			
A044	44	12 (117.6)	66	110	176	56	54	M48		13.4		12.5			
A046	46	13 (127.4)	68	115	184	58	56	M48		15.0		13.66			
A048	48	14 (137.2)	72	120	192	60	58	M56		17.9		15.51			
A050	50	15 (147)	75	125	200	62	60	M56		19.9		18.1			
A055	55	18 (176.4)	83	138	220	67	65	M64		26.5		24.6			
A060	60	22 (215.6)	90	150	240	72	70	M64		33.0		32			
A065	65	26 (254.8)	98	164	260	79	77	M72		42.9		39			
A070	70	30 (294)	105	178	280	85	83	M80		56.0		49.8			
A075	75	35 (343)	112	192	300	92	90	M80		65.6		62.0			
A080	80	40 (392)	120	206	320	98	96	M90		83.0		75			
A085	85	45 (441)	128	220	340	104	102	M90		94.7		90			
A090	90	50 (490)	135	232	360	110	108	M100		115.0		105			

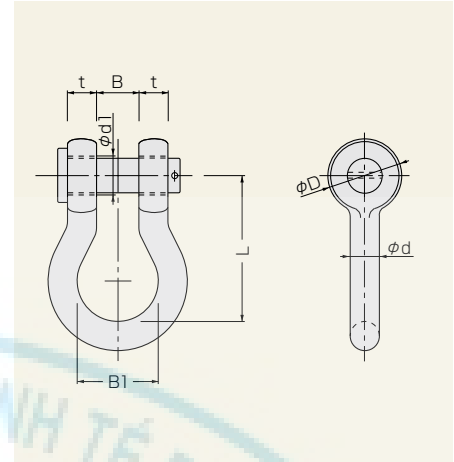
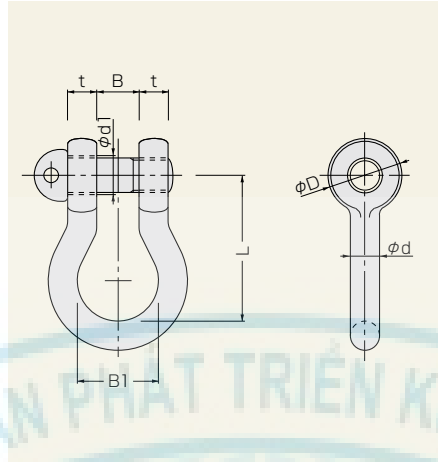
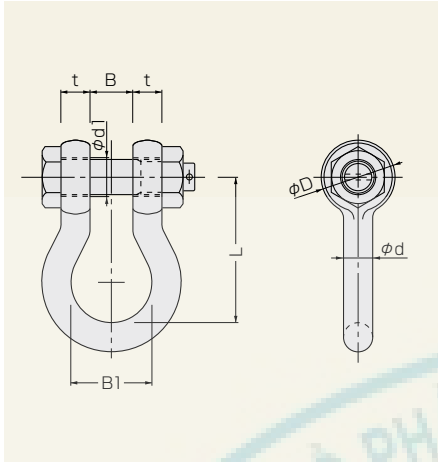


JIS Standard Shackle

JIS Standard Shackle (BB Shackle / BC Shackle / BA Shackle) JIS-B 2801-1977

4

Shackle



Classified Code	022BB
Type	BB
Size	10mm~90mm

Classified Code	022BC
Type	BC
Size	6mm~40mm

Classified Code	022BA
Type	BA
Size	34mm~90mm



BB



BC

BB Shackle / BC Shackle / BA Shackle

(mm)

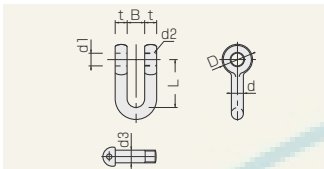
Product Code	t	W.L.L		d	B	B1	D	L	d1	Dia of pin	Dia of Thread	Weight (kg)			Price		
		tf	kN									BB	BC	BA	BB	BC	BA
A006	6	0.2	(1.96)	8	11	20	17	36	9	8	M8		0.06				
A008	8	0.35	(3.43)	10	14	25	21	45	11	10	M10		0.13				
A010	10	0.6	(5.88)	12	17	30	25	54	13	12	M12	(0.35)	0.21				
A012	12	0.9	(8.82)	14	20	35	32	63	16	15	M14	(0.38)	0.36				
A014	14	1.2	(11.76)	16	24	40	36	72	18	17	M16	(0.56)	0.5				
A016	16	1.5	(14.7)	18	26	45	40	80	20	19	M18	(0.83)	0.74				
A018	18	2	(19.6)	21	29	53	45	95	22	21	M20	(1.23)	1.1				
A020	20	2.5	(24.5)	23	31	58	50	104	25	24	M24	1.8	1.6				
A022	22	3	(29.4)	26	34	65	55	117	27	26	M24	2.2	2				
A024	24	3.6	(35.28)	28	39	70	62	126	31	30	M30	3	2.6				
A026	26	4.2	(41.16)	30	41	75	66	135	33	32	M30	3.6	3.1				
A028	28	4.8	(47.04)	32	43	80	70	144	35	34	M33	4.4	3.9				
A030	30	5.4	(52.92)	34	45	85	75	153	37	36	M36	5.3	4.6				
A032	32	6.2	(60.76)	37	48	93	80	167	39	38	M36	6.75	6.1				
A034	34	7	(68.6)	39	50	98	85	176	41	40	M39	8.1	7.2	8			
A036	36	8	(78.4)	42	54	105	90	190	43	42	M42	9.8	8.5	9			
A038	38	9	(88.2)	44	57	110	95	198	47	46	M45	11.5	10.1	11.4			
A040	40	10	(98)	47	60	118	100	212	49	48	M48	14.2	12.5	14.2			
A042	42	11	(107.8)	49	63	123	105	220	53	51	M48	15.9		15.2			
A044	44	12	(117.6)	51	66	128	110	230	56	54	M48	18.8		17			
A046	46	13	(127.4)	53	68	133	115	240	58	56	M48	20		18.6			
A048	48	14	(137.2)	55	72	138	120	248	60	58	M56	22.9		20			
A050	50	15	(147)	57	75	143	125	257	62	60	M56	26.4		24.9			
A055	55	18	(176.4)	62	83	155	138	280	67	65	M64	34.8		32			
A060	60	22	(215.6)	69	90	178	150	310	72	70	M64	42.6		41			
A065	65	26	(254.8)	75	98	188	164	338	79	77	M72	55.6		53			
A070	70	30	(294)	81	105	202	178	360	85	83	M80	73.7		71			
A075	75	35	(343)	87	112	218	192	387	92	90	M80	87		81			
A080	80	40	(392)	93	120	232	206	414	98	96	M90	108		100			
A085	85	45	(441)	99	128	248	220	440	104	102	M90	126		113			
A090	90	50	(490)	104	135	260	232	473	110	108	M100	152		144			

JIS Standard Shackle (SD Shackle) JIS-B 2801-1977

(mm)



SD



Classified Code	022SD
Type	SD
Size	10mm~58mm

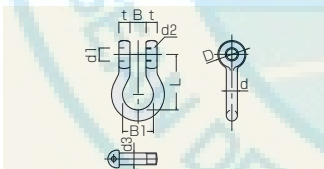
Product Code	t·d	W.L.L		B	D	L	d1	d3 (Dia of pin)	d2 (Dia of Thread)	Weight (kg)	Price
		tf	kN								
A010	10	0.4	(3.92)	20	23	40	13	12	M12	0.14	
A012	12	0.6	(5.88)	24	28	48	16	15	M14	0.23	
A014	14	0.8	(7.84)	28	32	56	18	17	M16	0.37	
A016	16	1	(9.8)	32	36	64	21	20	M20	0.53	
A020	20	1.5	(14.7)	40	44	80	25	24	M24	1.01	
A022	22	2	(19.6)	44	50	88	28	27	M27	1.43	
A024	24	2.5	(24.5)	48	56	96	30	29	M27	1.91	
A026	26	3	(29.4)	52	62	104	33	32	M30	2.38	
A028	28	3.5	(34.3)	56	65	112	35	34	M33	2.85	
A030	30	4	(39.2)	60	70	120	37	36	M36	3.59	
A034	34	5	(49)	68	80	136	43	42	M42	5.33	
A038	38	6	(58.8)	76	85	152	46	45	M45	7.25	
A040	40	7	(68.6)	80	92	160	49	48	M48	8.5	
A042	42	8	(78.4)	84	100	168	53	51	M48	10.1	
A048	48	10	(98)	96	110	192	60	58	M56	14.4	
A052	52	12	(117.6)	104	120	208	64	62	M56	19.9	
A058	58	15	(147)	116	132	232	70	68	M64	26.1	

JIS Standard Shackle (BD Shackle) JIS-B 2801-1977

(mm)



BD



Classified Code	022BD
Type	BD
Size	6mm~20mm

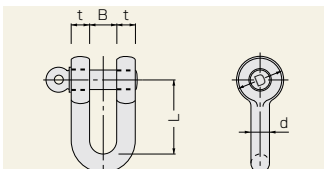
Product Code	t	W.L.L		d	B	B1	D	L	d1	d3 (Dia of pin)	d2 (Dia of Thread)	Weight (kg)	Price
		tf	kN										
A006	6	0.15	(1.47)	8	12	24	17	36	9	8	M8	0.06	
A008	8	0.3	(2.94)	10	16	30	24	45	11	10	M10	0.13	
A010	10	0.5	(4.9)	12	20	36	28	54	13	12	M12	0.215	
A012	12	0.7	(6.86)	14	24	42	32	63	16	15	M14	0.335	
A014	14	0.9	(8.82)	16	28	48	35	72	18	17	M16	0.5	
A016	16	1.2	(11.76)	18	32	54	40	80	21	20	M20	0.765	
A018	18	1.3	(12.74)	20	36	60	45	100	22	21	M20	1.045	
A020	20	1.8	(17.64)	22	40	66	50	112	25	24	M24	1.42	

Old JIS Standard Shackle (SE Shackle) JIS-B 2801-1958

(mm)



SE



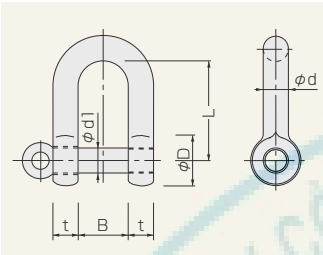
Classified Code	023SE
Type	Old SE
Size	16mm~50mm

Product Code	t·d	W.L.L		B	D	L	Dia of pin	Dia of Thread	Weight (kg)	Price
		tf	kN							
A016	16	1.5	(14.7)	26	40	64	19	M18	0.6	
A018	18	2	(19.6)	29	45	72	21	M20	0.8	
A020	20	2.5	(24.5)	31	50	80	24	M24	1.1	
A022	22	3	(29.4)	34	55	88	26	M24	1.41	
A024	24	3.6	(35.28)	39	62	96	30	M30	2.1	
A026	26	4.2	(41.16)	41	66	104	32	M30	2.5	
A028	28	4.8	(47.04)	43	70	112	34	M33	3.01	
A030	30	5.4	(52.92)	45	75	120	36	M36	3.7	
A032	32	6.2	(60.76)	48	80	128	38	M36	4.6	
A034	34	7	(68.6)	50	85	136	40	M39	5.34	
A036	36	8	(78.4)	54	90	144	42	M42	6.5	
A038	38	9	(88.2)	57	95	152	46	M45	7.5	
A040	40	10	(98)	60	100	160	48	M48	8.8	
A042	42	11	(107.8)	63	105	168	51	M48	10.5	
A044	44	12	(117.6)	66	110	176	54	M48	12.2	
A046	46	13	(127.4)	68	115	184	56	M48	13.6	
A048	48	14	(137.2)	72	120	192	58	M56	15.6	
A050	50	15	(147)	75	125	200	60	M56	17.5	



Classified Code 02101

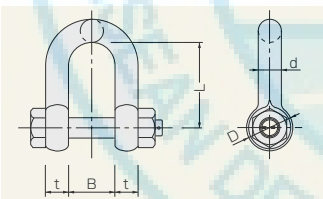
D Shackle



Product Code		d-d1	W.L.L		B (mm)	D (mm)	L (mm)	Weight (kg)	Bundle	Price	
Un-Galvanized	Galvanized		tf	kN						Un-Galvanized	Galvanized
A006	U006	6	0.12	(1.176)	12	11	25	0.023	100		
A008	U008	8	0.23	(2.254)	16	15	31	0.046	100		
A009	U009	9	0.3	(2.94)	18	17	36	0.073	100		
A012	U012	12	0.5	(4.9)	25	23	46	0.17	50		
A016	U016	16	0.8	(7.84)	32	32	60	0.43	25		
A019	U019	19	1.0	(9.8)	38	38	75	0.74	20		
A022	U022	22	1.5	(14.7)	44	44	86	1.15	10		
A025	U025	25	2.0	(19.6)	50	50	98	1.63	5		
A028	D028	28	2.5	(24.5)	56	56	110	2.4	4		
A032	D032	32	3.2	(31.36)	64	64	124	3.6	3		
A038	D038	38	4.5	(44.1)	76	76	146	5.85	2		
A044	D044	44	6.5	(63.7)	80	88	165	8.2	1		
A050	D050	50	8.0	(78.4)	90	100	180	12.6	1		
A065	D065	65	15.0	(147)	110	130	240	27.4	1		
A075	D075	75	20.0	(196)	120	150	300	41.6	1		

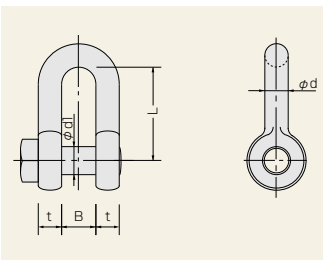
Classified Code 02102

Bolt • Nut Type Shackle



Product Code	d	W.L.L		B (mm)	D (mm)	L (mm)	Weight (kg)	Price
		tf	kN					
A012	12	0.5	(4.94)	24	23	48	0.22	
A016	16	0.8	(7.84)	32	32	60	0.55	
A019	19	1.0	(9.8)	38	38	75	0.92	
A022	22	1.5	(14.7)	44	44	86	1.38	
A025	25	2.0	(19.6)	50	50	98	2.04	
A032	32	3.2	(31.36)	64	64	124	4.29	
A038	38	4.5	(44.1)	76	76	146	7.25	
A044	44	6.5	(63.7)	80	88	165	11.50	
A050	50	8.0	(78.4)	90	100	180	16.80	

Square Head Shackle



Pin (Same Dia Body)

Classified Code 02105

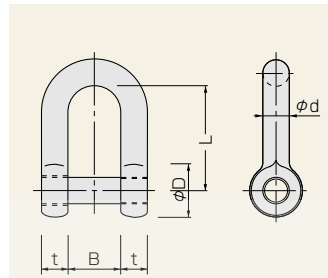
Product Code	t-d	W.L.L		d1 (mm) (Dia of pin)	B (mm)	L (mm)	Weight (kg)	Price
		tf	kN					
A012	12	0.5	(4.9)	12	24	48	0.17	
A016	16	0.8	(7.84)	16	32	60	0.43	
A019	19	1.0	(9.8)	19	38	75	0.74	
A022	22	1.5	(14.7)	22	44	86	1.15	
A025	25	2.0	(19.6)	25	50	98	1.63	

Thick Pin

Classified Code 02106

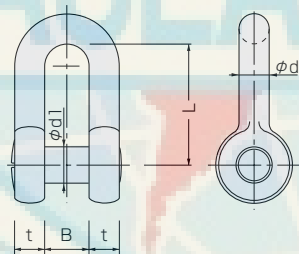
Product Code	t-d	W.L.L		d1 (mm) (Dia of pin)	B (mm)	L (mm)	Weight (kg)	Price
		tf	kN					
A012	12	0.5	(4.9)	16	24	50	0.33	
A016	16	1.0	(9.8)	19	30	65	0.6	
A019	19	1.5	(14.7)	22	36	76	0.9	
A022	22	2.0	(19.6)	25	44	92	1.4	
A025	25	3.0	(29.4)	28	45	100	2.0	
A028	28	5.0	(49.0)	32	45	110	2.6	
A032	32	6.5	(63.7)	35	50	123	3.7	

SIN Shackle (Pin as Same Dia Body)



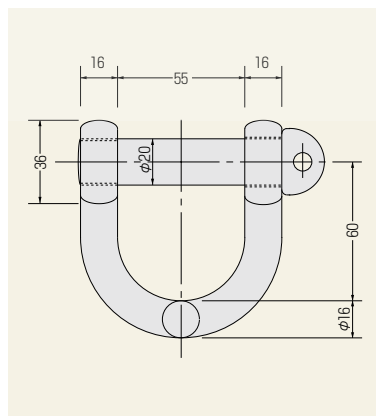
Product Code		t	W.L.L		B (mm)	D (mm)	L (mm)	Weight (kg)	Price	
Un-Galvanized	Galvanized		tf	kN					Un-Galvanized	Galvanized
A006	U006	6	0.12	(1.176)	12	11	25	0.021		
A008	U008	8	0.23	(2.254)	16	15	31	0.043		
A009	U009	9	0.3	(2.94)	18	17	36	0.07		
A012	U012	12	0.5	(4.9)	24	23	48	0.16		
A016	U016	16	0.8	(7.84)	32	32	60	0.41		
A019	U019	19	1.0	(9.8)	38	38	75	0.72		
A022	U022	22	1.5	(14.7)	44	44	86	1.12		
A025	U025	25	2.0	(19.6)	50	50	98	1.60		
A028	U028	28	2.5	(24.5)	56	56	110	2.35		
A032	U032	32	3.2	(31.36)	64	64	124	3.4		
A038	U038	38	4.5	(44.1)	76	76	146	5.6		

SIN Shackle (JIS Type SIN Shackle)



Product Code	t · d	W.L.L		B (mm)	L (mm)	d1 (mm) (Dia of pin)	Weight (kg)	Price
		tf	kN					
A016	16	1.5	(14.7)	26	64	19	0.58	
A018	18	2	(19.6)	29	72	21	0.82	
A020	20	2.5	(24.5)	31	80	24	1.15	
A022	22	3	(29.4)	34	88	26	1.53	
A024	24	3.6	(35.28)	39	96	30	2.08	
A026	26	4.2	(41.16)	41	104	32	2.61	
A028	28	4.8	(47.04)	43	112	34	3.24	
A030	30	5.4	(52.92)	45	120	36	3.91	
A032	32	6.2	(60.76)	48	128	38	4.75	
A034	34	7	(68.6)	50	136	40	5.67	
A036	36	8	(78.4)	54	144	42	6.74	
A038	38	9	(88.2)	57	152	46	7.97	
A040	40	10	(98)	60	160	48	9.20	

Shackle for Oil Fence



Product Code	A016
Weight (kg)	0.53
Price	

Container Pack Shackle

Galvanized

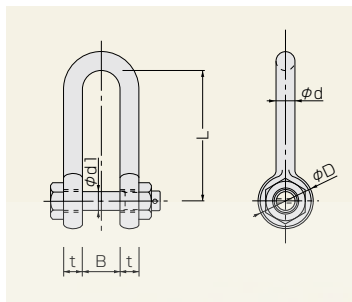


Body : Pin 12mm Width 51mm

Product Code	U012
Weight (kg)	0.25
Price	



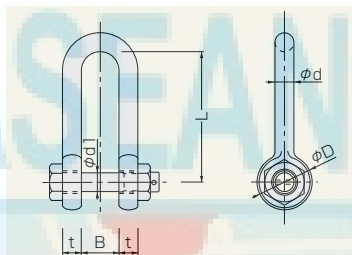
Yaita Shackle



(mm)

Product Code	t·d	W.L.L		B	D	L	d1 (Dia of pin)	Weight (kg)	Price
		tf	kN						
A022	22	1.5	(14.7)	47	44	175	22	2.0	
A025	25	2.0	(19.6)	47	50	200	25	2.7	
A032	32	3.2	(31.36)	64	64	320	32	6.8	
A038	38	4.5	(44.1)	76	76	350	38	10.5	
A044	44	6.5	(63.7)	80	88	355	44	14.5	
A050	50	8.0	(78.4)	90	100	405	50	22.5	
A065	65	13.5	(147)	110	130	450	65	45.0	
A075	75	18.0	(196)	120	150	480	75	60.0	

KG Strong Yaita Shackle



(mm)

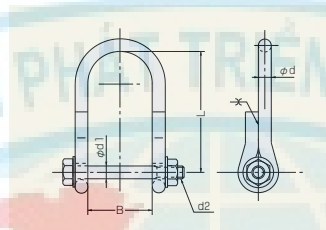
Product Code	t·d	W.L.L		B	D	L	d1 (Dia of pin)	Weight (kg)	Price
		tf	kN						
A016	16	2.5	(24.5)	40	35	140	16	0.82	
A019	19	4.0	(39.2)	45	44	160	20	1.5	
A019200	19	4.0	(39.2)	50	44	200	20	1.7	
A022	22	6.0	(58.8)	47	51	170	22	2.1	
A022250	22	6.0	(58.8)	50	51	250	22	2.6	
A025	25	8.0	(78.4)	50	57	200	25	3.0	
A025250	25	8.0	(78.4)	50	57	250	25	3.4	
A032	32	10.0	(98)	64	73	320	32	6.8	
A038	38	14.0	(137.2)	76	88	350	38	10.5	
A038450	38	14.0	(137.2)	76	88	450	38	12.0	

Connecting shackle (for a Wave Absorbing Block)



Classified Code **021C9**

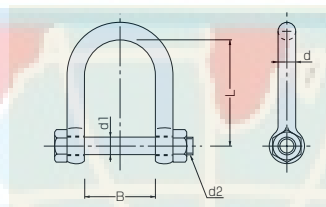
Welding Type



Product Code	d	B	L	d1 (Dia of pin)	Dia of Thread	Weight (kg)	Price
A016Y	16	80	150	16	W 5/8	1.3	
A019Y	19	80	150	19	W 3/4	1.8	
A022Y	22	80	160	22	W 7/8	2.8	
A025Y	25	100	170	25	W 1"	3.6	
A028Y	28	120	180	28	W 1 1/8	5.5	
A032Y	32	130	180	32	W 1 1/4	7.1	

Classified Code **02109**

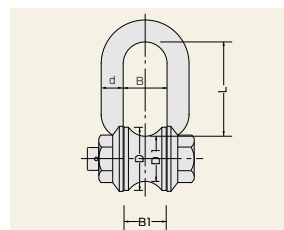
Forged Type (Bolt · Nut Type)



Product Code	d	B	L	d1 (Dia of pin)	Dia of Thread	Weight (kg)	Price
A016T	16	80	150	16	W 5/8	1.0	
A019T	19	80	150	19	W 3/4	1.4	
A022T	22	80	160	22	W 7/8	2.3	
A025T	25	100	170	25	W 1"	3.0	
A028T	28	120	180	28	W 1 1/8	4.6	
A032T	32	130	180	32	W 1 1/4	5.8	

Classified Code **02108**

Roller Shackle



Product Code	Size	W.L.L		d	B	B1	L	D	D1	Weight (kg)	Price
		tf	kN								
A025	25	3	(29.4)	25	50	48	83	72	50	2.9	
A032	32	5	(49)	32	64	60	100	91	60	5.7	

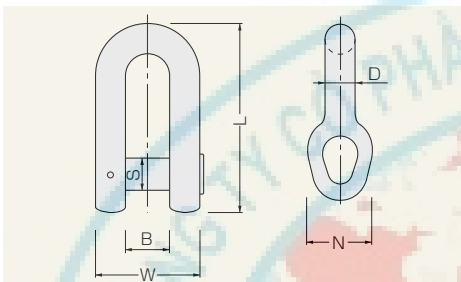


Shackle for Mooring Chain

Classified Code 024JO

Joining Shackle JIS-F 3303-1993

(mm)



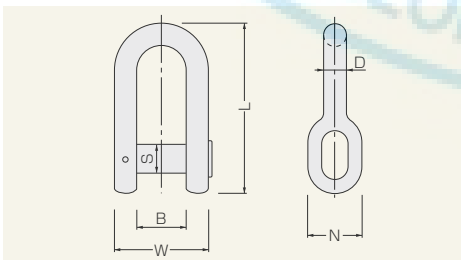
Using the Chain Dia d	D 1.3d	L 7.1d	W 4d	N 2.8d	S 1.6d	Weight (kg)
16	20.8	113.6	64.0	44.8	25.6	0.9
17.5	22.8	124.3	70.0	49.0	28.0	1.2
19	24.7	134.9	76.0	53.2	30.4	1.8
20.5	26.7	145.6	82.0	57.4	32.8	2.3
22	28.6	156.2	88.0	61.6	35.2	2.8
24	31.2	170.4	96.0	67.2	38.4	3.6
26	33.8	184.6	104.0	72.8	41.6	4.1
28	36.4	198.8	112.0	78.4	44.8	5.6
30	39.0	213.0	120.0	84.0	48.0	7
32	41.6	227.2	128.0	89.6	51.2	8
34	44.2	241.4	136.0	95.2	54.4	10
36	46.8	255.6	144.0	100.8	57.6	12
38	49.4	269.8	152.0	106.4	60.8	14
40	52.0	284.0	160.0	112.0	64.0	15
42	54.6	298.2	168.0	117.6	67.2	17
44	57.2	312.4	176.0	123.2	70.4	20
46	59.8	326.6	184.0	128.8	73.6	23
48	62.4	340.8	192.0	134.4	76.8	25
50	65.0	355.0	200.0	140.0	80.0	30
52	67.6	371.2	208.0	145.6	83.2	35
54	70.2	383.4	216.0	151.2	86.4	40
56	72.8	397.6	224.0	156.8	89.6	45
58	75.4	411.8	232.0	162.4	92.8	50
60	78.0	426.0	240.0	168.0	96.0	53
62	80.6	440.2	248.0	173.6	99.2	60
64	83.2	454.4	256.0	179.2	102.4	65
66	85.8	468.6	264.0	184.8	105.6	70

● Material Class 2=SBC490 Clas 3=SBC690

Classified Code 024AN

Anchor Shackle JIS-F 3303-1993

(mm)



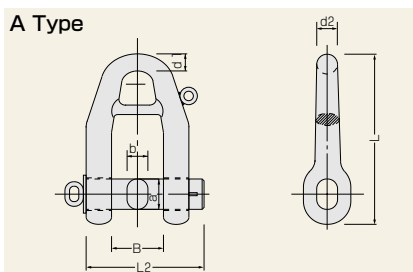
Using the Chain Dia d	D 1.4d	L 9d	W	N 3.0d	S 2.1d	Weight (kg)
16	22.4	144.0	95.0	48.0	33.6	2.0
17.5	24.5	157.5	104.0	52.5	36.8	2.6
19	26.6	171.0	112.0	57.0	39.9	3.0
20.5	28.7	184.5	118.0	61.5	43.1	4.3
22	30.8	198.0	125.0	66.0	46.2	5.0
24	33.6	216.0	134.0	72.0	50.4	6.5
26	36.4	234.0	143.0	78.0	54.6	8.0
28	39.2	252.0	151.0	84.0	58.8	10.0
30	42.0	270.0	160.0	90.0	63.0	14.0
32	44.8	288.0	169.0	96.0	67.2	15.5
34	47.6	306.0	180.0	102.0	71.4	17.0
36	50.4	324.0	187.0	108.0	75.6	20.0
38	53.2	342.0	196.0	114.0	79.8	23.0
40	56.0	360.0	210.0	120.0	84.0	26.0
42	58.8	378.0	219.0	126.0	88.2	30.0
44	61.6	396.0	226.0	132.0	92.4	35.0
46	64.4	414.0	236.0	138.0	96.6	40.0
48	67.2	432.0	244.0	144.0	100.8	45.0
50	70.0	450.0	255.0	150.0	105.0	55.0
52	72.8	468.0	263.0	156.0	109.2	60.0
54	75.6	486.0	273.0	162.0	113.4	65.0
56	78.4	504.0	283.0	168.0	117.6	70.0
58	81.2	522.0	293.0	174.0	121.8	80.0
60	84.0	540.0	303.0	180.0	126.0	90.0
62	86.8	558.0	314.0	186.0	130.2	100.0
64	89.6	576.0	324.0	192.0	134.4	115.0

● Material Class 2=SBC490 Clas 3=SBC690

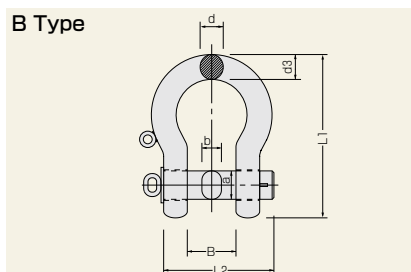
Classified Code 02405

V Shackle JIS-F 3306-1990

A Type



B Type





Eye Bolt

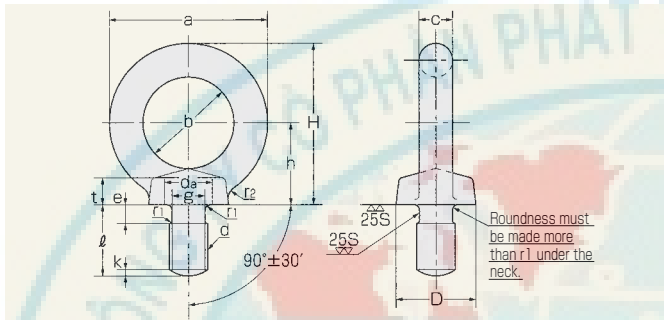
Classified Code 10701

Eye Bolt JIS B 1168-1994

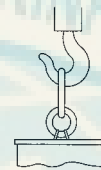


Specification	
Material	Steel (SS400) Stainless Steel (SUS304)
Surface Treatment	Steel (Un-galvanized, Galvanized, Yellow zinc plated, Hot dipped galvanized)

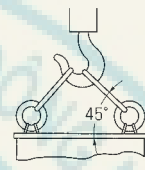
※We can also produce except below ℓ size.
Please ask us if necessary.



Vertical lifting



Lifting as 45°



※Note) W.L.L of lifting 45° is applied in case of direction of Ring of Bolt of 2pcs is on same plane while Bottom of Bolt is stick firmly as the above figure.

Size Table of Eye Bolt

(unit : mm)

Screws Size (d)		a	b	c	D	t	h	H	ℓ	e	g	r_1	d_s	r_2	k	W.L.L Vertical Lifting or Lifting 45° by 2pcs		Weight (kg) (about)
																M Screw kN (kgf)	W Screw kN (kgf)	
M Screw	W Screw																	
(6)	(1/4)	26	16	5.8	13.5	6	14	27	14	2	4.5	0.8	7.1	2	1	0.588 (60)		0.016
8	5/16	32.6	20	6.3	16	5	17	33.3	15	3	6	1	9.2	4	1.2	0.785 (80)		0.03
10	3/8	41	25	8	20	7	21	41.5	18	4	7.7	1.2	11.2	4	1.5	1.47 (150)	1.37 (140)	0.06
12	1/2	50	30	10	25	9	26	51	22	5	9.4	1.4	14.2	6	2	2.16 (220)	2.16 (220)	0.12
16	5/8	60	35	12.5	30	11	30	60	27	5	13	1.6	18.2	6	2	4.41 (450)	3.92 (400)	0.22
20	3/4	72	40	16	35	13	35	71	30	6	16.4	2	22.4	8	2.5	6.18 (630)	5.88 (600)	0.39
(22)	(7/8)	80	44	19	40	16.5	43	84	35	7	18.5	2.3	24.4	10	2.5	7.74 (790)	7.84 (800)	0.56
24	1"	90	50	20	45	18	45	90	38	8	19.6	2.5	26.4	12	3	9.32 (950)	9.32 (950)	0.80
30	1 1/4	110	60	25	60	22	55	110	45	8	25	3	33.4	15	3.5	14.7 (1500)	14.7 (1500)	1.56
36	1 1/2	133	70	31.5	70	26	65	131.5	55	10	30.3	3	39.4	18	4	22.6 (2300)	22.6 (2300)	2.90
42	1 3/4	151	80	35.5	80	30	75	150.5	65	12	35.6	3.5	45.6	20	4.5	33.3 (3400)	33.3 (3400)	4.40
48	2"	170	90	40	90	35	85	170	70	12	41	4	52.6	22	5	44.1 (4500)	44.1 (4500)	6.10
64	2 1/2	210	110	50	110	42	105	210	90	14	55.7	5	71	25	6	88.3 (9000)	88.3 (9000)	11.50
80	3"	266	130	63	130	50	130	263	105	14	71	5	87	35	6	147 (15000)	127 (13000)	26.25
90		302	150	74	150	55	150	301	120	14	81	5	97	35	6	177 (18000)	167 (17000)	46.00
100	4"	340	170	80	170	60	165	335	130	14	91	5	108	40	6	196 (20000)	196 (20000)	49.00

4

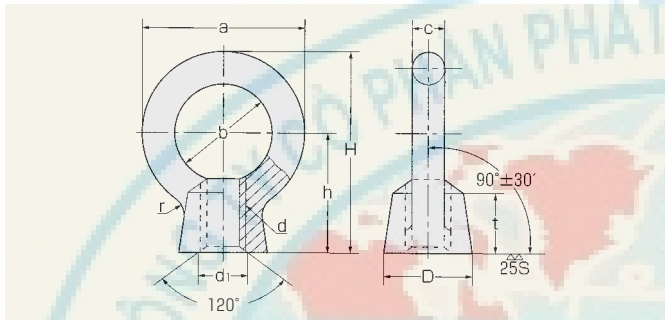
Eye Bolt



Eye Nut JIS B 1169-1994



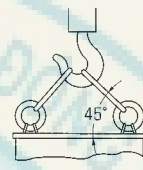
Specification	
Material	Steel (SS400) Stainless Steel (SUS304)
Surface Treatment	Steel (Un-galvanized, Galvanized, Yellow zinc plated, Hot dipped galvanized)



Vertical lifting



Lifting as 45°



※Note) W.L.L of lifting 45° is applied in case of direction of Ring of Nut of 2pcs is on same plane while Bottom of Bolt is stick firmly as the above figure.

Size Table of Eye Nut

(unit : mm)

Screws Size (d)		a	b	c	D	t	h	H	r	d _i	W.L.L Vertical Lifting or Lifting 45° by 2pcs		Weight (kg)
M Screw	W Screw								(about)		M Screw kN (kgf)	W Screw kN (kgf)	(about)
(6)	(1/4)	25	14	6.3	13	10	20	32.5	6	7.5	0.588 (60)		0.016
8	5/16	32.6	20	6.3	16	12	23	39.3	8	8.5	0.785 (80)		0.026
10	3/8	41	25	8	20	15	28	48.5	10	10.6	1.47 (150)	1.37 (140)	0.064
12	1/2	50	30	10	25	19	36	61	12	12.5	2.16 (220)	2.16 (220)	0.125
16	5/8	60	35	12.5	30	23	42	72	14	17	4.41 (450)	3.92 (400)	0.223
20	3/4	72	40	16	35	28	50	86	16	21.2	6.18 (630)	5.88 (600)	0.390
(22)	(7/8)	81	44	19	41	33	58	99	20	24	7.74 (790)	7.84 (800)	0.570
24	1"	90	50	20	45	38	66	111	25	25	9.32 (950)	9.32 (950)	0.850
30	1 1/4	110	60	25	60	46	80	135	30	31.5	14.7 (1500)	14.7 (1500)	1.75
36	1 1/2	133	70	31.5	70	55	95	161.5	35	37.5	22.6 (2300)	22.6 (2300)	3.00
42	1 3/4	151	80	35.5	80	64	109	184.5	40	45	33.3 (3400)	33.3 (3400)	4.65
48	2"	170	90	40	90	73	123	208	45	50	44.1 (4500)	44.1 (4500)	6.60
64		210	110	50	110	90	151	256	50	67	88.3 (9000)	88.3 (9000)	13.80
80		266	140	63	130	108	184	317	60	85	147 (15000)	127 (13000)	28.50

TURNBUCKLES



TurnBuckles



■ Table of Basic W.L.L (Wick of axis in parallel, static load Table(1))

kN (tf)

Product Name \ Size	W3/8	W1/2	W5/8	W3/4	W7/8	W1	W1 ¹ / ₄	W1 ¹ / ₂
Eye & Hook Set	1.2 (0.12)	2.4 (0.24)	3.4 (0.35)	5.4 (0.55)	6.5 (0.66)	9.8 (1.0)	14.7 (1.5)	19.6 (2.0)
Eye & Eye Set	3.9 (0.4)	7.8 (0.8)	12.7 (1.3)	18.6 (1.9)	25.5 (2.6)	35.3 (3.6)	49.0 (5.0)	68.6 (7.0)
Body only (Split Frame type)	5.9 (0.6)	8.8 (0.9)	12.7 (1.3)	18.6 (1.9)	25.5 (2.6)	35.3 (3.6)	54.9 (5.6)	72.5 (7.4)
Body only (pipe type)	5.9 (0.6)	7.8 (0.8)	12.7 (1.3)	18.6 (1.9)	25.5 (2.6)	35.3 (3.6)	49.0 (5.0)	72.5 (7.4)

1kN $\approx$ 0.102tf

■ Architectural Turn Buckle Body (Recognition product of JIS A 5541)

Table(2): allowable stress for temporary loading (Split Frame type and Pipe type Body only)

	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33
(t)	1.46	2.14	2.93	3.94	4.90	6.18	7.62	8.94	11.6	14.2	17.6
WLL (kN)	14.3	21.0	28.7	38.6	48.0	60.6	74.7	87.6	114	139	173

1kN $\approx$ 0.102tf

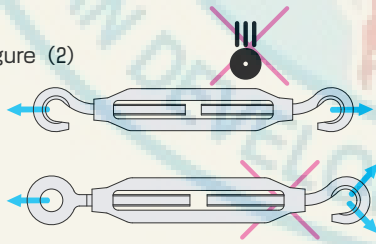


Warning while using

figure (1)



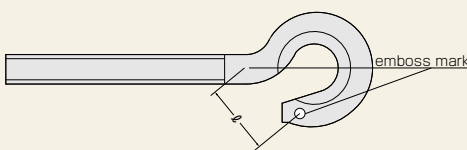
figure (2)



Please don't give shock at thread part.
Please don't use to pull from side, downward, and diagonal direction.
Please don't use as occurring to open hook.

- Please use according to figure 1, wick of axis in parallel, static load.
- Please use within regulated load which we indicated on Table(1) and Table(2) of the above.
- Please use combination of KONDO's products for Turnbuckle Body, male screw, and female screw.
 - We cannot guarantee combination of except KONDO's products because strength of thread part is changed much by material of male screw and accuracy of thread.
 - Hot dipped Galvanized product is that female thread of Turnbuckle Body is processed over tap. We cannot guarantee combination of except KONDO's products.
- Please don't use for additional processing welding or machine process etc...
 - Basic W.L.L is decreased too much by welding condition of construction dealer in case of using as welding.
 - Basic W.L.L is decreased too much in case of using as machine process or some additional processing.
- Please don't use like indication of figure(2).
- Basic W.L.L is decreased too much in case of using at place except room temprature, the water and submergence, and environment which has strong effect of corrosion.
- Please be carefully in case of stock or assembly in environment of much dust because of possibility of breaking thread.

Inspection and Scrap



Please certainly practice inspection before using, and scrap if abnormal point is found.

- Please don't use if thread part has wound etc.
- Please don't use if the product is transformed.
- Hook has emboss mark as below indication.
 - Please don't use if ℓ length after using is bigger than basic ℓ length.

■ Basic value of emboss mark

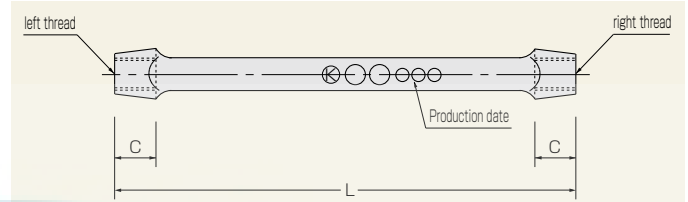
Size \ Size	W3/8	W1/2	W5/8	W3/4	W7/8	W1"
ℓ mm	25.5	31.5	34.5	40.5	50	55



Split frame type Turnbuckle

Classified Code 011A2

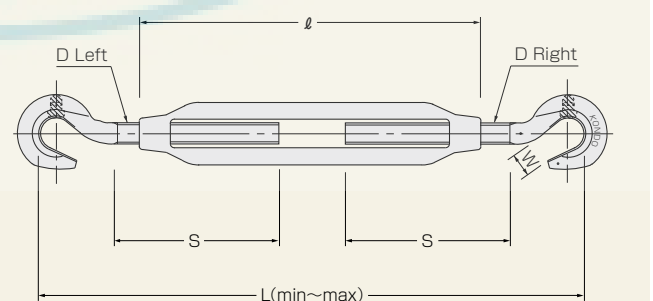
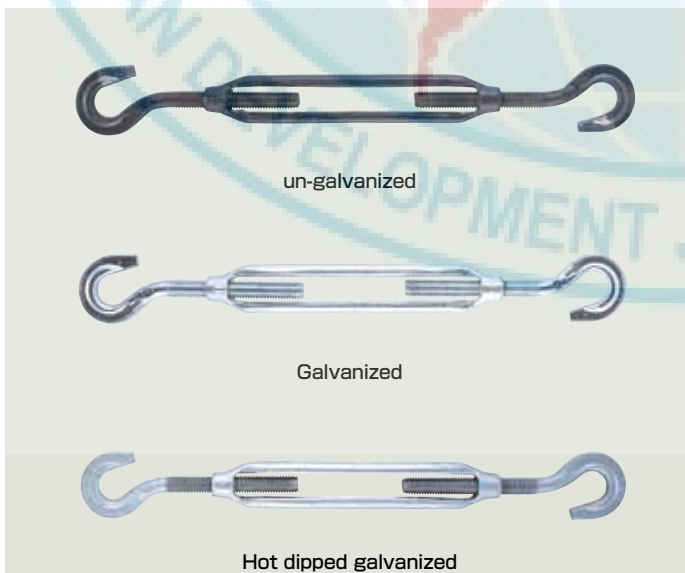
Split frame type Turnbuckle (Body only)



	Size	L (mm)	C (mm)	A (mm)	W.L.L kN (tf)	Weight (kg)	Price					
							Product Code	un-galvanized	Product Code	Galvanized	Product Code	Hot dipped galvanized
9	W3/8"	150	11.5	30.0	5.9(0.6)	0.18	AB09		UB09		DB09	
12	W1/2"	200	15.0	34.5	8.8(0.9)	0.29	AB12		UB12		DB12	
16	W5/8"	250	19.0	42.0	12.7(1.3)	0.52	AB16		UB16		DB16	
19	W3/4"	300	23.0	50.0	18.6(1.9)	0.83	AB19		UB19		DB19	
22	W7/8"	325	27.0	55.0	25.5(2.6)	1.17	AB22		UB22		DB22	
25	W1"	350	31.0	65.0	35.3(3.6)	1.62	AB25		UB25		DB25	
32	W1 1/4"	400	39.0	85.0	54.9(5.6)	3.26	AB32		UB32		DB32	
38	W1 1/2"	450	46.0	96.0	72.5(7.4)	5.04	AB38		UB38		DB38	

Classified Code 011A2

Split frame type Turnbuckle (Hook & Hook)



	Size	ℓ (mm)	S (mm)	W (mm)			W.L.L kN (tf)	Weight (kg)	Price					
					L (min)	L (max)			Product Code	un-galvanized	Product Code	Galvanized	Product Code	Hot dipped galvanized
9	W3/8"	150	70	13	218	332	1.2(0.12)	0.30	AHH09		UHH09		DHH09	
12	W1/2"	200	92	13.5	282	430	2.4(0.24)	0.57	AHH12		UHH12		DHH12	
16	W5/8"	250	116	17.0	344	538	3.4(0.35)	1.03	AHH16		UHH16		DHH16	
19	W3/4"	300	142	Cold Forged 21 Hot Forged 20	416	Cold Forged 640 Hot Forged 650	5.4(0.55)	1.75	AHH19		UHH19		DHH19	
22	W7/8"	325	150		22		457	715	6.5(0.66)	2.61	AHH22		UHH22	
25	W1"	350	170	26	500	780	9.8(1.0)	3.72	AHH25		UHH25		DHH25	
32	W1 1/4"	400	200	34	618	980	14.7(1.5)	7.20	AHH32		UHH32		DHH32	
38	W1 1/2"	450	225	38	700	1000	19.6(2.0)	11.80	AHH38		UHH38		DHH38	



Split frame type Turnbuckle

Classified Code 011A2

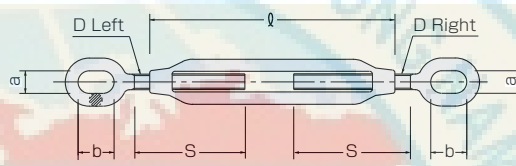
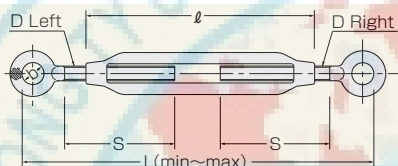
Split frame type Turnbuckle (Eye & Eye)



9~25 Eye part



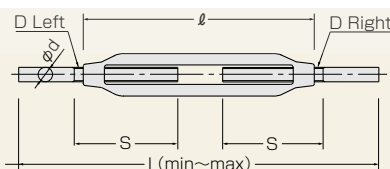
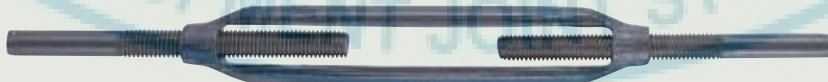
32.38 Oval part



	Size	ℓ (mm)	S (mm)			b (mm)	W.L.L kN (tf)	Weight (kg)	Price					
				L (min)	L (max)				Product Code	un-galvanized	Product Code	Galvanized	Product Code	Hot dipped galvanized
9	W3/8"	150	70	218	330	16	3.9 (0.4)	0.30	AEE09		UEE09		DEE09	
12	W1/2"	200	95	274	430	21	7.8 (0.8)	0.58	AEE12		UEE12		DEE12	
16	W5/8"	250	120	344	538	24	12.7 (1.3)	1.07	AEE16		UEE16		DEE16	
19	W3/4"	300	140	416	646	28	18.6 (1.9)	1.77	AEE19		UEE19		DEE19	
22	W7/8"	325	155	457	711	33	25.5 (2.6)	2.55	AEE22		UEE22		DEE22	
25	W1"	350	170	500	776	38	31.4 (3.2)	3.79	AEE25		UEE25		DEE25	
32	W1 1/4"	400	225	668	990	36×70	49.0 (5.0)	7.43	AEE32		UEE32		DEE32	
38	W1 1/2"	450	225	750	1112	45×80	68.6 (7.0)	13.5	AEE38		UEE38		DEE38	

Classified Code 011A2

Split frame type Turnbuckle (Straight type)



	Size	ℓ (mm)	S (mm)			d (mm)	W.L.L kN (tf)	Weight (kg)	Price					
				L (min)	L (max)				Product Code	un-galvanized	Product Code	Galvanized	Product Code	Hot dipped galvanized
9	W3/8"	150	70	270	382	8.2	3.9 (0.4)	0.28	ASS09		USS09		DSS09	
12	W1/2"	200	95	312	468	11.1	7.8 (0.8)	0.51	ASS12		USS12		DSS12	
16	W5/8"	250	120	374	568	14.0	12.7 (1.3)	0.95	ASS16		USS16		DSS16	
19	W3/4"	300	140	460	690	17.0	18.6 (1.9)	1.60	ASS19		USS19		DSS19	
22	W7/8"	325	155	515	769	20.0	25.5 (2.6)	2.36	ASS22		USS22		DSS22	
25	W1"	350	170	550	826	23.0	31.4 (3.2)	3.26	ASS25		USS25		DDS25	
32	W1 1/4"	400	200	600	922	29.0	49.0 (5.0)	6.17	ASS32					
38	W1 1/2"	450	225	660	1022	35.0	68.6 (7.0)	12.8	ASS38					



PS type Turnbuckle

Classified Code 012A1

PS type Turnbuckle (Body only)



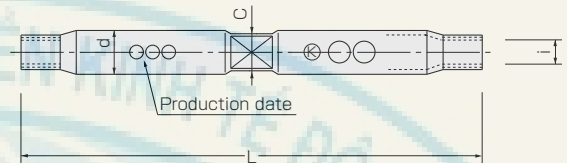
Un-galvanized



Galvanized



Hot dipped galvanized



	Size	L (mm)	C (mm)	d (mm)	W.L.L kN (tf)	Weight (kg)	Price					
							Product Code	un-galvanized	Product Code	Galvanized	Product Code	Hot dipped galvanized
9	W3/8"	150	13	15.9	5.9 (0.6)	0.08	AB09		UB09		DB09	
12	W1/2"	200	16	19.1	7.8 (0.8)	0.16	AB12		UB12		DB12	
16	W5/8"	250	21	25.4	12.7 (1.3)	0.32	AB16		UB16		DB16	
19	W3/4"	300	26	31.8	18.6 (1.9)	0.65	AB19		UB19		DB19	
22	W7/8"	325	27	34.0	25.5 (2.6)	0.90	AB22		UB22		DB22	
25	W1"	350	32	38.1	31.4 (3.2)	1.06	AB25		UB25		DB25	
32	W1 1/4"	400	36	45.0	49.0 (5.0)	1.76	AB32		UB32			
38	W1 1/2"	450	41	50.8	68.6 (7.0)	2.18	AB38		UB38			

Classified Code 012A1

PS type Turnbuckle (Hook & Hook)



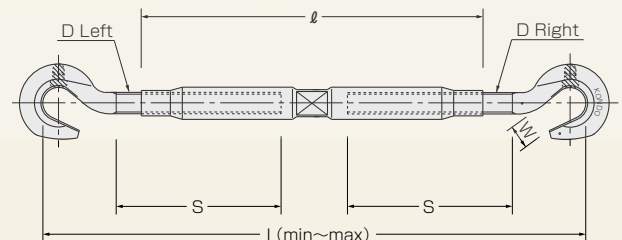
Un-galvanized



Galvanized



Hot dipped galvanized



	size	ℓ (mm)	S (mm)	W (mm)			W.L.L kN (tf)	Weight (kg)	Price					
					L (min)	L (max)			Product Code	un-galvanized	Product Code	Galvanized	Product Code	Hot dipped galvanized
9	W3/8"	150	70	13	218	332	1.2 (0.12)	0.20	AHH09		UHH09		DHH09	
12	W1/2"	200	94	13.5	282	430	2.4 (0.24)	0.41	AHH12		UHH12		DHH12	
16	W5/8"	250	118	17	344	538	3.4 (0.35)	0.88	AHH16		UHH16		DHH16	
19	W3/4"	300	140	Cold Forged 21 Hot Forged 20	416	Cold Forged 640 Hot Forged 650	5.4 (0.55)	1.57	AHH19		UHH19		DHH19	
22	W7/8"	325	155		22		457	715	6.5 (0.66)	2.34	AHH22		UHH22	
25	W1"	350	170	26	500	780	9.8 (1.0)	3.15	AHH25		UHH25		DHH25	
32	W1 1/4"	400	200	34	618	980	14.7 (1.5)	5.68	AHH32		UHH32			
38	W1 1/2"	450	220	38	700	1000	19.6 (2.0)	8.90	AHH38		UHH38			

5

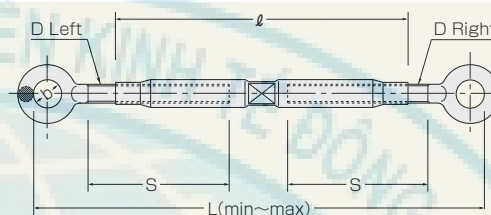
Turnbuckles



PS type Turnbuckle

Classified Code 012A1

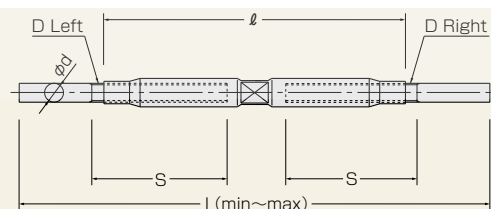
PS type Turnbuckle (Eye & Eye)



	Size	ℓ (mm)	S (mm)			b (mm)	W.L.L kN (tf)	Weight (kg)	Price					
				L (min)	L (max)				Product Code	un-galvanized	Product Code	Galvanized	Product Code	Hot dipped galvanized
9	W3/8"	150	70	218	330	16	3.9 (0.4)	0.20	AEE09		UEE09		DEE09	
12	W1/2"	200	95	274	430	21	7.8 (0.8)	0.46	AEE12		UEE12		DEE12	
16	W5/8"	250	119	344	538	24	12.7 (1.3)	0.87	AEE16		UEE16		DEE16	
19	W3/4"	300	143	416	646	28	18.6 (1.9)	1.58	AEE19		UEE19		DEE19	
22	W7/8"	325	155	457	711	33	25.5 (2.6)	2.28	AEE22		UEE22		DEE22	
25	W1"	350	170	500	776	38	31.4 (3.2)	3.22	AEE25		UEE25		DEE25	
32	W1 1/4"	400	200	668	990	36×70	49.0 (5.0)	5.79	AEE32		UEE32			
38	W1 1/2"	450	225	750	1112	45×80	68.6 (7.0)	10.6	AEE38		UEE38			

Classified Code 012A1

PS type Turnbuckle (Straight type)



	Size	ℓ (mm)	S (mm)	L (min) L (max)		d (mm)	W.L.L kN (tf)	Weight (kg)	Price	
									Product Code	un-galvanized
9	W3/8"	150	70	270	382	8.2	3.9 (0.4)	0.18	ASS09	
12	W1/2"	200	94	312	468	11.1	7.8 (0.8)	0.34	ASS12	
16	W5/8"	250	118	374	568	14.0	12.7 (1.3)	0.74	ASS16	
19	W3/4"	300	140	460	690	17.0	18.6 (1.9)	1.41	ASS19	
22	W7/8"	325	155	515	769	20.0	25.5 (2.6)	2.07	ASS22	
25	W1"	350	170	550	826	23.0	31.4 (3.2)	3.09	ASS25	
32	W1 1/4"	400	200	600	922	29.0	49.0 (5.0)	4.71	ASS32	
38	W1 1/2"	450	220	660	1022	35.0	68.6 (7.0)	7.94	ASS38	



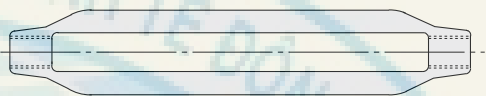
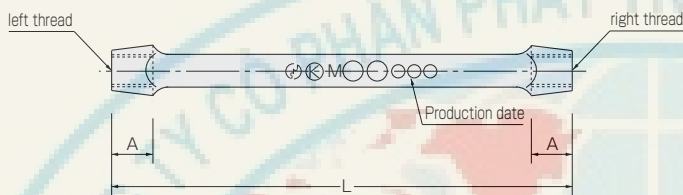
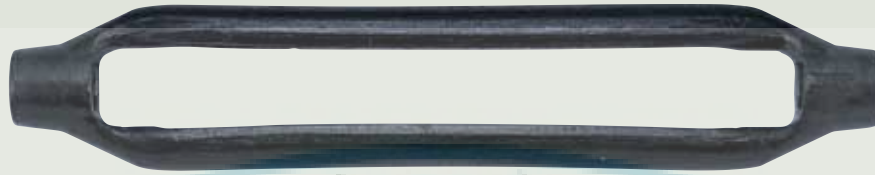
JIS Architectural Turnbuckle Body

JIS Architectural Turnbuckle Body (JIS A 5541-2003)

- Heating equally by electrify heater.
- Forging high accuracy by robot.

Indication of Material and other etc is changed by revision of JIS A 5540 · 5541 · 5542 in 2003. Please ask us about detail of it.

Split type ST



- Material : M10 SS400 (JIS G 3101)
M12~33 SNR400A or 400B (JIS G 3138)

Pipe type PT



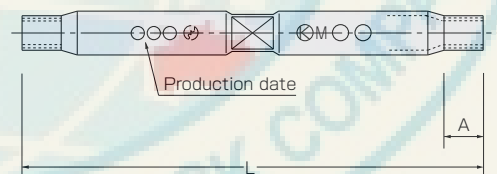
- Comparison about PS type and JIS product



PS type



JIS-PT



- Material : M10 STKM 11A.12A.13A.14A (JIS G 3445)
M12~33 STKN400W or 400B (JIS G 3475)

We has marked new JIS mark since October 1st in 2005.



JIS-PT is stronger than PS type because thickness of JIS-PT is more than PS type.

JIS Architectural Turnbuckle Body

Split Frame type

Classified Code **011A1**

Pipe type

Classified Code **012A1**

	L (mm)	A (mm)	kN (tf)	W.L.L kN (tf)	(kg)	Price						(kg)	Price					
						Product Code	Un-galvanized	Product Code	Galvanized	Product Code	Hot dipped galvanized		Product Code	Un-galvanized	Product Code	Galvanized	Product Code	Hot dipped galvanized
M10	150	14以上	31.1 (3.2)	14.3 (1.5)	0.153	AB10		UB10		DB10		0.095	ABM10		UBM10		DBM10	
M12	200	17以上	45.4 (4.6)	21.0 (2.1)	0.300	AB12		UB12		DB12		0.175	ABM12		UBM12		DBM12	
M14	230	20以上	62.2 (6.3)	28.7 (2.9)	0.480	AB14		UB14		DB14		0.285	ABM14		UBM14		DBM14	
M16	250	23以上	83.7 (8.5)	38.6 (3.9)	0.640	AB16		UB16		DB16		0.416	ABM16		UBM16		DBM16	
M18	280	25以上	104 (10.6)	48.0 (4.9)	0.900	AB18		UB18		DB18		0.60	ABM18		UBM18		DBM18	
M20	300	28以上	131 (13.4)	60.6 (6.2)	1.20	AB20		UB20		DB20		0.84	ABM20		UBM20		DBM20	
M22	330	31以上	163 (16.6)	74.7 (7.6)	1.54	AB22		UB22		DB22		1.05	ABM22		UBM22		DBM22	
M24	350	34以上	190 (19.4)	87.6 (8.9)	2.09	AB24		UB24		DB24		1.37	ABM24		UBM24		DBM24	
M27	400	38以上	246 (25.1)	114 (11.6)	3.01	AB27		UB27		DB27		2.16	ABM27		UBM27		DBM27	
M30	400	42以上	301 (30.7)	139 (14.2)	3.66	AB30		UB30		DB30		2.40	ABM30		UBM30		DBM30	
M33	450	46以上	371 (37.9)	172 (17.6)	4.94	AB33		UB33		DB33		3.05	ABM33		UBM33		DBM33	



Turnbuckle Body

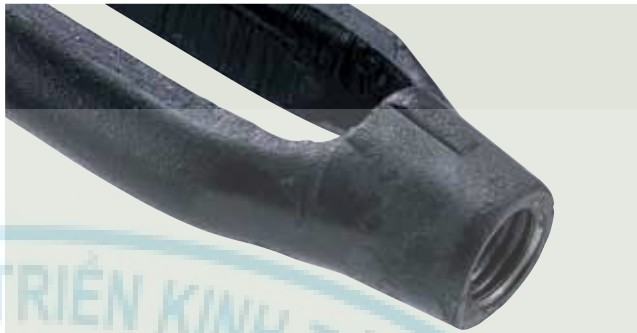
Turnbuckle Body

Mark of JIS frame



Mark of JIS & KONDOTEC, size, production date are marked on JIS frame.

Mark of right thread



Protuberance is made at upper & down side of right thread part for easy distinction of right or left thread. (Within M20)

How to produce about Hook part

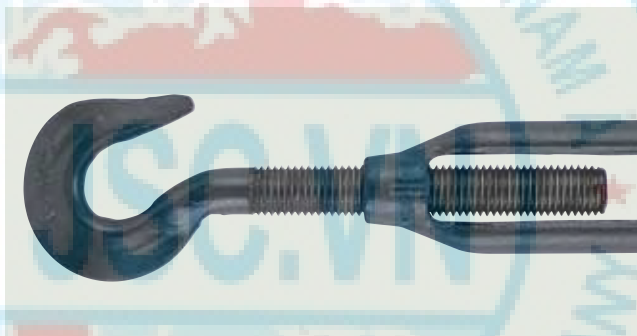
9~19mm of Hook are made by Cold Forging superior strength. PAT.®

■ Hook by Cold Forging



9~19 Cold Forging

■ Hook by Hot forging



22~38 Hot forging

⚠ Warning while using

- Please use as wick of axis in parallel static load.
- Please don't give shock at thread part.
- Please use as combination of KONDO's product about TB · PS · TB component. It cannot be used as combination of other company's product especially for Hot Dipped Galvanized products because TB and PS is processed over tap.
- Please don't use with process of welding or machine process etc...
- Please be carefully in case of stock or assembly in environment of much dust because of possibility of breaking thread.

Classified Code 011A2

Component for Turnbuckle

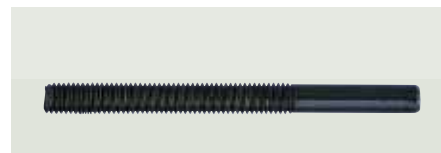
Hook stick PAT.®



Eye stick



Straight stick



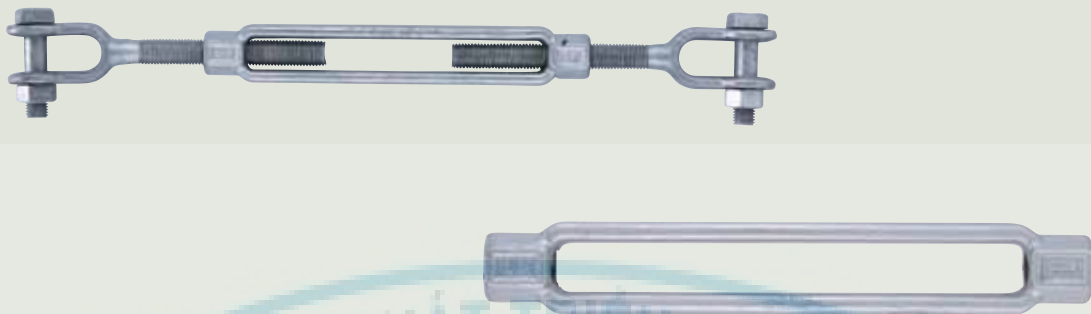
Hook stick				Eye stick				Straight stick			
Product Code	Size	Weight (kg)	Price	Product Code	Size	Weight (kg)	Price	Product Code	Size	Weight (kg)	Price
AH09R/L	9	0.1		AE09R/L	9	0.1		AS09R/L	9	0.1	
AH12R/L	12	0.1		AE12R/L	12	0.1		AS12R/L	12	0.1	
AH16R/L	16	0.3		AE16R/L	16	0.3		AS16R/L	16	0.2	
AH19R/L	19	0.5		AE19R/L	19	0.5		AS19R/L	19	0.4	
AH22R/L	22	0.7		AE22R/L	22	0.7		AS22R/L	22	0.6	
AH25R/L	25	1.0		AE25R/L	25	1.1		AS25R/L	25	0.8	
AH32R/L	32	2.0		AE32R/L	32	2.1		AS32R/L	32	1.5	
AH38R/L	38	3.3		AE38R/L	38	4.2		AS38R/L	38	3.9	



A variety of Turnbuckle

Classified Code 012A8

Hex Head Turnbuckle (US Federal spec)



	B		H/E Hook / Eye		J/E JAW / Eye		J/J JAW / JAW	
	Product Code	Weight(kg)	Product Code	Weight(kg)	Product Code	Weight(kg)	Product Code	Weight(kg)
5/16×4-1/2"	DB025044	0.10	DHE025044	0.20	DJE025044	0.23	DJJ025044	0.22
3/8×6"	DB03006	0.16	DHE03006	0.34	DJE03006	0.36	DJJ03006	0.41
1/2×6"	DB04006	0.25	DHE04006	0.66	DJE04006	0.68	DJJ04006	0.77
×9"	DB04009	0.36	DHE04009	0.86	DJE04009	0.91	DJJ04009	0.95
×12"	DB04012	0.50	DHE04012	1.00	DJE04012	1.00	DJJ04012	1.09
5/8×6"	DG05006	0.43	DHE05006	1.18	DJE05006	1.30	DJJ05006	1.40
×9"	DB05009	0.54	DHE05009	1.27	DJE05009	1.40	DJJ05009	1.50
×12"	DB05012	0.68	DHE05012	1.45	DJE05012	1.50	DJJ05012	1.60
3/4×6"	DB06006	0.64	DHE06006	1.68	DJE06006	1.80	DJJ06006	1.90
×9"	DB06009	0.82	DHE06009	2.18	DJE06009	2.30	DJJ06009	2.40
×12"	DB06012	1.13	DHE06012	2.50	DJE06012	2.60	DJJ06012	2.60
×18"	DB06018	1.60	DHE06018	3.10	DJE06018	3.20	DJJ06018	3.30
7/8×12"	DB07012	1.45	DHE07012	3.70	DJE07012	3.90	DJJ07012	4.00
×18"	DB07018	1.90	DHE07018	4.50	DJE07018	4.70	DJJ07018	4.90
1"×12"	DB10012	1.86	DHE10012	5.00	DJE10012	5.40	DJJ10012	5.70
×18"	DB10018	2.90	DHE10018	6.30	DJE10018	6.80	DJJ10018	7.20
1-1/4×12"	DB12012	2.70	DHE12012	8.60	DJE12012	9.30	DJJ12012	10.00

5

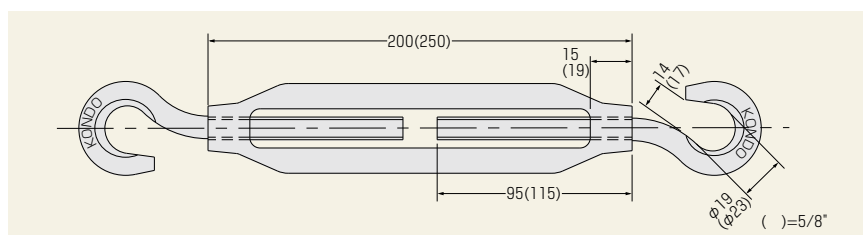
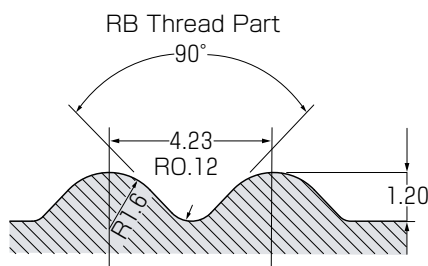
Turnbuckles

Classified Code 011A4

RB Thread frame type Turnbuckle PAT.®



- Working hours of fasten and loosen become half Thread Pitch is twice of whitworth thread.
- Maintenance of thread part is easy because shape of RB thread is ball, easy to tear even cement is stuck.
- Thread is not loosened once it is fastened within W.L.L.



Product Code		(mm)	(mm)	W.L.L. kN (tf)	Weight (kg)	Price
CHH12	12	200	14	2.4 (0.24)	0.57	
CHH16	16	250	17	3.9 (0.40)	1.03	



A variety of Turnbuckle

Classified Code 01205

Zinc Die-casting Turnbuckle



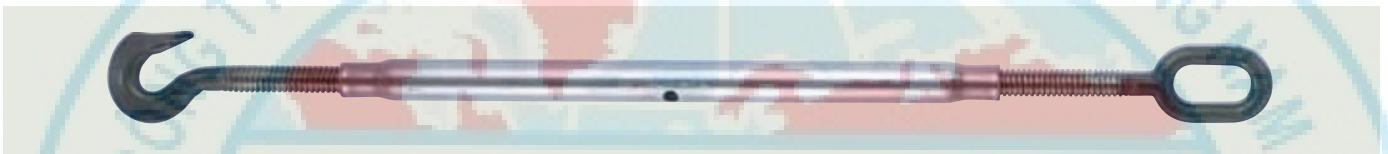
Hook / Hook

Size	Thread	Frame (mm)	Open Length (mm)	Close Length (mm)	Weight (g)	Price	
						Product Code	Hook / Hook
4	W5/32	45	120	80	20	HH4	
4.5	3/16	57	145	100	33	HH4S5	
6	1/4	78	185	130	72	HH6	
8	5/16	95	240	170	124	HH8	
9	3/8	105	270	190	190	HH9	

- Zinc Plating
(Hook / Hook, Eye / Eye, Hook / Eye)

Classified Code 012A2

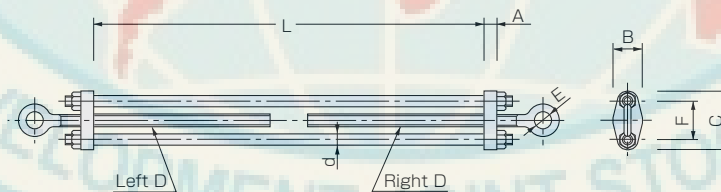
Long Length PS Turnbuckle



Product Code				Weight (kg)	Price
HO25600	H/O 25×600	38.1×3.5t	TM-25	1.73	
HO25900	H/O 25×900	38.1×3.5t	TM-25	2.57	
OO25600	O/O 25×600	38.1×3.5t	TM-25	1.73	
OO25900	O/O 25×900	38.1×3.5t	TM-25	2.57	

Classified Code 01209

Turnbuckle for Heavy burden (Square screw thread)



Product Code		L (mm)	(mm)				d (mm)	E (mm)	W.L.L. kN (tf)	Weight (kg)	Price
			A	B	C	F					
	25	1000								14.5	
		1250	25	58	115	75	22	33	29.4 (3)	16.5	
		1500								19	
	32	1000								23	
		1250	32	74	148	96	25	39	49 (5)	26.5	
		1500								30	
381000	38	1000								36.5	
381250		1250	38	90	180	114	32	47	68.6 (7)	42	
381500		1500								47	
441000	44	1000								51	
441250		1250	44	102	200	132	38	56	88.2 (9)	58	
441500		1500								65	
501000	50	1000								75	
501250		1250	50	115	230	150	44	62	118 (12)	84	
501500		1500								94	
	65	1000								120	
		1250	65	153	300	195	50	79	196 (20)	135	
		1500								150	
	75	1000								205	
		1250	75	170	350	225	65	80	294 (30)	225	
		1500								246	

Long Length Split frame type Turnbuckle / Eye & Eye



(mm)	(mm)	Wight (kg)	un-galvanized		Galvanized	
			Product Code	Price	Product Code	Price
22×500	31×50	3.8	AEE22500		UEE22500	
25×500	33×70	5.2	AEE25500		UEE25500	
32×550	36×70	9.8	AEE32550		UEE32550	

Rigging Screw JIS F 3403-1995



Dead Eye

	Rope			Dead Eye (mm)	W.L.L. kN (tf)	Weight under calculation (kg)	un-galvanized		Hot dipped galvanized	
			(mm)				Product Code	Price	Product Code	Price
14	14	M24	350	105	20.6 (2.1)	6.0	03A14D		03D14D	
16	16	27	380	126	25.5 (2.6)	8.6	03A16D		03D16D	
18	18	30	420	135	32.3 (3.3)	11.6	03A18D		03D18D	
22	20/22.4	33	450	153	50.0 (5.1)	14.8	03A22D		03D22D	
24	24	39	480	170	57.8 (5.9)	19.4	03A24D		03D24D	
25	25	42	500	180	67.6 (6.9)	23.9	03A25D		03D25D	
30	28/30	48	540	194	290.2 (9.2)	30.2	03A30D		03D30D	
32	32	48	560	208	103 (10.5)	36.2	03A32D		03D32D	
34	34	52	590	220	113 (11.5)	43.2	03A34D		03D34D	
36	36	56	620	234	127 (13.0)	51.1	03A36D		03D36D	
38	38	60	640	244	142 (14.5)	59.9	03A38D		03D38D	
40	40	64	670	268	162 (16.5)	70.7	03A40D		03D40D	
42	42.5	68	720	294	181 (18.5)	93.5	03A42D		03D42D	
45	45	68	740	294	206 (21.0)	105	03A45D		03D45D	
48	47.5	70×6	770	307	225 (23.0)	117	03A48D		03D48D	
50	50	70×6	780	307	250 (25.5)	124	03A50D		03D50D	

Turnbuckle with Eye Bolt JIS F 7020-1989



	TB Body (mm)	Eye Bolt (mm)	W.L.L. kN (tf)	Weight (kg)	un-galvanized		Hot dipped galvanized	
					Product Code	Price	Product Code	Price
6	M 6× 70	10× 4	0.6 (0.1)	0.112	20A06		20D06	
10	10×100	12× 6	1.7 (0.2)	0.249	20A10		20D10	
12	12×120	16× 8	2.5 (0.3)	0.483	20A12		20D12	
16	16×140	20×10	4.6 (0.5)	0.897	20A16		20D16	
20	20×160	24×12	7.6 (0.8)	1.54	20A20		20D20	
24	24×200	34×17	13.7 (1.4)	3.38	20A24		20D24	
30	30×220	40×19	18.6 (1.9)	4.79	20A30		20D30	
36	36×260	46×23	26.5 (2.7)	8.12	20A36		20D36	
42	42×320	60×30	37.2 (3.8)	14.9	20A42		20D42	
48	48×360	68×34	47.0 (4.8)	23.3	20A48		20D48	

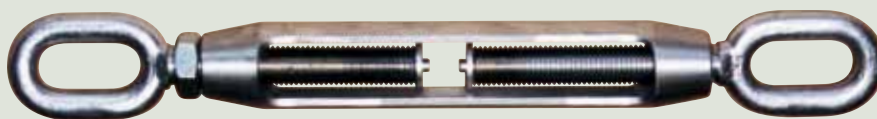


Anchor Stopper Turnbuckle

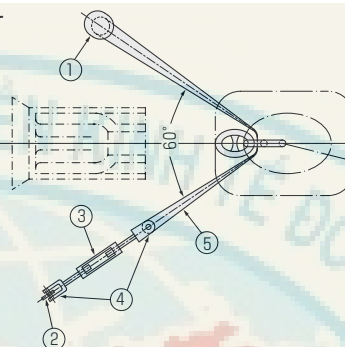
Classified Code 08F33

Anchor Stopper Turnbuckle

JIS F 3307-1970 F3310-1967



• Component of Anchor Stopper (Standard)



- ① Cleat
- ② Eye plate
- ③ Turnbuckle
- ④ Thimble
- ⑤ Steel Wire Rope 6×24 G/O

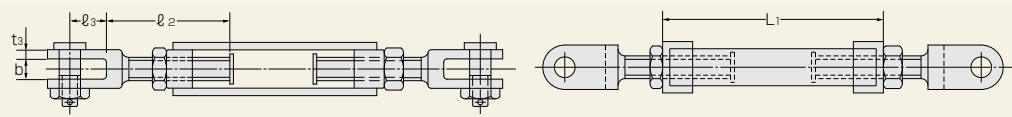
Nominal size is limit of weight about using Anchor wire rope that more than 8mm is 6×24G/O, less than 8mm is 6×19G/O

(t)	Rope	applicable Shackle	Nominal shieve size	Lenght of frame (mm)	Inside dia of Eye (mm)	W.L.L (tf)	Weight under calculation (kg)	Un-Galvanized		Hot dipped galvanized	
								Product Code	Price	Product Code	Price
0.5	5	SC 8	M10	160	11× 26	0.31	0.38	07AS5		07DS5	
1.0	6.3	SC12	12	190	16× 40	0.62	0.65	07A01		07D01	
1.5	8	SC14	16	230	20× 45	0.9	1.24	07A01S5		07D01S5	
3.0	12	SB20	24	300	28× 62	1.8	3.28	07A03		07D03	
5.0	14	SB24	30	360	34× 75	3.0	6.52	07A05		07D05	
6.5	16	SB28	33	400	38× 85	4.0	9.22	07A06S5		07D06S5	
8.0	18	SB30	36	430	40× 93	5.0	11.9	07A08		07D08	
10.0	20	SB34	39	450	44× 105	6.0	15.8	07A10		07D10	
12.0	20	SB36	42	460	47× 110	7.3	19.3	07A12		07D12	
14.0	22.4	SB40	45	470	52× 125	8.6	23.7	07A14		07D14	
16.0	24	SB42	48	490	54× 130	9.8	27.8	07A16		07D16	
18.0	25	SB44	52	510	58× 135	11.0	33.2	07A18		07D18	
20.0	28	SB46	52	530	60× 140	12.2	36.0	07A20		07D20	

Classified Code 08F33

Anchor Stopper Turnbuckle

JIS F 3307-1978



Nominal size is limit of weight about using Anchor wire rope that more than 8mm is 6×24G/O, less than 8mm is 6×19G/O

Product Code	(t)	Rope	L ₁	ℓ ₂	ℓ ₃	b	t ₃	Dia of Thread	Bolt Dia	Hole	Price
07NA02	2.0	8	230	135	32	12	7	M16	13	14	
07NA05	5.0	12.5	300	175	46	16	11	24	20	21	
07NA06	6.0	14	360	215	51	18	12	27	23	24	
07NA08	8.0	16	400	240	57	20	13	30	26	27	
07NA10	10.0	18	430	260	63	22	15	33	29	30	
07NA12	12.5	20	450	275	71	28	18	36	32	34	
07NA16	16.5	22.4	470	295	80	30	20	42	36	38	
07NA21	21.5	25	510	325	93	34	22	48	42	44	
07NA26	26.0	28	530	340	101	36	24	52	47	49	

LOGISTICAL CARGO HANDLING INSTRUMENT



Logistical Cargo Handling Instrument



Wire Rope Block (with Bearing)

Shackle type



1 sheave

2 sheave

■ Shackle type 1 sheave (Sheave which is forged special steel : SBF Sheave which is quenching by high frequency : SBH)

Standard Size Code	Sheave	Bearing No.	Bearing Q'ty	Sheave (w)	Sheave (R)	W.L.L (t)	Weight (kg)	Price
SBF0751	75 (60)	6202Z	1	16	7	0.5	1.0	
SBF1001	100 (75)	6203Z	1	17	8	1.0	1.7	
SBH1251	125 (100)	6204Z	2	20	10	1.5	3.2	
SBF1501	150 (125)	6304Z	2	20	10	2.0	5.0	
SBH1751	175 (145)	6305Z	2	24	10	3.0	7.5	
SBF2001	200 (180)	6306Z	2	24	10	3.5	9.8	
SBF2501	250 (230)	6306Z	2	27	10	4.0	13.0	
SBH3001	300 (266)	6307Z	2	28	10	4.5	16.5	
SBF3751	375 (340)	6308Z	2	36	10	5.0	31.0	
SBH3751								

Swivel Eye type



1 sheave

2 sheave

■ Shackle type 2 sheave (Sheave which is forged special steel.)

Standard Size Code	Sheave	Bearing No.	Bearing Q'ty	Sheave (w)	Sheave (R)	W.L.L (t)	Weight (kg)	Price
SBF1002	100 (75)	6203Z	2	17	8	1.0	2.6	
SBF1252	125 (100)	6204Z	4	20	10	1.5	5.0	
SBF1502	150 (125)	6304Z	4	20	10	2.0	7.6	
SBF1752	175 (145)	6305Z	4	20	10	3.0	11.8	
SBF2002	200 (180)	6306Z	4	24	10	3.5	15.0	

■ Swivel Eye type 1 sheave (Sheave which is forged special steel.)

Standard Size Code	Sheave	Bearing No.	Bearing Q'ty	Sheave (w)	Sheave (R)	W.L.L (t)	Weight (kg)	Price
SBFO0751	75 (60)	6202Z	1	16	7	0.5	1.2	
SBFO1001	100 (75)	6203Z	1	17	8	0.75	2.0	
SBFO1251	125 (100)	6204Z	2	20	10	1.0	3.6	
SBFO1501	150 (125)	6304Z	2	20	10	1.0	5.3	
SBFO1751	175 (145)	6305Z	2	24	10	2.0	8.0	
SBFO2001	200 (180)	6306Z	2	24	10	2.0	10.4	
SBFO2501	250 (230)	6306Z	2	27	10	2.0	13.8	

■ Swivel Eye type 2 sheave (Sheave which is forged special steel.)

Standard Size Code	Sheave	Bearing No.	Bearing Q'ty	Sheave (w)	Sheave (R)	W.L.L (t)	Weight (kg)	Price
SBFO1002	100 (75)	6203Z	2	17	8	1.0	3.4	
SBFO1252	125 (100)	6204Z	4	20	10	1.0	5.4	
SBFO1502	150 (125)	6304Z	4	20	10	2.0	8.5	
SBFO1752	175 (145)	6305Z	4	20	10	2.0	12.6	
SBFO2002	200 (180)	6306Z	4	24	10	2.0	16.2	

Usage

- Carrying lumber out for forest
- Civil engineering (Cable crane etc)
- Common civil engineering and construction
- Rolling up for marine loading

● Dia of sheave which is more than 125mm is with grease nipple.

● Price of Swivel Hook type is 5% up against Swivel Eye type. (Please refer the specification as Swivel Eye type.)

● Please ask us if necessary about Shackle type 2 sheave, Swivel Eye type, and Swivel Hook type which is quenched by high frequency.



Snatch Block



Hook type 1 sheave



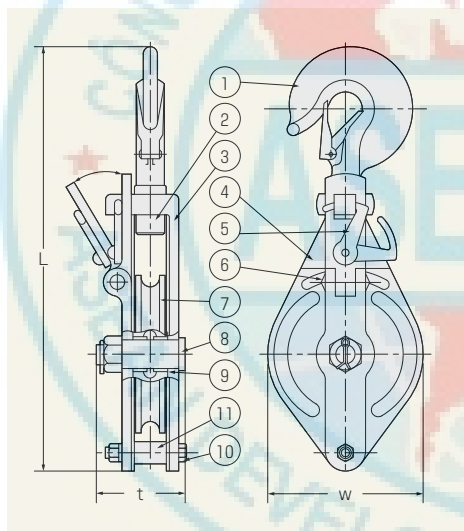
Hook type 2 sheave



Eye type 1 sheave



Eye type 2 sheave



- Quality, strength is stable and safety is superior because main components are made by forging.
- Pin and Bush can be used for a long time without much waste because they are made by Carburized quenching of Special Steel.
- Sheave can be endured for long time using because much grease is included. (frequency of refuel can be saved.)
※Refuel is necessary every time for more than 40mm of dia of pin because of Gunmetal bush.
- Safety valve is attached with Hook for safety.

NO.	Component	Material	Note
1	Hook (Eye)	S25C/SS400	forging
2	Round Nut	SS400	
3	Frame	SS400	forging
4	Side plate	SPHC	
5	Hook stopper	SPHC	
6	Pin	SS400	
7	Sheave	FC20	
8	Pin	SS400/S45C	Carburized quenching / quenching by high frequency.
9	Bush	SGP/BC-6	Carburized quenching / quenching by high frequency.
10	Bolt	SS400	
11	Pipe	SGP	

※Gunmetal Bush is used for more than 40mm of Pin, Pin is with grease nipple.

■Alps mark <strong type> Snatch block 1~2 sheave

Standard Size Code	Sheave (mm)	Rope (mm)	Pin (mm)	W.L.L (t)	Q'ty	L (mm)	w (mm)	t (mm)	Weight (kg)	Price
SH0751	75 3"	10	13	0.5	1	240	76	53	1.2	
SH0752					2	277	76	87	1.8	
SH1001	100 4"	12	16	0.75	1	300	114	61	2.2	
SH1002					2	331	114	102	3	
SH1301	130 5"	13	19	1.5	1	356	132	70	4	
SH1302					2	393	132	116	6	
SH1501	150 6"	16	27	2.5	1	427	160	89	7.4	
SH1502					2	466	160	135	10.5	
SH1801	180 7"	19	30	3	1	490	192	100	10.5	
SH1802					2	531	192	154	15.5	
SH2001	200 8"	20	37	4	1	537	210	112	14.5	
SH2002					2	586	210	164	20	
SH2501	250 10"	22	40	5	1	613	260	136	24.5	
SH2502					2	665	260	203	36	
SH3001	300 12"	25	45	6	1	723	310	151	37	
SH3002					2	786	310	222	56	
SH3501	350 14"	28	50	6.5	1	803	360	166	50	
SH3502					2	861	360	225	80	
SH4001	400 16"	30	55	7.5	1	890	420	183	77	
SH4002					2	930	420	252	120	

※W.L.L of sheave is total load of sheave. It is different from Lifting Load. Please note.



Steel Block



Hook type 1 sheave

Hook type 2 sheave

Eye type 1 sheave

Eye type 2 sheave

Alps mark <strong type> steel block 1~2 sheave

Standard Size Code	Sheave (mm)	Rope (mm)	Pin (mm)	W.L.L (t)	Q'ty	L (mm)	w (mm)	t (mm)	Weight (kg)	Price
BH0751	75 3"	10	13	0.5	1	277	79	48	1.2	
BH0752					2	277	79	72	1.7	
BH1001	100 4"	12	16	0.75	1	331	116	56	2	
BH1002					2	331	116	85	3	
BH1301	130 5"	13	19	1.5	1	393	132	64	4.2	
BH1302					2	393	132	97	6	
BH1501	150 6"	16	27	2.5	1	466	160	89	7.2	
BH1502					2	466	160	125	10	
BH1801	180 7"	19	30	3	1	531	192	100	10.5	
BH1802					2	531	192	142	15	
BH2001	200 8"	20	37	4	1	586	210	112	14.5	
BH2002					2	586	210	154	20.5	
BH2501	250 10"	22	40	5	1	670	260	143	23.5	
BH2502					2	670	260	195	33.5	
BH3001	300 12"	25	45	6	1	791	310	163	36	
BH3002					2	791	310	220	56	
BH3501	350 14"	28	50	6.5	1	863	360	175	52	
BH3502					2	863	360	236	76	
BH4001	400 16"	30	55	7.5	1	1008	420	183	75	
BH4002					2	1008	420	252	121	

※Gunmetal Bush is used for more than 40mm of Pin, Pin is with grease nipple.

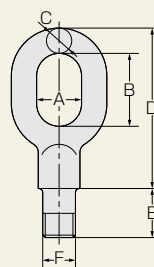
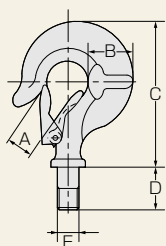
※W.L.L of sheave is total load of sheave. It is different from Lifting Load. Please note.

■Size table for Hook

Size (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
75	13	27	85	22	W1/2
100	19	32	101	29	M16
130	24	37	128	34	M20
150	26	48	147	41	M24
180	25	56	163	49	M27
200	33	63	192	53	M30
250	34	69	194	62	M33
300	41	81	252	67	M36
350	41	81	246	77	M39

■Size table for Eye

A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	W.L.L (t)
23	34	12	76	22	W1/2	0.5
28	42	15	95	29	M16	0.75
36	55	18	119	38	M20	1.5
38	60	24	134	44	M24	2.5
44	68	27	151	48	M27	3.0
50	80	31	173	54	M30	4.0
58	91	35	198	62	M33	5.0
58	91	35	198	67	M36	6.0
82	110	42	263	77	M39	6.5



Steel Block for Heavy Duty (Shackle Type)



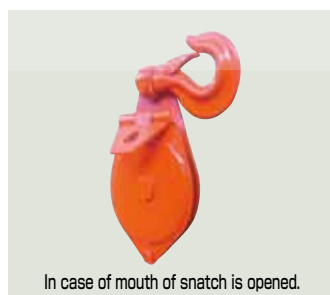
Alps <strong type> Steel Block (Heavy Duty Shackle Type)

Standard Size Code	Sheave (mm)	Rope (mm)	W.L.L (t)	Qty	Pin (mm)	L (mm)	w (mm)	t (mm)	Weight (kg)	Price
BS1002	100 4"	12	0.75	2	16	286	116	96	3	
BS1003				3	16	280	116	124	4	
BS1302	130 5"	13	1.5	2	19	353	132	108	6	
BS1303				3	19	328	132	140	7.5	
BS1502	150 6"	16	3	2	27	406	160	129	10	
BS1503				3	27	380	160	175	13	
BS1504				4	30	416	160	215	17	
BS1802	180 7"	19	3.5	2	30	454	192	158	15	
BS1803				3	30	435	192	200	20	
BS1804				4	37	464	192	243	28	
BS1805				5	40	516	192	290	35	
BS2002	200 8"	20	5	2	37	533	210	172	20.5	
BS2003				3	37	498	210	222	27	
BS2004				4	40	522	210	270	38	
BS2005				5	45	620	210	338	51	
BS2502	250 10"	22	6	2	40	622	260	200	33.5	
BS2503				3	45	634	260	254	45	
BS2504			7.5	4	50	687	260	323	66	
BS2505				5	55	721	260	379	82	
BS2506				6	55	714	260	442	113.5	
BS3002	300 12"	25	10	2	45	740	310	218	56	
BS3003				3	50	740	310	285	70	
BS3004				4	55	769	310	350	97	
BS3005			12.5	5	60	784	310	413	122	
BS3006				6	60	810	310	486	163	
BS3502	350 14"	28	12.5	2	50	850	360	236	76	
BS3503				3	55	850	360	303	100	
BS3504				4	60	860	360	386	142	
BS3505			15	5	65	872	360	457	175	
BS3506				6	65	899	360	524	223	

※W.L.L of sheave is total load of sheave. It is different from Lifting Load. Please note.

Classified Code 06403

Light Snatch



Standard Size Code	Sheave (mm)	Rope (mm)	Pin (mm)	W.L.L (t)	L (mm)	w (mm)	t (mm)	Weight (kg)	Price
050	50 2"	8	10	0.15	177	62	32	0.5	
075	75 3"	10	13	0.3	237	89	39	1	
100	100 4"	12	16	0.6	293	117	45	2	

Classified Code 08410

Sanma Block



Standard Size Code	Sheave (mm)	Rope (mm)	W.L.L (t)	L (mm)	Weight (kg)	Price
050	50 2"	8	0.125	122	0.5	
075	75 3"	10	0.5	194	1.2	
100	100 4"	12	0.75	230	1.8	



Classified Code **071DW**

Standard Winches (Belt Drive Single Drum type • Belt Drive Double Drum type • Direct-Motor Drive Single Drum type • Direct-Motor Drive Double Drum type)

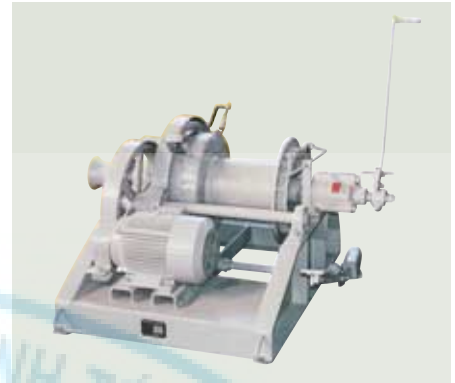
LKB Belt Drive Single Drum type



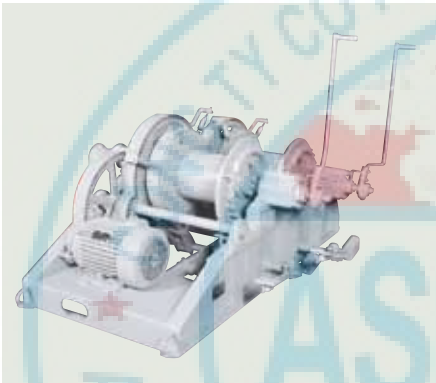
LGB Belt Drive Double Drum type



LKM Direct-Motor Drive Single Drum type



LGW Direct-Motor Drive Double Drum type



■ Main Size

Type (ton)	Bed Length				Bed Width		Overall Width		Height of Gear Cover	
	LKB	LGB	LKM	LGW	LKB-LGB	LKM-LGW	LKB-LGB	LKM-LGW	LKB-LKM	LGB-LGW
3	750	1,250	950	1,450	770	770	1,390	1,270	590	680
5	820	1,430	1,120	1,740	890	890	1,570	1,450	690	810
8	960	1,650	1,300	2,000	980	980	1,730	1,570	820	940
10	1,140	2,030	1,490	2,390	1,060	1,060	1,850	1,720	960	1,100
15	1,320	2,320	1,700	2,700	1,240	1,240	2,100	1,940	1,110	1,280
20	1,560	2,710	1,920	3,070	1,420	1,360	2,460	2,190	1,280	1,470
25	2,150	3,030	2,260	3,500	1,560	1,560	2,700	2,450	1,370	1,570

■ Each Type Common Specific

Type (ton)	HP		Winding Capacity (kg)	Speed (m/min)	Wire span×Rope Capacity (φ×m)	Drum Span×Width (φ×m/m)
	Engine(HP)	Motor (p-kW)				
3	7.5	4-5.5	620	42	10×190	200×270
5	10	4-7.5	850	42	12×210	250×330
8	15	6-11	1,300	42	14×260	280×360
10	20	6-15	2,000	42	16×260	350×400
15	30	6-22	3,000	40	20×280	400×500
20	40	6-30	4,000	35	22×300	450×560
25	50	6-37	5,000	35	25×400	550×600

- Instead of old drum bush, this is used non-oil bearing and make clutch's moving better, and ease up on drum rotational resistance.
- Main part is used ductile cast iron and substantial design.

Classified Code **071DW**

Ship Handling Winches (Hydraulic Pressure Drive Single Drum Type • Engine Drive Double Drum Type)

LKO Hydraulic Pressure Drive Single Drum Type



LKO-5

SBW Engine Drive Double Drum Type



SBW-10

Type	Capacity (kg)	Speed (m/min)	Wire Span×Rope Capacity (φ×m)	Drum Span×Width (φ×m/m)
LKO-3	3,000	15	20×220	355×560
LKO-5	5,000	15	25×250	457×630
LKO-8	8,000	15	30×280	558×710
LKO-10	10,000	15	32×280	558×710

There are other options, double speed type, indirect operation unit, double drum type, and add a chain wheel.

Type	Capacity (kg)	Speed (m/min)	Wire Span×Rope Capacity (φ×m)	HP (kW/1/10)
SBW(M)-8	1,300	15	14×260	7.5 (4-5.5)
SBW(M)-10	2,000	15	16×260	10 (4-7.5)
SBW(M)-15	3,000	15	20×280	15 (4-11)
SBW(M)-20	4,000	15	22×300	20 (4-15)
SBW(M)-25	5,000	15	25×400	30 (4-22)

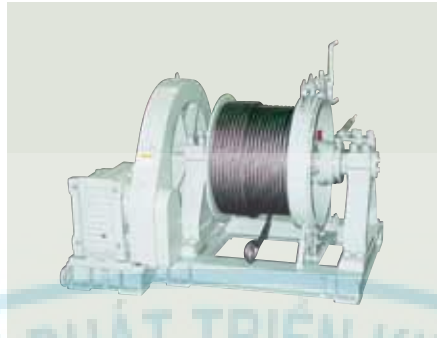
Fishing Boat Salvage Winches

SDW



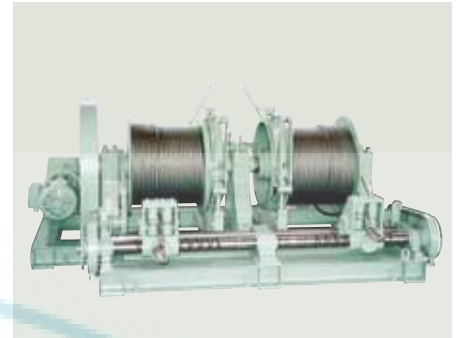
Type	HP (HP)	Capacity (kg)	Basic Speed (m/min)
SDW-3	4	620	10
SDW-25	20	5,000	

MS



Type	Electrical Motor (P-kW)	Capacity (kg)	Speed (m/min)	Wire Span x Rope Capacity (φ × m)
MS-2	4-3.7	2,000	8	14 × 150
MS-3	4-5.5	3,000	8	16 × 150
MS-4	4-7.5	4,000	8	20 × 150
MS-5	4-11	5,000	8	22 × 150
MS-6	4-15	6,000	8	24 × 150
MS-8	4-18.5	8,000	8	26 × 150
MS-10	4-22	10,000	8	28 × 150

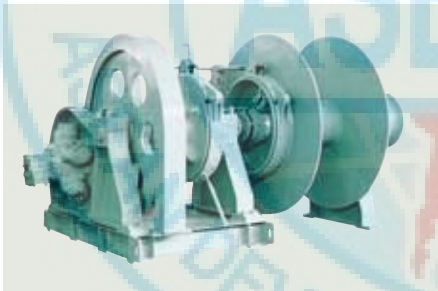
MW



- Everyone can use them because of just push a hoisting, lowering, and stop button.
- MK type has drums which is lined up, so two wires do not get entangled and there is no bothering to change wires.

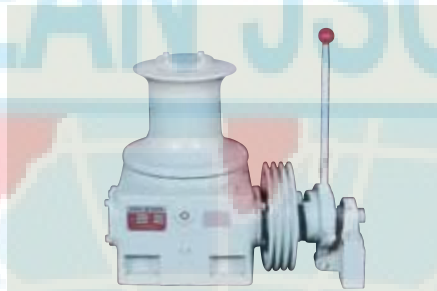
Windlass/Capstan

SOW (Hydraulic pressure Windlass)



Type	HP (HP)	Anchor Chain Span	Capacity (t)	Speed (m/min)	Overall Width (mm)
SOW-2	6	16~19	1.5	10~12	3,350
SOW-3	10	22~25	3.0	10~11	4,056
SOW-4	15	25~28	4.0	10~11	4,882
SOW-6	22	30~32	6.0	10~11	5,650

EC (Engine Capstan)



EC-1C

Type	HP (HP)	Capacity (t)	Speed (m/min)	Diameter (φ)
EC-1C	5	1.0	13	200
EC-2A	10	2.0	13	250
EC-3A	15	3.0	13	295

ECM (Electric Capstan)



ECM-1

Type	Electrical Motor (P-kW)	Capacity (t)	Speed (m/min)	Diameter (φ)
ECM-1	6-3.7	1.0	13	200
ECM-2	6-7.5	2.0	13	250
ECM-3	6-11	3.0	13	295

■ Please let us know about as a below when you order.

- Purpose of use
- Capacity ton
- Speed m/min
- Rope Capacity $\phi^m/m \times m$
(In case of capstan engine, anchor chain diameter)
- Driving method
(Hydraulic pressure, Engine, Electric)
- Clutching & braking method
- Drum winding method
- HP
- Other your desire





Hand Winch(Standard)

GM-1 type/GM-3type/GM-5type/GM-10type/GM-20type/GM-30type

●If handle can be used 360° circumgyration at attachment space, please use this type.



GM-1 type(For 100kg)



GM-5 type (For 500kg)



GM-20 type (For 2000kg)

Standard Size Code	Type	Capacity (kgf)	Slowdown Rate	Handle Length (Maximum Effective Value) (mm)	Wire Rope	Loading	Speed (m/min)	Weight (kg)	Price
GM01	GM-1	100	1/1	250	(6×19) 5mm×35m	20kg and under	27	8	
GM03	GM-3	300	1/6.25		(6×19) 6mm×32m	12.5kg and under	15	13.5	
GM05	GM-5	500	1/8.9		(6×19) 6mm×40m	17.2kg and under	8	15	
GM10	GM-10	1,000	1/12.6	300	(6×24) 8mm×40m	17.5kg and under		16	
GM20	GM-20	2,000	1/20	370	(6×24) 9mm×45m	20kg and under	6	25	
GM30	GM-30	3,000	1/35.5	370	(6×24) 12mm×35m 14mm×22m	20.5kg and under	2	40	

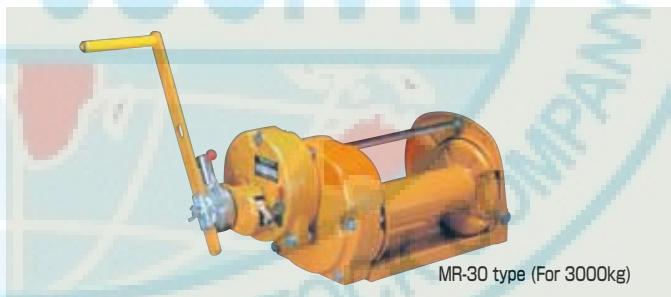
Hand Winch(Ratchet)

MR-1 type/MR-3type/MR-5type/MR-10type/MR-20type/MR-30type

●It can be wind roll and back turn with handle's right and left back-and-forth motion, it can be attached everywhere. And it can be used standard winch.



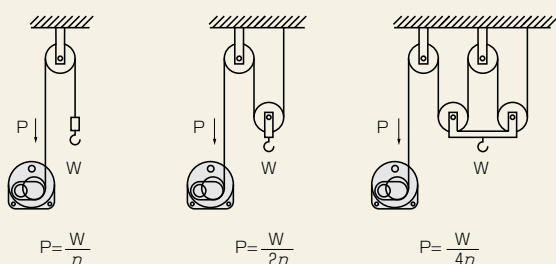
MR-20 type(For 2000kg)



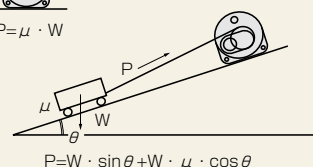
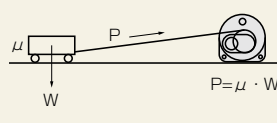
MR-30 type (For 3000kg)

Standard Size Code	Type	Capacity (kgf)	Slowdown Rate	Handle Length (Maximum Effective Value) (mm)	Wire Rope	Loading	Speed (m/min)	Weight (kg)	Price
MR01	MR-1	100	1/1	250	(6×19) 5mm×35m	20kg and under	27	9.5	
MR03	MR-3	300	1/6.25		(6×19) 6mm×32m	12.5kg and under	15	15.5	
MR05	MR-5	500	1/8.9		(6×19) 6mm×40m	17.2kg and under	8	16.5	
MR10	MR-10	1,000	1/12.6	300	(6×24) 8mm×40m	17.5kg and under		17.5	
MR20	MR-20	2,000	1/20	370	(6×24) 9mm×45m	20kg and under	6	26.5	
MR30	MR-30	3,000	1/35.5	370	(6×24) 12mm×35m 14mm×22m	20.5kg and under	2	41.5	

■ Rope pull calculating formula with Maxpull Winch



P: rope tension
 W: loading
 η : sieve efficiency
 μ : coefficient of friction
 θ : gradient



CHAINS



Chains

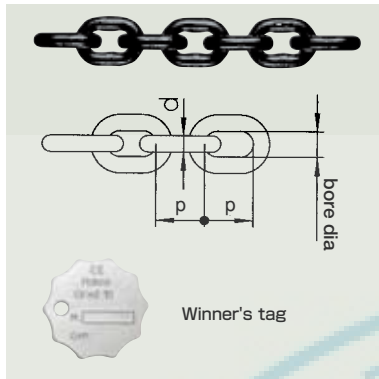


Winner Grade 10

■ Pewag company is the first company to provide sling chain, Grade 10 to the market.

Winner 200

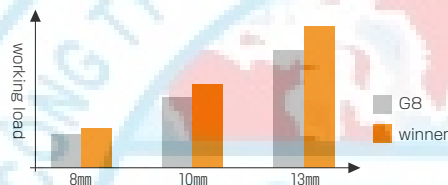
(Chain is based on ASTM A973M-01.)



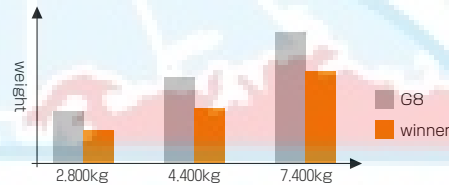
Chain diameter d	Pitch P (mm)	Bore dia (mm)	Safe Working Load (t)	Breaking Load (kN)	Weight (kg/m)
5	16	7.5	0.8	39.3	0.61
6	18	8.7	1.12	56.5	0.89
8	24	10.9	2.0	100	1.57
10	30	13.5	3.2	157	2.46
13	39	17.5	5.3	266	4.18
16	48	21.5	8.0	402	6.28
19*	57	25.6	11.2	567	8.90
22*	66	29.5	15.0	760	11.88

*bore diameter is minimum *Please inquire because of non-stocked item.

■ Comparing strength with grade8 (about 25% up)



■ Easy handling with weight saving of 30%



In case of 2 point hanging and within 90° (a angle)

Safe Working Load (t)	G8 Chain (mm)	Winner Chain (mm)
2.8	10	8
4.4	13	10
7.4	16	13

Weight comparative chart

Safe Working Load (t)	G8 Chain (mm)	Winner Chain (mm)	Less Rate (%)
2.8	16.2	11.0	32
4.4	27.6	17.6	36
7.4	42.2	29.6	30

7

Chain

Character of sling chain

- Compare with grade8, it is high performance and economical.
- Compare with grade8, it is one size smaller, and easy to use.
- It is high abrasion resistance and possible to use for a long term.
- Each link has '10' mark which means grade 10, so easy to recognize.
- Chain sling has a tag which is written a working load.
- Clasp is a gold color, so it stand out.
- It is easy to set up, and easy to daily check and periodical check.
- It can be used grade 8 parts, but that time, load is based on grade 8.
- It can be used a grab hook with maximum working load.
- Winner sling chain has 2 type, i-type and pin-type.

Winner Data



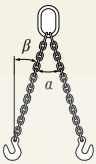
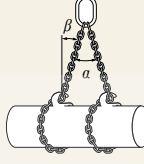
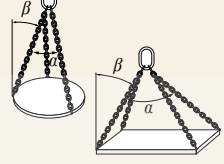
Chain Sling Tag

■ Winner chain is based on organized guidance of ASTM973/A973M-01 and 98/37/EC.

- Limit stress of load capacity : 200 N/mm²
- Test stress : 500 N/mm²
- Breaking stress : 1,000 N/mm²
- Stretch of breaking : Bottom limit 20%
- Cross breaking based on EN18-2 standard : Within 80%
- Admitted heat : Max 200°C
- Quality mark : There is a G10 mark per 300m and each link has '10' mark.
- Surface treatment : Grind, Coating
- Working tag : Working load is showed on a tag

Winner Working load chart

Working load list is max number, and showed a number when it was used as an equal load

Factor of Safety		1 Point Hanging		2 Point Hanging with Clasp			2 Point Hanging with Wrap			3 Point, 4 Point Hanging			Loop
5		Straight 	Loop 										
		α	—	60°	90°	120°	60°	90°	120°	60°	90°	120°	90°
		β	—	30°	45°	60°	30°	45°	60°	30°	45°	60°	—
Factor		1.0	0.8	1.6	1.4	1.0	1.28	1.12	0.8	2.5	2.1	1.5	1.4
Part Number	Diameter	Working Load (t)											
WIN 5	5	0.8	0.6	1.3	1.1	0.8	1.0	0.9	0.6	2.0	1.7	1.2	1.1
WIN 6	6	1.12	0.9	1.8	1.6	1.1	1.4	1.3	0.9	2.8	2.4	1.7	1.6
WIN 8	8	2.0	1.6	3.2	2.8	2.0	2.6	2.2	1.6	5.0	4.2	3.0	2.8
WIN 10	10	3.2	2.5	5.0	4.4	3.2	4.0	3.5	2.5	7.9	6.6	4.7	4.4
WIN 13	13	5.3	4.2	8.5	7.4	5.3	6.8	5.9	4.2	13.3	11.1	8.0	7.4
WIN 16	16	8.0	6.4	12.8	11.2	8.0	10.2	8.8	6.4	20.0	16.8	12.0	11.2
WIN 19※	19	11.2	9.0	17.9	15.7	11.2	14.3	12.5	9.0	28.0	23.5	16.8	15.7
WIN 22※	22	15.0	12.0	24.0	21.0	15.0	19.2	16.5	12.0	37.5	31.5	22.5	21.0

*Please inquire because of non-stocked item.

Please be careful that load is reduced if it is used in a special situation (high temperature, unequal load, one side load, impact load).

At first

Pewag hanging clasp has many design and be stocked for selecting for load and purpose. Chain, chain sling, and clasp Which are in this catalog are premised a normal work. Only cargo specialist can do this work. If you want to know more, please ask us. Using a right way, chain sling can be used longer and protect from an accident. Therefore please use them with a right way.

Limitation in use

- In case of changing a chain sling composition, please using a pewag company's item. There is no guarantee if use a other company's item.
- Don't work upon a chain sling like bending, grind, weld.
- Don't use it with high temperature (more than 200°C for winner)
- Don't remove safety items like a safety latch, safety pin, and clip.
- Don't do galvanization and chemical gilding.
- Please keep away from corrosion.

Dangerous using, limitation of danger condition

Temperature

- Load is reduced by using in high temperature. Please use within 200°C.

Acidity, caustic, chemical goods

- Please keep winner chain away from dropping acidic liquid, using in a room contain caustic, and a place to easy to become high temperature and be filled with chemical products.

Working load

- Working load and load capacity in this catalog are the number with the condition that there is no decentering on a chain sling and no one side hanging.
- If load is not applied evenly or package's angle hit to somewhere, chain load of acute angle part is degraded. Therefore please set up load by cargo specialist.



Instruction for use about using a winner chain sling.

Checking before using

Before using a chain sling, please check the following items.

- ① Chain sling is fitted for purpose of use.
- ② Chain and clasp is fitted for purpose of use in special situation.
- ③ Chain sling's instruction manual is placed, and a user understand it.
- ④ Chain is straight and there is no touching place.

Before using, check damage and friction by visual check. If there is any suspect point, please be checked by a technician.

Disposal line by visual check

- ① Breaking part
- ② Disappearing of chain mark by ablation
- ③ There is a change of shape during hanging.
- ④ Stretch rate of chain is 5% and more.

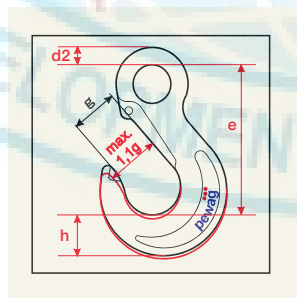
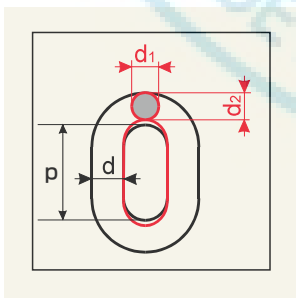
Periodical check

Please check a chain which is dipped on hot water and corrosive liquids by a specialist.

We recommended to do an load test with one-and-a-half biennially and do a visual test and crack inspection by flux regularly. And try to prevent an accident.



Disposal line



Name	Sign	Acceptable Standards
Chain	d	-10%
	p	+5%
Master link	d	-15%
	t	+10%
Hook	e	+5%
	d2,h	-10%
	g	+10%
Cuplink	No color	Unusable
	e	+5%
	c	-10%

- Cutoff, crack, scratch, corrosion, change of color from heat, weld evidence, bending, twisting, cracking.
- Spreading of hook's opening are is more than 10% of standard. Impossible to hook to safety lever because of bending.

Keeping

- Please keep a winner chain clean and dryness. And please apply oil.

Limitation in use

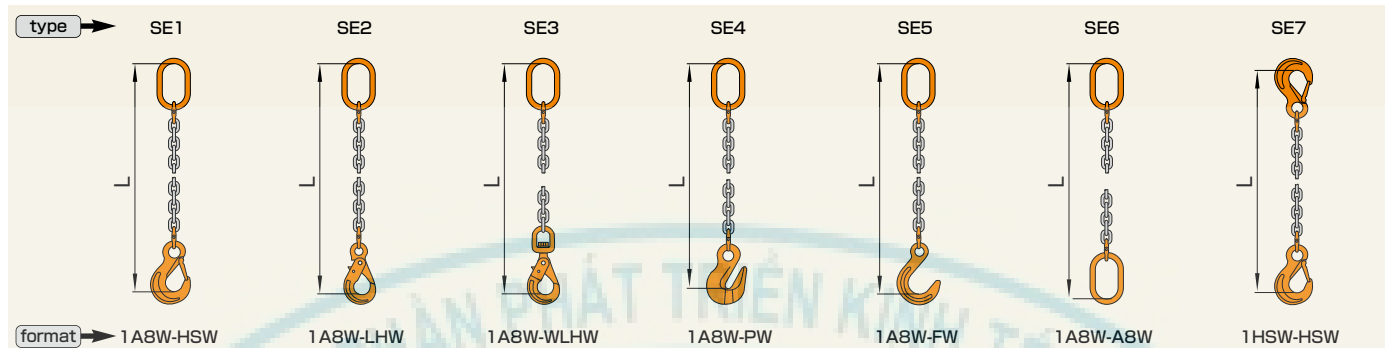
- In case of changing a chain sling composition, please using a pewag company's item. There is no guarantee if use a other company's item.
- Don't work upon a chain sling like bending, grind, weld.
- Don't use it with high temperature (more than 200°C for winner)
- Don't remove safety items like a safety latch, safety pin, and clip.
- Don't do galvanization and chemical gilding.
- Please keep away from corrosion.

Winner Standard set(i-type)

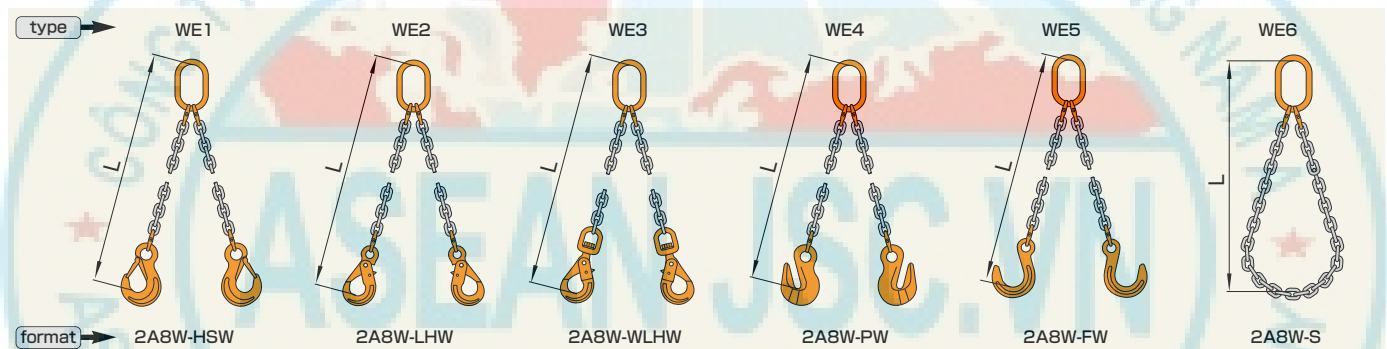
It is normal graphic to makeup for pewag · winner 200 sling chain. Be able to choose a structure for purpose of use. Be able to makeup as to component and length (L).

Single

Sample of order SE18 ϕ ×3m 1 (type, chain diameter, reach, number of order)



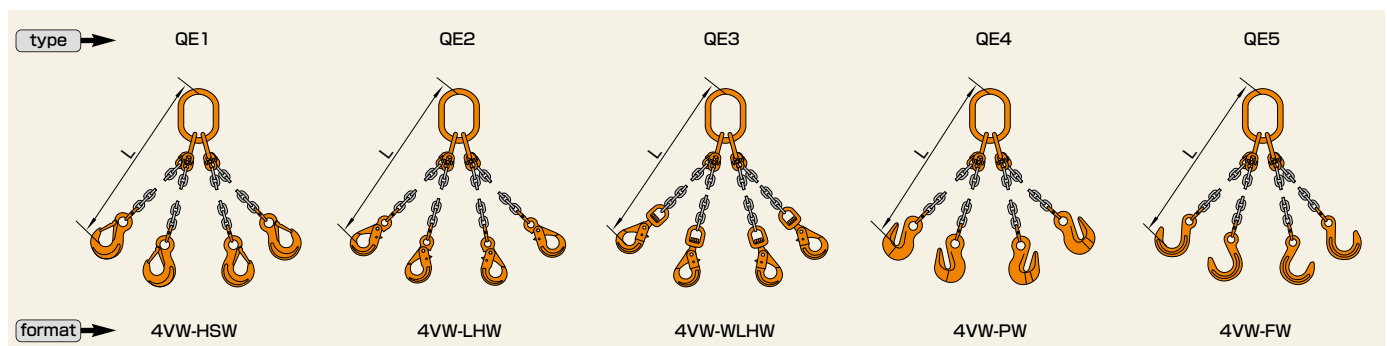
Double



Triple



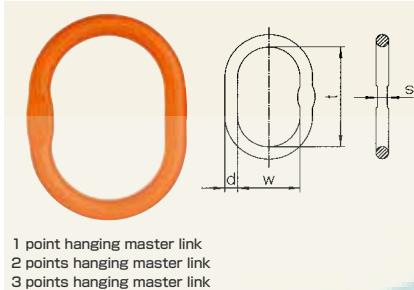
Quad





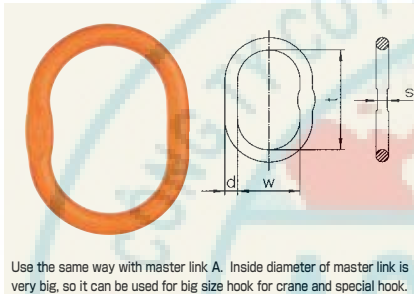
Eye-type Format Parts

A8W Master Link



Part Number Code	Working Load (t)		Size (mm)			d mm	t mm	w mm	s mm	Weight (kg)	Price
	Mmaster link	Set Item	1 Point Hanging	2 Point Hanging	3 · 4 Point Hanging						
A8W 10	1.4	1.3	5	5	—	10	80	50	10	0.14	
A8W 13	2.3	1.8	6	6	5	13	110	60	10	0.34	
A8W 16	3.5	2.0	8	—	—	16	110	60	14	0.53	
A8W 18	5.0	3.2	10	8	6	18	135	75	14	0.86	
A8W 22	7.6	5.0	13	10	8	23	160	90	17	1.60	
A8W 26	10.0	8.5	16	13	10	27	180	100	20	2.46	
A8W 32	14.0	12.8	(19)	16	13	33	200	110	26	4.14	
A8W 36※	25.1	17.9	(22)	(19)	16	36	260	140		6.22	

M8W Supergiant Master Link

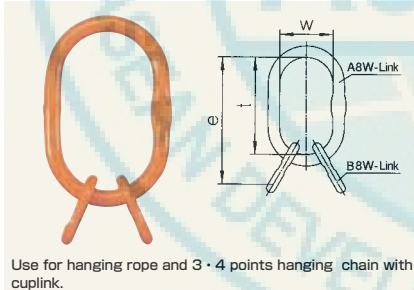


Part Number Code	Working Load (t)		Size (mm)			d mm	t mm	w mm	s mm	Weight (kg)	Price
	Mmaster link	Set Item	1 Point Hanging	2 Point Hanging	3 · 4 Point Hanging						
M8W 10	1.4	1.3	5	5	—	11	90	65	10	0.22	
M8W 13	2.3	1.8	6	6	5	14	120	70	10	0.44	
M8W 16	3.2	2.0	8	—	—	16	140	80	13	0.67	
M8W 18	4.2	3.2	10	8	6	19	160	95	14	1.09	
M8W 22	6.7	5.0	13	10	8	23	160	110	17	1.69	
M8W 26	10.1	8.5	16	13	10	27	190	110	20	2.65	
M8W 32	16.0	12.8	(19)	16	13	33	230	130	26	4.78	
M8W 36※	21.2	17.9	(22)	(19)	16	38	275	150	29	7.48	

7

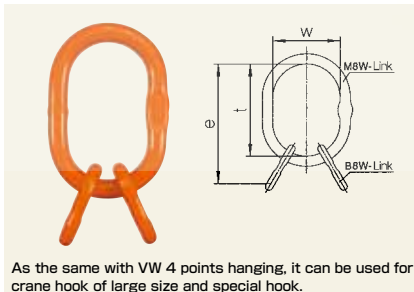
Chain

VW 4 Point Hanging Set



Part Number Code	Format	Working Load (t)		e mm	t mm	w mm	Weight (kg)	Price
		Master Link	Set Item (within 60°)					
VW 5	A8W 13+2 B8W 10	2.3	2.0	154	110	60	0.52	
VW 6	A8W 18+2 B8W 13	4.2	2.8	189	135	75	1.26	
VW 7-8	A8W 22+2 B8W 16	7.6	5.0	230	160	90	2.32	
VW 10	A8W 26+2 B8W 20	9.6	7.9	265	180	100	3.68	
VW 13	A8W 32+2 B8W 22	14.0	13.3	315	200	110	6.46	
VW 16	A8W 36+2 B8W 26	21.2	20.0	400	260	140	10.06	
VW 19-20※	A8W 50+2 B8W 32	34.1	28.0	500	350	190	22.87	
VW 22※	A8W 50+2 B8W 36	40.0	37.5	520	350	190	24.79	

VMW Supergiant 4 Points Hanging Set

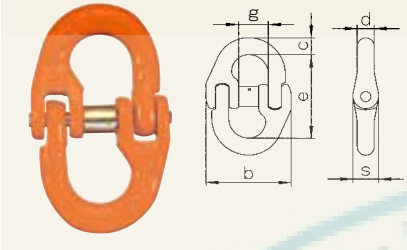


Part Number Code	Format	Working Load (t)		e mm	t mm	w mm	Weight (kg)	Price
		Master Link	Set Item (within 60°)					
VMW 6	M8W 18+2 B8W 13	4.2	2.8	214	160	95	1.30	
VMW 7-8	M8W 22+2 B8W 16	6.6	5.0	230	160	110	2.41	
VMW 10	M8W 26+2 B8W 20	10.1	7.9	275	190	110	4.01	
VMW 13	M8W 32+2 B8W 22	15.7	13.3	345	230	130	6.90	
VMW 16	M8W 36+2 B8W 26	21.2	20.0	415	275	150	11.12	

Eye-type Format Parts

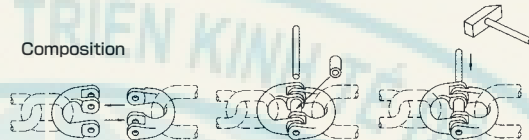
CW Cuplink

Cuplink : master link and chain
chain and chain
hook and chain



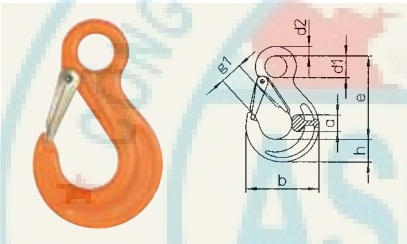
Part Number (Applicable Chain Size)	Working Load (t)	e mm	c mm	s mm	d mm	b mm	g mm	Weight (kg)	Price
CW5	0.8	36	7	9.2	7	34.5	12.7	0.05	
CW6	1.12	44.4	7.8	11	7.6	39	14.1	0.06	
CW8	2.0	61.5	11.5	15	10	53	18.35	0.18	
CW10	3.2	72	12.6	17.8	12.6	63	23	0.33	
CW13	5.3	88	19	22	16.7	79	27.6	0.70	
CW16	8.0	103	21	29	21	106	33	1.14	
CW19-20※	11.2	115	29.5	34.8	24.5	118	41.7	2.14	
CW22※	15.0	135	29	38	27	146.5	48	3.21	

Composition



HSW Eye Hook

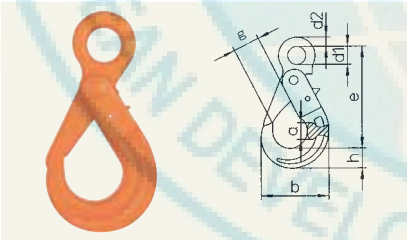
Use for general hanging hook.
With forging and safety hook.



Part Number (Applicable Chain Size)	Working Load (t)	e mm	h mm	a mm	d1 mm	d2 mm	g1 mm	b mm	Weight (kg)	Price
HSW5-6	1.12	84.5	21	16.5	20	10	19	68	0.20	
HSW7-8	2.0	106	27	19	25	11	26	88	0.50	
HSW10	3.2	131	33	26	34	16	30	108.5	1.10	
HSW13	5.3	164	43.5	33	43	19	39	133.7	2.00	
HSW16	8.0	182.5	50	40	50	24.5	46	154.6	3.50	
HSW19-20※	11.2	205	55	48	55	27	53	177.5	4.70	

LHW Safety Hook

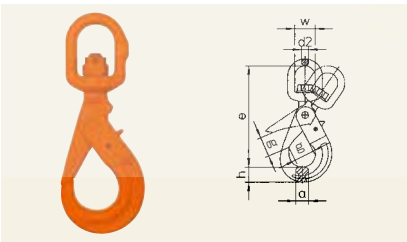
Use for rope and ring rope by big eye head.



Part Number (Applicable Chain Size)	Working Load (t)	e mm	h mm	a mm	b mm	d1 mm	d2 mm	g mm	Weight (kg)	Price
LHW5-6	1.12	110	20	16	71	21	11	28	0.50	
LHW7-8	2.0	136	26	20	88	27	12	34	0.90	
LHW10	3.2	169	30	25	107	34.5	15	45	1.50	
LHW13	5.3	205	40	34	138	40	20	52	2.70	
LHW16	8.0	251	50	35	168	50	27	60	5.70	
LHW19-20※	11.2	290	62	50	194	60	30	70	7.90	

WLHW Swivel Safety Hook

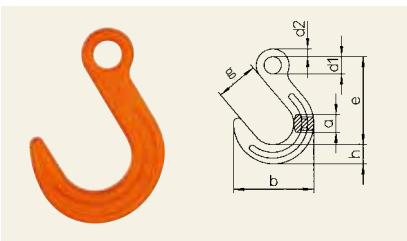
WLHW can turn around with available load.



Part Number (Applicable Chain Size)	Working Load (t)	e mm	h mm	a mm	w mm	d2 mm	g mm	Weight (kg)	Price
WLHW5-6	1.12	160	20	16	35	13	28	0.60	
WLHW7-8	2.0	181	26	20	35	13	34	1.10	
WLHW10	3.2	218	30	25	42	16	45	2.00	
WLHW13	5.3	269	40	34	49	20	52	4.00	
WLHW16	8.0	319	50	35	60	24	60	6.80	

FW Foundry Hook

Use for large opening size.
Please use after checking it is safe without safety hook.



Part Number (Applicable Chain Size)	Working Load (t)	e mm	h mm	a mm	d1 mm	d2 mm	g mm	b mm	Weight (kg)	Price
FW7-8	2.0	131	29	25	24	11	64	118	0.92	
FW10	3.2	158	35	32	31	14	76	143	1.77	
FW13	5.3	190	42	40	39	17	89	170	2.82	
FW16	8.0	224	50	46	47	22	102	200	5.03	
FW19-22※	11.2	260	61	54	56	28	114	231	7.60	

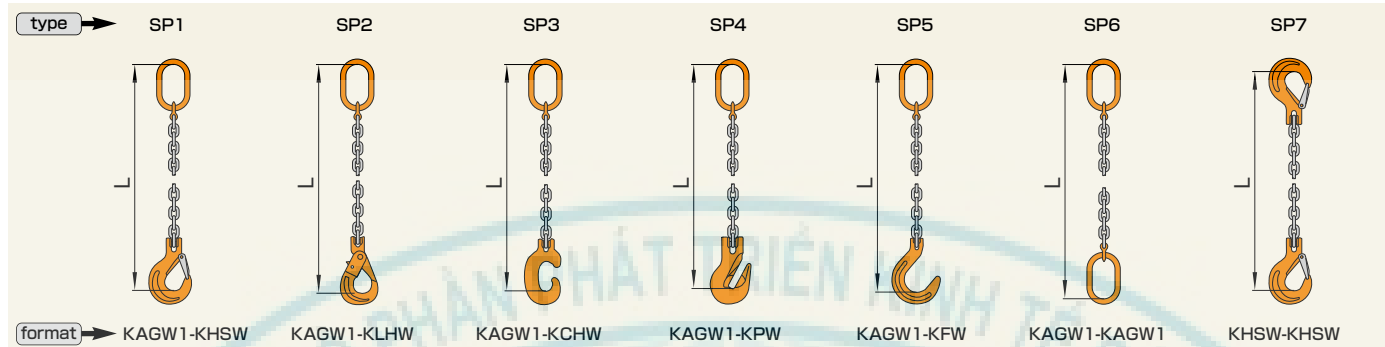


Winner Standard Set (Pin Type)

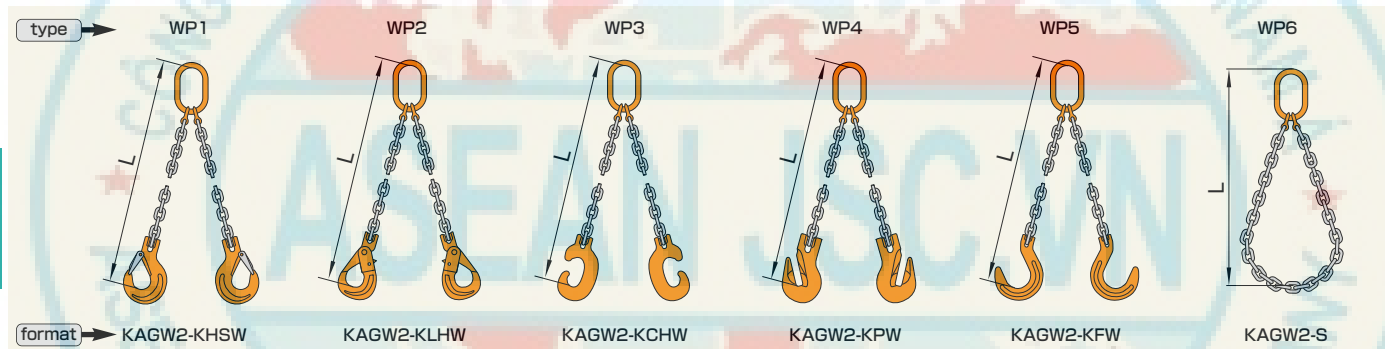
It is normal graphic to makeup for pewag · winner 200 sling chain. Be able to choose a structure for purpose of use. Be able to makeup as to component and length (L).

It is standard that to incorporate chain into crevice type clasp for pin type standard set. We will comply with making up of any hook. Please contact us.

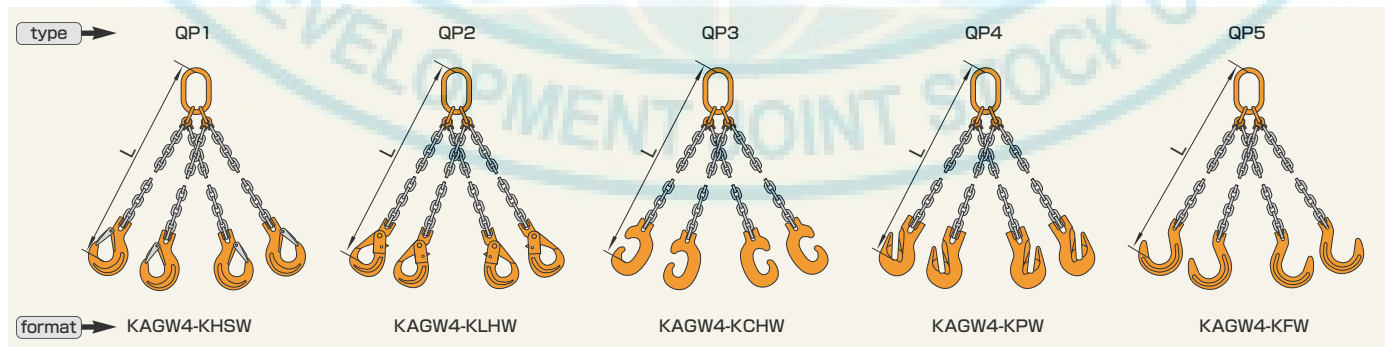
Single



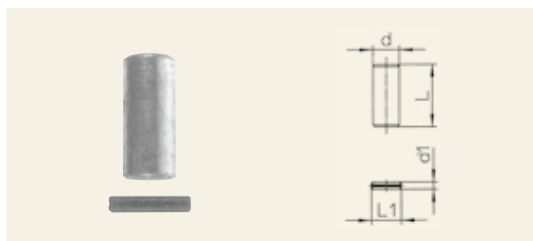
Double



Quad (and Triple)



Load-pin KBSW

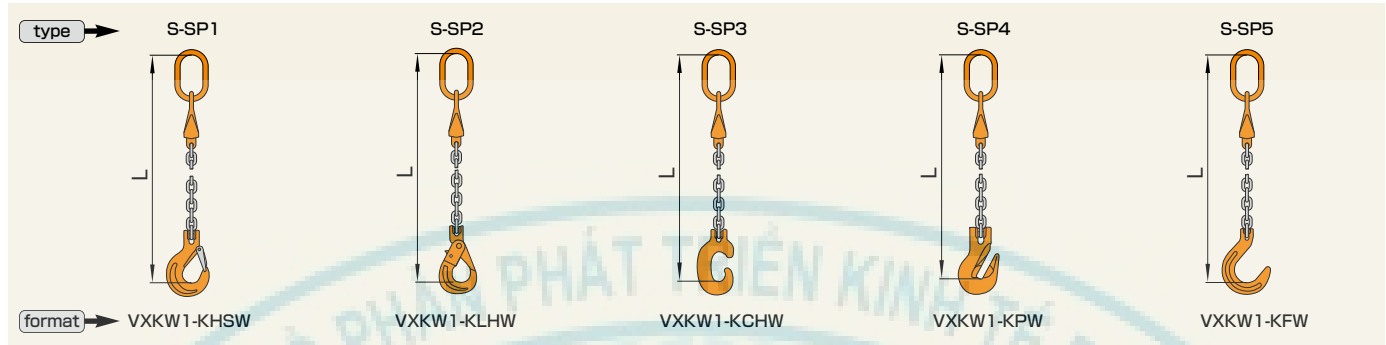


Part Number	L mm	d mm	L1 mm	d1 mm	Weight (kg)
KBSW5-6	16.5	7.4	16	2.5	0.006
KBSW8	23.0	10.0	22	3.0	0.01
KBSW10	29.5	12.5	28	3.5	0.03
KBSW13	37.0	16.0	36	4.0	0.06
KBSW16	52.0	20.0	40	4.5	0.10
KBSW19	62.0	24.0	50	5.0	0.20
KBSW22	71.0	27.0	55	5.0	0.32

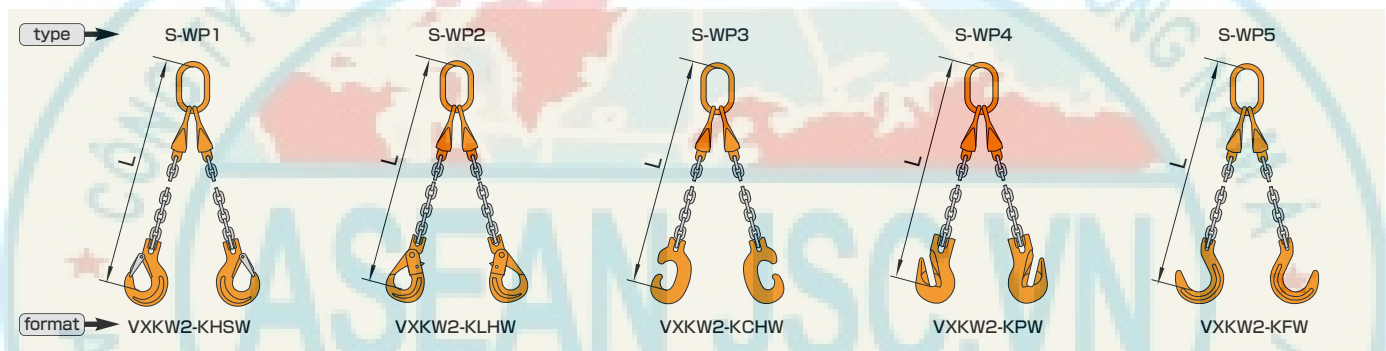
Winner Standard Set (Shortening Pin Type)

It is normal graphic to makeup for pewag · winner 200 sling chain. Be able to choose a structure for purpose of use. Be able to makeup as to component and length (L). It is standard that to incorporate chain into crevice type shortening hook for shortening pin type standard set. Available length can be adjusted according to load in shortening pin type. We will comply with making up of any hook. Please contact us.

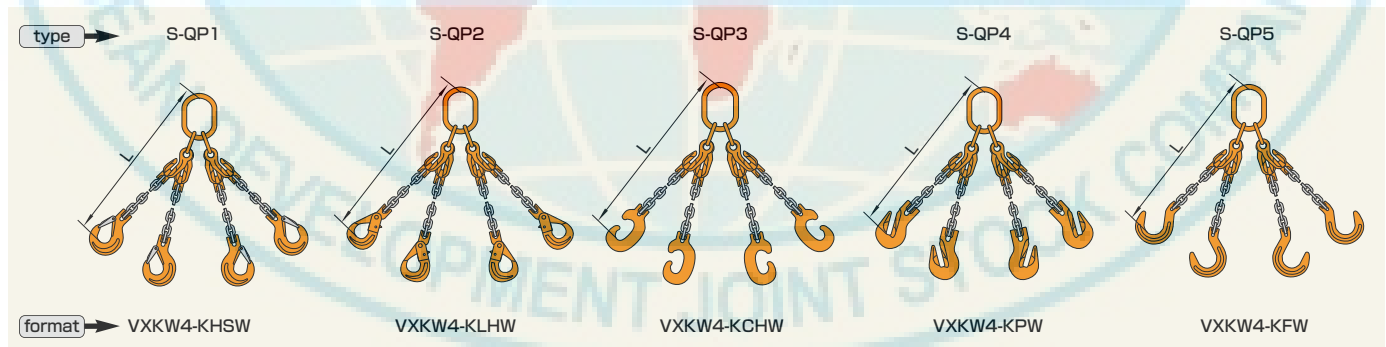
Single



Double



Quad (and Triple)



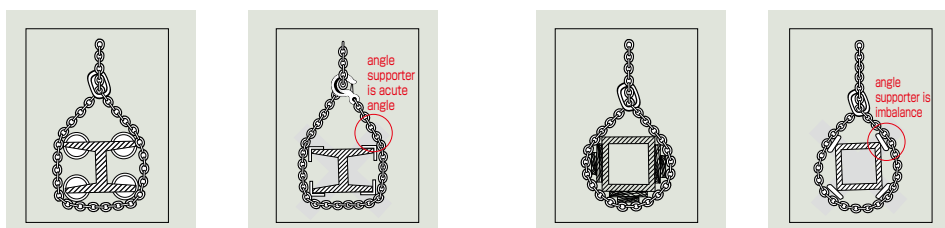
7

Chain

The right way to using of chain sling

Hanging angle

Hanging angle is written on a plate. Please use within the rule. (Hanging angle α in load chart reference). Eccentricity is dangerous. Please equalize the angle. Don't use over 120°.



Protection for angle supporter and chain

Winner chain sling is set up based on pulling under a hanging load. Please use protection parts to be the equal load for a chain like pictures. Working load is reduced without a protection parts. Please reference a chart on page 277.



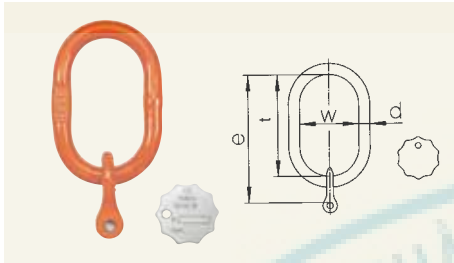
Pin Type Format Parts Master Link

KAGW Pin Type Set

One point hanging with weld cup link or master set of plural point hanging chain

KAGW 1

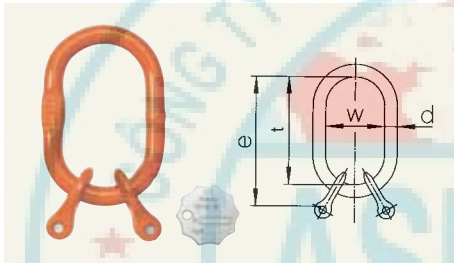
KAGW1 1 point hanging



Part Number Code	Working Load (t)	Application Chain	d mm	t mm	w mm	e mm	Weight (kg)
KAGW1-6	1.12	6	13	110	60	141	0.42
KAGW1-8	2.0	8	16	110	60	152.5	0.73
KAGW1-10	3.2	10	18	135	75	186	1.44
KAGW1-13	5.3	13	23	160	90	223	2.30
KAGW1-16	8.0	16	27	180	100	254	3.63

KAGW 2

KAGW2 2 points hanging



Part Number Code	Working Load within 60° (t)	Application Chain	d mm	t mm	w mm	e mm	Weight (kg)
KAGW2-6	1.8	6	13	110	60	141	0.50
KAGW2-8	3.2	8	18	135	75	177.5	1.26
KAGW2-10	5.0	10	23	160	90	211	2.66
KAGW2-13	8.5	13	27	180	100	243	3.86
KAGW2-16	12.8	16	33	200	110	274	6.48
KAGW2-19※	17.9	19	36	260	140	350	10.1

KAGW 4

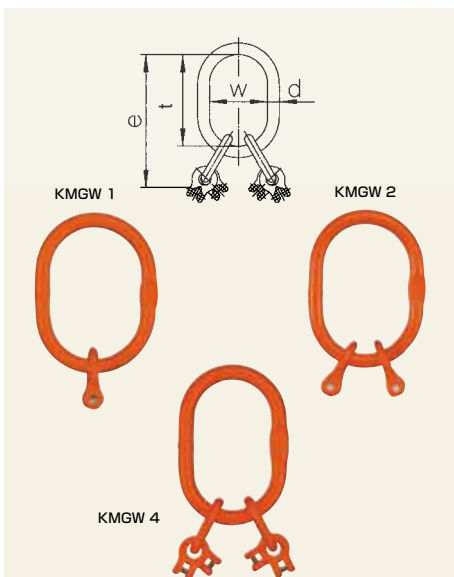
KAGW4 3-4 points hanging



Part Number Code	Working Load within 60° (t)	Application Chain	d mm	t mm	w mm	e mm	Weight (kg)
KAGW4-6	2.8	6	18	135	75	220	1.52
KAGW4-8	5.0	8	23	160	90	272.5	3.12
KAGW4-10	7.9	10	27	180	100	316	6.14
KAGW4-13	13.3	13	33	200	110	378	9.26
KAGW4-16	20.0	16	36	260	140	474	14.7
KAGW4-19※	28.0	19	50	350	190	590	30.5
KAGW4-22※	37.5	22	50	350	190	617	34.9

KMGW Supergiant Pin Type Set

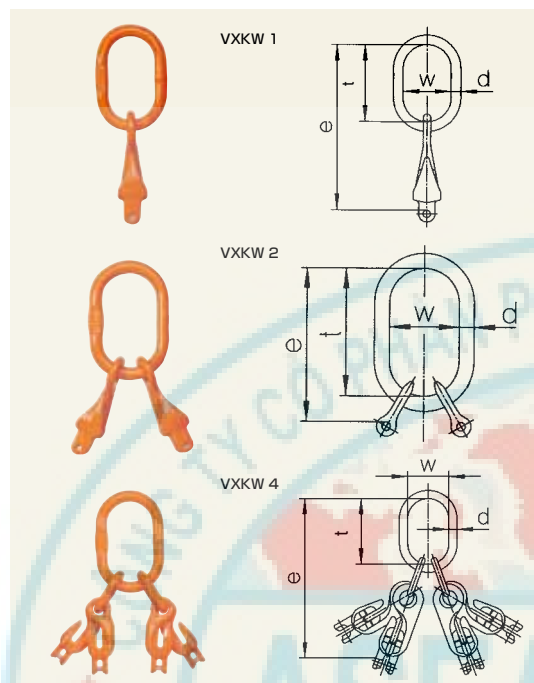
The same with KAGW pin type set. Be adapted for hook for a large crane and special hook.



Part Number Code	Working Load (t)	Application Chain	d mm	t mm	w mm	e mm	Weight (kg)
KMGW1-6	1.12	6	14	120	70	151	0.52
KMGW1-8	2.0	8	16	140	80	182.5	0.87
KMGW1-10	3.2	10	19	160	95	211	1.67
KMGW1-13	5.3	13	23	160	110	223	2.39
KMGW1-16	8.0	16	27	190	110	264	3.82
KMGW2-6	1.8	6	14	120	70	151	0.60
KMGW2-8	3.2	8	19	160	95	202.5	1.49
KMGW2-10	5.0	10	23	160	110	211	2.85
KMGW2-13	8.5	13	27	190	110	253	4.05
KMGW2-16	12.8	16	33	230	130	304	7.12
KMGW4-6	2.8	6	19	160	95	245	1.75
KMGW4-8	5.0	8	23	160	110	272.5	3.21
KMGW4-10	7.9	10	27	190	110	326	6.33
KMGW4-13	13.3	13	33	230	130	408	9.90
KMGW4-16	20.0	16	38	275	150	489	16.0

Shortening Pin Type Format Parts Master Link

VXKW Pin Type Set



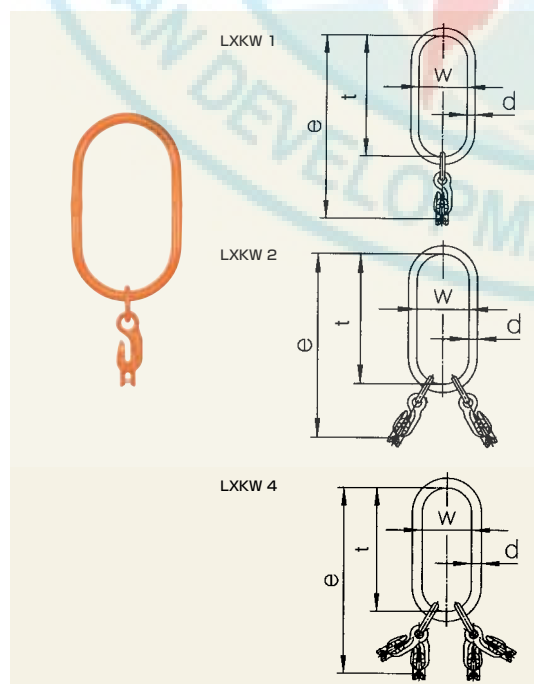
Chain set for one point hanging and plural point hanging of XKW shortening using.

Part Number Code	Working Load (t)	Application Chain	d mm	t mm	w mm	e mm	Weight (kg)
VXKW1-5	0.8	5	10	80	50	164	0.44
VXKW1-6	1.12	6	13	110	60	194	0.64
VXKW1-8	2.0	8	16	110	60	232	1.16
VXKW1-10	3.2	10	18	135	75	294	2.11
VXKW1-13	5.3	13	23	160	90	363	4.30
VXKW1-16	8.0	16	27	180	100	401	7.26

Part Number Code	Working Load (t)	Application Chain	d mm	t mm	w mm	e mm	Weight (kg)
VXKW2-5	1.3	5	10	80	50	164.3	0.74
VXKW2-6	1.8	6	13	110	60	194	0.94
VXKW2-8	3.2	8	18	135	75	257	2.12
VXKW2-10	5.0	10	23	160	90	319	4.10
VXKW2-13	8.5	13	27	180	100	383	7.86
VXKW2-16	12.8	16	33	200	110	421	13.7

Part Number Code	Working Load (t)	Application Chain	d mm	t mm	w mm	e mm	Weight (kg)
VXKW4-5	2.0	5	13	110	60	238	1.72
VXKW4-6	2.8	6	18	135	75	273	2.40
VXKW4-8	5.0	8	23	160	90	352	4.84
VXKW4-10	7.9	10	27	180	100	424	8.82
VXKW4-13	13.3	13	33	200	110	518	17.3
VXKW4-16	20.0	16	36	260	140	621	29.3

LXKW Pin Type Set



Particularly be adapted for hook for a large crane(traveling crane). Be able to chain adjustment.

Part Number Code	Working Load (t)	d mm	t mm	w mm	e mm	Weight (kg)
LXKW1-6	1.12	23	340	180	478	3.70
LXKW1-8	2.0	23	340	180	516	4.00
LXKW1-10	3.2	27	340	180	569	6.00
LXKW1-13	5.3	27	340	180	629	7.80
LXKW1-16	8.0	33	340	180	688	12.7

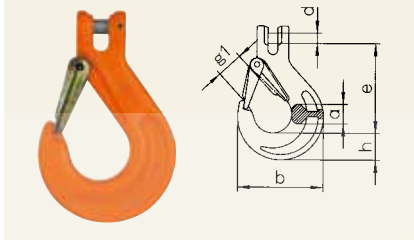
Part Number Code	Working Load (t)	d mm	t mm	w mm	e mm	Weight (kg)
LXKW2-6	1.8	23	340	180	478	4.14
LXKW2-8	3.2	23	340	180	516	4.80
LXKW2-10	5.0	27	340	180	569	7.60
LXKW2-13	8.5	33	340	180	629	13.5
LXKW2-16	12.8	40	340	180	688	21.9

Part Number Code	Working Load (t)	d mm	t mm	w mm	e mm	Weight (kg)
LXKW4-6	2.8	23	340	180	478	4.70
LXKW4-8	5.0	23	340	180	532	7.60
LXKW4-10	7.9	27	340	180	584	13.1
LXKW4-13	13.3	33	340	180	659	23.1
LXKW4-16	20.0	40	340	180	713	33.1



Pin Type Format Parts

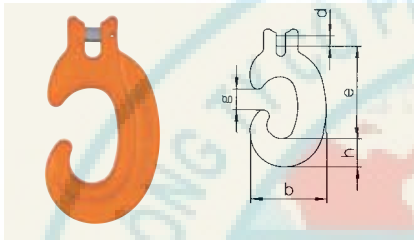
KHSW Sling Hook



With forging safety hook.

Part Number Code	Application Chain Diameter	Working Load (t)	e mm	h mm	a mm	d mm	g1 mm	b mm	weight (kg)
KHSW5-6	5-6	1.12	69	20	15	7.4	19	66	0.20
KHSW8	8	2.0	94.5	28	19	10	27	90	0.60
KHSW10	10	3.2	109	33	25	12.5	30	108	1.10
KHSW13	13	5.3	136	40	34	16	38	131	2.00
KHSW16	16	8.0	155	49	37	20	46	153	3.48
KHSW19-20※	19-20	11.2	183.5	53	46	24	53	177	5.00

KCHW C-Hook



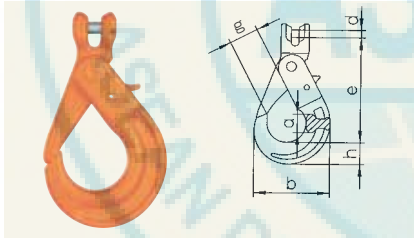
Easy to hitching a hook, and convenience for remove.
It applies if there is no request of safety hook.

Part Number Code	Application Chain Diameter	Working Load (t)	e mm	h mm	d mm	b mm	g mm	weight (kg)
KCHW8	8	2.0	90	27.5	10	73.5	20	0.50
KCHW10	10	3.2	129	38.5	12.5	107	26	1.40
KCHW13	13	5.3	166	51	16	137	41	3.00
KCHW16	16	8.0	205	60	20	166	45	5.30

7

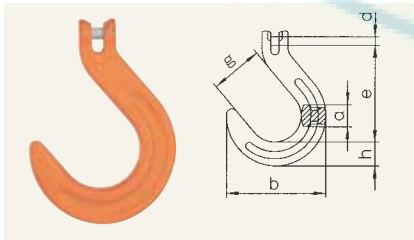
Chain

KLHW Sling Hook



Part Number Code	Application Chain Diameter	Working Load (t)	e mm	h mm	a mm	b mm	d mm	g mm	Weight (kg)
KLHW6	6	1.12	94	20	16	71	7.5	28	0.50
KLHW8	8	2.0	123	26	20	88	10	34	0.90
KLHW10	10	3.2	144	30	25	107	13	45	1.60
KLHW13	13	5.3	180	40	34	138	16	52	2.90
KLHW16	16	8.0	217	50	35	168	21	60	5.80

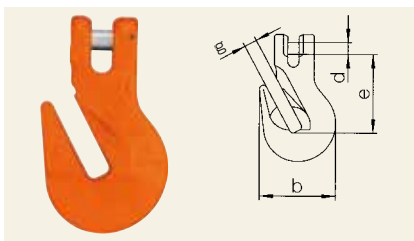
KFW Foundry Hook



Use for large opening size.
Please use after checking it is safe without safety hook.

Part Number Code	Application Chain Diameter	Working Load (t)	e mm	h mm	a mm	g mm	d mm	b mm	Weight (kg)
KFW8	8	2.0	120	29	25	64	10	118	1.00
KFW10	10	3.2	140	35	32	76	12.5	143	1.78
KFW13	13	5.3	169.5	42	40	89	16	170	2.96

KPW Grab Hook



Part Number Code	Application Chain Diameter	Working Load (t)	e mm	b mm	d mm	g mm	Weight (kg)
KPW5-6	5-6	1.12	45	47.4	7.4	8	0.15
KPW8	8	2.0	60.5	58	10	10.5	0.38
KPW10	10	3.2	76	76	12.5	13	0.85
KPW13	13	5.3	104	101	16	17	1.90
KPW16	16	8.0	107	122	20	19	2.80
KPW19-20※	19-20	11.2	140	147.4	24	23	3.50



Classified code 035A1

Kondo Chain Sling



Example of hanging
Single sling



One point hanging Wring hanging

● It is useful for counterturn working like column.

It is easy to use and good for working in factory and field working.

- High mechanical strength because of using heat treating strong chain.
- Using a forging item which possess higher reliability.

■ For 1 ton (Working load is 0.8ton if it is used with wring hanging)

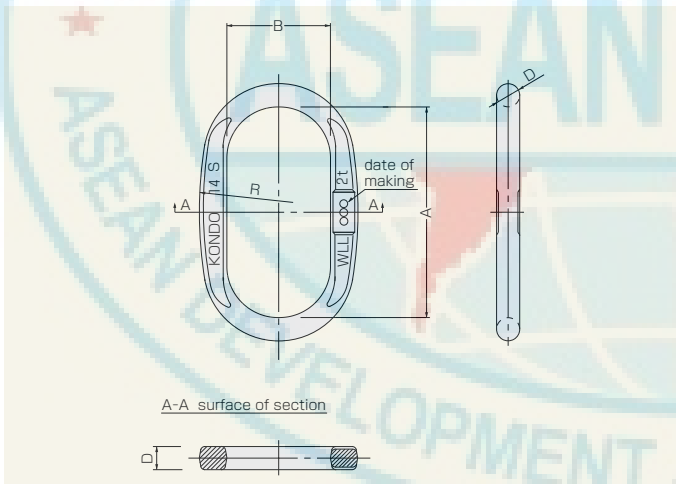
Standard Size Code	Developed Length (m)	Length (mm)	Weight (kg)	Price
A10102	2	2009	2.6	
A10103	3	3041	3.5	
A10104	4	4030	4.3	
A10105	5	5019	5.1	

■ For 2 ton (Working load is 1.6ton if it is used with wring hanging)

Standard Size Code	Developed Length (m)	Length (mm)	Weight (kg)	Price
A20102	2	2007	3.9	
A20103	3	3040	5.2	
A20104	4	4019	6.5	
A20105	5	5053	7.9	

Classified code 035A2

Master Link material : SCM435 H

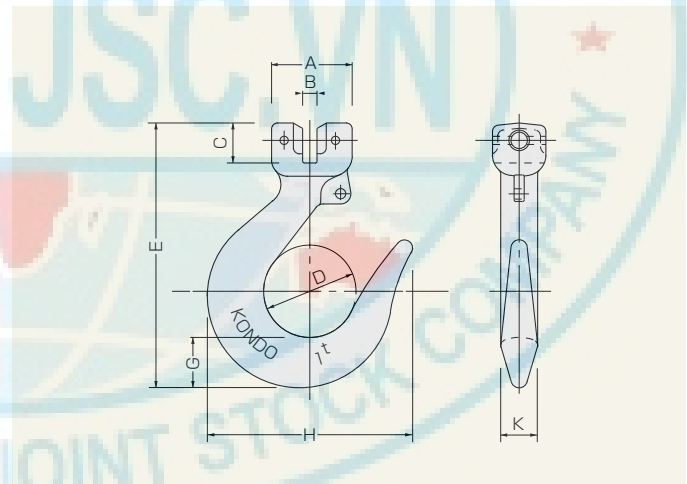


(unit : mm)

Standardized Size Code	Developed Working Load (t)	A	B	D	Weight (kg)	Price
A1012S	1t	110	56	11.5	0.30	
A2014S	2t	125	63	14	0.51	
A3017S	3t	140	71	17	0.91	
A5022S	5t	160	80	22	1.78	

Classified code 035A3

Pin Type Hook material : SCM435 H



(unit : mm)

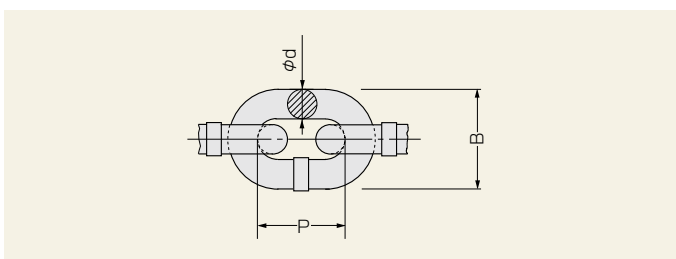
Standardized Size Code	Developed Working Load (t)	A	B	D	E	G	H	K	Weight (kg)	Price
A10P	1t	36	7	45	129	24.5	100	18	0.56	
A20P	2t	46	10	50	155	30	121	22	1.00	

7

Chain

Classified code 035A1

Sling Chain



(unit : mm)

Standardized Size Code	Developed Diameter	Wire Diameter d	Pitch P	Outside Breadth B	Price/m
A6S3	φ 6.3	φ 6.3	21.5	22	
A08	φ 8	φ 8.16	27.2	28	
A10	φ 10	φ 10.2	34.0	35	
A12S5	φ 12.5	φ 12.7	42.5	43.5	

* Please contact us for φ 12.5 price.

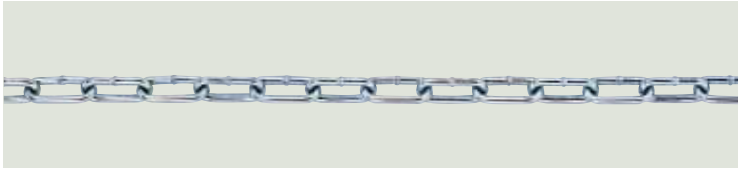
71



Classified code **032A1**

Link Chain (General-Purpose Chain)

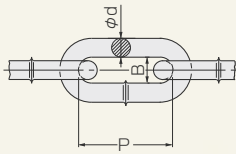
(unit : mm)



Developed Diameter	Wire Diameter d	Inside Length P	Inside Breadth B	Weight (kg)		In a Gunny Bag	
				1 m	30m	Quantity (pcs)	Weight (kg)
3	3.0	25.0	5.00	0.14	4.3	5	22
4	3.8	28.0	7.00	0.24	7.1	2	14.5
4.5	4.3	30.4	7.90	0.31	9.2	2	19
5	4.8	32.4	8.50	0.39	11.6	1	12
5.5	5.3	34.7	9.50	0.47	14.1	1	15
6	5.8	36.5	10.00	0.56	16.8	1	17
7	6.5	38.8	11.15	0.73	21.9	1	22
8	7.5	40.3	12.25	1.00	30.0	1	30
9	8.2	41.9	13.75	1.19	35.7	1	36
11	10.1	44.0	15.00	2.10	61.5	1	62
13	12.0	51.0	18.00	2.80	82.2	1	83

It can be used expect a slinging work and haulage.

- * There is a little bit error on pitch
- * Don't use a link chain (general-purpose chain) for hanging.



Link Chain (In a case)



Link Chain (Drum winding)

Fabric		Uniqlo Coating		Ditch Coating	
Cut Length 30m		Cut Length 30m		Cut Length 30m	
Standardized Size Code	Price	Standardized Size Code	Price	Standardized Size Code	Price
A03		U03		D03	
A04		U04		D04	
A04S5		U04S5		D04S5	
A05		U05		D05	
A05S5		U05S5		D05S5	
A06		U06		D06	
A07		U07		D07	
A08		U08		D08	
A09		U09		D09	
A11		U11		D11	
A13		U13		D13	

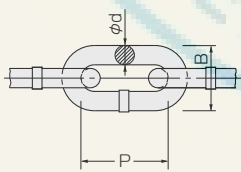
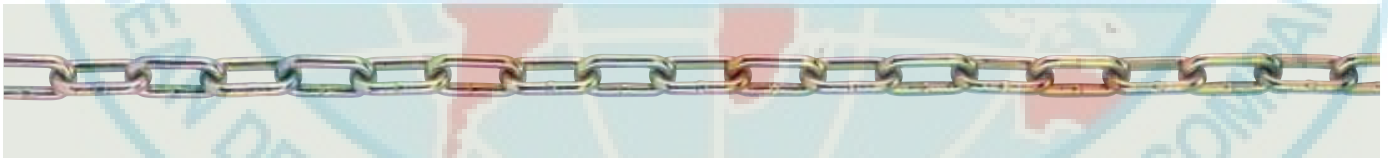
Link Chain			
* In Case		Drum Winding	
Standardized Size Code	Price	Standardized Size Code	Price
U03		UD03	
U04		UD04	
U04S5		UD04S5	
U05		UD05	
U05S5		UD05S5	
U06		UD06	

* Classified code is 032A9 only a link chain in a case.

Classified code **032A6**

Swing Chain

* Total inspected a bearing test



Swing chain is made for play equipment. For using safety, it is an item with a plate processing after total inspected a bearing test and face scouring process.

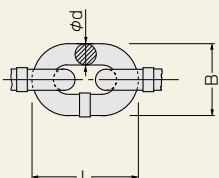
Standardized Size Code	Developed Diameter, Wire Diameter d (mm)	Inside Length P (mm)	Outside Breadth B (mm)	Cut Length (m)	Weight (kg/m)	Working Load		Price
						(kN)	(t)	
C06	6	31	21.0	30	0.65	4.90	0.50	
C07	7	34	24.0	30	0.89	5.88	0.60	
C08	8	36	26.5	30	1.21	7.35	0.75	
C09	9	39	30.0	30	1.55	9.80	1.00	

* Standard Issue : Chromate Coating

Classified code **032A8**

Proof Coil Chain

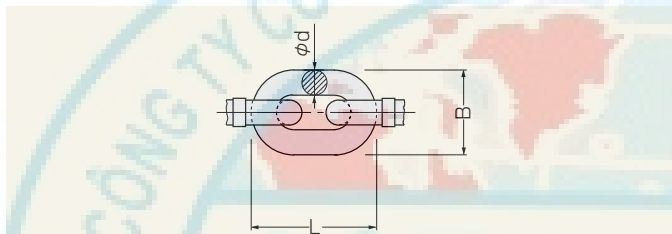
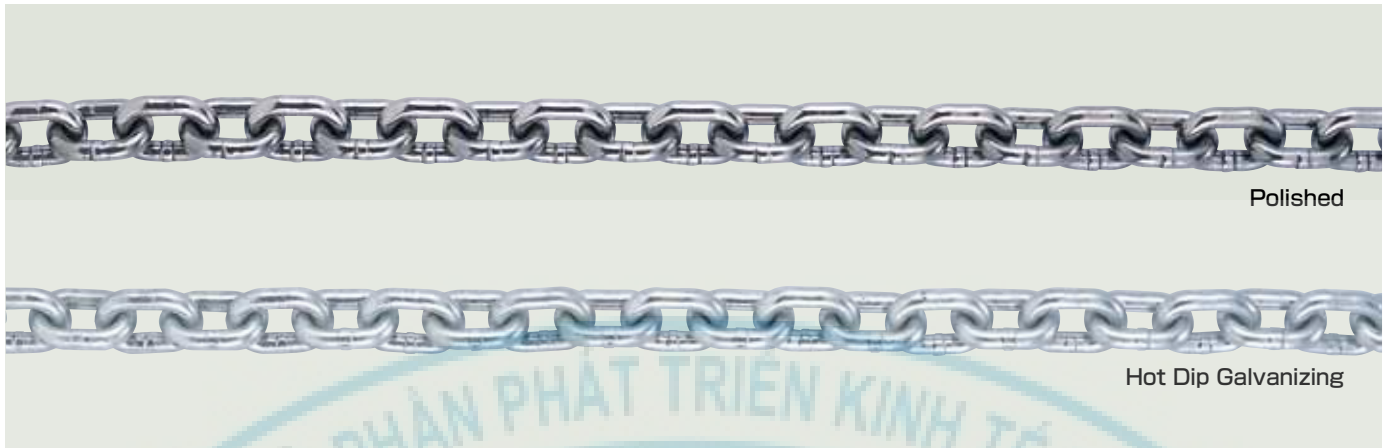
* ASTM A413-80



Standardized Size Code	Developed Diameter	Wire Diameter d	Outside Length L	Outside Breadth B	Inside Diameter (Reference)	Working Load		Bearing Test Load (kN)	Price
						(kN)	(t)		
A015	3/16"	5.6	35.5	21.1	24.3	3.43	0.35	7.4	
A020	1/4"	7.2	39.9	25.5	25.5	5.88	0.60	12.3	
A025	5/16"	8.8	45.0	31.5	27.4	8.82	0.90	18.6	
A030	3/8"	10.2	49.9	34.5	29.5	12.25	1.25	25.9	
A040	1/2"	13.3	65.2	47.2	38.6	20.58	2.10	44.0	

* Please make a reference separately about other size than those above.

Short Link Chain JIS F 2106-1995



■Material the first type (SWRM6, SWRM8, SWM-B, SS400)

■Material the second type (SBC50)

■The first type short chain

Developed Diameter d	Polished			Hot Dip Galvanizing			Reference Cut Length (m)
	Standardized Size Code	Weight (kg)	Price	Standardized Size Code	Weight (kg)	Price	
6	A06	50		D06	52		64.1
8	A08	75		D08	78		54.3
9	A09	75		D09	78		42.9
11	A11	75		D11	78		27.0
13	A13	90		D13	93		25.0

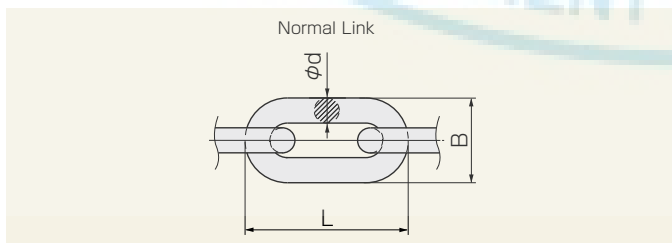
*Please make a reference about a size over 16mm of wire diameter

Developed Diameter d	L (mm)	B (mm)	Working Load (kN)		Bearing Test Load (kN)		Calculated Weight (kg/m)
			The First type	The Second type	The First type	The Second type	
6	30	21	2.6		6.7		0.78
8	40	28	4.7		11.8		1.38
9	45	32	6.0		14.9		1.75
11	55	39	8.9		22.3		2.61
13	65	46	12.4	15.2	31.2	38.0	3.64
16	80	56	18.8	23.1	47.2	57.5	5.51
19	95	67	26.7	32.6	66.6	81.1	7.77
22	110	77	35.7	43.7	89.2	108.7	10.41
25	125	88	46.1	56.4	115.2	140.4	13.44
28	140	98	57.9	70.7	144.6	176.1	16.86
30	150	105	66.4	81.2	165.9	202.1	19.35
32	160	112	75.5	92.4	188.8	230.0	22.02
34	170	119	85.2	104.3	213.1	259.6	24.86
36	180	126	95.5	116.9	238.9	291.0	27.87
38	190	133	106.5	130.3	266.2	324.3	31.05
40	200	140	118.0	144.4	295.0	359.3	34.40
42	210	147	130.0	159.2	325.2	396.1	37.93
44	220	154	142.8	174.7	357.0	434.8	41.63
46	230	161	156.0	190.9	390.1	475.2	45.50
48	240	168	169.9	207.9	424.8	517.4	49.54
50	250	175	184.4	225.6	460.9	561.4	53.75

7

Chain

Long Link Chain JIS F 2106-1995



■Material the first type (SWRM6, SWRM8, SWM-B, SS400)

■Material the second type (SBC50)

Developed Diameter d	L (mm)	B (mm)	Working Load (kN)		Bearing Test Load (kN)		Calculated Weight (kg/m)
			The First type	The Second type	The First type	The Second type	
6	36	21	2.6		6.7		0.71
8	48	28	4.7		11.8		1.25
9	54	32	6.0		14.9		1.58
11	66	39	8.9		22.3		2.36
13	78	46	12.4	15.2	31.2	38.0	3.30
16	96	56	18.8	23.1	47.2	57.5	5.00
19	114	67	26.7	32.6	66.6	81.1	7.04
22	132	77	35.7	43.7	89.2	108.7	9.44
25	150	88	46.1	56.4	115.2	140.4	12.19
28	168	98	57.9	70.7	144.6	176.1	15.29
30	180	105	66.4	81.2	165.9	202.1	17.55
32	192	112	75.5	92.4	188.8	230.0	19.97
34	204	119	85.2	104.3	213.1	259.6	22.55
36	216	126	95.5	116.9	238.9	291.0	25.28
38	228	133	106.5	130.3	266.2	324.3	28.16
40	240	140	118.0	144.4	295.0	359.3	31.20
42	252	147	130.0	159.2	325.2	396.1	34.40
44	264	154	142.8	174.7	357.0	434.8	37.76
46	276	161	156.0	190.9	390.1	475.2	41.27
48	288	168	169.9	207.9	424.8	517.4	44.93
50	300	175	184.4	225.6	460.9	561.4	48.75

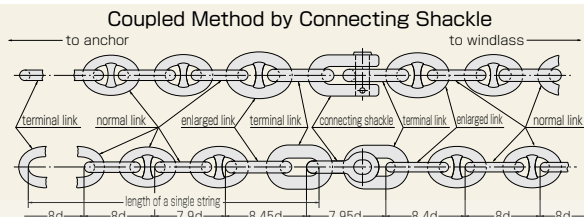
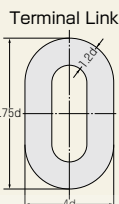
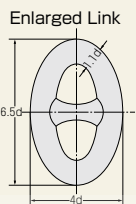
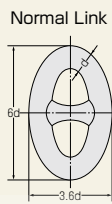
73



Anchor Chain

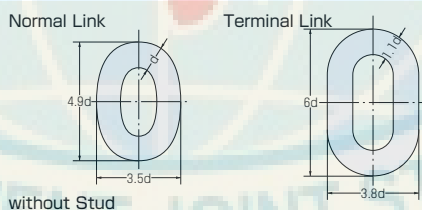
Classified code **03301** (The First type), **03302** (The Second type), **03304** (The Third type)

Anchor Chain (Flash Bat Weld Anchor Chain) JIS F3303-1993



Developed Diameter d	Chain with Stud										Chain without Stud				
	Outside Length Standard 6d	Outside Breadth Standard 3.6d	The First type		The Second type		The Third type		Number of Links of 25m Including ES	Weight (kg/25m)	Outside Length Standard 4.9d	Outside Breadth Standard 3.5d	Breaking Test Load (kN)	Breaking Test Load (kN)	Weight (kg/25m)
			Breaking Test Load (kN)	Breaking Test Load (kN)	Breaking Test Load (kN)	Breaking Test Load (kN)	Breaking Test Load (kN)	Breaking Test Load (kN)							
16	96	57.6	107	76	150	107	216	150	389	140.2	78.4	56.0	95	47	139.0
17.5	105	63.0	127	89	179	127	256	179	357	167.7	85.8	61.3	113	57	166.5
19	114	68.4	150	105	211	150	301	211	327	197.7	93.1	66.5	133	67	196.1
20.5	123	73.8	175	123	244	175	349	244	305	230.1	100.5	71.8	155	78	228.5
22	132	79.2	200	140	280	200	401	280	283	265.0	107.8	77.0	178	89	263.0
24	144	86.4	237	167	332	237	476	332	259	315.3	117.6	84.0	213	107	313.0
26	156	93.6	278	194	389	278	556	389	239	370.0	127.4	91.0	250	125	368.0
28	168	100.8	321	225	449	321	642	449	223	429.3	137.2	98.0	290	145	427.0
30	180	108.0	368	257	514	368	735	514	207	492.8	147.2	105.0	332	174	490.0
32	192	115.2	417	291	583	417	833	583	195	560.8	156.8	112.0	379	189	557.0
34	204	122.4			655	468	937	655	183	633.0	166.6	119.0	428	214	629.0
36	216	129.6			732	523	1050	732	173	709.5	176.4	126.0	480	239	705.0
38	228	136.8			812	581	1160	812	163	790.5	186.2	133.0	533	267	786.0
40	240	144.0			896	640	1280	896	155	876.0	196.0	140.0	591	296	870.0
42	252	151.2			981	703	1400	981	148	965.8	205.9	147.0	652	327	960.0
44	264	158.4			1080	769	1540	1080	141	1060.0	215.6	154.0	716	358	1050.0
46	276	165.6			1170	837	1680	1170	135	1159.0	225.4	161.0	783	391	1150.0
48	288	172.8			1270	908	1810	1270	129	1261.5	235.2	168.0	852	426	1250.0
50	300	180.0			1370	981	1960	1370	123	1368.8	245.0	175.0	925	462	1360.0
52	312	187.2			1480	1060	2110	1480	119	1480.5					
54	324	194.4			1590	1140	2270	1590	115	1596.5					
56	336	201.6			1710	1220	2430	1710	111	1717.0					
58	348	208.8			1810	1290	2600	1810	107	1841.8					
60	360	216.0			1940	1380	2770	1940	103	1971.0					

* 1kN is about 0.102tf.



The length of a single string chain is 25m or 27.5m.

The First type (SS400·S20C)
The Second type (SBC490)
The Third type (SBC690)

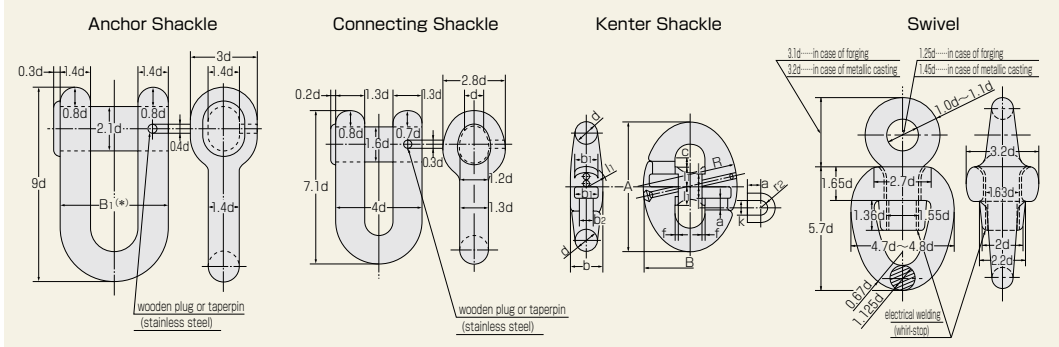


Calculating Formula of Test Load

Chain Quality	Breaking Test Load (N)	Bearing Test Load (N)
The First type Chain	$9.81d^2$ (44-0.08d)	$6.87d^2$ (44-0.08d)
The Second type Chain	$13.7 d^2$ (44-0.08d)	$9.81d^2$ (44-0.08d)
The Third type Chain	$19.6 d^2$ (44-0.08d)	$13.7 d^2$ (44-0.08d)

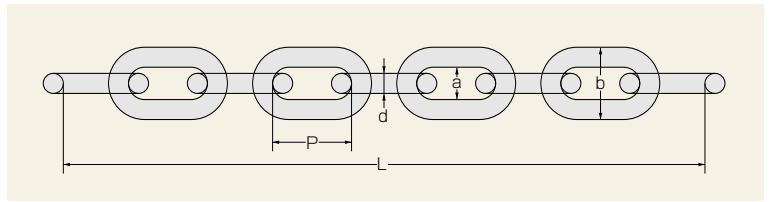
Allowable Tolerance of Various Link's Diameter (unit : mm)

Developed Diameter d	Allowable Tolerance	
	minus	plus
40以下	-1.0	
40~84	-2.0	a bigger one of
84~122	-3.0	5% or 1.5mm
122以上	-4.0	





Powerful Conveyor Chain



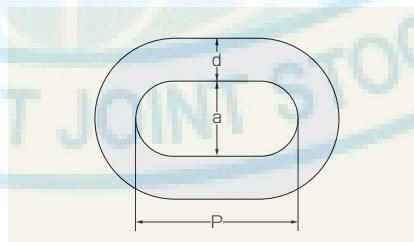
■ Size Standard Chart

Type	Wire Diameter d (mm)	Pitch P (mm)	Inside Width a (mm)	Outside Length b (mm)	Whole Length L (mm)			Weight kg/m
					Number of Link	Standard Size	Weight (kg)	
H-1143	11	43	12.5	36.5	13	559	1.31	2.34
H-1450	14	50	17	48	15	750	2.96	3.95
H-1655	16	55	18.5	52	15	825	4.29	5.21
H-1864	18	64	21	61	15	960	6.65	6.93
H-1964	19	64	21	63	15	960	7.07	7.36
H-2064	20	64	23	67	15	960	8.03	8.37
H-2272	22	72	26	75	13	936	9.42	10.1
H-2286	22	86	26	75	11	946	8.89	9.4
H-2486	24	86	28	79	11	946	10.9	11.5
H-2590	25	90	30	82	11	990	12.4	12.5

■ Strength Standard Chart

Grade Type	JIS B Class		JIS iso C Class		iso D Class	
	Test Load (kN)	Breaking Load (kN)	Test Load (kN)	Breaking Load (kN)	Test Load (kN)	Breaking Load (kN)
H-1143	98.0	137.2	117.6	147.0	147.0	186.2
H-1450	156.8	225.4	196.0	245.0	235.2	294.0
H-1655	205.8	294.0	254.8	313.6	313.6	392.0
H-1864	264.6	372.4	323.4	401.8	401.8	499.8
H-1964	294.0	411.6	352.8	441.0	441.0	558.6
H-2064	323.4	460.6	392.0	490.0	490.0	617.4
H-2272	392.0	558.6	480.2	597.8	597.8	744.8
H-2286	392.0	558.6	480.2	597.8	597.8	744.8
H-2486	470.4	666.4	568.4	705.6	705.6	882.0
H-2590	509.6	715.4	607.6	764.4	754.6	940.8

Lifting Magnet Chain



■ Main Link LMO

Developed Diameter d	Pitch P (mm)	Inside Width a (mm)	Working Load (kN)	Bearing Load (kN)	Breaking Load (kN)	Weight per Link (kg)
16	100	55	9.8	19.6	245.0	0.5
19	120	65	19.6	39.2	352.8	0.8
22	140	70	29.4	58.8	490.0	1.3
28	160	90	49.0	98.0	735.0	2.5
32	180	110	78.4	156.8	882.0	3.7
38	200	125	98.0	196.0	1127.0	5.9
44	220	150	147.0	294.0	1372.0	8.4
50	250	175	196.0	392.0	1764.0	13.2
55	290	190	245.0	490.0	2009.0	18.2
60	350	210	294.0	588.0	2450.0	25.0
70	370	230	392.0	784.0	3332.0	36.8
80	400	250	490.0	980.0	4410.0	52.7
90	450	280	588.0	1176.0	5292.0	75.9
100	500	300	686.0	1372.0	6468.0	102.0



FORMWORK MEMBER



Formwork Member



Separator

Classified code 093A1 · 093A2

B type Separator (W5/16/W3/8)



for Both Sides Exposed (P Cone is Sold Separately)



Standardized Size Code	Length	5/16 093A1 (093B1)			3/8 093A2 (093B2)		
		Weight (g)	Number	Case Price	Weight (g)	Number	Case Price
B0100	100	21	100		30	50	
B0120	120	27	100		39	50	
B0150	150	36	100		51	50	
B0180	180	45	100		63	50	
B0200	200	51	100		71	50	
B0250	250	66	100		92	50	
B0300	300	80	100		113	50	
B0350	350	95	100		134	50	
B0400	400	110	100		154	50	
B0450	450	124	100		175	50	
B0500	500	139	100		196	50	
B0550	550	154	50		217	50	
B0600	600	168	50		237	50	
B0650	650	183	50		258	50	
B0700	700	198	50		279	50	
B0750	750	213	50		299	50	
B0800	800	227	50		320	50	
B0850	850	242	50		341	50	
B0900	900	257	50		361	50	
B0950	950	271	50		382	50	
B1000	1000	286	50		403	50	

Classified code 093A1 · 093A2

8 C type Separator (W5/16/W3/8)



for Both Sides Finishing (Both Plate Nut is Separated)



Standardized Size Code	Length	5/16 093A1 (093B1)			3/8 093A2 (093B2)		
		Weight (g)	Number	Case Price	Weight (g)	Number	Case Price
C0100	100	57	100		75	50	
C0120	120	63	100		83	50	
C0150	150	72	100		95	50	
C0180	180	81	100		107	50	
C0200	200	87	100		116	50	
C0250	250	101	100		136	50	
C0300	300	116	100		157	50	
C0350	350	131	100		177	50	
C0400	400	145	100		198	50	
C0450	450	160	100		218	50	
C0500	500	175	100		239	50	
C0550	550	190	50		259	50	
C0600	600	204	50		280	50	
C0650	650	219	50		300	50	
C0700	700	234	50		321	50	
C0750	750	248	50		341	50	
C0800	800	263	50		362	50	
C0850	850	278	50		382	50	
C0900	900	292	50		403	50	
C0950	950	307	50		423	50	
C1000	1000	322	50		444	50	

BC type Separator (W5/16/W3/8)



for One Side Exposed • One Side Finishing
(Plate Nut is Separated • P Cone is Sold Separately)



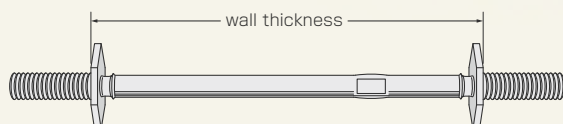
Standardized Size Code	Length	5/16 093A1 (093B1)			3/8 093A2 (093B2)		
		Weight (g)	Number	Case Price	Weight (g)	Number	Case Price
BC0100	100	39	100		53	50	
BC0120	120	45	100		61	50	
BC0150	150	54	100		73	50	
BC0180	180	63	100		85	50	
BC0200	200	69	100		94	50	
BC0250	250	83	100		114	50	
BC0300	300	98	100		135	50	
BC0350	350	113	100		155	50	
BC0400	400	128	100		176	50	
BC0450	450	142	100		196	50	
BC0500	500	157	100		217	50	
BC0550	550	172	50		237	50	
BC0600	600	187	50		258	50	
BC0650	650	201	50		278	50	
BC0700	700	216	50		299	50	
BC0750	750	230	50		319	50	
BC0800	800	245	50		340	50	
BC0850	850	260	50		359	50	
BC0900	900	275	50		381	50	
BC0950	950	289	50		401	50	
BC1000	1000	304	50		422	50	

Classified code 093A1

F type Separator (W5/16)



for Both Sides Finishing (Both Plate Nut Set Item of C type Sepa)



Standardized Size Code	Length	5/16 093A1 (093B1)		
		Weight (g)	Number	Case Price
F0100	100	57	400	
F0120	120	63	300	
F0150	150	72	250	
F0180	180	81	250	
F0200	200	87	250	
F0250	250	101	200	
F0300	300	116	200	
F0350	350	131	150	
F0400	400	145	150	
F0450	450	160	150	
F0500	500	175	150	

Classified code 093A8

Plate Nut

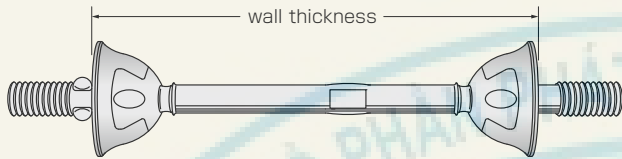
Standardized Size Code	Size	Number	Case Price
25	5/16	200×10	
30	3/8	200×10	



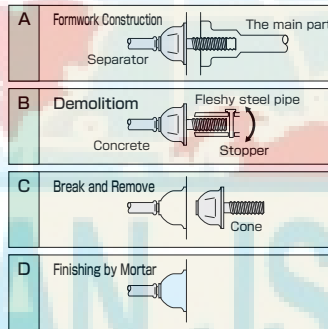
KCP type Separator (Cup Separator · W5/16)



for Both Sides Exposed (Both Cup Sepa)



- It is a cheap separator because it doesn't need a plastic cone.
- It is easy to manage and doesn't need to connect and withdraw because it doesn't need a plastic cone. Therefore it is very efficient and saving and economical.
- It doesn't need to separate with old type, B type, C type, D type. It is very convenience and economical.
- After removing a formwork, it is easy to remove a screw part and cup of separator. There is no left-over cut and operating efficiency is improved.
- It is easy to mortar application and there is no abrasion and dropping on cup hole.
- Old plastic cone gather rust from screw part after removing. However projection of screw part doesn't left on this type. Therefore it can be skipped mortar application.



5/16 093A1				
Standardized Size Code	Length	Weight(g)	Number	Case Price
P0100	100	56	250	
P0120	120	62	250	
P0150	150	71	250	
P0180	180	80	250	
P0200	200	86	250	
P0250	250	101	250	
P0300	300	116	200	
P0350	350	131	200	
P0400	400	146	150	
P0450	450	161	150	
P0500	500	176	150	
P0550	550	189	50	
P0600	600	204	50	
P0650	650	218	50	
P0700	700	233	50	
P0750	750	248	50	
P0800	800	263	50	
P0850	850	277	50	
P0900	900	292	50	
P0950	950	307	50	
P1000	1000	322	50	

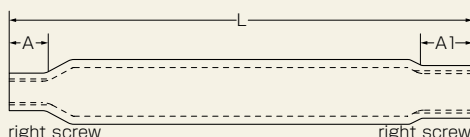
KCP Sepa (in a case) PAT.®



- Length 100~300 50×4boxes
- Length 350~500 50×1box

Standardized Size Code	Length	Weight(g)	Number	Case Price
SP0100	100	56	200	
SP0120	120	62	200	
SP0150	150	71	200	
SP0180	180	80	200	
SP0200	200	86	200	
SP0250	250	101	200	
SP0300	300	116	200	
SP0350	350	131	50	
SP0400	400	146	50	
SP0450	450	161	50	
SP0500	500	176	50	

Sepa Adjustment Turnbuckle



*A screw is right screw and right screw.

Standardized Size Code	Size	L	A	A1	Least Breaking Load (kN)	Weight (kg)	Number	Price
08075	5/16×5/16× 75	75	10.5	10.5	19.6	0.04	350	
0809075	5/16× 3/8× 75	75	10.5	12.0	19.6	0.05	350	
09075	3/8× 3/8× 75	75	12.0	12.0	31.1	0.05	350	
08120	5/16× 5/16×120	120	10.5	10.5	19.6	0.07	250	
0809120	5/16× 3/8×120	120	10.5	12.0	19.6	0.08	250	
09120	3/8× 3/8×120	120	12.0	12.0	31.1	0.08	250	
0912150	3/8× 1/2×150	150	12.0	18.0	31.1	0.12	120	
12150	1/2× 1/2×150	150	18.0	18.0	45.4	0.12	120	
12200	1/2× 1/2×200	200	18.0	18.0	45.4	0.17	100	

Separator for Civil

1/2" D Separator

Classified code 093A3



* Make-to-order item

1/2					
Standardized Size Code	Length	Price	Standardized Size Code	Length	Price
0100	100		0550	550	
0120	120		0600	600	
0150	150		0650	650	
0180	180		0700	700	
0200	200		0750	750	
0250	250		0800	800	
0300	300		0850	850	
0350	350		0900	900	
0400	400		0950	950	
0450	450		1000	1000	
0500	500				

5/8" E Separator

Classified code 093A4



* Make-to-order item

5/8					
Standardized Size Code	Length	Price	Standardized Size Code	Length	Price
0200	200		0650	650	
0250	250		0700	700	
0300	300		0750	750	
0350	350		0800	800	
0400	400		0850	850	
0450	450		0900	900	
0500	500		0950	950	
0550	550		1000	1000	
0600	600				

Stat Separator (for weld)

Classified code 093A2 · 093A3 · 093A4



Please specify the size (wall thickness · L · l1)

Size	3/8 (code: 093A2)				1/2 (code: 093A3)		5/8 (code: 093A4)	
	B type		C type		B type		B type	
	Standardized Size Code	Price	Standardized Size Code	Price	Standardized Size Code	Price	Standardized Size Code	Price
100	STB0100				STB0100			
120	STB0120				STB0120			
150	STB0150		STC0150		STB0150		STB0150	
200	STB0200		STC0200		STB0200		STB0200	
250	STB0250		STC0250		STB0250		STB0250	
300	STB0300		STC0300		STB0300		STB0300	

Anchor Separator

* Make-to-order item

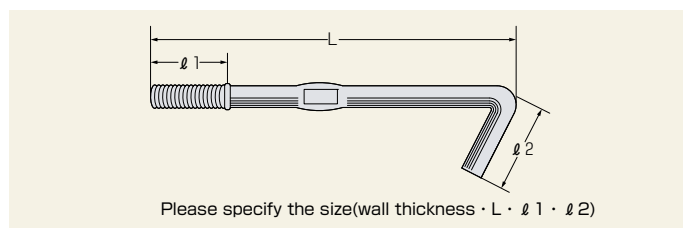
Classified code 093A2 · 093A3 · 093A4



Size	3/8 (code: 093A2)		1/2 (code: 093A3)		5/8 (code: 093A4)	
	Standardized Size Code	Price	Standardized Size Code	Price	Standardized Size Code	Price
80						
100			AN0100			
120						
150			AN0150			
200			AN0200			

Hook Separator

* Make-to-order item



Please specify the size (wall thickness · L · l1 · l2)



Wedge type form tai and backing plate K-II

Classified code **091A2**

Wedge type Form Tie



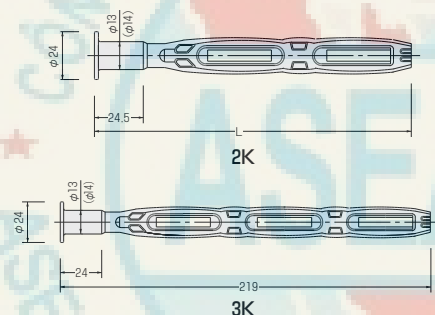
2KM (for 48.6 round pipe)



2K-60 (for 60 angle pipe)



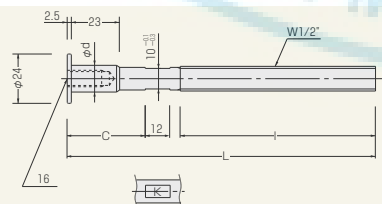
3K-60 (for 60 angle pipe)



Standardized Size Code	Size	Type	L	Number	Price
012KM	5/16	2KM	138	200	
012K60	5/16	2K-60	159	200	
013K60	5/16	3K-60	219	150	
022KM	3/8	2KM	138	200	
022K60	3/8	2K-60	159	200	
023K60	3/8	3K-60	219	150	

Classified code **091A2**

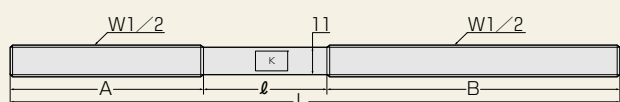
Screw type Form Tie (Nut is Separated)



Standardized Size Code	Size D	L	Length of Screw ℓ	Number	Price
04150	5/16	150	95	200	
04180	5/16	180	125	100	
04210	5/16	210	130	100	
04250	5/16	250	145	100	
05150	3/8	150	95	200	
05180	3/8	180	125	100	
05210	3/8	210	130	100	
05250	3/8	250	145	100	

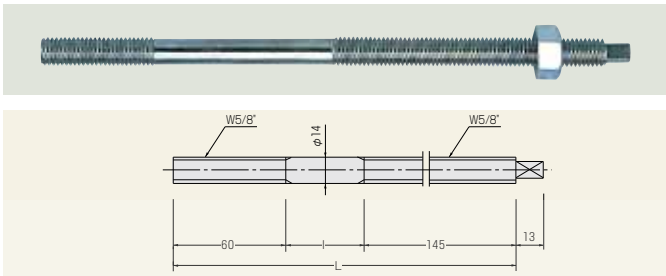
Classified code **091A2**

D type Form Tie (W1/2 Nut is Separated)



Standardized Size Code	size L	Length of Screw A	Length of Screw B	Number	Price
03210	D-210	60	120	100	
03250	D-250	85	120	100	
03300	D-300	85	145	100	
03360	D-360	85	145	100	

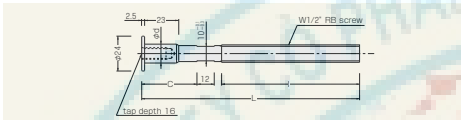
E type Form Tie (W5/8 Nut is Separated)



Standardized Size Code	Size L	Length of Screw A	Length of Screw B	Number	Price
08250	E-250	60	145	50	
08300	E-300	60	145	50	
08350	E-350	60	145	50	
08400	E-400	60	145	50	
08450	E-450	60	145	50	
08500	E-500	60	145	50	

RB Thread Form Tie

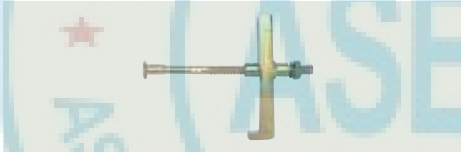
RB Thread Form Tie(Nut is Separated)



RB Thread Form Tie(with Single Cover)

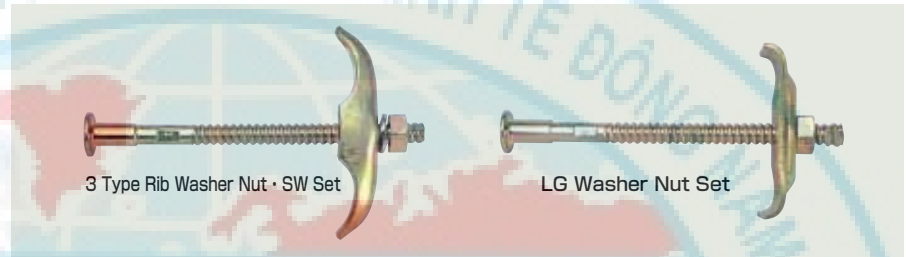


RB Thread Form Tie(T Washer · with SW)



Standardized Size Code	Size	Number	Price
0RB4210TW	5/16	30	
0RB5210TW	3/8	30	

RB Thread Form Tie(Clip Plate Set)



●RB Thread Form Tie

Size	L	RB Thread Form Tie			Rib Washer Nut Set			Rib Washer Nut · with SW		
		Standardized Size Code	Number	Price	Standardized Size Code	Number	Price	Standardized Size Code	Number	Price
5/16	150	0RB4150	200		0RB4150S	100		0RB4150SW	100	
5/16	180	0RB4180	100		0RB4180S	100		0RB4180SW	100	
5/16	210	0RB4210	100		0RB4210S	100		0RB4210SW	100	
5/16	250	0RB4250	100		0RB4250S	100		0RB4250SW	25	
3/8	150	0RB5150	200		0RB5150S	100		0RB5150SW	100	
3/8	180	0RB5180	100		0RB5180S	100		0RB5180SW	100	
3/8	210	0RB5210	100		0RB5210S	100		0RB5210SW	100	
3/8	250	0RB5250	100		0RB5250S	100		0RB5250SW	25	



Backing Plate

Classified code 091A2

Backing Plate



K- I for 60 Angle Pipe



Standardized Size Code	Type	Weight(kg)	Number	Price
06K1	K- I	0.329	50	



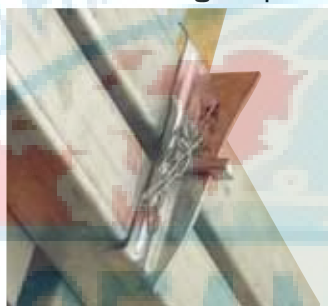
K-II for 60 Angle Pipe



Standardized Size Code	Type	Weight(kg)	Number	Price
06K2	K- II	0.370	50	



K-W for 60 Angle Pipe



Standardized Size Code	Type	Weight(kg)	Number	Price
06KW	K-W	0.238	100	



K-PW for 48.6 Round Pipe



Standardized Size Code	Type	Weight(kg)	Number	Price
06KPW	K-PW	0.255	100	

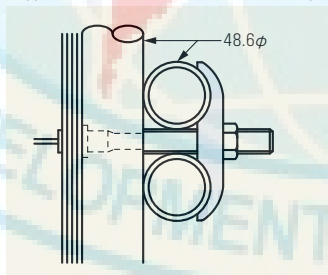
8

Rib Washer

Classified code 091A2



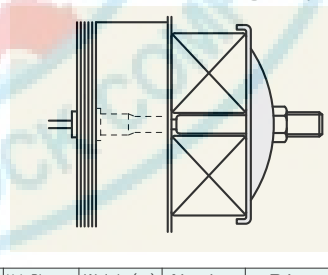
3type Rib Washer for 48.6 Round Pipe



Standardized Size Code	Type	Weight(kg)	Number	Price
09	3type rib clip plate	0.075	200	



Flat Rib Washer 60 Angle Pipe



Standardized Size Code	Size	Hole Diameter	Weight(kg)	Number	Price
11040	1/2	15	0.22	100	
11050	5/8	18	0.61	40	

Classified code 091A2

Slab Catcher



SS type for 60 Angle Pipe(One Point Holding)



Standardized Size Code	Type	Weight(kg)	Number	Price
07SS	SS	0.130	100	



SW type for 60 Angle Pipe(Two Points Holding)

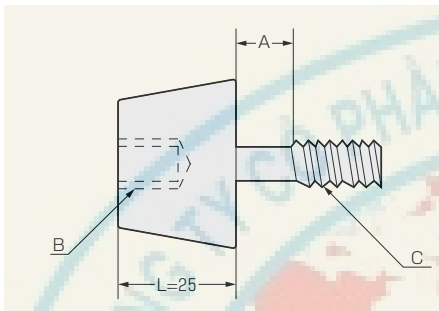


Standardized Size Code	Type	Weight(kg)	Number	Price
07SW	SW	0.420	50	



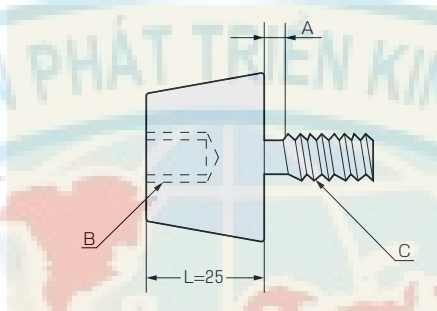
Plastic Cone

for Plywood



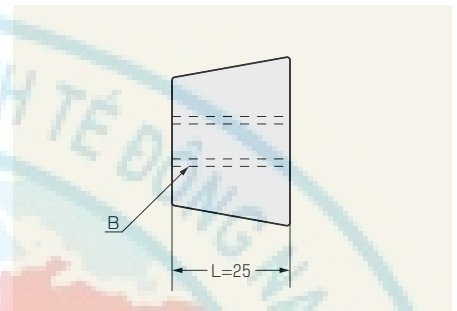
Standardized Size Code	Size A×B×C	Number	Price
01128	12×8×8	500	
01129	12×9×9	500	

for Metal Form



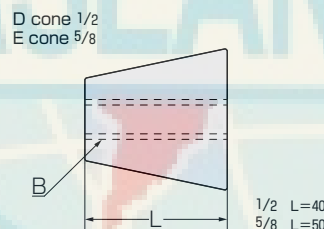
Standardized Size Code	Size A×B×C	Number	Price
03M8	M×8×8	500	
03M9	M×9×9	500	

for Beam



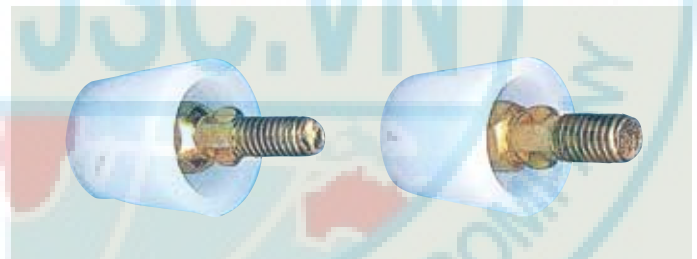
Standardized Size Code	Size B	Number	Price
04025	8 (5/16)	500	
04030	9 (3/8)	500	

for Civil



Standardized Size Code	Size B	Number	Price
05040	1/2	200	
05050	5/8	100	

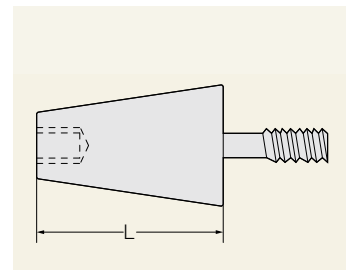
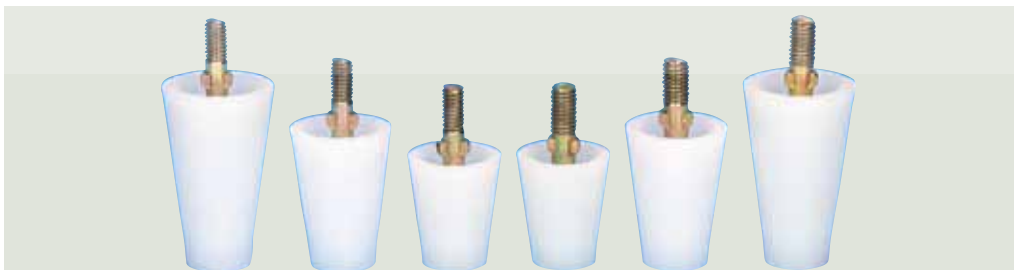
Vaned P Cone



Standardized Size Code	Size	Number	Price
01128H	12×8×8	500	
01129H	12×9×9	500	

P Cone for Provision Against Salt Damage

For provision against salt damage to concrete construct near coast I line, increasing a covering rebar and reducing salt penetration.



Use	Size	Covering Depth 35				Covering Depth 50				Covering Depth 70			
		Standardized Size Code	L	Number	Price	Standardized Size Code	L	Number	Price	Standardized Size Code	L	Number	Price
Plywood 12mm	12×8×8	01128050	50	200		01128065	65	150		01128085	85	80	
	12×9×9	01129050		200		01129065		150		01129085		80	
Metal form	M×8×8	03M8050	50	200		03M8065	65	150		03M8085	85	80	
	M×9×9	03M9050		200		03M9065		150		03M9085		80	
for Civil	1/2	05040055	55	150		05040070	70	100		05040090	90	70	



Various Cones

Classified code 09203

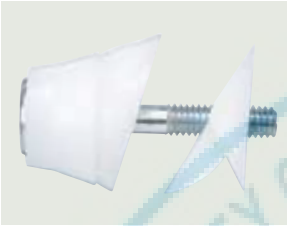
Various Cones

Taper Cone



Grade	Applied Formwork Thickness (mm)	Color	Number	for Plywood(W5/16)		for Plywood(W3/8)	
				Standardized Size Code	Price	Standardized Size Code	Price
(6°)	11~14	indigo	250	0612801		0712901	
(11°)	11~14	brown	250	0612802		0712902	
(17°)	11~14	white	250	0612803		0712903	
(22°)	11~14	green	250	0612804		0712904	
(27°)	11~14	yellow	250	0612805		0712905	
(31°)	11~14	Light blue	250	0612806		0712906	
(35°)	11~13	red	250	0612807		0712907	
(45°)	11~14	light green	200	0612845		0712945	

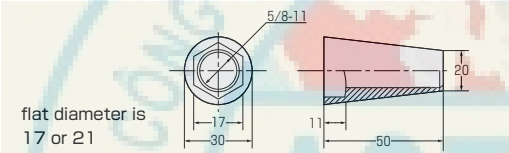
Universal Cap Cone



Standardized Size Code	Size	Number	Price
10128	12×8 plywood	250	
10129	12×9 plywood	250	
10M8	M×8 metal	250	
10M9	M×9 metal	250	

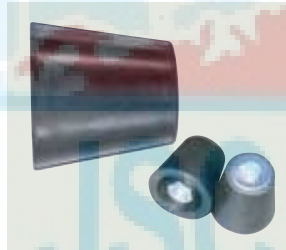
Grade	Applied Formwork Thickness (mm)	Color	Number	for Metal(W5/16)		for Metal(W3/8)	
				Standardized Size Code	Price	Standardized Size Code	Price
(6°)	2~5	indigo	250	08M801		09M901	
(11°)	2~5	brown	250	08M802		09M902	
(17°)	2~5	white	250	08M803		09M903	
(22°)	2~5	green	250	08M804		09M904	
(27°)	2~5	yellow	250	08M805		09M905	
(31°)	2~5	Light blue	250	08M806		09M906	
(35°)	2~4	red	250	08M807		09M907	
(45°)	2~4	light green	200	08M845		09M945	

Iron Cone(Chromate Coating 5/8)



standardized size code	Size	Number	Price
	W5/8	250	

Rubber Cone

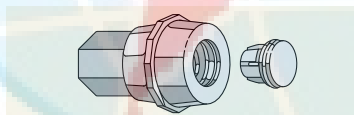
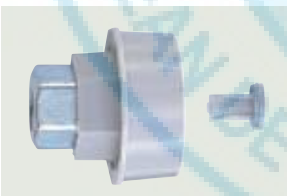


standardized size code	Size	Number	Price
	W5/8	100	

Classified code 092KC

Classified code 092MI

Kondo Cone(Embedded Water Shutoff Cone)



Standardized Size Code	Type	Size	number	Price
25	KC-25	5/16	500	
30	KC-30	3/8	500	
40	KC-40	1/2	500	
50	KC-50	5/8	200	
60	KC-60	3/4	100	

Salient of resin cap is fitted snugly, and perfectly keeping water shutoff effect with adhesion of resin. No need to extraction of cone and mortar conduct after driving.

Cap

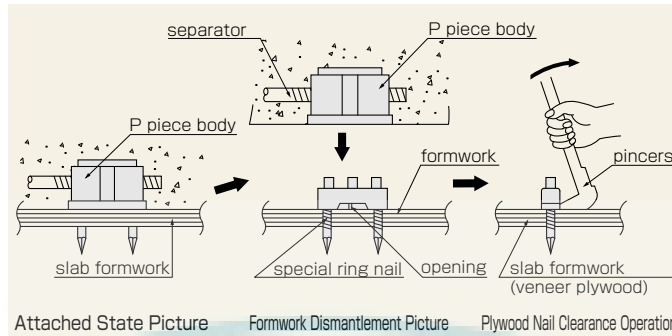


Standardized Size Code	Type	Size	Number	Price
ACC30	ACC-30	5/16 · 3/8	500	
ACC40	ACC-40	1/2	500	
ACC50	ACC-50	5/8	200	
ACC60	ACC-60	3/4	100	



Classified code 09201

P Piece with Nail

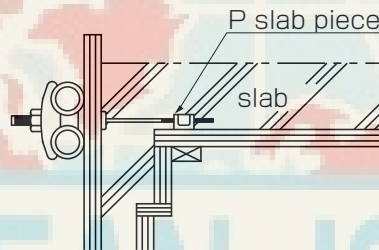


- Easy to nail disposal under a ceiling.
- It is special ring nail.
- It is an easy-removing nail base.

Standardized Size Code	Size	Number	Price
28	W5/16	500	

Classified code 09201

P Slab Piece

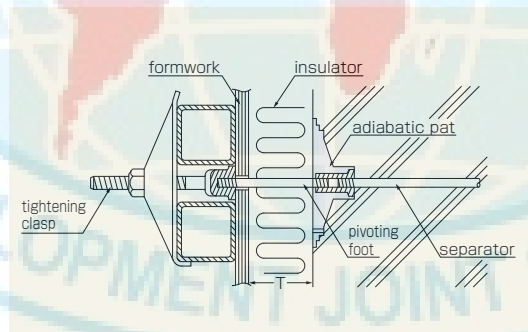


- It is very good for exposed type because of built-in nut.
- It is easy to cleaning up nails because of using poly nail.

Standardized Size Code	Size	Number	Price
02025	W5/16	500	
02030	W3/8	500	

Classified code 09201

Adiabatic Pat

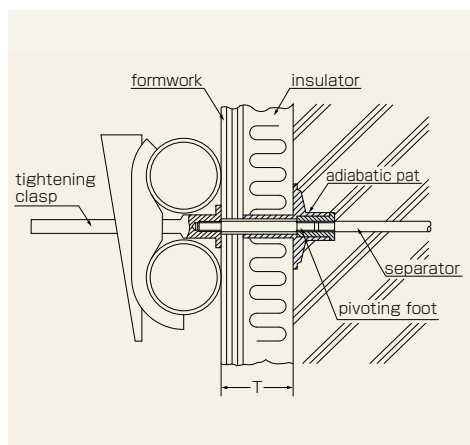


- It is very good for the insulator's simultaneous driving method.

Standardized Size Code	Size	Number	Price
0902550	W5/16×50	500	
0902580	W5/16×80	250	
0903080	W3/8×80	250	

Classified code 09201

Adiabatic Pat S type



- There is no dangerous of too much fastening because there is the same thickness tube with insulator.
- Nail pin is set up on a flange part. Therefore there is stopping round effect when it is attached and desorption abatement effect.
- After attached and removed a pivoting foot, it become a beautiful doneness with only driving a plug.

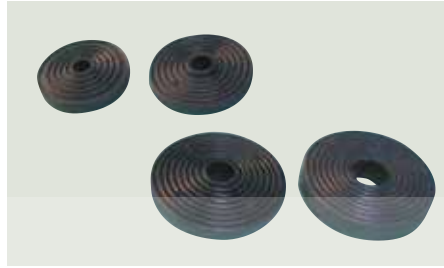
Standardized Size Code	Part Number	Size	Thickness of Insulator	Number	Price
09S15	S 15	W5/16	15	500	
09S20	S 20	W5/16	20	500	
09S25	S 25	W5/16	25	500	
09S30	S 30	W5/16	30	500	
09S38	S 38	W5/16	38	250	
09S40	S 40	W5/16	40	250	
09S50	S 50	W5/16	50	250	



Rubber Ring

Classified code 09201

Rubber Ring

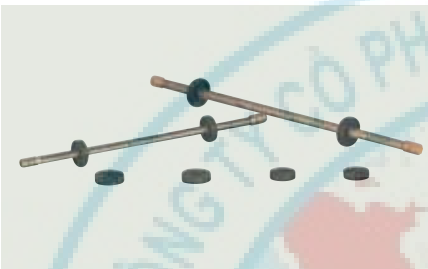


- Use for prevention of water leak of round separator part.

Standardized Size Code	Size	Number	Price
08025	W5/16	2000	
08030	W3/8	1000	
08040	W1/2	500	
08050	W5/8	500	

Classified code 09201

Water Expanding Rubber Ring



- It is very good to stopping water which pass a round separator as an aqueduct.
- After flooding, it doesn't expand soon. Expansion rate is within twice.
- It is an elastic rubber material and has strong force to be a original form after flooding.

Standardized Size Code	Size	Number	Price
08025U	W5/16	5000	
08030U	W3/8	5000	



Classified code 09207

Polybata Catcher



- It is lightweight because it is made of plastic.
- It is possible to use a poly screw to 2 screw holes.

Standardized Size Code	Size	Number	Price
01080	H 80	100	
01090	H 90	100	
01100	H100	100	
01110	H110	100	
01120	H120	100	
01130	H130	100	
01140	H140	100	
01150	H150	100	
01160	H160	100	
01170	H170	100	
01180	H180	100	
01190	H190	100	
01200	H200	100	
01210	H210	100	
01220	H220	100	
01230	H230	100	
01240	H240	100	
01250	H250	100	
	H270	100	
01300	H300	100	

Classified code 09201

Poly Base



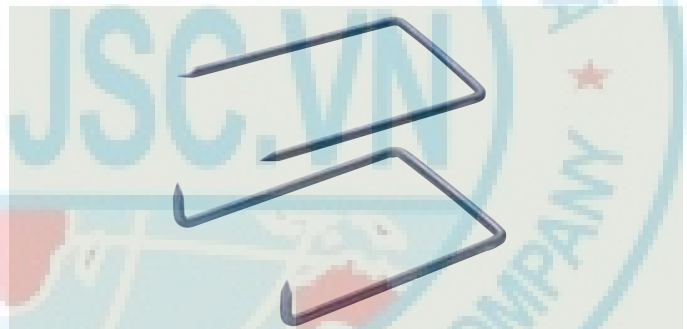
- Made of plastic.
- Possible to use a poly screw.

Standardized Size Code	Size	use	Number	Price
	6.9	for polybata catching for floor poly anchor	1500	
	7.5		1500	
	8.0		2000	
	8.3	for 3 line	1500	
	9.3	plated through hole for inverted poly anchor	1500	

Classified code 09201

Batakas

- For 60 angle steel pipe bata temporary joint.
- There are 2 types, straight type and curve type.

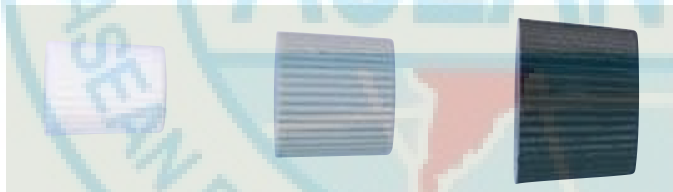


Standardized Size Code	Item	Number	Price
251	straight	500	
252	curve	500	

Classified code 09201

Concrete Panel Plug

- Sepa filling a gap plug of plywood formwork.



Standardized Size Code	Size	Number	Price
07A	extra large 18×20	500	
07B	large 15×16	1000	
07C	medium 12×13	2000	
07D	small 9×10	3000	

Classified code 09201

H joint

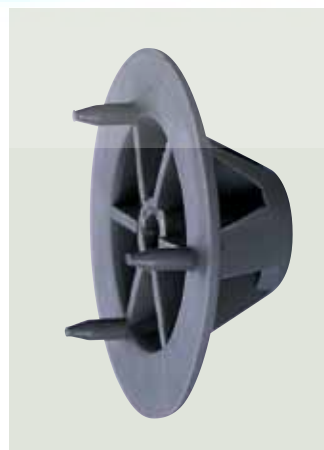
- Joint for 12mm thick plywood formwork.



Standardized Size Code	Item	Number	Price
17	H joint	1000	

Classified code 09201

Adiabatic Arte



- Simultaneous stamped insulator anchor.
- Efficient stamping of screw because 3 claw pin is fitted to insulator.
- There is no damage to insulator when a formwork dismantlement.

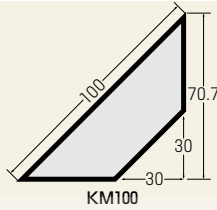
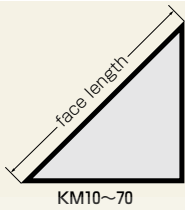
Standardized Size Code	Item	Number	Price
	adiabatic arte	2000	



Chamfering Strip / Cutwater

Classified code 092TY

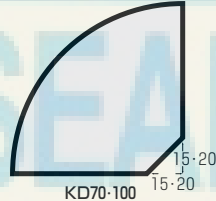
Triangular Chamfering Strip (scale 2m)



Part Number (Standardized Size Code)	Face Length	Number	Price
KM-10	10	500	
KM-15	15	300	
KM-20	20	200	
KM-25	25	100	
KM-30	30	100	
KM-35	35	50	
KM-40	40	50	
KM-45	45	50	
KM-50	50	50	
KM-60	60	30	
KM-70	70	20	
KM-100	100	12	

Classified code 092TY

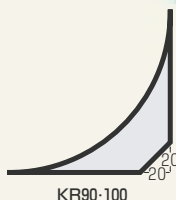
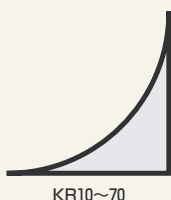
D Chamfering Strip (scale 2m)



Part Number (Standardized Size Code)	Chamfer R	Isosceles	Number	Price
KD-20	20	20	50	
KD-25	25	25	50	
KD-30	30	30	40	
KD-40	40	40	30	
KD-50	50	50	20	
KD-70	70	70	10	
KD-100	100	100	4	

Classified code 092TY

R Chamfering Strip / U Chamfering Strip (scale 2m)

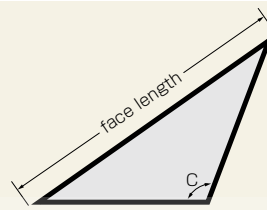


Part Number (Standardized Size Code)	Chamfer R	Isosceles	Number	Price
KR-10	10	10	400	
KR-15	15	15	200	
KR-20	20	18	100	
KR-25	25	25	100	
KR-30	30	29	50	
KR-35	35	35	50	
KR-50	50	50	25	
KR-70	70	70	12	
KR-90	90	90	8	
KR-100	100	100	6	

Part Number (Standardized Size Code)	Chamfer R	Isosceles	Number	Price
KU-18	18	21	100	
KU-25	25	30	50	

Classified code 092TY

Grade Chamfering Strip (scale 2m)



Part Number (Standardized Size Code)	Face Length	Grade	C	Number	Price
KM-220	20	2分	101°	100	
KM-230	30	2分	101°	100	
KM-250	50	2分	101°	50	
KM-320	20	3分	106°	100	
KM-330	30	3分	106°	100	
KM-350	50	3分	106°	50	
KM-520	20	5分	116°	100	
KM-530	30	5分	116°	100	
KM-550	50	5分	116°	50	

Classified code 092TY

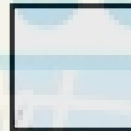
Cutwater / Angle Cutwater (scale 2m)



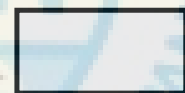
KC unilateral taper (L)



KC both taper (A)



KS (square)



KS (rectangle)

Part Number (Standardized Size Code)	Bottom	Height	Upper Base	Number	Price
KC-10L/A	9	6	7	500	
KC-11L/A	12	9	9	200	
KC-12L/A	15	9	12	200	
KC-13L/A	10	10	7	300	
KC-14L/A	15	12	12	200	
KC-15L/A	20	12	14	100	
KC-16L/A	15	20	10	100	

The end of part number L : unilateral taper A : both taper

Part Number (Standardized Size Code)	Bottom	Height	Number	Price
KS-10	10	10	200	
KS-15	15	15	100	
KS-20	20	20	100	
KS-25	25	25	50	
KS-30	30	30	40	
KS-40	40	40	20	

Part Number (Standardized Size Code)	Bttom	Height	Number	Price
KL-152	20	15	100	
KL-153	30	15	50	
KL-203	30	20	50	
KL-204	40	20	40	



Classified code 092TY

Joint Strip



unilateral taper (L)



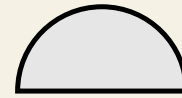
both taper (A)

Part Number (Standardized Size Code)	Bottom	Height	Upper Base	Number	Price
KT-10L/A	15	10	10	200	
KT-11L	20	10	10	200	
KT-12A	20	10	12	100	
KT-13L/A	20	10	15	100	
KT-14L/A	25	10	20	100	
KT-15L	15	12	8	200	
KT-16L	12	15	8	200	
KT-17L/A	15	15	10	100	
KT-18L/A	15	15	12	100	
KT-19A	20	15	12	100	
KT-20L/A	20	15	15	100	
KT-21L/A	25	15	15	100	
KT-22L/A	25	15	20	50	
KT-23L/A	30	15	20	50	
KT-24L/A	30	15	25	50	
KT-25A	35	15	20	50	
KT-26L/A	20	20	15	50	
KT-27L/A	25	20	20	50	
KT-28L/A	30	20	20	50	
KT-29L/A	30	20	25	50	
KT-30L/A	35	20	25	50	
KT-31L/A	40	20	35	40	
KT-32L	25	25	8	50	
KT-32A	25	25	10	50	
KT-33L/A	25	25	20	50	
KT-34L/A	30	25	20	50	
KT-35L/A	30	25	25	50	
KT-36L/A	40	25	25	40	
KT-37L/A	40	25	30	40	
KT-38L/A	25	30	19	50	
KT-39L/A	40	30	30	40	
KT-40L/A	30	30	25	40	
KT-41L/A	50	30	40	20	
KT-42L/A	70	30	60	15	
KT-43L/A	30	30	20	40	
KT-44L	100	30	95	10	
KT-44A	100	30	90	10	
KT-45L/A	50	20	40	40	
KT-46L/A	60	30	50	20	
KT-48L/A	50	40	30	20	
KT-50L	30	50	20	30	
KT-50A	30	50	15	30	
KT-51L	50	50	40	15	
KT-51A	50	50	30	15	

- It is a homogeneous material and has no grain directional character. So there is no breaking by driving a screw. (it doesn't need to making a hole, so be able to drive a screw without fearing)
- Accuracy of dimension is good and there is no dispersion of dimensional material.(edge is sharp, so there is a sense of reassurance for construction)
- Surface is very flat, so there is few adhesion of concrete. (finish is very beautiful)
- There is no hygroscopicity, so there is no hygroscopical expansion and dry shrinkage.(no need to worry for twist and wind)
- Because this is low formed concrete, it is light and has texture like a wood(it is easy to cut by saw and be able to used as the same with wood)
- It is good for removing concrete, so growing in workability.(it is few breaking and easy.)

Classified code 092TY

Semicircular Joint Strip



Part Number (Standardized Size Code)	Bottom	R	Number	Price
KQ-10	20	10	100	
KQ-15	30	15	50	
KQ-20	40	20	50	

Classified code 092TY

Parent-child Joint Strip



KX-07A



KX-08L



KX-10A



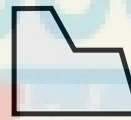
KX-11A



KX-12L



KX-13A



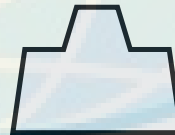
KX-14L



KX-15A



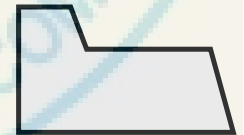
KX-16L



KX-17A



KX-18L



KX-19L



KX-20A



KX-21L



KX-22A

Part Number (Standardized Size Code)	Bottom	Height	Upper Base	Number	Price
KX-07A	20	25	5	50	
KX-08L	20	25	5	50	
KX-10A	20	30	7	50	
KX-11A	25	25	7	50	
KX-12L	25	25	8	50	
KX-13A	30	25	7	50	
KX-14L	30	25	8	50	
KX-15A	30	30	8	40	
KX-16L	30	30	8	50	
KX-17A	40	30	10	40	
KX-18L	40	30	10	40	
KX-19L	50	30	12	30	
KX-20A	50	30	12	30	
KX-21L	30	40	9	40	
KX-22A	30	40	7	40	



Classified code 09202

Koshikake (Tower type • for Upper Bar)



- Made from plastic
- Good for exposed slab
- Be able to ward off a under bar

Standardized Size Code	Size	Color	Number	Price
03070	H70-80	gray	400	
03090	H90-100	gray	250	
03110	H110-120	gray	200	
03130	H130-140	gray	150	
03150	H150-160	white	150	

Classified code 09202

Poly dice (for Under Bar)



- Made from plastic
- A sink stopping plate and a spacer is becoming one.
- With projection of slip stopper
- Be able to use with koshikake, and be able to use a upper and under bar at the same site.

Standardized Size Code	Item	Size	Number	Price
	for Under Bar	H30-40	300	

Classified code 09202

Poly Dice (for Under Bar)



- Made from plastic
- Good for exposed slab

Standardized Size Code	Size	Number	Price
0220	H20	2500	
0225	H25	1200	
0230	H30	1000	
023040	H30-40	800	
405060	40×50×60	400	

- Made from plastic
- Good for exposed slab



Standardized Size Code	Item	Size	Number	Price
0550	for basic	H50-60	300	

- Made from plastic
- Good for exposed slab



Standardized Size Code	Item	Size	Number	Price
708090100	for Basic	70×80×90×100	120	

Classified code 09202

Concrete Dice



Over compressive strength 40N/mm²

Concrete Dice • Dual Purpose

Standardized Size Code	Size	Number	Price
04304050	30×40×50	150	
04405060	40×50×60	50	
04506070	50×60×70	40	
04607080	60×70×80	30	
04708010	70×80×100	10	
04709010	90×100×100	10	

Concrete Dice

standardized size code	Size	Number	Price
0480120	80×80×110×120	8	
0480130	80×80×130×140	8	
0480150	80×80×150×160	6	
0480160	80×80×170×180	6	
0480170	100×100×110×120	6	
04100120	100×100×130×140	6	
04100150	100×100×150×160	6	
04100180	100×100×170×180	4	
04100200	100×100×190×200	4	

Classified code 09202

AS Spacer A type

Over compressive strength 70N/mm²(GRC)



Standardized Size Code	Size	Number	Price
09A2530	A2530	600	
09A3035	A3035	400	
09A3540	A3540	300	
09A4050	A4050	200	
09A5060	A5060	150	
09A6070	A6070	100	
09A8910	A8910	50	
09A1230	A1230	10	
09A1415	A1415	10	

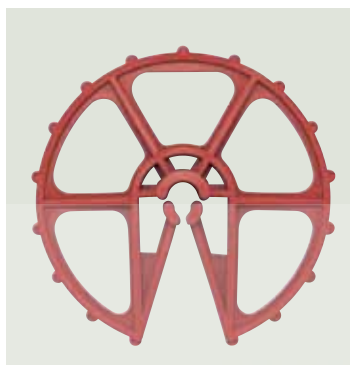
AS Spacer B type

Please choose A type or B type depend on the end result



Standardized Size Code	Size	Number	Price
09B20	AB20	700	
09B3035	B3035	400	
09B3540	B3540	300	
09B5055	B5055	150	
09B6070	B6070	80	
09B7080	B7080	50	
09B9010	B9010	40	

Poly Doughnut



Thickness of Overburden	D10			D13			D16		
	Standardized Size Code	Number	Price	Standardized Size Code	Number	Price	Standardized Size Code	Number	Price
30	081030	750		081330	700				
40	081040	400		081340	400		081640	350	
50	081050	300		081350	250		081650	200	
60	081060	200		081360	200		081660	150	
75	081075	80		081375	80		081675	80	
95	081095	50		081395	50		081695	50	
Thickness of Overburden	D19			D22					
	Standardized Size Code	Number	Price	Standardized Size Code	Number	Price			
30									
40									
50	081950	200		082250	200				
60	081960	150		082260	150				
75	081975	80		082275	80				
95	081995	50		082295	50				



SCAFFOLDING MATERIALS



Scaffolding Materials



Scaffolding Chain



Recognition Passing



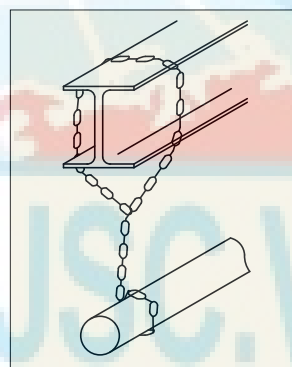
Certificate



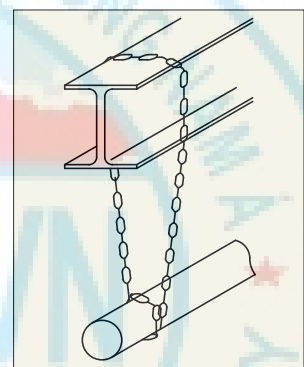
Approval Standard

- Breaking load
Hook · Chain·····17.6kN (1,800kgf)
- Endurance test standard
Hook · Chain·····7.8kN (800kgf)
- Allowable load
single···240kg
loop···430kg

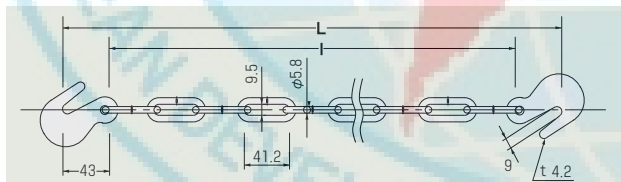
single



loop

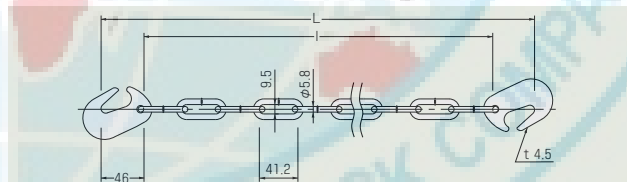


● Scaffolding Chain K type



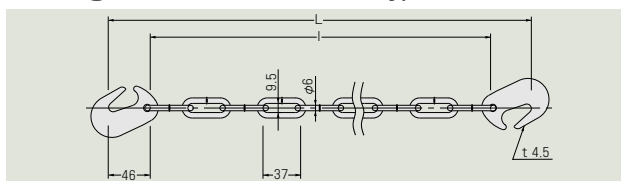
Length(m)	Links	l (mm)	L (mm)
2	47	1936	2022
2.5	59	2431	2517
3	71	2925	3011
3.5	83	3420	3506
4	95	3914	4000
4.5	107	4408	4494
5	119	4903	4989
5.5	131	5397	5484
6	143	5892	5978

● RAKURAKU Chain KS type



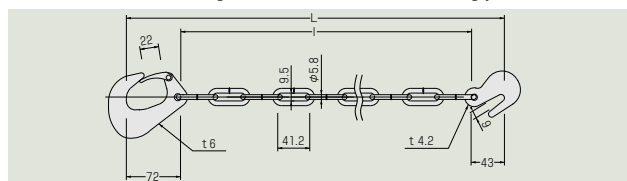
Length(m)	Links	l (mm)	L (mm)
2	47	1936	2028
2.5	59	2431	2523
3	71	2925	3017
3.5	83	3420	3512
4	95	3914	4006
4.5	107	4408	4500
5	119	4903	4995
5.5	131	5397	5489
6	143	5892	5978

● Strong RAKURAKU Chain KKS type



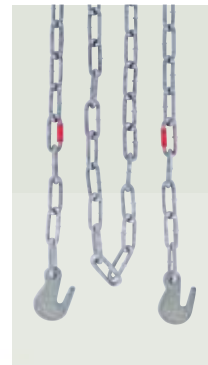
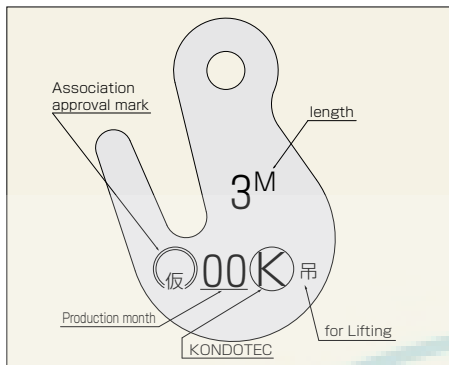
Length(m)	Links	l (mm)	L (mm)
2	51	1887	1979
2.5	65	2405	2479
3	79	2923	3015
3.5	93	3441	3533
4	105	3885	3977
5	133	4921	5013
6	159	5883	5975

● One Touch Safety Chain "SIZUKA" KO type



Length(m)	Links	l (mm)	L (mm)
1.5	35	1442	1557
2	47	1936	2051
2.5	59	2431	2546
3	71	2925	3040
3.5	83	3420	3535
4	95	3914	4029
4.5	107	4408	4523
5	119	4903	5018

● Scaffolding Chain K Type (Standard) · Safety Chain With Level Mark



● RAKURAKU Chain KS type · Strong RAKURAKU Chain KKS type

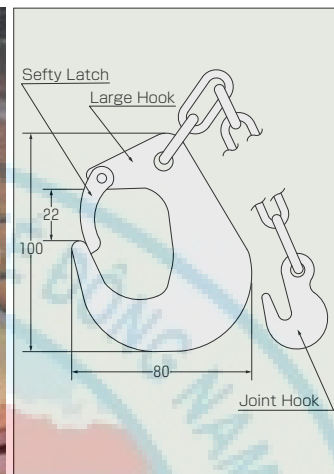


● One Touch Safety Chain "SIZUKA" KO type





One Touch Safety Chain "SIZUKA" PAT.®



Length (m)	number	Scaffolding Chain K Type (Classified Code 031A1)				Rakuraku Chain KS Type (Classified Code 031A2)				Strong Rakuraku Chain KKS Type (Classified Code 031A3)		One Touch Safety Chain KO Type (Classified Code 031A4)			
		Galvanized		Hot dipped galvanized		Yellow Zinc		Hot dipped galvanized		Hot dipped galvanized		Galvanized		Hot dipped galvanized	
		standardized size code	Price	standardized size code	Price	standardized size code	Price	standardized size code	Price	standardized size code	Price	standardized size code	Price	standardized size code	Price
2	20	U2		D2		U2		D2		D2		U2		D2	
2.5	15	U2S5		D2S5		U2S5		D2S5		-	-	U2S5		-	-
3	15	U3		D3		U3		D3		D3		U3		D3	
3.5	10	U3S5		D3S5		U3S5		D3S5		-	-	U3S5		-	-
4	10	U4		D4		U4		D4		D4		U4		D4	
4.5	10	U4S5		D4S5		-	-	-	-	-	-	-	-	-	-
5	10	U5		D5		U5		D5		D5		U5		-	-
6	8	U6		D6		U6		D6		-	-	-	-	-	-

Clamp for Safety Chain (KCM type) (PAT.P)

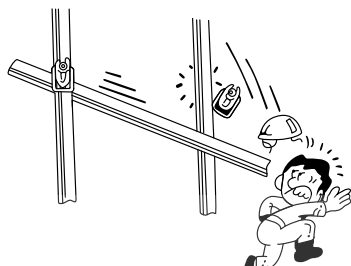


standardized size code	Weight(kg)	Number	Price
C3M	0.61	20	



Pipe Clamp

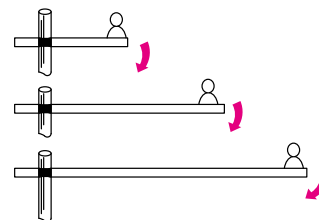
CAUTION FOR USE



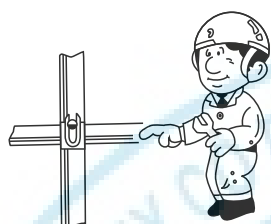
Please work by two people or more about assembly and the dismantlement of the work stand.
Work by one person is very dangerous.

Criterion for judgment of Permissible resistance power

permissible resistance power of approval clamp	
Right angl clamp	500kg
Swivel clamp	350kg



Please understand the performance of clamping enough and use it within the range of the performance.



It is the best to fasten the bolt of clamping by ratchet spanner (length : abt 15cm).
Please pay attention to how to fasten for preventing the bolt being destroyed.



Please do not throw out from a high place when you remove the work stand.



Please use the spanner when you remove clamping.

Classified Code 09101

Fixed Clamp



■FIXED $\phi 48.6 \times \phi 48.6$

Standardized Size Code	Type	Weight (kg)	Number	Price
011	FIXED	0.7	30	
*011HL	FIXED	0.64	30	

Classified Code 09101

Swivel Clamp



■FIXED $\phi 48.6 \cdot \phi 42.7$

Standardized Size Code	Type	Weight (kg)	Number	Price
031	FIXED	0.7	30	

Classified Code 09101

Triple Clamp



■FIXED $\phi 48.6 \times \phi 48.6 \times \phi 48.6$

Standardized Size Code	Type	Weight (kg)	Number	Price
041	FIXED	1.04	20	



■Swivel $\phi 48.6 \times \phi 48.6$

Standardized Size Code	Type	Weight (kg)	Number	Price
021	swivel	0.7	30	
*021HL	swivel	0.62	30	



■Swivel $\phi 48.6 \cdot \phi 42.7$

Standardized Size Code	Type	Weight (kg)	Number	Price
032	swivel	0.7	30	



■Swivel $\phi 48.6 \times \phi 48.6 \times \phi 48.6$

Standardized Size Code	Type	Weight (kg)	Number	Price
042	swivel	1.04	20	



Pipe Clamp

Classified Code 09101

Single Clamp



$\phi 48.6 \cdot \phi 42.7$

Standardized Size Code	Type	Weight (kg)	Number	Price
05	$\phi 48.6 \cdot \phi 42.7$	0.36	60	

Classified Code 09101

Clamp for Net



$\phi 48.6 \cdot \phi 42.7$

Standardized Size Code	Type	Weight (kg)	Number	Price
08	$\phi 48.6 \cdot \phi 42.7$	0.44	50	

Classified Code 09101

Sheet Clamp



$\phi 48.6 \cdot \phi 42.7$

Standardized Size Code	Type	Weight (kg)	Number	Price
17	$\phi 48.6 \cdot \phi 42.7$	0.4	50	

Classified Code 09101

Rafter Stop Clamp (FIXED)



$\phi 48.6 \cdot \phi 42.7$

Standardized Size Code	Type	Weight (kg)	Number	Price
06	FIXED/swivel	0.4	50	

Classified Code 09101

Rafter Stop Clamp (Swivel)



$\phi 48.6 \cdot \phi 42.7$

Standardized Size Code	Type	Weight (kg)	Number	Price
061	FIXED/swivel	0.4	50	

Classified Code 09101

Other Clamp



FIXED $\phi 60.5 \times \phi 48.6$



swivel $\phi 60.5 \times \phi 48.6$

Standardized Size Code	Type	Weight (kg)	Number	Price
291	FIXED	0.76	25	
292	swivel	0.75	25	

Classified Code 09101

Square Clamp



FIXED $\square 60 \times \square 60$



swivel $\square 60 \times \square 60$

Standardized Size Code	Type	Weight (kg)	Number	Price
262	FIXED	1.13	15	
261	swivel	1.07	20	

■ Square Clamp $\square 50 \times \square 50$

Standardized Size Code	Type	Weight (kg)	Number	Price
2761	FIXED	0.98	20	
2762	swivel	0.95	20	

Classified Code 09101

Square x Round Clamp



FIXED $\square 60 \times \phi 48.6$



swivel $\square 60 \times \phi 48.6$

Standardized Size Code	Type	Weight (kg)	Number	Price
271	FIXED	0.92	20	
272	swivel	0.92	20	

■ Square Round Clamp $\square 50 \times \phi 48.6$

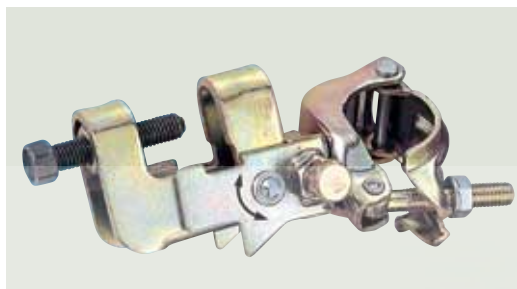
Standardized Size Code	Type	Weight (kg)	Number	Price
275	FIXED	0.84	25	
2751	swivel	0.84	25	



Clamp for Iron Framework

Classified Code **09101**

It is possible to use it easily by the operation with six functions.

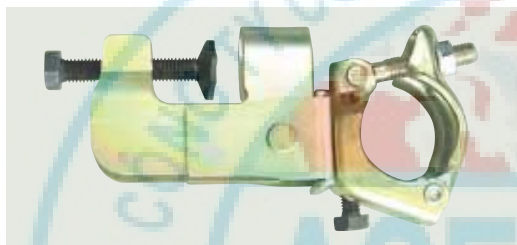


1. Vertical fixed
2. Vertical fixed
3. Vertical swivel
4. Horizontal fixed
5. Horizontal fixed

Standardized Size Code	Weight (kg)	Number	Price
32T	1.08	20	

Classified Code **09101**

Use for FIXED, SWIVEL, VERTICAL and Horizontal.



Standardized Size Code	Weight (kg)	Number	Price
32H	1.04	20	

H Beam Clamp

Classified Code 09101

Hold Clamp



Standardized Size Code	type	Weight (kg)	Number	Price
331HM	FIXED	0.98	20	
332HM	SWIVEL	0.94	20	

Classified Code 09101

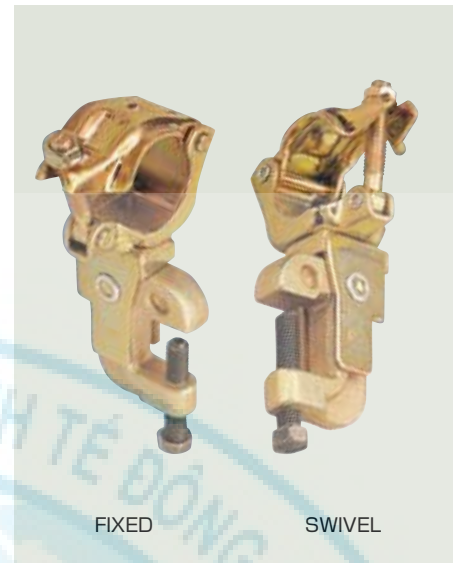
H Clamp



Standardized Size Code	type	Weight (kg)	Number	Price
331H	FIXED	1.00	15	
332H	SWIVEL	1.00	15	

Classified Code 091AR

H Clamper



Standardized Size Code	type	Weight (kg)	Number	Price
31	FIXED	1.00	20	
32	SWIVEL	1.00	20	

Classified Code 09101

Net Clamp

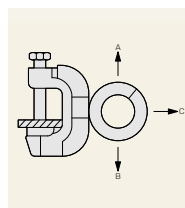


- Forged steel
- light-wight, compact

Standardized Size Code	Weight (kg)	Number	Price
38	0.63	30	

Classified Code 091AR

Net Clamp



■Date of Strength test

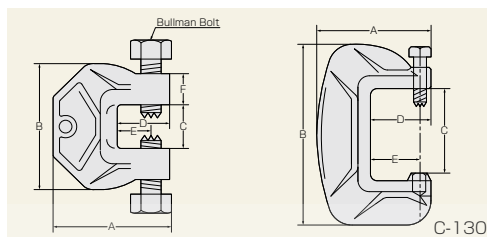
Course Load	Strength(kg)
A	980
B	910
C	780

Standardized Size Code	Weight (kg)	Number	Price
38	0.73	30	



Classified Code 091BR

C Type

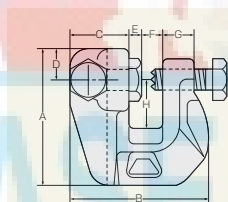


●To joint two steel plate.

Standardized Size Code	Model	Clamp Range	A	B	C	D	E	F	Thickness	Weight (kg)	W.L.L (t)	Bolt Size	Ratchet	Price
CS28	Cs-28	13-26	74	76	28	39	28	18	24	0.6	1	M12×35	19	
CS40	Cs-40	15-38	77	100	40	42	31	21	24	0.7	1	M12×40	19	
C50	C-50	12-48	126	144	50	56	37	35	38	3.1	8	M24×65	41	
C60	C-60	21-60	127	156	62	57	37	35	40	3.3	8	M24×65	41	
C70	C-70	30-70	192	208	72	100	80	35	40	6.5	8	M24×65	41	
C90	C-90	52-88	190	230	90	90	70	35	40	7.0	8	M24×65	41	
C130	C-130	110-135	185	290	136	100	80	-	40	7.9	8	M24×80	41	

Classified Code 091BR

LA Type



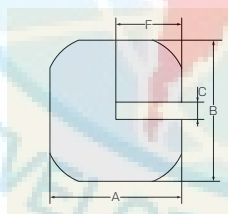
●To joint Angle Brace.

●W.L.L : 12t

Standardized Size Code		A	B	C	D	E	F	G	H	Weight (kg)	Ratchet	Price
LA	H300~400	140	153	69	30	12	24	34	50	4.9	41	

Classified Code 091BR

NT Type



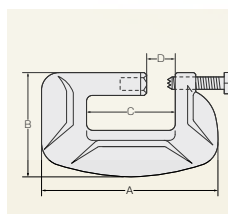
●For the horizontal joint

●W.L.L : 10t

Standardized Size Code		A	B	C	D	E	F	T	Weight (kg)	Ratchet	Price
NT	H300~400	200	223	26	90	43	100	12	6.4	41	

Classified Code 091BR

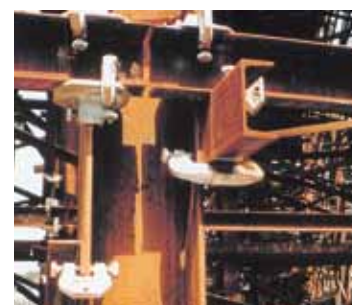
G Type



●Substitute one of C type.

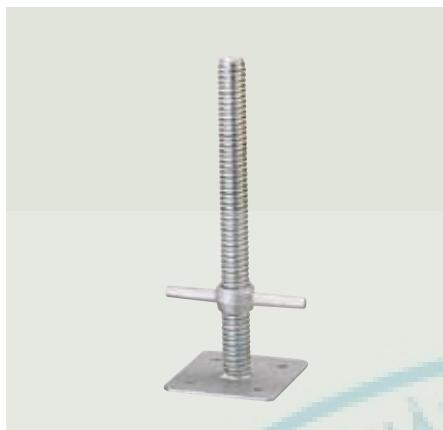
●W.L.L : 7t

Standardized Size Code		A	B	C	D	E	F	Weight (kg)	Ratchet	Price
G	L100×100 [380×100]	290	185	150	50	40	85	8.8	41	



Classified Code **09101**

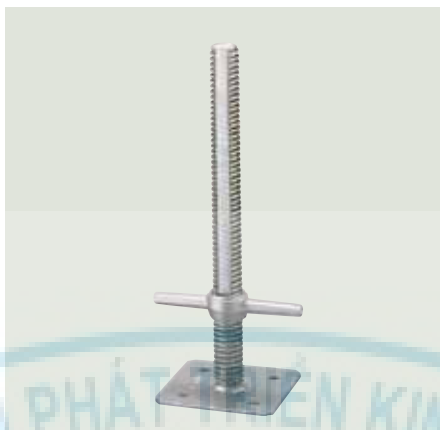
Jack Base



Standardized Size Code	Thread	H (mm)	Weight (kg)	Price
13	380L	φ 34	380	3.3
13L	600L	φ 34	600	4.7

Classified Code **09101**

Jack Base with Ditch



Standardized Size Code	Thread	H (mm)	Weight (kg)	Price
22	φ 34	400	3.3	
22L	φ 34	600	4.2	

Classified Code **09101**

Mini Jack Base



Standardized Size Code	Thread	H (mm)	Weight (kg)	Price
MJ280	φ 28	280	1.9	

Classified Code **09101**

SWIVEL Jack Base



Standardized Size Code	Thread	H (mm)	Weight (kg)	Price
13J	φ 34	400	3.8	
13JL	φ 34	600	4.8	

Classified Code **09101**

Jack Base Head



Standardized Size Code	Thread	H (mm)	Weight (kg)	Price
130	φ 34	400	4.8	
130L	φ 34	600	6.0	

Classified Code **09101**

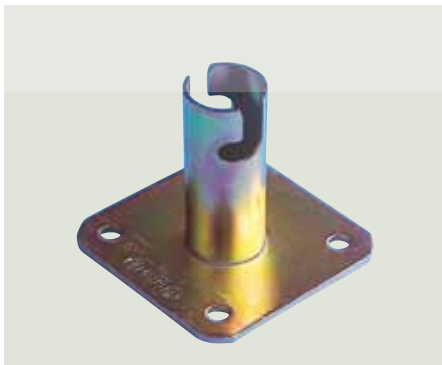
Stick Jack



Standardized Size Code	Thread	H (mm)	Weight (kg)	Price
13B	φ 34	730	4.3	

Classified Code **09101**

Base Plate



Standardized Size Code	Size	Weight (kg)	Price
14N	φ 48.6	0.66	
142	φ 42.7	0.85	

Classified Code **09101**

Base Head



Standardized Size Code	Weight (kg)	Price
39	2.5	

Classified Code **09101**

Coupling Pin



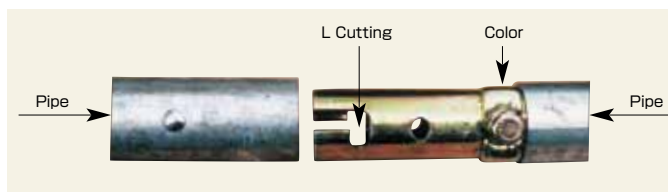
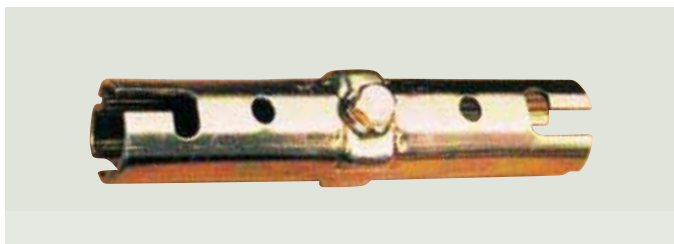
Standardized Size Code	Size	Weight (kg)	Price
11	φ 42.7	0.4	



A Variety of Joint

Classified Code 09101

"KONDO" Joint Pin PAT.P.



Standardized Size Code	Size	Weight (kg)	Number	Price
10K	φ48.6	0.68	30	

Classified Code 09101

Joint Pin



Standardized Size Code	Size	Weight (kg)	Number	Price
09	φ48.6	0.5	30	

Classified Code 09101

Bon Joint (C type Joint)



Standardized Size Code	Size	Weight (kg)	Number	Price
10	φ48.6	0.7	30	

Classified Code 09101

C type Joint (For Square Pipe)



Standardized Size Code	Size	Weight (kg)	Number	Price
10B50	50□	1.00	20	
10B60	60□	1.25	20	

Classified Code 09101



Standardized Size Code	Case Weight (kg)	Number	Price
41	26.4	1000	

Classified Code 09101



Standardized Size Code	Case Weight (kg)	Number	Price
31	12.0	1000	

Classified Code 09101



Standardized Size Code	Type	Number	Price
422	Spring	500	
421	Pin	500	

Classified Code 09121

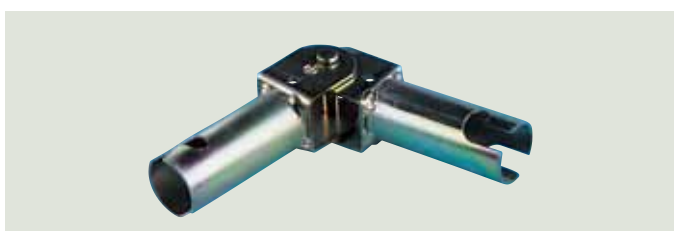
Safety Band



Standardized Size Code	Length	Number	Price
12	800	200	

Classified Code 09101

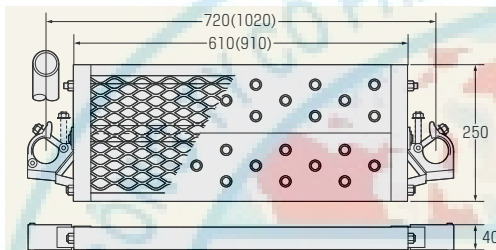
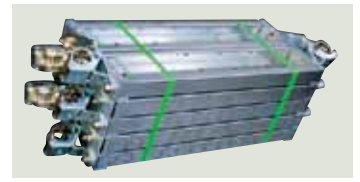
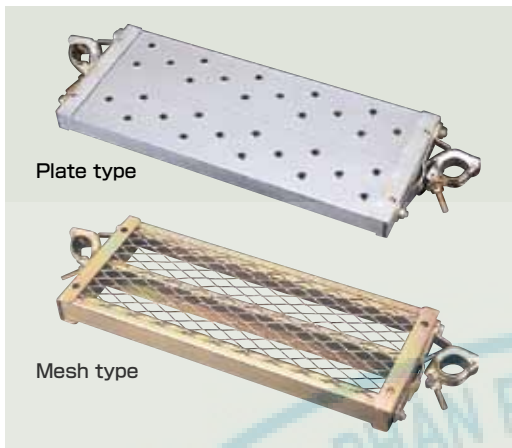
KT Corner Joint (For 48.6)



Standardized Size Code	Size	Weight (kg)	Number	Price
KTCJ	φ48.6	0.78	20	



"KONDO" Step



Standardized Size Code	Type	Plate (mm)	Clamp to Clamp (mm)	Weight (kg)	W.L.L (kg)	Price
K06	600P	250×610	720	3.9	150	
K09	900P	250×910	1020	4.8	150	
K06M	600M	250×610	720	4.5	150	

"KT" Pipe Step



Standardized Size Code		Weight(kg)	Number	Price
KTPS	Step for $\phi 48.6 \cdot \phi 42.7$	0.68	20	



Bracket

Classified Code 09101

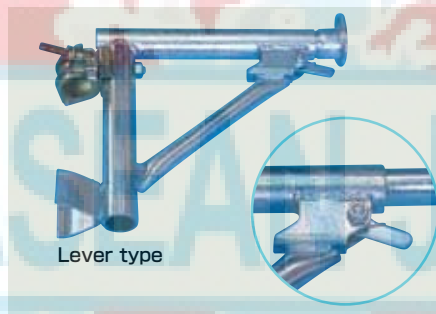
End Stopper C type PAT.® (600~1200mm Frame)



Standardized Size Code	Type	Weight (kg)	Price
51C	C Type	2.70	

Classified Code 09101

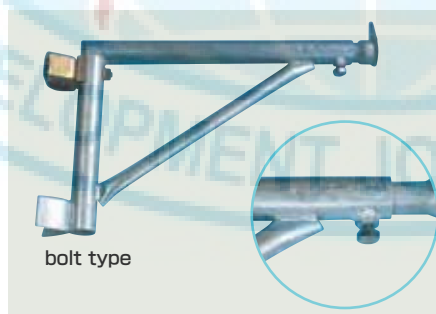
"KONDO" Bracket (lever type)



Standardized Size Code	Type	L (mm)	Weight (kg)	Number	Price
KB35	KB-35	330~530	3.3	6	
KB57	KB-57	530~730	4.2	4	
KB710	KB-710	730~1000	6.4	—	

Classified Code 09101

"KT" Bracket (Bolt type)



Standardized Size Code	Type	L (mm)	Weight (kg)	Number	Price
KTB50	KTB-500	300~500	3.4	6	
KTB75	KTB-750	500~750	4.3	4	
KTB100	KTB-1000	750~1000	7.0	—	

Classified Code 09101

Fold type Bracket



Standardized Size Code	Type	Length (mm)	Weight (kg)	Number	Price
073H	HTB-300	300	2.5	5	
073HOT	HTB-500	530	2.7	5	



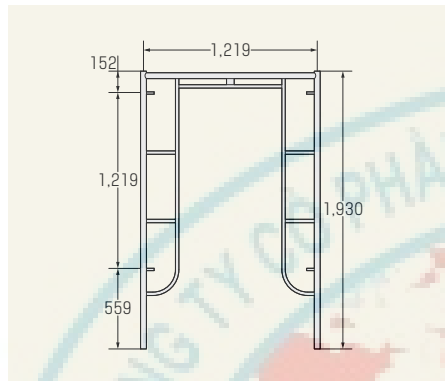
Scaffolding (inch size)

Please choose from abundant kinds

■Open End Frame P/G

Item	Conformity Cross Brace	Weight
A1219 FT1219D (A4064)	914 1209	21.0kg
	1,219 1212	
	1,524 1512	
	1,829 1812	

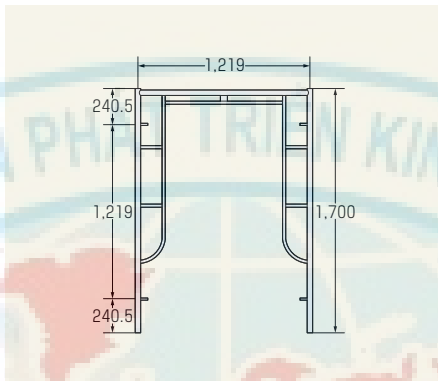
●Allowable load/4,500kg



■Open End Frame P/G

Item	Conformity Cross Brace	Weight
A1217B FT1217D (A4055B)	914 1209	15.6kg
	1,219 1212	
	1,524 1512	
	1,829 1812	

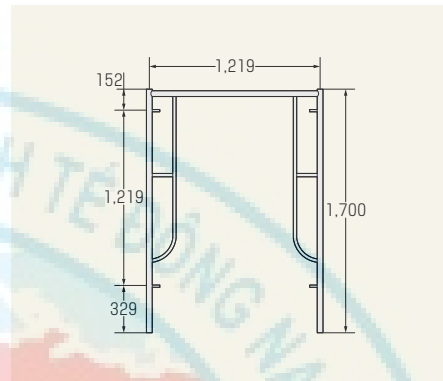
●Allowable load/5,000kg



■Open End Frame P/G

Item	Conformity Cross Brace	Weight
A1217A FT1217 (A4055A)	914 1209	14.4kg
	1,219 1212	
	1,524 1512	
	1,829 1812	

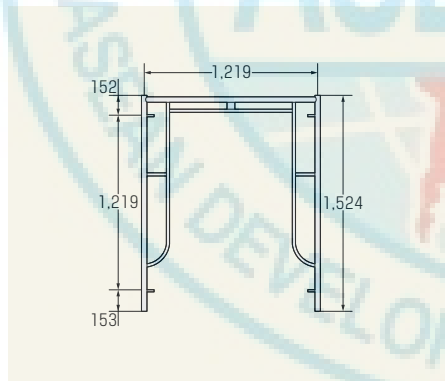
●Allowable load/5,000kg



■Open End Frame P/G

Item	Conformity Cross Brace	Weight
A1215 FT1215D (A405)	914 1209	13.5kg
	1,219 1212	
	1,524 1512	
	1,829 1812	

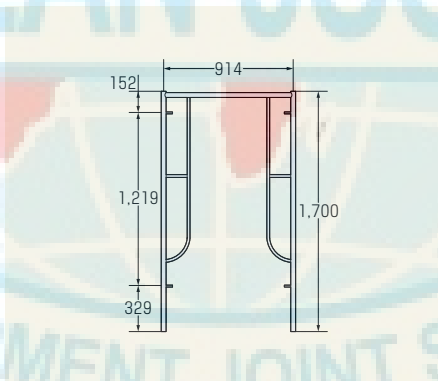
●Allowable load/5,000kg



■Open End Frame P/G

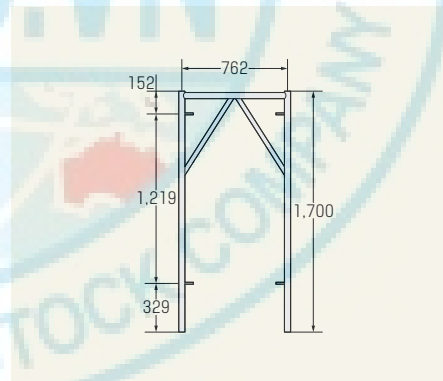
Item	Conformity Cross Brace	Weight
A917A FT917 (A3055A)	914 1209	13.7kg
	1,219 1212	
	1,524 1512	
	1,829 1812	

●Allowable load/5,000kg



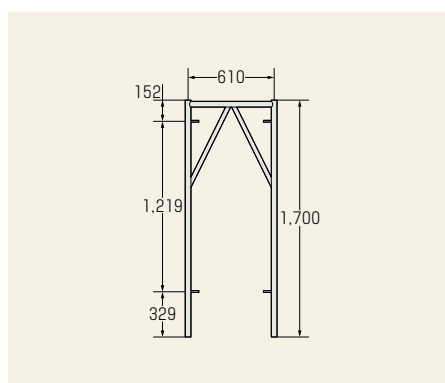
■Light Frame P/G

Item	Weight
A717F FT717A (A2617SN)	11.5kg



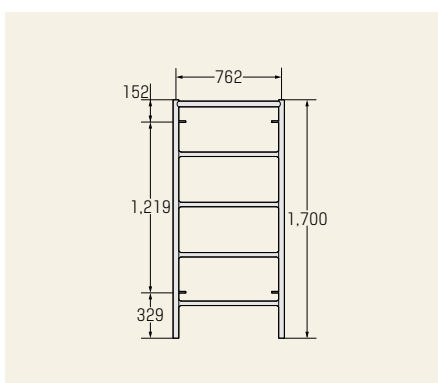
■Light Frame P/G

Item	Weight
A617F FT617A (A6117SN)	11.1kg



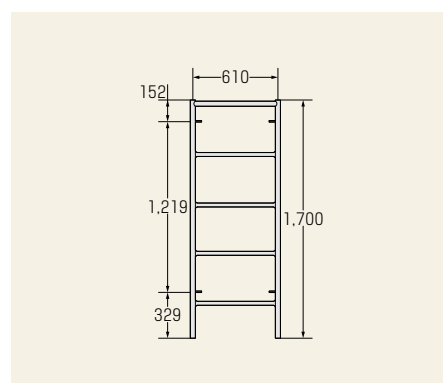
■Ladder End Frame P/G

Item	Weight
L717E FT717L (LS2617)	15.5kg



■Ladder End Frame P/G

Item	Weight
L617E FT617L (LS6117)	13.9kg



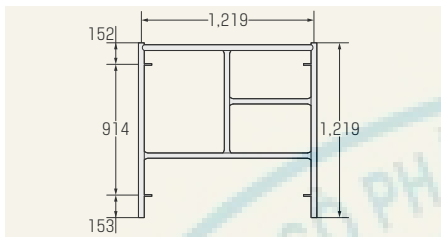


Scaffolding (inch size)

■ Ladder End Frame P⑥

Item	Conformity	Cross Brace	Weight
A1212L FT1212L (A404L)	914	0909	13.8kg
	1,219	1209	
	1,524	1509	
	1,829	1809	

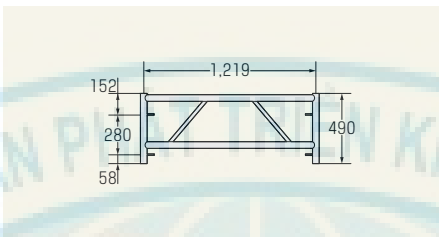
● Allowable load/5,000kg



■ Ladder End Frame P⑥

Item	Conformity	Cross Brace	Weight
A1205S FT1204L (A417)	914	0902	9.5kg
	1,219	1202	
	1,524	1502	
	1,829	1802	

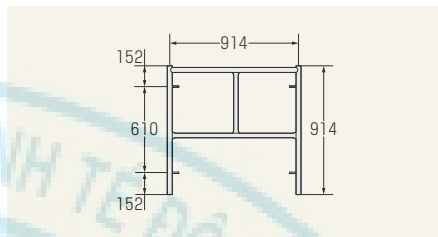
● Allowable load/5,000kg



■ Ladder End Frame P⑥

Item	Conformity	Cross Brace	Weight
A909L FT909L (A303L)	914	0906	9.0kg
	1,219	1206	
	1,524	1506	
	1,829	1806	

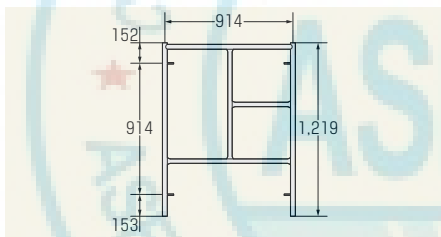
● Allowable load/5,000kg



■ Ladder End Frame P⑥

Item	Conformity	Cross Brace	Weight
A912L FT912L (A304L)	914	0909	9.5kg
	1,219	1209	
	1,524	1509	
	1,829	1809	

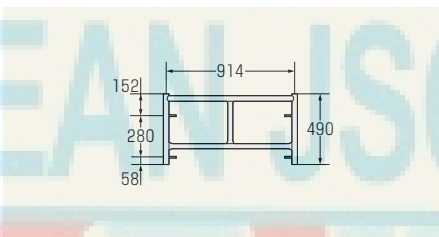
● Allowable load/5,000kg



■ Ladder End Frame P⑥

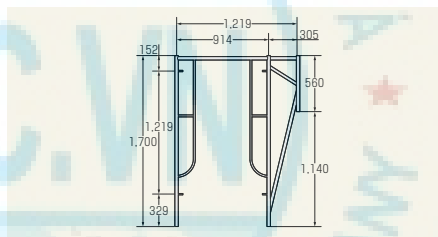
Item	Conformity	Cross Brace	Weight
A905L FT904L (A317)	914	0902	6.6kg
	1,219	1202	
	1,524	1502	
	1,829	1802	

● Allowable load/5,000kg

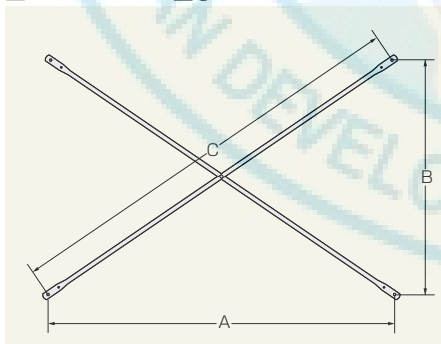


■ Cantilever Frame (KYC)

Item	Conformity	Cross Brace	Weight
FT12179 (A9117)	914	1,209	16.0kg
	1,219	1,212	
	1,524	1,512	
	1,829	1,812	



■ Cross Brace P⑥

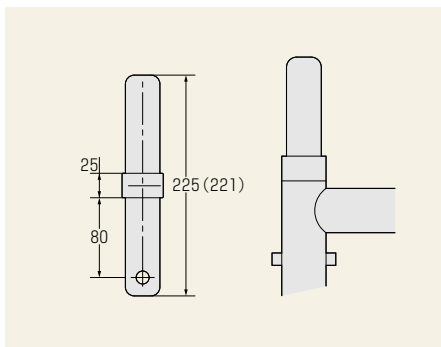


Item	A	B	C	weight
1812 (A-14)	1,829	1,219	2,198	4.2kg
1809 (A-19)		914	2,045	3.9kg
1806 (A-08)		610	1,928	3.7kg
1802 (A-16S)		280	1,850	3.5kg
1512 (A-11)	1,524	1,219	1,952	3.7kg
1509 (A-18)		914	1,777	3.4kg
1506 (A-9)		610	1,642	3.2kg
1502 (A-16)		280	1,550	3.0kg
1212 (A-13)	1,219	1,219	1,724	3.3kg
1209 (A-012)		914	1,524	2.9kg
1206 (A-12)		610	1,363	2.6kg
1202 (A-16A)		280	1,251	2.4kg

Item	A	B	C	weight
0909 (A-19S)	914	914	1,293	2.5kg
0906 (A-09)		610	1,099	2.1kg
0902 (A-16B)		280	956	1.9kg
0606 (A-08S)		610	863	1.7kg
0602 (A-16C)	610	280	671	1.4kg

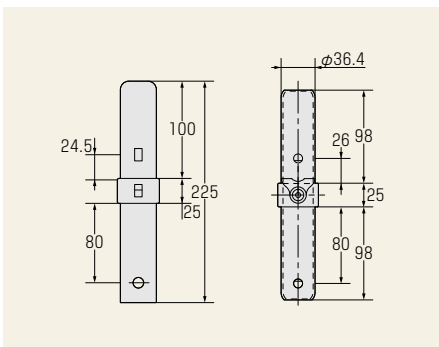
■ Joint Pin ⑥

Item	Weight
A20A	0.5kg
PN1	0.5kg



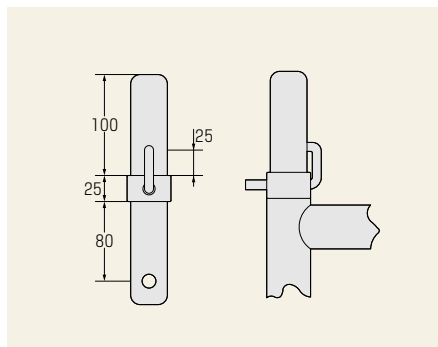
■ Auto Joint ⑥ / Joint Pin, One touch style

Item	Weight
A20X	0.5kg
PNR3	0.6kg



■ Joint Pin, Y type

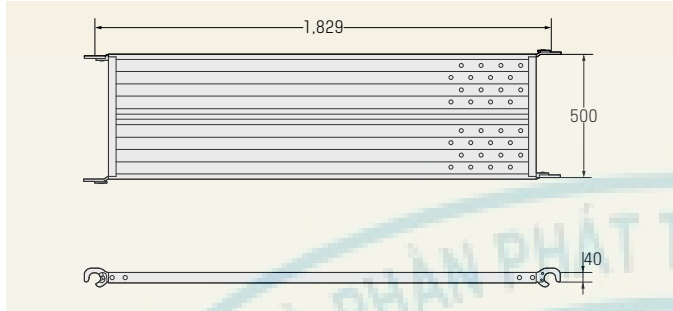
Item	Weight
A20Y	0.6kg
PN3	0.6kg



Supplement

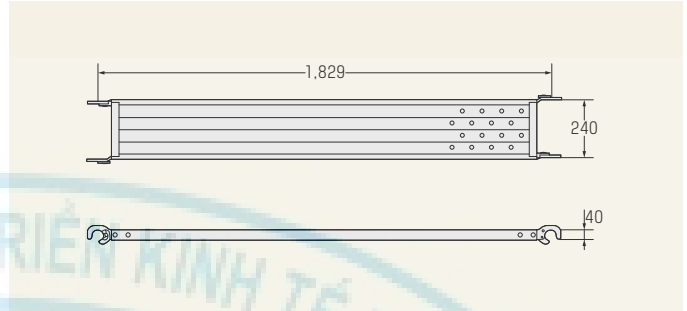
■ Cat-walk

Item	Weight
TK518	13.8kg
FSHR1805R	15.0kg



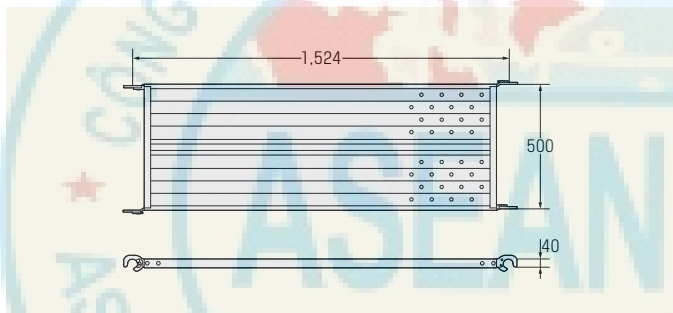
■ Cat-walk

Item	Weight
TK218	7.6kg
FSHR1802R	8.5kg



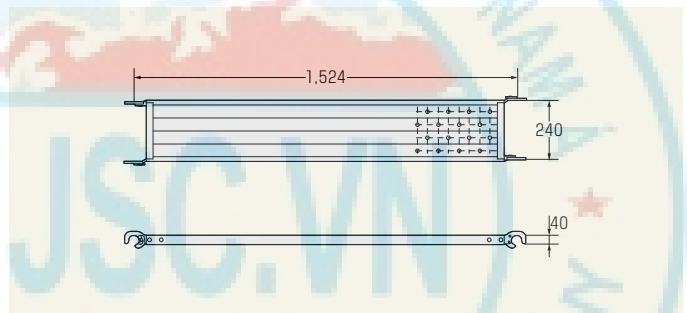
■ Cat-walk

Item	Weight
TK515	11.9kg
FSHR1505R	13.0kg



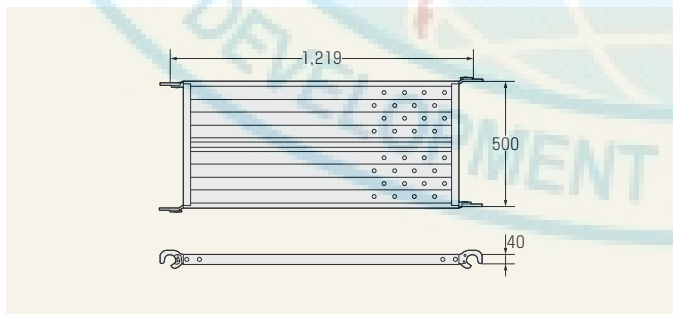
■ Cat-walk

Item	Weight
TK215	6.6kg
FSHR1502R	7.5kg



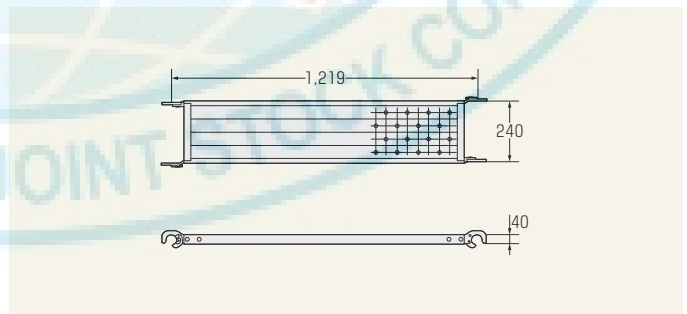
■ Cat-walk

Item	Weight
TK512	8.1kg
FSHR1205R	11.0kg



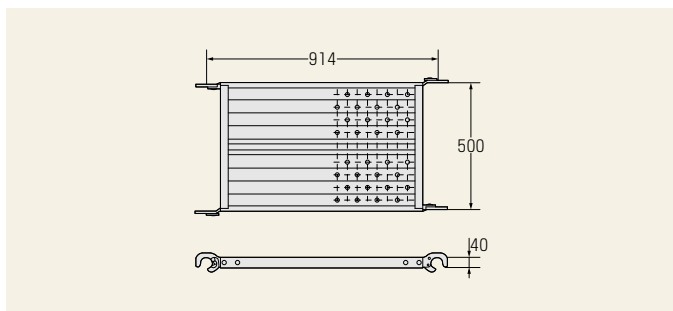
■ Cat-walk

Item	Weight
TK212	5.5kg
FSHR1202R	6.5kg



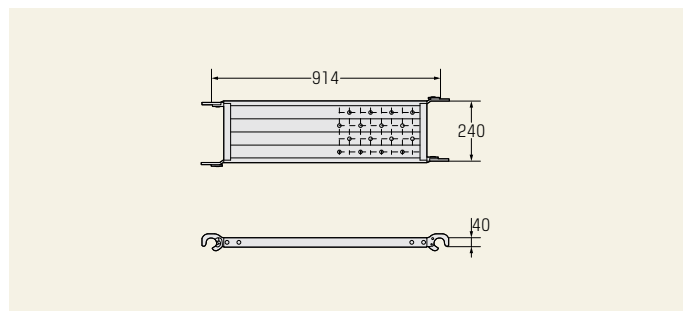
■ Cat-walk

Item	Weight
TK509	7.8kg
FSHR905R	10.0kg



■ Cat-walk

Item	Weight
TK209	4.5kg
FSHR902R	5.5kg

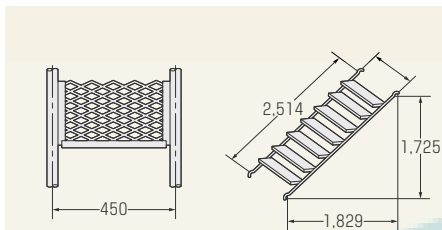




Supplementary Material

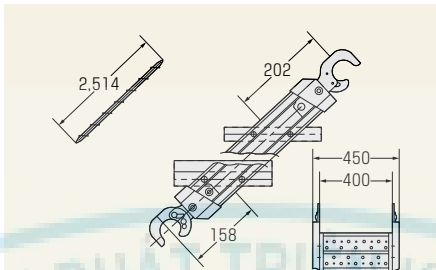
■Stairs ㊟

Item	Weight
K917SG	24.0kg
FNK17A	26.0kg



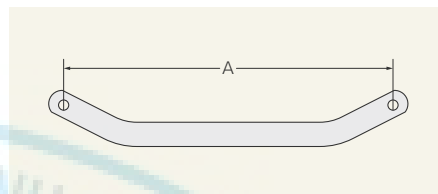
■Aluminium Stairs

Item	Weight
ALK917S	13.4kg



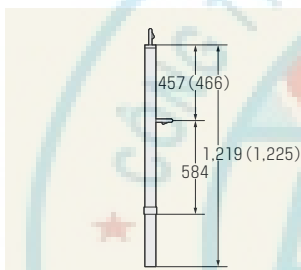
■Arm Lock

Item	A	Weight
AL826 FL8	826	0.8kg
AL739 FL7	737.5	0.7kg
AL509 FL5	507.5	0.5kg
AL419 FL4	419	0.4kg
AL333 FL3	331.5	0.3kg



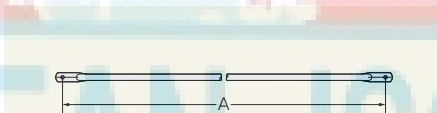
■Guard rail Post ㊟

Item	Weight
AP12	2.5kg
FGP12	2.8kg



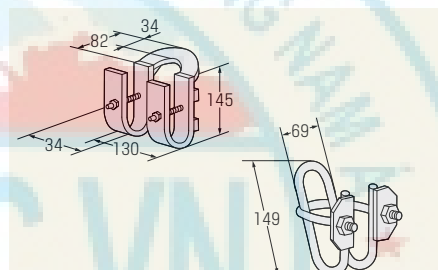
■Guard rail ㊟

Item	A	Weight
BR18 FGR18	1,829	1.8kg
BR15 FGR15	1,524	1.5kg
BR12 FGR12	1,219	1.2kg
BR9 FGR9	914	0.9kg
BR7 FGR7	762	0.8kg
BR6 FGR6	610	0.6kg



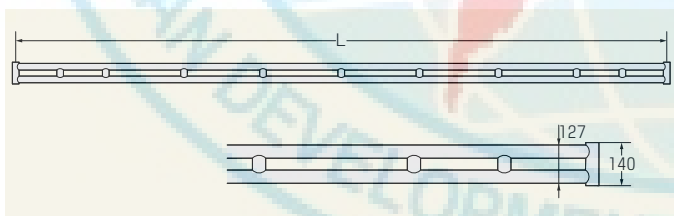
■Truss Hanger ㊟

Item	Weight
ABCIG	3.5kg
WH5	2.0kg



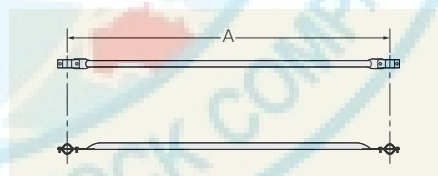
■Truss Base ㊟

Item	L	Weight
BM43G	4300	22.2kg
W40	4200	21.0kg



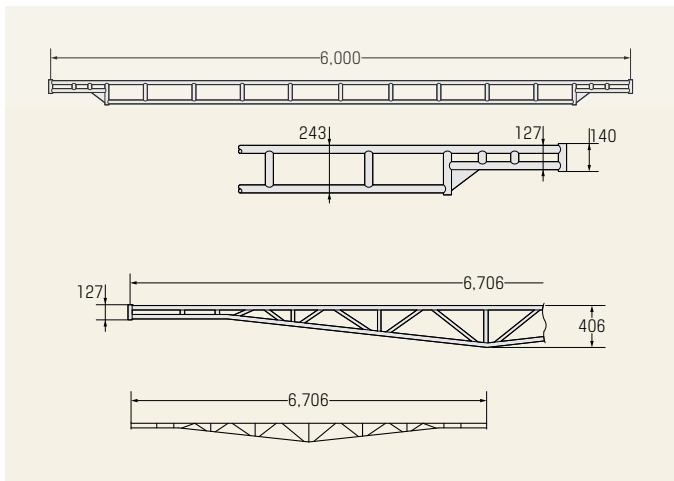
■Guard rail ㊟

Item	A	Weight
AS15G WS15	1,524	5.0kg
AS21G WS21	2,134	6.5kg



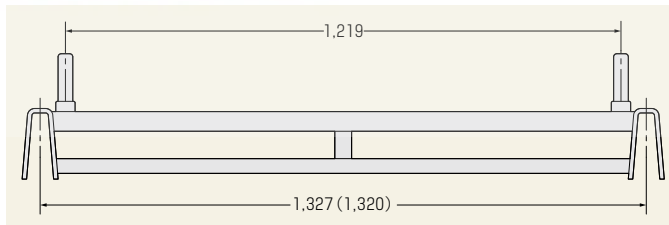
■Truss ㊟

Item	Weight
BM67G	35.1kg
W-60	40.0kg



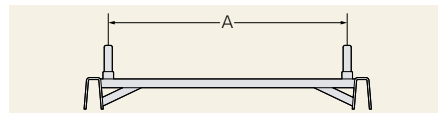
■Truss ㊟

Item	Weight
PB12G	7.0kg
FWB12	9.0kg



■Truss

Item	A	Weight
PB9G FWB9	914	5.0kg
PB7G FWB7	762	4.5kg
PB6G FWB6	610	4.0kg

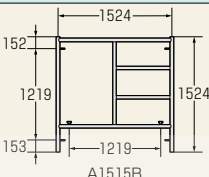
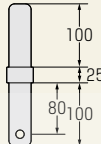
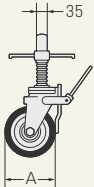
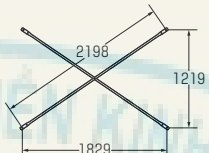
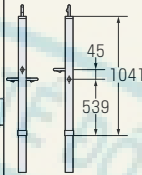
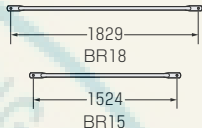
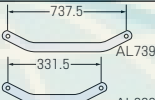




Steel Tower

MAX Allowable load : 250kg

Parts

Ladder Frame  A1515B	Joint Pin  AP123	cat-walk  THK518 Caster with Jack <table><tr><td>Item</td><td>A</td></tr><tr><td>BL6</td><td>150</td></tr><tr><td>BL8</td><td>200</td></tr></table>  BL6(BL8)	Item	A	BL6	150	BL8	200
Item	A							
BL6	150							
BL8	200							
Cross Brace  A1515B	Guardrail Post  AP123	Guardrail  BR18 BR15						
ARMLOCK  AL739 AL333								

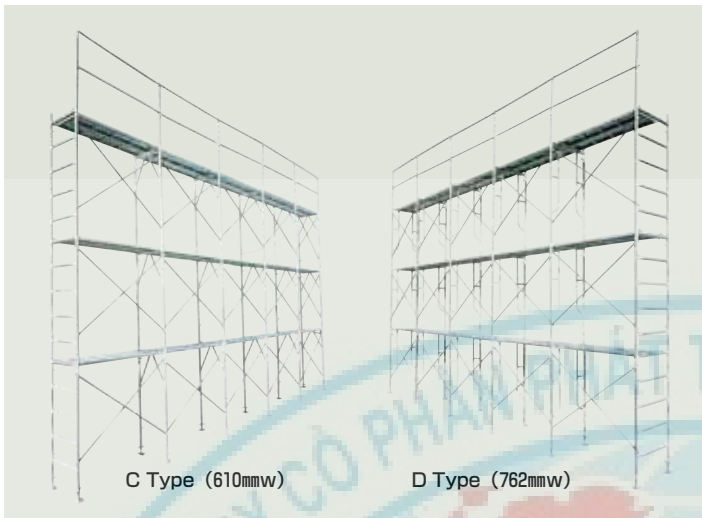
SKIRTING

Skirting 	Outrigger
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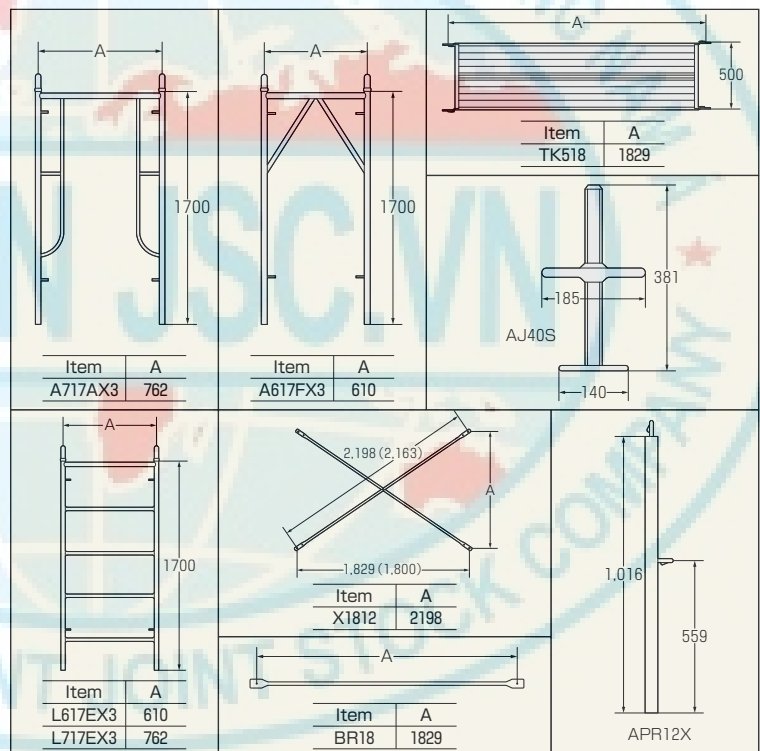


Simple Set Scaffolding

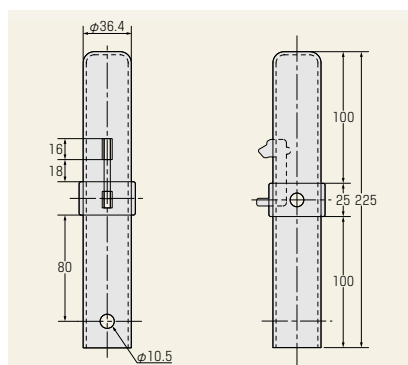
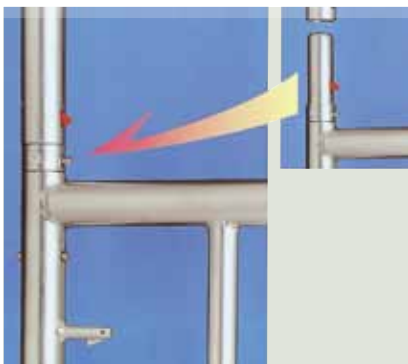


With Guardrail	C35A		D35A	
Without Guardrail	C35B		D35B	
Item	Item	Q'ty	Item	Q'ty
Frame	A617F	15	A717A	15
Ladder Frame	L617E	3	L717E	3
Cat walk Frame	TK518	15	TK518	15
Cross Brace	X1812	15	X1812	15
Joint Pin	A20A	24	A20A	24
Arm lock	AL509	24	AL509	24
Jack Base	AJ40S	12	AJ40S	12
Guardrail Post	AP12	6	AP12	6
Armlock for Guardrail	AL739	6	AL739	6
Guardrail	BR18	10	BR18	10

Standardized Size Code	Type	Price
C35A	C35A With Guardrail	
C35B	C35B Without Guardrail	
D35A	D35A With Guardrail	
D35B	D35B Without Guardrail	



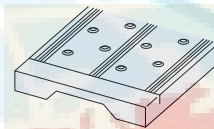
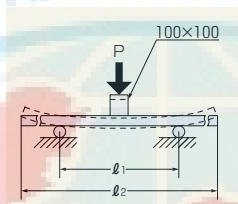
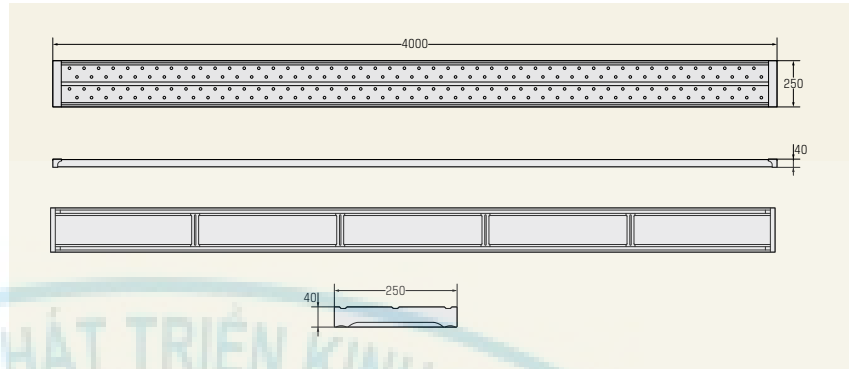
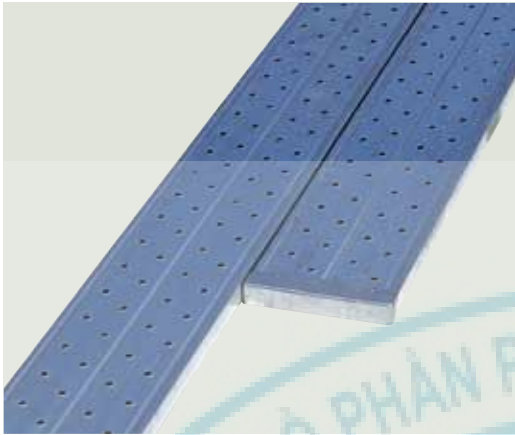
Auto Joint





Steel • Aluminium Long Board

Classified Code 091KY

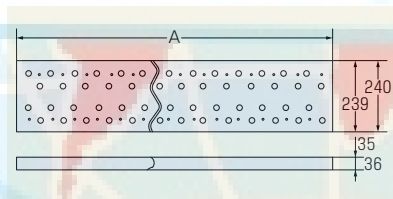


Section Performance

Sectional Area	A	3.90cm ²
Section Modulus	Z	3.15cm ³
The Second in Section Moment	I	9.16cm ⁴

Standardized Size Code	Type	Size (mm)	Weight(kg)	Price
BAN2025H	BAN-2025H	250×2000	7.2	
BAN3025H	BAN-3025H	250×3000	10.6	
BAN4025H	BAN-4025H	250×4000	14.0	

Classified Code 091AL



Strength • Rigidity

W.L.L	120kg
BEND	13mm
Safety Factor	3.0
Strength	2500kg/cm ²
Section Modulus	5.5cm ³
The Second in Section Moment	12.4cm ⁴

ALT • C

Standardized Size Code	Type	H (mm)	W (mm)	L (mm)	Weight (kg)	Price
ALT20C	ALT20C	36	240	2000	3.8	
ALT30C	ALT30C	36	240	3000	5.7	
ALT40C	ALT40C	36	240	4000	7.6	

9

Scaffolding Materials



NETS AND SHEETS



Nets and Sheets



Safety Net



It absorbs the dropping impact by using the string of polyester. It has strong resistance power for sunlight and wind and rain. We will recommend the use of the recognition goods of Scaffolding and Construction Equipment Association of Japan(SCEA) that passed at the fall down test.

■ USE

Each size is different according to the usage condition.

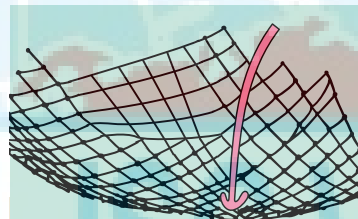


1

About the rope and the edge rope in the fulcrum

The rope that endures impact load $80\text{kg} \times 15 = 1200\text{kg}$ is necessary if it is assumed the one that the acceleration of 15G is endured when the person fell to the net.

- * Nylon.....9mm
- * Polyester.....9mm



2

About fall allowance amount

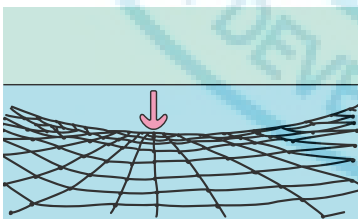
The fall allowance amount(H) is as follows

- ※simple net= $H \leq 0.25 \times (L + 2A)$
- ※complex net= $H \leq 0.20 \times (L + 2A)$

L = length of simple/complex net

A = Support interval(m) of safety net

But it should be $A \leq L$ or $A = L$

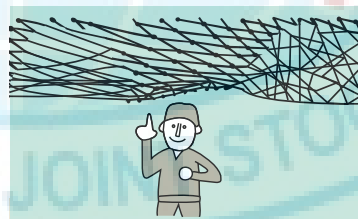


3

About the shake of net

As for the shake, loose one is excellent in the impact relaxation.

- ※The drip of net(S) = $S \leq 0.2 \times (L + 2A) / 3$
 - ※The space under net(K) = $K \geq 0.85 \times (L + 3A) / 4$
- But it should be $A \leq L$ or $A = L$



4

About the support point

Lifting four points is looser than the time of lifting eight points impacts.

Protection Green Net



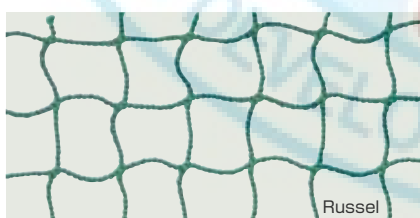
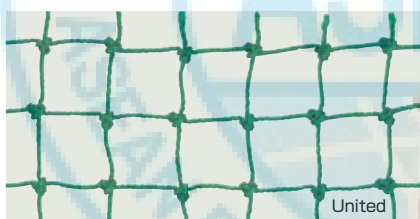
In the fiber field, Polyester has strong resistance power for sunlight and wind and rain.

The green color of Unitika Polyester strong in sunlight, and there is no discoloration.

Material	UNICHKA Polyester
Dia	2200T/5pcs (φ2)
Mesh	30×30mm
Strength	320N

Standardized Size Code	size	Price (m)
080110	1×10	
080210	2×10	
083610	3.6×10	
080505	5× 5	
080510	5×10	
080507	5× 7	—
085410	5.4×10	
080710	7×10	

Golf Net



Standardized Size Code	Material	Standard	How to Weave	Dia (φ)	Eeticolation (mm)	Color	Size (m)	Price (m)
	polyethylene	440T/36pcs	no unity	2.2	25	green	5×10	
						blue	5×10	
						orange	5×10	
						brown	5×10	
						silver	5×10	
						gray	5×10	
	polyethylene	440T/44pcs	no unity	2.4	25	green	5×10	
	polyethylene	440T/50pcs	no unity	2.6	25	green	5×10	
	polyethylene	440T/60pcs	no unity	2.8	25	green	5×10	
	polyethylene	440T/40pcs	no unity	2.3	25	white	5×10	
	polyethylene	220T/60pcs	no unity	2	25	yellow	5×10	
	polyethylene	220T/80pcs	no unity	2.3	25	black	5×10	
	polyethylene	440T/30pcs	united	2	25	green	5×10	
	polyethylene	2200T/5pcs	russel	2	25	green	5×10	
	nylon	480T/48pcs	russel	2	25	white	5×10	

Ball Prevention Net



Standardized Size Code	Material	Standard	How to Weave	Dia (φ)	Eeticolation (mm)	Color	Size (m)	Price (m)
	polyethylene	440T/44pcs	no unity	2.4	37.5	green	5×10	
	polyethylene	440T/60pcs	no unity	2.8	37.5	green	5×10	
	polyethylene	440T/90pcs	no unity	3.5	37.5	green	5×10	
	polyethylene	440T/45pcs	united	2.5	37.5	green	5×10	
	polyethylene	440T/44pcs	no unity	2.4	100	green	5×10	
	polyethylene	440T/60pcs	no unity	2.8	110	green	5×10	
	polyethylene	440T/48pcs	no unity	2.6	37.5	blue	5×10	
	polyethylene	440T/54pcs	no unity	2.7	37.5	white	5×10	
	polyethylene	250T/80pcs	no unity	3.3	37.5	green	5×10	
	polyethylene	250T/72pcs	united	3.1	37.5	green	5×10	



PE White Fire-Proofed Sheet



■ Merit

- Lightweight, ecology, printable
- The working efficiency is good because it is light, and the material is suitable for the high-place work.
- It can be saved the cost and labor when it abandons
- Feeling of quality is smooth.
- It has the permeability.
- It can be printed.

■ Use

Cover for buliding material, sand proof, dust proof.

■ Material

Polyethylene

■ Color

White

Standardized Size Code	Size(m)	Interval of EYELETS	Number	Price
13PE1834	1.8×3.4	30	15	
13PE1836	1.8×3.6	45	15	
13PE1851	1.8×5.1	30	10	
13PE1854	1.8×5.4	45	10	
13PE3654	3.6×5.4	45	5	
13PE5472	5.4×7.2	90	2	
13PE1010	10×10	90	1	
13PE100R	1.87×100	—	—	—

PP Mesh Fire-Proofed Sheet



■ Merit

- Fire proof, Lightweight, ecology
- When this is abandoned, a harmful hydrogen chloride gas and dioxin is not generated.
- It can be saved the cost and labor when it abandons
- The working efficiency is good because it is light.
- The outside appearance is good
- It has strong resistance power for sunlight
- The maintenance method is easy.

■ Use

building construction, Painting construction

■ Material

Polypropylene

■ Color

Green, Bule, Gray

■ Photo after 3month



PP



PE

Standardized Size Code	Size(m)	Interval of EYELETS	Number	Price
18018034H	1.8×3.4	30	15	
18018036H	1.8×3.6	45	15	
18018051H	1.8×5.1	30	10	
18018054H	1.8×5.4	45	10	
18036054H	3.6×5.4	45	5	



Classified Code 09105

PE Mesh Net



■ Merit

- For building construction
- It is a high performance seat that weaves the polyester filament string like the net, and covered with the vinyl chloride.
- This is suitable for work in the urban area to suppress dust to the minimum.

■ Point

Fire proof, Lightweight, costable

■ Use

Building construction, Painting construction

■ Material

Polyester

■ Color

Light Green

Standardized Size Code	Size(m)	Number	Price
18018034L	1.8×3.4	20	
18018036L	1.8×3.6	20	
18018051L	1.8×5.1	20	
18018054L	1.8×5.4	20	
18036054L	3.6×5.4	10	

Classified Code 09105

Bongard Mesh Sheet



BGM 201

■ Merit

- Functional sheet (covered by Chloride)

■ Use

Building construction, protection against wind, cricket, bird, sunlight.

■ Color

Green, Blue, Gray, White

Standardized Size Code	Size(m)	Interval of EYELETS	Number	Price
18018034K	1.8×3.4	300mm or 425mm	30	
18018036K	1.8×3.6		30	
18018051K	1.8×5.1		20	
18018054K	1.8×5.4		20	
18036054K	3.6×5.4	425mm	10	

Classified Code 09105

Tarposcreen



■ Merit

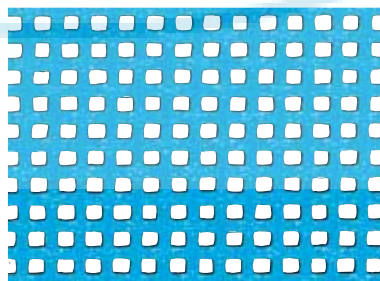
- It has strong resistance power for sunlight and wind and rain.
- This is suitable for work in the urban area

■ Use

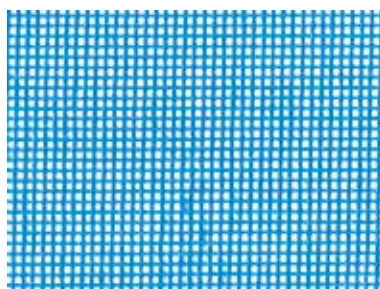
Protection of building construction

■ Color

Green, Blue, Gray, White



#1003



#2039

Size(m)
1.8×3.6
1.8×5.1
1.8×5.4
3.6×5.4



SHIP'S EQUIPMENTS



Ship's Equipments



Names of Rigging Products(Ship's Equipments)

Table of Ship's Classifications

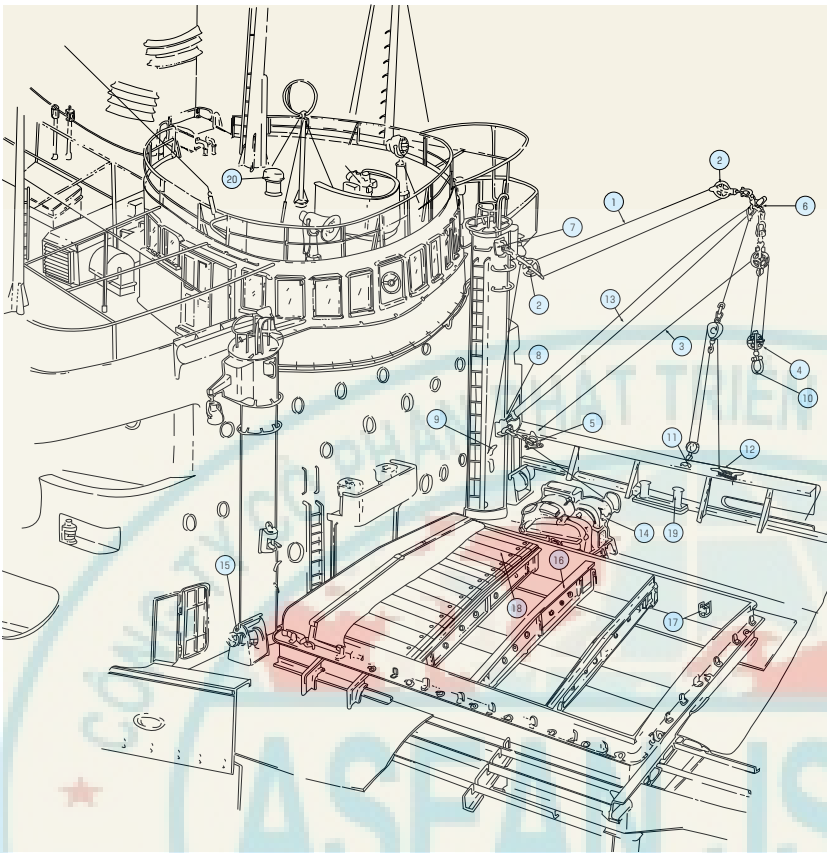
<i>MR</i>	Japanese Marine Corporation. NK: NIPPON KAIJIKYOKAI	<i>MV</i>	Det Norske Veritas. NV: NORWAY
<i>R</i>	Lloyd's Register of Shipping. LR: ENGLAND	<i>GL</i>	GL: German Lloyd GERMANY
	American Bureau of Shipping. ABS: UNITED STATES OF AMERICA	<i>CR</i>	CR: China Register of Shipping. TAIWAN
<i>B</i>	Bureau Veritas. BV: FRANCE	<i>RI</i>	RI REGISTRO,ITALIANS

Name of Products on the bow



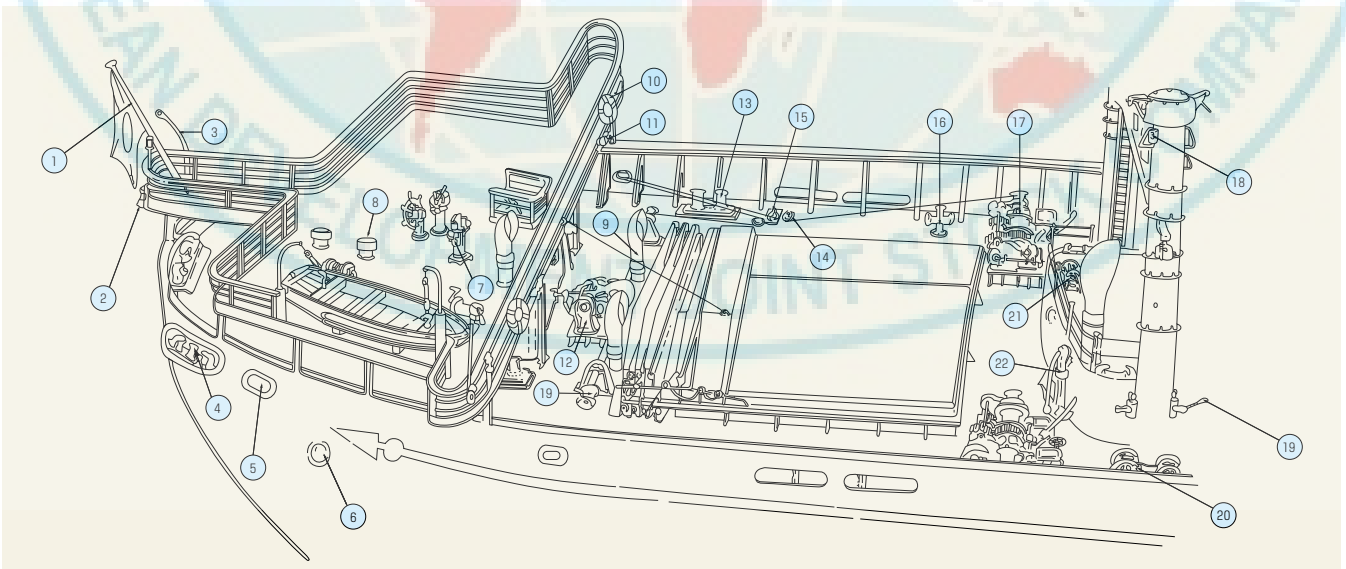
No.	Name	JIS No.	No.	Name	JIS No.
①	Windlasses		⑨	Ship's Wire Reels	JIS F3430
②	Chain Cable Compressors/Chain Cables Stoppers	JIS F2002,2015	⑩	An Air Pipe	
③	Hose Pipe		⑪	Ship's Derrick Booms	JIS F2201
④	Anchor Chains	JIS F3303	⑫	Boom Support Pipe	
⑤	Bollard	JIS F2001	⑬	Gooseneck Ventilators	JIS F2408
⑥	Fairleads	JIS F2014	⑭	Ship's Davits	JIS F2103
⑦	Mooring Pipes	JIS F2007	⑮	Stockless Anchor	JIS F3301
⑧	Deck End Rollers	JIS F2003,2004			

Names of Products on Middle of Ship



No.	Name	JIS No.
①	Wire Ropes	JIS G3525
②	Ship's Cargo Blocks	JIS F3428,3429
③	Wire Ropes	JIS G3525
④	Ship's Cargo Blocks	JIS F3428,3429
⑤	Ship's Cargo Blocks	JIS F3429
⑥	Ship's Derrick Booms	JIS F2201
⑦	Ship's Derrick Topping Brackets	JIS F2202
⑧	Ship's Derrick Gooseneck Brackets	JIS F2203
⑨	Ship's Horn Cleats	JIS F3414
⑩	Cargo's Shackles	JIS B2801
⑪	Eye Plates	JIS F3410
⑫	Guy Cleats for Ships	JIS F3416
⑬	Ship's Derrick Booms	JIS F2201
⑭	Power Winch	
⑮	Hanger Winch	
⑯	Hatch Beam	
⑰	Fitting of Hatch Beam	
⑱	Hatch Board	
⑲	Bollard	JIS F2001
⑳	Mushroom Ventilators	JIS F2407

Names of Products on the Stern



No.	Name	JIS No.	No.	Name	JIS No.
①	Flag Bar		⑫	Mooring Winch	
②	The Stern's Lamp		⑬	Bollard	JIS F2001
③	Ship's Davits	JIS F2103	⑭	Ship's Snatch Block	JIS F3422
④	Fairleads	JIS F2014,2021	⑮	Ship's Ring Plates	JIS F3412
⑤	Mooring Pipes	JIS F2007	⑯	Ship's Cross Bitts	JIS F2804
⑥	Scuttles	JIS F2401,2413	⑰	Winch	
⑦	Compass		⑱	Ship's Derrick Topping Brackets	JIS F2202
⑧	Mushroom Ventilators	JIS F2407	⑲	Ship's Derrick Gooseneck Brackets	JIS F2203
⑨	An Air Pipe		⑳	Ship's Topping Units	JIS F2107
⑩	Life Buoy		㉑	Ship's Wire Reels	JIS F3430
⑪	Fitting for Boom		㉒	Anchors	JIS F3301



Anchors

Stockless Anchor



Stockless Anchor "B" Type



Common(Stocked) Type



One-Arm Common (Stocked) Type



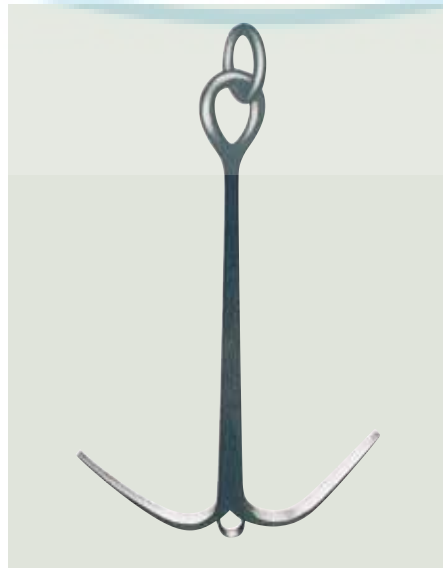
Danforth Type



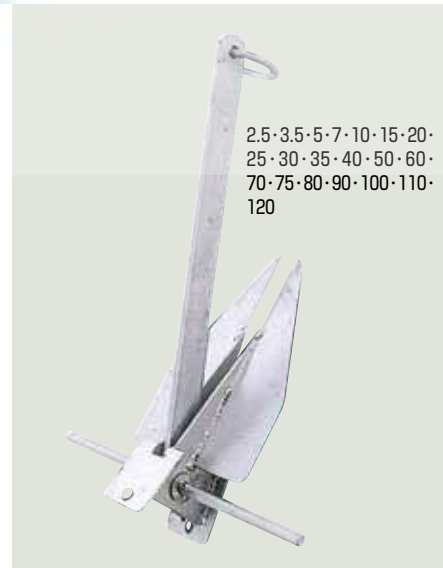
Grapnel Type



Japanese Type



Danforth Type(Steel Plate Type)



Anchors

Anchors, Anchor Chains and Equipments

Equipment Sign	Equipment Number	Anchor				Anchor Chains with Stud for Large Anchor				Anchor Chains or Steel Wire Ropes for Middle Anchor		Tow Ropes		Mooring Lines		
		Numbers		Weight (for Stockless Anchor)		Length (m)	Dia. Of Chain (mm)			Length(m)	Breaking Load(kgf)	Length(m)	Breaking Load(kgf)	Number	Length(m)	Breaking Load(kgf)
		Large	Middle	Large(kg)	Middle(kg)		Grade 1	Grade 2	Grade 3							
A1	50 > 70	2	1	180	60	220	14	12.5		80	6,600	180	10,000	2	100	6,600
A2	70 90	2	1	240	80	220	16	14		85	7,500	180	10,000	2	100	6,600
A3	90 110	2	1	300	100	247.5	17.5	16		85	8,300	180	10,000	2	110	6,800
A4	110 130	2	1	360	120	247.5	19	17.5		90	9,100	180	10,000	2	110	7,000
A5	130 150	2	1	420	140	275	20.5	17.5		90	10,000	180	10,000	2	120	7,300
B1	150 175	2	1	480	165	275	22	19		90	11,000	180	10,000	2	120	7,600
B2	175 205	2	1	570	190	302.5	24	20.5		90	12,000	180	11,400	2	120	8,000
B3	205 240	3		660		302.5	26	22				180	13,200	2	120	8,400
B4	240 280	3		780		330	28	24				180	15,300	3	120	8,800
B5	280 320	3		900		357.5	30	26				180	17,700	3	140	9,200
C1	320 360	3		1,020		357.5	32	28				180	21,100	3	140	9,600
C2	360 400	3		1,140		385		30				180	22,800	3	140	10,000
C3	400 450	3		1,290		385		32				180	25,500	3	140	10,500
C4	450 500	3		1,440		412.5		34				180	28,200	3	140	11,000
C5	500 550	3		1,590		412.5		34				190	31,200	4	160	11,500
D1	550 600	3		1,740		440		36				190	34,500	4	160	12,000
D2	600 660	3		1,920		440		38				190	37,800	4	160	12,500
D3	660 720	3		2,100		440		40				190	41,400	4	160	13,000
D4	720 780	3		2,280		467.5		42				190	45,000	4	170	13,500
D5	780 840	3		2,460		467.5		44				190	48,900	4	170	14,000
E1	840 910	3		2,640		467.5		46	40			190	52,800	4	170	14,500
E2	910 980	3		2,850		495		48	42			190	57,000	4	170	15,000
E3	980 1060	3		3,060		495		50	44			200	61,500	4	180	16,000
E4	1060 1140	3		3,300		495		50	46			200	66,000	4	180	17,000
E5	1140 1220	3		3,540		522.5		52	46			200	70,500	4	180	18,000
F1	1220 1300	3		3,780		522.5		54	48			200	75,300	4	180	19,000
F2	1300 1390	3		4,050		522.5		56	50			200	80,100	4	180	20,000
F3	1390 1480	3		4,320		550		58	50			200	85,200	4	180	21,000
F4	1480 1570	3		4,590		550		60	52			220	90,600	5	190	22,000
F5	1570 1670	3		4,890		550		62	54			220	96,000	5	190	23,000
G1	1670 1790	3		5,250		577.5		64	56			220	104,400	5	190	24,000
G2	1790 1930	3		5,610		577.5		66	58			220	113,100	5	190	25,000
G3	1930 2080	3		6,000		577.5		68	60			220	119,100	5	190	26,000
G4	2080 2230	3		6,450		605		70	62			240	128,400	5	200	27,000
G5	2230 2380	3		6,900		605		73	64			240	138,300	5	200	28,000
H1	2380 2530	3		7,350		605		76	66			240	148,200	5	200	29,000
H2	2530 2700	3		7,800		632.5		78	68			260	150,000	6	200	30,000
H3	2700 2870	3		8,300		632.5		81	70			260	150,000	6	200	31,000
H4	2870 3040	3		8,700		632.5		84	73			260	150,000	6	200	32,000
H5	3040 3210	3		9,300		660		84	76			280	150,000	6	200	33,000
J1	3210 3400	3		9,900		660		87	78			280	150,000	6	200	34,000
J2	3400 3600	3		10,500		660		90	78			280	150,000	6	200	35,000
J3	3600 3800	3		11,100		687.5		92	81			300	150,000	6	200	36,000
J4	3800 4000	3		11,700		687.5		95	84			300	150,000	6	200	37,000
J5	4000 4200	3		12,400		687.5		97	87			300	150,000	7	200	38,000
K1	4200 4400	3		12,900		715		100	87			300	150,000	7	200	39,000
K2	4400 4600	3		13,500		715		102	90			300	150,000	7	200	40,000
K3	4600 4800	3		14,100		715		105	92			300	150,000	7	200	41,000
K4	4800 5000	3		14,700		742.5		107	95			300	150,000	7	200	42,000
K5	5000 5200	3		15,400		742.5		111	97			300	150,000	8	200	44,000
L1	5200 5500	3		16,100		742.5		111	97			300	150,000	8	200	46,000
L2	5500 5800	3		16,900		742.5		114	100			300	150,000	8	200	48,000
L3	5800 6100	3		17,800		742.5		117	102			300	150,000	8	200	50,000
L4	6100 6500	3		18,800		742.5		120	107					9	200	50,000
L5	6500 6900	3		20,000		770		124	111					10	200	50,000
M1	6900 7400	3		21,500		770		127	114					11	200	50,000
M2	7400 7900	3		23,000		770		132	117					12	200	50,000
M3	7900 8400	3		24,500		770		137	122					13	200	50,000
M4	8400 8900	3		26,000		770		142	127					14	200	50,000
M5	8900 9400	3		27,500		770		147	132					16	200	50,000
N1	9400 10000	3		29,000		770		152	132					18	200	50,000

Ship's Classifications for each Countries

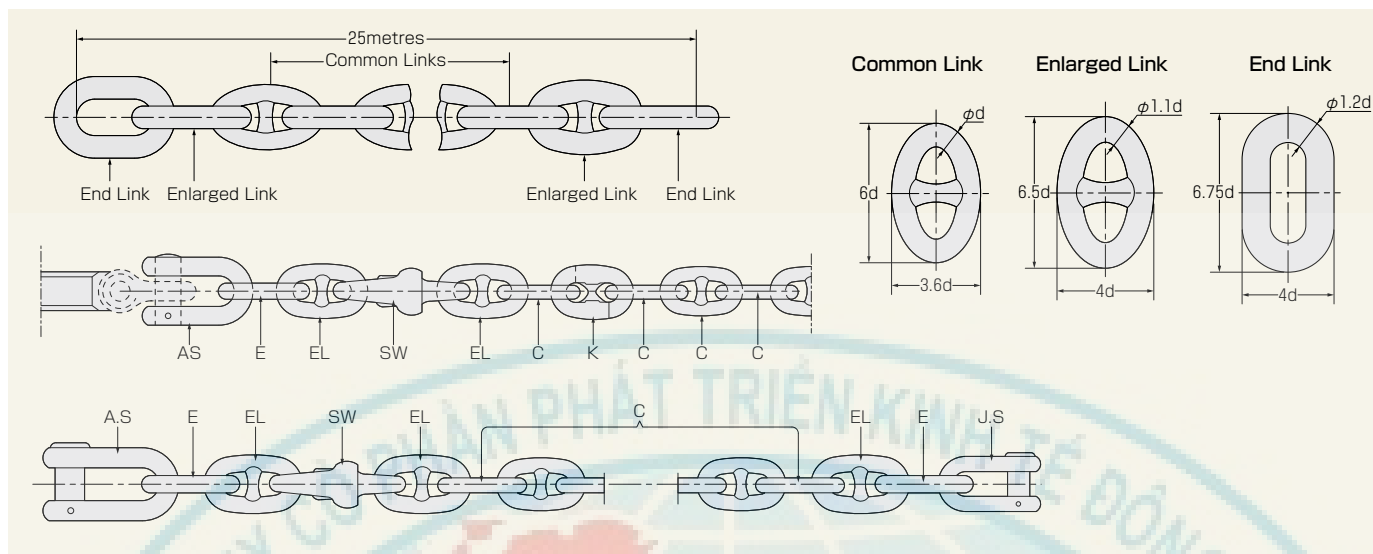
NK : Japan Marine Association.
NV : Det Norske Veritas.

LR : Lloyd's Register of Shipping.
BV : Bureau Veritas.

AB : American Bureau of Shipping.
Mill's : Mill's Certificate.



Flash Butt Welded Anchor Chain Cables (JIS F 3303-1993)

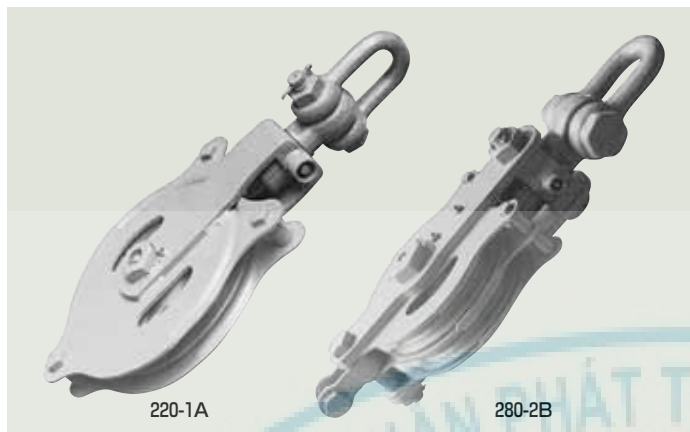


Chains	Material		
	Chains with Stud		
	Grade 1	Grade 2	Grade 3
Links	SBC300 of JIS G 3105	SBC490 of JIS G 3105	SBC690 of JIS G 3105
Shackles & Swivels	Equivalent to the above or S25C~S35C of JIS G 4051	Equivalent to the above or S38C~S50C of JIS G 4051	Equivalent to the above
Stud	Equivalent to the above Link Carbon steel Carbon Cast Steel Malleable Cast Iron	Equivalent to the above Link or Rolled wire Rod, Cast Steel or Forged Steel. ***Don't use Malleable Cast Iron and Cast Iron	

Nominal Dia. Of Chain	Grade 1		Grade 2		Grade 3		Weight/m (kg)
	Breaking Load KN {tf}	Proof Load kN {tf}	Breaking Load KN {tf}	Proof Load kN {tf}	Breaking Load KN {tf}	Proof Load kN {tf}	
16	106.9{10.9}	75.51{7.70}	150.0{15.3}	106.9{10.9}	215.7{22.0}	150.0{15.3}	5.606
17.5	127.5{13.0}	89.24{9.10}	179.5{18.3}	127.5{13.0}	256.0{26.1}	179.5{18.3}	6.707
19	150.0{15.3}	104.9{10.7}	210.8{21.5}	150.0{15.3}	301.1{30.7}	210.8{21.5}	7.906
20.5	174.6{17.8}	122.6{12.5}	244.2{24.9}	174.6{17.8}	349.1{35.6}	244.2{24.9}	9.203
22	200.1{20.4}	140.2{14.3}	280.5{28.6}	200.1{20.4}	401.1{40.9}	280.5{28.6}	10.60
24	237.3{24.2}	166.7{17.0}	332.4{33.9}	237.3{24.2}	475.6{48.5}	332.4{33.9}	12.61
26	277.5{28.3}	194.2{19.8}	389.3{39.7}	277.5{28.3}	556.0{56.7}	389.3{39.7}	14.80
28	320.7{32.7}	224.6{22.9}	449.1{45.8}	320.7{32.7}	642.3{65.5}	449.1{45.8}	17.17
30	367.7{37.5}	256.9{26.2}	513.9{52.4}	367.7{37.5}	734.5{74.9}	513.9{52.4}	19.71
32	416.8{42.5}	291.3{29.7}	582.5{59.4}	416.8{42.5}	832.6{84.9}	582.5{59.4}	22.43
34			655.1{66.8}	467.8{47.7}	936.5{95.5}	655.1{66.8}	25.32
36			731.6{74.6}	522.7{53.3}	1049 {107}	731.6{74.6}	28.38
38			812.0{82.8}	580.6{59.2}	1157 {118}	812.0{82.8}	31.62
40			896.3{91.4}	640.4{65.3}	1285 {131}	896.3{91.4}	35.04
42			980.7{100}	703.1{71.7}	1402 {143}	980.7{100}	38.63
44			1079 {110}	768.8{78.4}	1540 {157}	1079 {110}	42.40
46			1167 {119}	836.5{85.3}	1677 {171}	1167 {119}	46.34
48			1275 {130}	908.1{92.6}	1814 {185}	1275 {130}	50.46
50			1373 {140}	980.7{100}	1961 {200}	1373 {140}	54.75
52			1481 {151}	1059 {108}	2108 {215}	1481 {151}	59.22
54			1589 {162}	1138 {116}	2265 {231}	1589 {162}	63.86
56			1706 {174}	1216 {124}	2432 {248}	1706 {174}	68.68
58			1814 {185}	1294 {132}	2599 {265}	1814 {185}	73.67
60			1942 {198}	1383 {141}	2765 {282}	1942 {198}	78.84
62			2059 {210}	1471 {150}	2942 {300}	2059 {210}	84.18
64			2187 {223}	1559 {159}	3128 {319}	2187 {223}	89.70
66			2314 {236}	1657 {169}	3305 {337}	2314 {236}	95.40
68			2452 {250}	1746 {178}	3501 {357}	2452 {250}	101.3
70			2579 {263}	1844 {188}	3687 {376}	2579 {263}	107.3
73			2795 {285}	1991 {203}	3991 {407}	2795 {285}	116.7



Ship's Steel Cargo Blocks JIS F 3421-1995

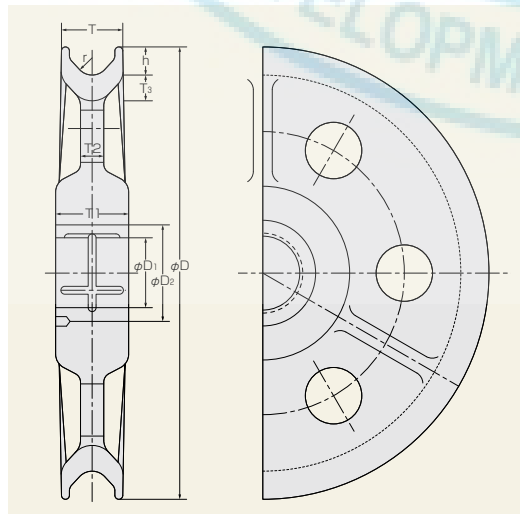


Type	Sheave Dia	Pin Dia of Sheave	Shackle Size		Dia of Wire Rope Applied(mm)	W.L.L kN (tf)		T.L kN (tf)		Approx. Weight kg/pce		Price	
			A	B		A	B	A	B	A	B	A	B
Single Sheave (1A) (1B)	220	30	22	26	12.5	13.7 (1.4)	13.7 (1.4)	54.9 (5.6)	82.4 (8.4)	13	17		
	240	35	26	30	14	17.2 (1.75)	17.2 (1.75)	68.6 (7)	103.0 (10.5)	17	23		
	280	40	30	34	16	22.1 (2.25)	22.1 (2.25)	88.3 (9)	132.4 (13.5)	27	35		
	340	45	34	42	20	34.3 (3.5)	34.3 (3.5)	137 (14)	206 (21)	42	55		
	410	55	40	50	24	49.0 (5)	49.0 (5)	196 (20)	294 (30)	59	63		
	430	55	42	55	25	53.9 (5.5)	53.9 (5.5)	216 (22)	324 (33)	66	92		
	460	60	44	55	26	58.8 (6)	58.8 (6)	235 (24)	353 (36)	90	116		
Double Sheave (2A) (2B)	240	50	34	38	14	63.7 (6.5)	78 (8)	127.5 (13)	157 (16)	37	46		
	280	55	38	40	16	83.4 (8.5)	98 (10)	167 (17)	196 (20)	54	64		
	340	66	46	55	20	127.5 (13)	157 (16)	255 (26)	314 (32)	91	112		
	410	75	60	65	24	186 (19)	226 (23)	373 (38)	452 (46)	86	119		
	430	80	60	65	25	206 (21)	245 (25)	412 (42)	500 (51)	146	182		
	460	85	65	70	26	226 (23)	275 (28)	452 (46)	520 (53)	170	222		
Triple Sheave (3A) (3B)	480	90	70	75	28	275 (28)	333 (34)	520 (53)	579 (59)	229	273		
	410	75	70	75	24	284 (29)	324 (33)	530 (54)	569 (58)	217	201		
Quadruple Sheave (4A) (4B)	430	80	75	80	25	314 (32)	353 (36)	559 (57)	598 (61)	274	386		
	410	75	80	80	24	353 (36)	392 (40)	598 (61)	628 (64)	240	330		
	430	80	80	85	25	392 (40)	431 (44)	628 (64)	667 (68)	267	367		

*SB/BB Shackles of JIS B 2801 to be used.

*Approx. Weight only for Block, except Shackle.

Sheave (Material: FC20)



Blocks		D	D ₁	D ₂	h	r	T	T ₁	Reference	
Type	Nominal Size								T ₂	T ₃
1A,1B	220	220	30	42	13	7.5	30	34	10	13
	240	240	35	47	14	8	34	38	11	14
	280	280	40	54	16	9	42	46	11	15
	340	340	45	60	20	11.5	50	54	14	17
	410	410	55	71	24	13.5	60	64	14	20
	430	430	55	71	25	14	60	64	14	20
	460	460	60	78	26	14.5	62	66	15	25
	480	480	65	83	28	15.5	66	70	16	25
2A,2B 3A,3B 4A,4B	240	240	50	65	14	8	34	38	11	14
	280	280	55	71	16	9	42	46	11	15
	340	340	66	83	20	11.5	50	54	14	17
	410	410	75	93	24	13.5	60	64	14	20
	430	430	80	98	25	14	60	64	14	20
	460	460	85	105	26	14.5	62	66	15	25
	480	480	90	110	28	15.5	66	70	16	25

Ship's Steel Cargo Blocks with Roller Bearing

JIS F 3429-1995



Type	Sheave Dia	Pin Dia of Sheave	Bearing number	Shackle Size	Dia of Wire Rope Applied(mm)	W.L.L kN(tf)	T.L kN(tf)	Approx. Weight kg/pce	Price
1AR	340	50	32210	34	20	34.3 (3.5)	137 (14)	48	
	410	60	30213	40	24	49 (5.5)	196 (20)	76	
	430	65	32213	42	25	53.9 (5.5)	216 (22)	78	
	460	70	32214	44	26	58.8 (6)	235 (24)	109	
	480	75	32215	48	28	68.6 (7)	275 (28)	115	
1BR	340	50	32210	42	20	34.3 (3.5)	206 (21)	59	
	410	60	30213	50	24	49 (5.5)	294 (30)	101	
	430	65	32213	55	25	53.9 (5.5)	324 (33)	104	
	460	70	32214	55	26	58.8 (6)	353 (36)	141	
	480	75	32215	60	28	68.6 (7)	412 (42)	139	
2AR	340	50	32210	46	20	127.5 (13)	225 (26)	99	
	410	60	30213	55	24	186 (19)	373 (38)	166	
	430	65	32213	60	25	206 (21)	412 (42)	168	
	460	70	32214	65	26	226 (23)	452 (46)	234	
2BR	340	50	32210	55	20	157 (16)	314 (32)	117	
	410	60	30213	60	24	226 (23)	452 (46)	191	
	430	65	32213	65	25	245 (25)	500 (51)	188	
	460	70	32214	70	26	275 (28)	520 (53)	269	

(mm)

Ship's Snatch Blocks

JIS F3422-1995



■SMH·SME

Type	Nominal Sheave Dia	W.L.L N(tf)	T.L kN(tf)	Dia of Wire Rope Applied(mm)	Shackle Size	Approx. Weight kg/pce	Price
SMH (Hook)	200	12.3 (1.25)	49.0 (5.0)	65	—	30.0	
SME (Eye)					SC20·SD24	27.4	

■SW

Type	Nominal Sheave Dia	W.L.L N(tf)	T.L kN(tf)	Dia of Wire Rope Applied(mm)	Shackle Size	Approx. Weight kg/pce	Price
SW	160	9.8 (1.0)	39.2 (4.0)	20	SC18·SD22	12.1	
SW	200	19.6 (2.0)	78.5 (8.0)	25	SC26·SD30	27.1	
SW	240	29.4 (3.0)	117.7 (12.0)	28	SC32·SD38	47.6	

Ship's Small Size Steel Blocks

JIS F 3443-1995



Type	Nominal Sheave Dia	W.L.L N(tf)	T.L kN(tf)	Dia of Wire Rope Applied(mm)	Approx. Weight kg/pce	Price
SE	100	4.9 (0.5)	20 (2)	8	2.8	
SH					2.9	
SE	125	9.8 (1)	39 (4)	10·12	4.2	
SH					5.6	

SE-125

Ship's Steel Guy Blocks with Swivels for Fiber Ropes JIS F3419-1995



MS1A-160

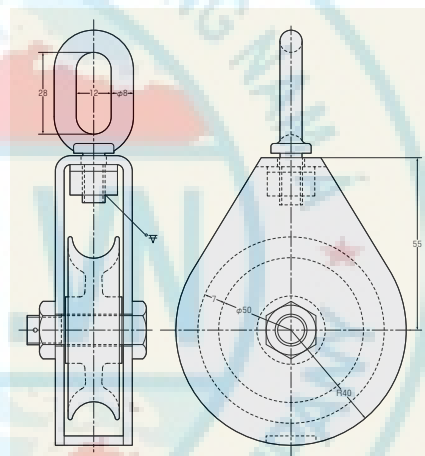
Type	Nominal Sheave Dia	W.L.L kN(tf)	T.L kN(tf)	Dia of Wire Rope Applied(mm)	Shackle Size	Approx. Weight kg/pce	Price
MS1A	160	4.90 (0.50)	19.61 (2.00)	24	SD22	10.4	
MS1B		4.61 (0.47)	27.64 (2.82)		SD22	11.5	
MS2A		17.65 (1.80)	35.30 (3.60)		SD24	14.5	
MS2B		21.58 (2.20)	43.15 (4.40)		SD24	15.5	

Blocks for Mackerel Fishing



code No.	Wheel Size (mm)	Max. Rope Dia (mm)	W.L.L (t)	Overall Length (mm)	Weight (kg)	Price
050	50 2"	8	0.125	122	0.5	
075	75 3"	10	0.5	194	1.2	
100	100 4"	12	0.75	230	1.8	

Ship's Steel Blocks for Signal Flags JIS F 3425-1968



code No.	Weight (g)	Price
251	620	

Aluminum Alloy Blocks (7A)



Block with Hook Head Block with Eye Head Snatch with Hook Head Snatch with Eye Head

Sheave Dia	Type	Weight (kg)	Dia of Wire Rope Applied (mm)	W.L.L kN (tf)
75	single	1.10	14	2.45 (0.25)
	double	1.35		
100	single	1.70	20	3.23 (0.33)
	double	2.15		
125	single	2.90	26	4.9 (0.5)
	double	3.90		
150	single	4.80	26	8.13 (0.83)
	double	7.00		



Ship's Internal-Bound Blocks (JIS F 3426-1990)



Type	Nominal Size (Height of Shell)						
W1AH	140	180	200	220	240	—	—
W1AL	—	180	200	220	240	280	300
W1AS	140	180	200	220	240	280	300
W1BH	140	180	200	220	240	—	—
W1BS	140	180	200	220	240	—	—
W2AH	140	180	200	220	240	—	—
W2AL	—	180	200	220	240	—	—
W2AS	140	180	200	220	240	—	—
W2BH	140	180	200	220	240	—	—
W2BS	140	180	200	220	240	—	—
W3AL	—	—	200	220	240	280	300
W3AS	—	—	200	220	240	280	300
W3BS	—	—	200	220	240	280	300

*The first letter of Type (For example "W1AH") means that frame is made of wooden.

*The second letter of Type means "sheave number". 1 means "one Sheave", 2 means "two Sheaves"

*The third letter "A" of Type means "without a becket", and "B" means "with a becket".

*The fourth letter "H" of Type means "with a Hook", "L" means "with a Link" and "S" means "with a Shackle".

*Nominal Dia. (Shell) equal to frame height.

Ship's Wooden Blocks Sheave(A): Material FC20

Code No.	Type	Nominal Size (Shell)	Sheave Dia (mm)	Dia of Wire Rope Applied (mm)	W.L.L kN (tf)	Shackles		Weight (kg/pce)	Price
						Upper	Bottom		
W1AS140A	W1AS	140	90	14	1.77 (0.18)	SC10 or SD12	—	2.0	
W1BS140A	W1BS				1.67 (0.17)	SC10 or SD12	BD 8	2.3	
W2AS140A	W2AS				6.47 (0.66)	SC12 or SD14	—	3.5	
W2BS140A	W2BS				7.75 (0.79)	SC12 or SD16	BD 8	3.8	
W1AS180A	W1AS	180	120	18	2.84 (0.29)	SC10 or SD12	—	3.5	
W1BS180A	W1BS				2.65 (0.27)	SC12 or SD16	BD10	4.1	
W2AS180A	W2AS				10.79 (1.10)	SC14 or SD20	—	6.0	
W2BS180A	W2BS				12.75 (1.30)	SC16 or SD20	BD10	6.7	
W1AS200A	W1AS	200	130	20	3.43 (0.35)	SC12 or SD14	—	4.3	
W1BS200A	W1BS				3.24 (0.33)	SC14 or SD16	BD12	5.2	
W2AS200A	W2AS				12.75 (1.30)	SC16 or SD20	—	8.0	
W2BS200A	W2BS				15.69 (1.60)	SC18 or SD22	BD12	9.0	
W3AS200A	W3AS	200	130	20	17.65 (1.80)	SC18 or SD22	—	11.2	
W3BS200A	W3BS				19.61 (2.00)	SC18 or SD22	BD14	12.2	
W1AS220A	W1AS	220	140	22	4.12 (0.42)	SC12 or SD16	—	6.2	
W1BS220A	W1BS				3.92 (0.40)	SC14 or SD20	BD14	7.5	
W2AS220A	W2AS				15.69 (1.60)	SC18 or SD22	—	10.0	
W2BS220A	W2BS				18.63 (1.90)	SC18 or SD22	BD14	11.1	
W3AS220A	W3AS	220	140	22	20.59 (2.10)	SB20 or SD22	—	15.0	
W3BS220A	W3BS				23.54 (2.40)	SB20 or SD24	BD14	15.8	
W1AS240A	W1AS	240	160	24	4.90 (0.50)	SC14 or SD20	—	8.2	
W1BS240A	W1BS				4.61 (0.47)	SC18 or SD22	BD16	10.1	
W2AS240A	W2AS				17.65 (1.80)	SC18 or SD22	—	13.9	
W2BS240A	W2BS				21.58 (2.20)	SC20 or SD24	BD16	15.6	
W3AS240A	W3AS	240	160	24	24.52 (2.50)	SB22 or SD26	—	19.8	
W3BS240A	W3BS				27.46 (2.80)	SB22 or SD26	BD16	20.8	
W1AS280A	W1AS	280	180	28	6.47 (0.66)	SC16 or SD20	—	11.5	
W3AS280A	W3AS				32.36 (3.30)	SB24 or SD28	—	29.0	
W3BS280A	W3BS				36.28 (3.70)	SB26 or SD30	BD16	31.0	
W1AS300A	W1AS	300	200	30	7.36 (0.75)	SC18 or SD22	—	13.3	
W3AS300A	W3AS				37.26 (3.80)	SB26 or SD30	—	35.1	
W3BS300A	W3BS				41.19 (4.20)	SB26 or SD34	BD18	36.2	

*Weight: including upper shackle SC or SB type.

*Sheave (B) is available on request.

Common Type Wooden Blocks (Wooden Sheave)



Nominal Size (Shell Dia)	Sheave Dia	Dia of Wire Rope Applied (mm)	Single Sheave		Double sheave	
			Code No.	Price	Code No.	Price
75	40	8	0751		0752	
90	50	9	0901		0902	
100	60	10	1001		1002	
130	75	14	1301		1302	
150	90	16	1501		1502	
180	105	18	1801		1802	
200	120	20	2001		2002	

Ship's Snatch Blocks (JIS F 3422-1995)



Code No.	Nominal Size	Material of Sheave	Max. Dia of Wire Rope Applied (mm)	W.L.L kN (tf)	Shackles	Weight kg/pce	Price
WMH260A	WMH260	FC20	24	4.9(0.5)	—	10.0	
WMH260B		BC 6					
WME260A	WME260	FC20			SC14 or SD20	10.8	
WME260B		BC 6					
WMH330A	WMH330	FC20	30	7.4(0.75)	—	17.8	
WMH330B		BC 6					
WME330A	WME330	FC20			SC18 or SD22	17.2	
WME330B		BC 6					

Ship's Internal-Bound Blocks (Material : FC Sheave)



Nominal Size (Shell Dia)	Sheave Dia	Dia of Wire Rope Applied (mm)	Single Sheave		Double sheave	
			Code No.	Price	Code No.	Price
100	60	10	OFC1001B		OFC1002B	
130	75	14	OFC1301B		OFC1302B	
150	90	16	OFC1501B		OFC1502B	
180	105	18	OFC1801B		OFC1802B	
200	120	20	OFC2001B		OFC2002B	
230	135	22	OFC2301B		OFC2302B	
250	150	24	OFC2501B		OFC2502B	
280	180	28	OFC2801B		OFC2802B	
300	195	30	OFC3001B		OFC3002B	

Ship's Outside Steel Band Blocks (Wooden Sheave)



Nominal Size (Shell Dia)	Sheave Dia	Dia of Wire Rope Applied (mm)	Price					
			Hook Head			Eye Head		
			Single Sheave	Double sheave	Triple Sheave	Single Sheave	Double sheave	Triple Sheave
100	60	10						
115	68	12						
130	75	14						
150	90	16						
180	105	18						
200	120	20						
230	135	22						
250	150	24						
280	165	26						
300	180	28						

Ship's Inside Steel Band Blocks (Wooden Sheave)



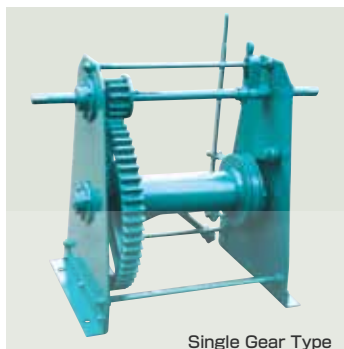
Nominal Size (Shell Dia)	Sheave Dia	Dia of Wire Rope Applied (mm)	Price			
			Hook Head		Eye Head	
			Single Sheave	Double sheave	Single Sheave	Double sheave
100	60	10				
115	68	12				
130	75	14				
150	90	16				
180	105	18				
200	120	20				
230	135	22				
250	150	24				
280	165	26				
300	180	28				

Commercial Type Single Snatch Block with Hook Head





Hand Winch(with Brake)Steel Plate Frame. Double Gear Type



Single Gear Type

Single Gear Type	Code No.	Nominal Size (t)	Winding Capacity (kgf)	Height of Frame (mm)	Approx. Weight (kg)	Price	Double Gear Type	Code No.	Nominal Size (t)	Winding Capacity (kgf)	Height of Frame (mm)	Approx. Weight (kg)	Price
	SS5	1/2	120	520	40			W2	2	400	710	80	
	S1	1	200	630	52			W3	3	750	780	135	
	S2	2	400	710	69			W4	4	850	800	140	
	S3	3	600	780	95			W5	5	1000	900	200	
								W8	8	2000	1050	315	



STAINLESS STEEL PRODUCTS



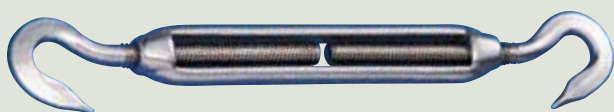
Stainless Steel Products



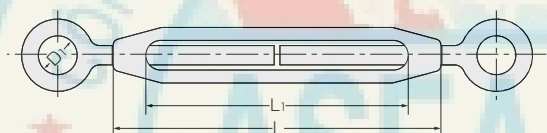
Classified Code 11101

Turnbackle Body(TB-B) • Hook & Hook(TB-H/H) • Eye & Eye(TB-E/E) • With Stubs(TB-S/S)

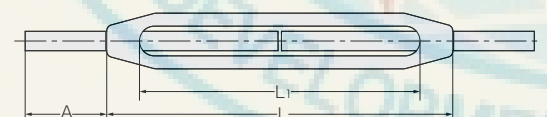
Hook & Hook (TB-H/H)



Eye & Eye (TB-E/E)



With Stubs (TB-S/S)



Body

Standardized Size Code	Size	Dia of Thread	(mm)		W.L.L kN (tf)	Weight (kg)	Price
			L	L ₁			
	6	W1/4	90	68	2.9 (0.3)	0.08	
	8	W5/16	120	96	3.9 (0.4)	0.15	
	9	W3/8	150	124	4.9 (0.5)	0.17	
	12	W1/2	200	169	7.8 (0.8)	0.29	
	16	W5/8	250	210	11.7 (1.2)	0.52	
	19	W3/4	300	254	17.6 (1.8)	0.85	
	22	W7/8	325	273	24.5 (2.5)	1.17	
	25	W1	350	292	34.3 (3.5)	1.64	

Hook & Hook

Standardized Size Code	Size	Dia of Thread	(mm)			W.L.L kN (tf)	Weight (kg)	Price
			L	L ₁	S			
HH06	6	W1/4	90	68	8	0.58 (0.06)	0.12	
HH08	8	W5/16	120	96	9	0.78 (0.08)	0.22	
HH09	9	W3/8	150	124	12	0.98 (0.1)	0.29	
HH12	12	W1/2	200	169	14	1.96 (0.2)	0.57	
HH16	16	W5/8	250	210	16	3.92 (0.4)	1.03	
HH19	19	W3/4	300	254	20	5.88 (0.6)	1.77	
HH22	22	W7/8	325	273	22	6.37 (0.65)	2.61	
HH25	25	W1	350	292	26	14.7 (1.5)	3.73	

Eye & Eye

Standardized Size Code	Size	Dia of Thread	(mm)			W.L.L kN (tf)	Weight (kg)	Price
			L	L ₁	D ₁			
EE06	6	W1/4	90	68	10	1.47 (0.15)	0.12	
EE08	8	W5/16	120	96	12	1.96 (0.2)	0.22	
EE09	9	W3/8	150	124	16	2.94 (0.3)	0.3	
EE12	12	W1/2	200	169	20	6.86 (0.7)	0.58	
EE16	16	W5/8	250	210	22	10.7 (1.1)	1.07	
EE19	19	W3/4	300	254	28	16.6 (1.7)	1.79	
EE22	22	W7/8	325	273	33	23.5 (2.4)	2.6	
EE25	25	W1	350	292	35	31.3 (3.2)	3.8	

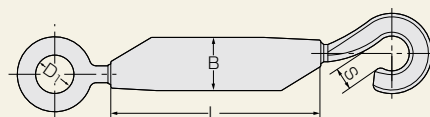
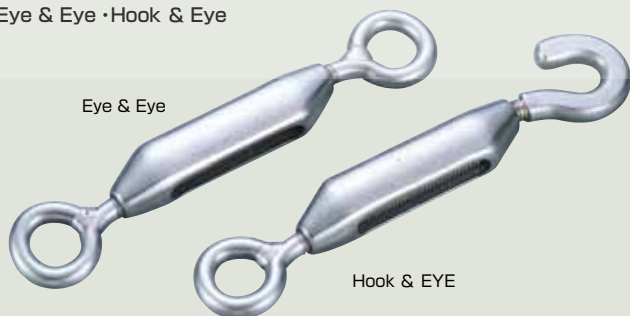
With Stubs

Standardized Size Code	Size	Dia of Thread	(mm)			W.L.L kN (tf)	Weight (kg)	Price
			L	L ₁	A			
SS06	6	W1/4	90	68	55	1.47 (0.15)	0.1	
SS08	8	W5/16	120	96	60	1.96 (0.2)	0.2	
SS09	9	W3/8	150	124	60	2.94 (0.3)	0.26	
SS12	12	W1/2	200	169	55	6.86 (0.7)	0.53	
SS16	16	W5/8	250	210	60	10.7 (1.1)	0.95	
SS19	19	W3/4	300	254	80	16.6 (1.7)	1.63	
SS22	22	W7/8	325	273	95	23.5 (2.4)	2.4	
SS25	25	W1	320	292	100	31.3 (3.2)	3.3	

Classified Code 11103

Turnbackle for Life Raft

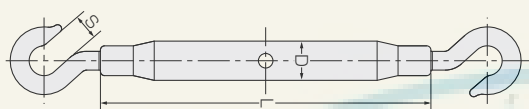
Eye & Eye • Hook & Eye



Standardized Size Code	Size	(mm)					W.L.L kN (tf)	Weight (kg)	Price
		L	L ₁	B	S	D ₁			
EE	EYE & EYE	195	97	22	—	20	4.0 (0.41)	0.3	
HE	Hook & EYE	195	97	22	10	20	2.35 (0.24)	0.3	

Pipe type Turnbuckle Hook & Hook(PTB-H/H) · Eye & Eye(PTB-E/E)

Hook & Hook



■ Hook & Hook

Standardized Size Code	Size	Dia of Thread	(mm)			W.L.L kN (tf)	Weight (kg)	Price
			L	D	S			
HH06	6	W1/4	92	13.8	9	0.73 (0.075)	0.08	
HH08	8	W5/16	132	17.3	11	1.22 (0.125)	0.18	
HH09	9	W3/8	162	21.7	14	1.71 (0.175)	0.34	
HH12	12	W1/2	206	25.4	17	3.67 (0.375)	0.6	
HH16	16	W5/8	247	27.2	19	5.88 (0.6)	1.0	
HH19	19	W3/4	300	34	25	7.84 (0.8)	1.8	
HH22	22	W7/8	325	42.7	31	9.8 (1.0)	2.8	
HH25	25	W1	350	45	36	13.2 (1.35)	1.0	

Eye & Eye



■ Eye & Eye

Standardized Size Code	Size	Dia of Thread	(mm)			W.L.L kN (tf)	Weight (kg)	Price
			L	D	D ₁			
EE06	6	W1/4	92	13.8	10	1.22 (0.125)	0.08	
EE08	8	W5/16	132	17.3	14	2.79 (0.285)	0.19	
EE09	9	W3/8	162	21.7	19	4.0 (0.41)	0.34	
EE12	12	W1/2	206	25.4	26	5.88 (0.6)	0.66	
EE16	16	W5/8	247	27.2	25×40	8.82 (0.9)	1.1	
EE19	19	W3/4	300	34	28×40	9.8 (1.0)	1.9	
EE22	22	W7/8	325	42.7	31×53	20.5 (2.1)	3.0	
EE25	25	W1	350	45	34×54	26.4 (2.7)	4.3	

Rigging Screw JIS-F 3403-1995

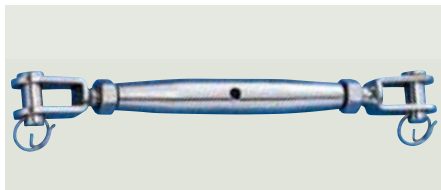


Standardized Size Code	Size	Dia of Thread	(mm)		W.L.L kN (tf)	Weight (kg)	Price
			Max	Min			
14	14	M24	640	460	20.6 (2.1)	5.97	
16	16	M27	900	510	25.5 (2.6)	8.58	
18	18	M30	970	560	32.4 (3.3)	11.6	
22	22 (20)	M33	1,070	610	50.0 (5.1)	14.8	
24	24	M39	1,140	660	57.9 (5.9)	19.4	

■ Additionally, please inquire variously turnbuckle for leisure boat and ship.



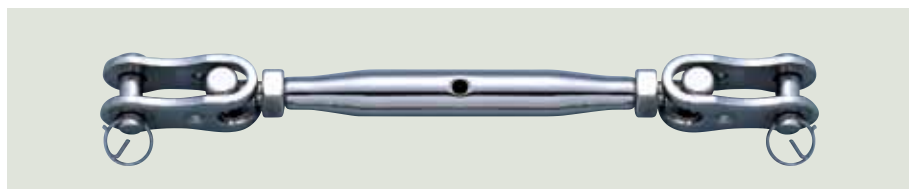
Turnbuckle (jaw & jaw)



Pipe type turnbuckle (jaw & jaw)



(JIS-F 7020) Eye & Eye for Ship



Pipe type turnbuckle (toggle & toggle)



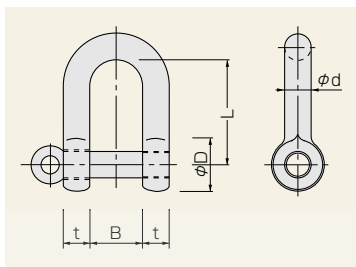
(JIS-F 3307) Anchor stopper T/B



Stainless Shackle

Classified Code **11201**

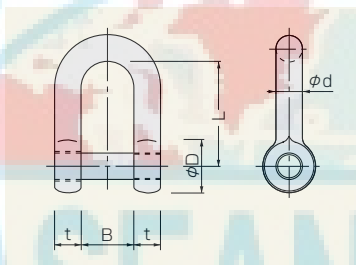
D Shackle



Standardized Size Code	Size (d·t)	(mm)			W.L.L kN (tf)	Weight (kg)	Price
		L	B	D			
06	6	25	12	12	1.17 (0.12)	0.027	
08	8	31	16	16	1.96 (0.2)	0.056	
09	9	36	18	18	2.45 (0.25)	0.09	
10	10	40	20	20	3.33 (0.34)	0.12	
12	12	48	24	24	4.41 (0.45)	0.2	
16	16	60	32	32	7.84 (0.8)	0.48	
19	19	75	38	38	9.8 (1.0)	0.79	
22	22	86	44	44	14.7 (1.5)	1.24	
25	25	96	50	50	19.6 (2.0)	1.81	
28	28	112	56	56	24.5 (2.5)	2.52	
32	32	128	64	64	31.3 (3.2)	3.74	

Classified Code **11204**

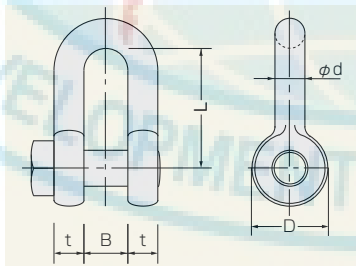
Carver Shackle



Standardized Size Code	Size (d·t)	(mm)			W.L.L kN (tf)	Weight (kg)	Price
		L	B	D			
06	6	24	12	12	1.17 (0.12)	0.025	
08	8	32	16	16	1.96 (0.2)	0.06	
09	9	36	18	18	2.45 (0.25)	0.08	
10	10	40	20	20	3.33 (0.34)	0.11	
12	12	48	24	24	4.41 (0.45)	0.19	
16	16	64	32	32	7.84 (0.8)	0.43	
19	19	76	38	38	9.8 (1.0)	0.75	
22	22	88	44	44	14.7 (1.5)	1.17	
25	25	100	50	50	19.6 (2.0)	1.67	
28	28	112	56	56	24.5 (2.5)	2.23	
32	32	128	64	64	31.3 (3.2)	3.68	

Classified Code **11205**

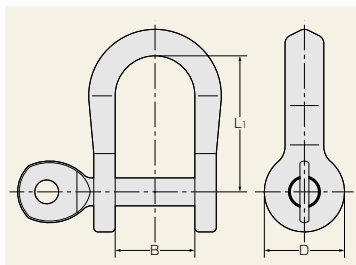
Trawling Shackle



Standardized Size Code	Size (d·t)	(mm)			W.L.L kN (tf)	Weight (kg)	Price
		L	B	D			
06	6	24	12	12	1.17 (0.12)	0.025	
08	8	32	16	16	1.96 (0.2)	0.06	
09	9	36	18	18	2.45 (0.25)	0.09	
10	10	40	20	20	3.33 (0.34)	0.12	
12	12	48	24	24	4.41 (0.45)	0.24	
16	16	64	32	32	7.84 (0.8)	0.44	
19	19	76	38	38	9.8 (1.0)	0.8	
22	22	88	44	44	14.7 (1.5)	1.26	
25	25	100	50	50	19.6 (2.0)	1.79	

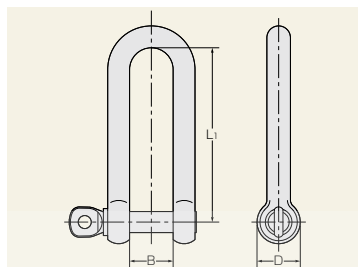
Classified Code **11202**

Plate Shackle (Semi-round)



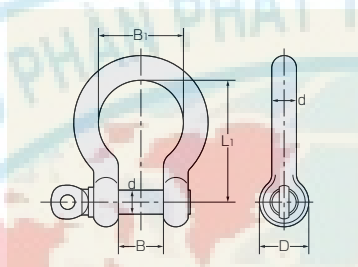
Standardized Size Code	Size (Dia of pin)	(mm)			Weight (g)	Price
		L ₁	B	D		
05	5	21	12	12	13	
06	6	25	14	14	21	
08	8	32	18	17	40	

Long Shackle



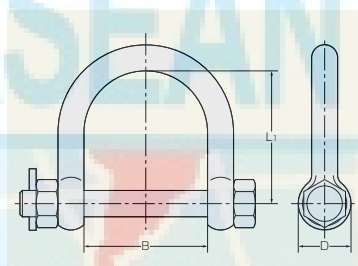
Standardized Size Code	Size	(mm)			Weight (g)	Price
		L ₁	B	D		
08	8	64	16	16	82	
10	10	80	20	20	160	
12	12	90	24	24	275	

Bow Shackle



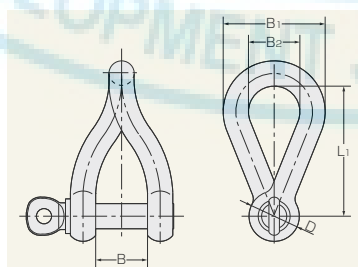
Standardized Size Code	Size (d)	(mm)				Weight (g)	Price
		L ₁	B	B ₁	D		
06	6	30	12	21	12	27	
08	8	41	16	28	16	64	
10	10	51	18	35	20	129	
12	12	60	24	42	24	225	
16	16	82	32	56	32	540	

Wide Shackle (BT&NT)



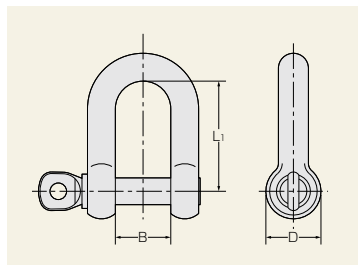
Standardized size code	Size	(mm)			Weight (g)	Price
		L ₁	B	D		
09	9	49.5	36	20	120	
12	12	61	56	24	291	

Twist Shackle



Standardized Size Code	Size	(mm)					Weight (g)	Price
		L ₁	B	B ₁	B ₂	D		
04	4	18	8	10.5	8	8	9	
05	5	23	11	18	10	11	18	
06	6	28	12.5	22	11	13	29	
08	8	31	17	31	16	17	70	
10	10	50	20	39	20	19.5	132	
12	12	60	25	47	24	23.5	230	

Shackle with Pinstopper



Standardized Size Code	Size	(mm)			Weight (g)	Price
		L ₁	B	D		
05	5	20	10	10	15	
06	6	24	12	12	25	
08	8	32	16	16	56	
10	10	40	20	20	105	
12	12	48	24	24	175	



Classified Code 112SB·112SC·112BB·112BC

Shackle (JIS Standard)



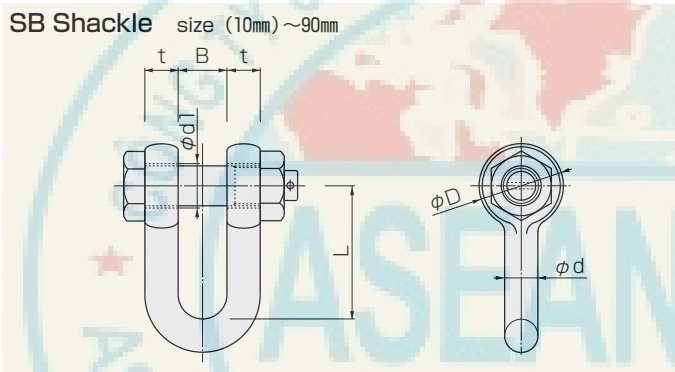
SB Shackle

SC Shackle

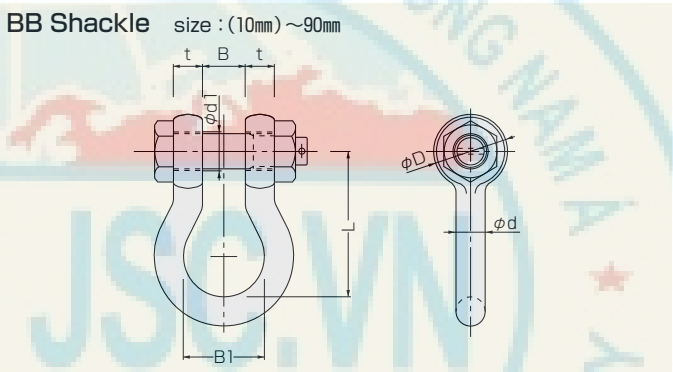


BB Shackle

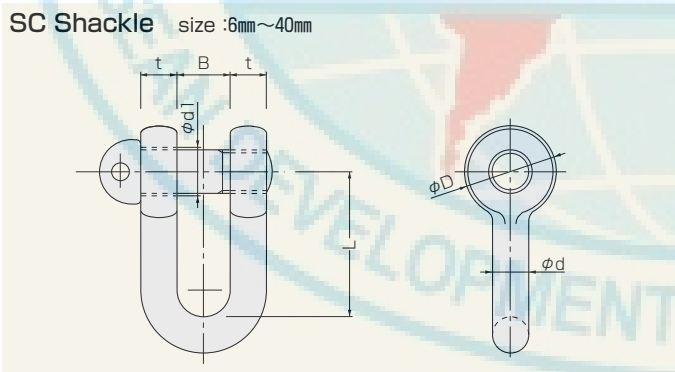
BC Shackle



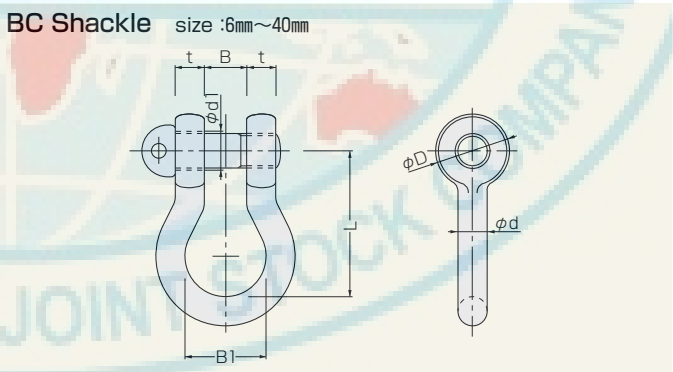
SB Shackle size (10mm)~90mm



BB Shackle size : (10mm)~90mm



SC Shackle size : 6mm~40mm



BC Shackle size : 6mm~40mm

t	Dia of pin	Thread	B (mm)	D (mm)	d1 (mm)	SB·SC		BB·BC			W.L.L	
						d (mm)	L (mm)	d (mm)	L (mm)	B1 (mm)	kN	tf
6	8	M8	11	17	9	6	24	8	36	20	1.96	0.2
8	10	10	14	21	11	8	32	10	45	25	3.43	0.35
10	12	12	17	25	13	10	40	12	54	30	5.88	0.6
12	15	14	20	32	16	12	48	14	63	35	8.82	0.9
14	17	16	24	36	18	14	56	16	72	40	11.76	1.2
16	19	18	26	40	20	16	64	18	80	45	14.7	1.5
18	21	20	29	45	22	18	72	21	95	53	19.6	2.0
20	24	24	31	50	25	20	80	23	104	58	24.5	2.5
22	26	24	34	55	27	22	88	26	117	65	29.4	3.0
24	30	30	39	62	31	24	96	28	126	70	35.28	3.6
26	32	30	41	66	33	26	104	30	135	75	41.16	4.2
28	34	33	43	70	35	28	112	32	144	80	47.04	4.8
30	36	36	45	75	37	30	120	34	153	85	52.92	5.4
32	38	36	48	80	39	32	128	37	167	93	60.76	6.2
34	40	39	50	85	41	34	136	39	176	98	68.6	7.0
36	42	42	54	90	43	36	144	42	190	105	78.4	8.0
38	46	45	57	95	47	38	152	44	198	110	88.2	9.0
40	48	48	60	100	49	40	160	47	212	118	98.0	10.0



Stainless Shackle / Stainless Wire Rope

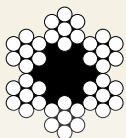
Classified Code 112SB·112SC·112BB·112BC

Shackle (JIS Standard)

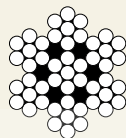
Size	Weight (kg)				Standardized Size Code	Size	Price			
	SB	SC	BB	BC			SB	SC	BB	BC
6	—	0.04	—	0.06	06	6	—		—	
8	—	0.08	—	0.13	08	8	—		—	
10	(0.3)	0.14	(0.35)	0.21	10	10				
12	(0.35)	0.28	(0.38)	0.36	12	12				
14	(0.5)	0.4	(0.56)	0.5	14	14				
16	(0.65)	0.57	(0.83)	0.74	16	16				
18	(0.9)	0.78	(1.23)	1.1	18	18				
20	1.3	1.05	1.8	1.6	20	20				
22	1.9	1.45	2.2	2	22	22				
24	2.55	2.05	3	2.6	24	24				
26	2.85	2.5	3.6	3.1	26	26				
28	3.55	3.0	4.4	3.9	28	28				
30	4.35	3.65	5.3	4.6	30	30				
32	5.06	4.5	6.75	6.1	32	32				
34	6.15	5.2	8.1	7.2	34	34				
36	7.47	6.5	9.8	8.5	36	36				
38	9.0	7.5	11.5	10.1	38	38				
40	10.6	8.8	14.2	12.5	40	40				



Stainless Wire Rope



6×7FC



7×7

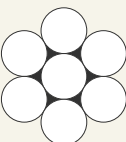
Dia (mm)	Breaking Load				Weight (kg/200m)
	SUS304		SUS316		
	kN	tf	kN	tf	
1.0	0.69	0.07	0.57	0.058	0.74
1.5	1.47	0.15	1.27	0.13	1.66
2.0	2.55	0.26	2.25	0.23	3.0
2.5	4.07	0.415	3.53	0.36	4.6
3.0	5.78	0.59	5.10	0.52	6.6
3.5	7.84	0.80	6.86	0.70	9.0
4.0	10.09	1.03	8.92	0.91	11.8
5.0	15.48	1.58	13.82	1.41	18.6
6.0	22.34	2.28	18.72	1.91	26.8
8.0	38.42	3.92	33.32	3.40	47.4
9.0	48.71	4.97	39.00	3.98	60.0
10.0	60.17	6.14	48.12	4.91	74.2

Dia (mm)	Breaking Load				Weight (kg/200m)
	SUS304		SUS316		
	kN	tf	kN	tf	
1.0	0.78	0.08	0.64	0.065	0.84
1.5	1.67	0.17	1.47	0.15	1.9
2.0	2.84	0.29	2.55	0.26	3.4
2.5	4.51	0.46	3.92	0.40	5.2
3.0	6.47	0.66	5.73	0.585	7.6
3.5	8.82	0.90	7.79	0.795	10.2
4.0	11.17	1.14	10.19	1.04	13.4
5.0	17.54	1.79	15.88	1.62	21.0
6.0	25.19	2.57	22.83	2.33	30.2
8.0	44.69	4.56	38.22	3.90	53.4
9.0	56.06	5.72	44.49	4.54	65.6
10.0	68.21	6.96	54.88	5.60	84.0

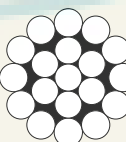


6×24FC

Dia (mm)	Breaking Load				Weight (kg/200m)
	SUS304		SUS316		
	kN	tf	kN	tf	
6.0	19.60	2.00	16.46	1.68	24.0
8.0	34.69	3.54	29.01	2.96	42.4
9.0	43.41	4.43	36.75	3.75	53.8
10.0	53.51	5.46	44.30	4.52	66.4
12.0	76.15	7.77	63.80	6.51	95.6
14.0	101.92	10.40	84.18	8.59	130.2
16.0	132.30	13.50	107.80	11.00	170.0
18.0	165.62	16.90	132.30	13.50	216.0
20.0	197.96	20.20	159.74	16.30	266.0
22.0	239.12	24.40	193.06	19.70	322.0
24.0	284.20	29.00	229.32	23.40	382.0



1×7

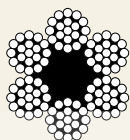


1×19

Dia (mm)	Breaking Load				Weight (kg/200m)
	SUS304		SUS316		
	kN	tf	kN	tf	
1.0	0.98	0.10	0.88	0.09	1.0
1.2	1.47	0.15	1.27	0.13	1.4
1.6	2.55	0.26	2.25	0.23	2.5
2.0	4.02	0.41	3.63	0.37	3.9
2.4	5.78	0.59	5.10	0.52	5.6
3.0	8.82	0.90	7.64	0.78	8.8
3.2	9.90	1.01	8.53	0.87	10.0
4.0	15.09	1.54	12.74	1.30	15.6
4.8	21.17	2.16	17.25	1.76	22.6
6.0	32.83	3.35	27.44	2.80	35.2
6.3	33.61	3.43	28.22	2.88	39.6
8.0	52.92	5.40	42.14	4.30	62.0

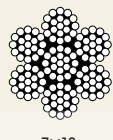
Dia (mm)	Breaking Load				Weight (kg/200m)
	SUS304		SUS316		
	kN	tf	kN	tf	
1.0	0.93	0.095	0.78	0.08	1.0
1.2	1.37	0.14	1.08	0.11	1.4
1.6	2.35	0.24	2.06	0.21	2.5
2.0	3.53	0.36	3.23	0.33	3.9
2.4	5.29	0.54	4.80	0.49	5.6
3.0	8.04	0.82	7.25	0.74	8.8
3.2	9.02	0.92	8.13	0.83	10.0
4.0	13.92	1.42	12.15	1.24	15.6
4.8	19.60	2.00	16.07	1.64	22.6
6.0	30.38	3.10	25.48	2.60	35.2
6.3	32.34	3.30	26.95	2.75	39.6
8.0	52.92	5.40	43.32	4.42	62.0

Stainless Wire Rope

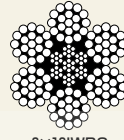


6×19FC

Dia (mm)	Breaking Load				Weight (kg/200m)
	SUS304		SUS316		
	kN	tf	kN	tf	
2.5	3.92	0.40	3.43	0.35	4.6
3.0	5.68	0.58	4.80	0.49	6.6
4.0	9.80	1.00	8.62	0.88	11.6
5.0	15.29	1.56	13.43	1.37	18.2
6.0	22.05	2.25	18.62	1.90	26.2
8.0	37.53	3.83	33.12	3.38	46.6
9.0	47.63	4.86	41.94	4.28	59.0
10.0	58.60	5.98	49.78	5.08	72.8
12.0	83.89	8.56	68.99	7.04	104.8
14.0	112.70	11.50	90.16	9.20	142.6
16.0	142.10	14.50	113.68	11.60	186.4
18.0	179.34	18.30	142.10	14.50	236.0



7×19



6×19IWRC

7×19・6×19IWRC

Dia (mm)	Breaking Load				Weight (kg/200m)
	SUS304		SUS316		
	kN	tf	kN	tf	
2.5	4.26	0.435	3.82	0.39	5.2
3.0	6.13	0.625	5.54	0.565	7.6
4.0	10.68	1.09	9.51	0.97	13.4
5.0	16.66	1.70	14.90	1.52	21.0
6.0	24.11	2.46	21.46	2.19	30.4
8.0	41.75	4.26	37.14	3.79	52.0
9.0	52.92	5.40	46.26	4.72	66.0
10.0	65.27	6.66	57.13	5.83	84.0
12.0	93.39	9.53	78.89	8.05	121.0
14.0	125.44	12.80	102.90	10.5	164.6
16.0	158.76	16.20	128.38	13.1	216.0
18.0	200.90	20.50	162.68	16.6	272.0



6×37FC

Dia (mm)	Breaking Load				Weight (kg/200m)
	SUS304		SUS316		
	kN	tf	kN	tf	
6.0	21.46	2.19	17.93	1.83	25.8
8.0	36.85	3.76	31.95	3.26	46.0
9.0	46.35	4.73	40.47	4.13	58.2
10.0	56.84	5.80	49.98	5.10	71.8
12.0	81.34	8.30	71.93	7.34	103.4
14.0	109.76	11.20	97.90	9.99	140.8
16.0	142.10	14.50	122.50	12.50	184.0
18.0	179.34	18.30	152.88	15.60	232.0
20.0	219.52	22.40	187.18	19.10	288.0
22.0	259.70	26.50	200.90	20.50	348.0
24.0	309.68	31.60	264.60	27.00	414.0



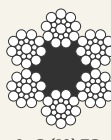
7×37



6×37IWRC

7×37・6×37IWRC

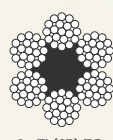
Dia (mm)	Breaking Load				Weight (kg/200m)
	SUS304		SUS316		
	kN	tf	kN	tf	
6.0	23.91	2.44	20.58	2.10	29.8
8.0	40.96	4.18	36.36	3.71	53.2
9.0	51.16	5.22	45.57	4.65	66.2
10.0	63.11	6.44	56.25	5.74	83.0
12.0	90.26	9.21	80.36	8.20	119.6
14.0	121.52	12.40	102.90	10.50	162.6
16.0	157.78	16.10	129.36	13.20	212.0
18.0	197.96	20.20	162.68	16.60	268.0
20.0	243.04	24.80	200.90	20.50	332.0
22.0	287.14	29.30	239.12	24.40	402.0
24.0	333.20	34.00	284.20	29.00	478.0



6×S(19)FC



6×W(19)FC



6×Fi(25)FC

6×S(19)FC
6×W(19)FC
6×Fi(25)FC

Dia (mm)	Breaking Load				Weight (kg/200m)
	SUS304		SUS316		
	kN	tf	kN	tf	
1.0	0.98	0.10	0.88	0.09	1.0
1.2	1.47	0.15	1.27	0.13	1.4
1.6	2.55	0.26	2.25	0.23	2.5
2.0	4.02	0.41	3.63	0.37	3.9
2.4	5.78	0.59	5.10	0.52	5.6
3.0	8.82	0.90	7.64	0.78	8.8
3.2	9.90	1.01	8.53	0.87	10.0
4.0	15.09	1.54	12.74	1.30	15.6
4.8	21.17	2.16	17.25	1.76	22.6
6.0	32.83	3.35	27.44	2.80	35.2
6.3	33.61	3.43	28.22	2.88	39.6
8.0	52.92	5.40	42.14	4.30	62.0

7×7 [Classified Code 1140C](#)

7×19 [Classified Code 1140D](#)

Standardized Size Code	Dia (mm)	7×7 SUS304	7×19 SUS304
010200	1.0		—
01S50200	1.5		—
020200	2.0		—
02S50200	2.5		—
030200	3.0		—
040200	4.0		
050200	5.0		
060200	6.0	—	
080200	8.0	—	
090200	9.0	—	
100200	10.0	—	
120200	12.0	—	

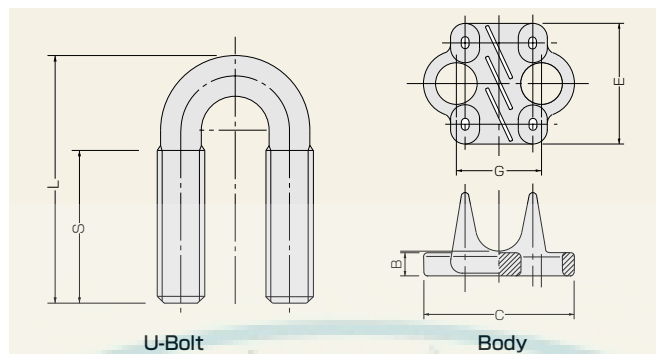


Stainless Wire Rope Attachment

2mm~16mm **Classified Code 11505**

18mm~28mm **Classified Code 115A5**

Wire Rope Clip JIS-B 2809 F type



Standardized Size Code	Size	Body (mm)				U Bolt · Nat (mm)			Weight (g)	Price
		B	C	E	G	Dia of Thread	L	S		
01S5	1.5	3	10	10	5	M2	16	10	4	
02	2	3.5	14	14	7	M3	18	10	8	
03	3	3.5	17	16	8	M3	24	12	18	
04	4	4.5	19	17	10	M4	25	14	19	
05	5	5	24	20	12	M5	33	15	30	
06	6	5	27	22	13	M6	35	20	47	
08	8	6	35	28	18	M8	40	20	80	
10	10	7	43	33	22	M10	50	28	150	
12	12	8	51	38	25	M12	60	35	250	
14	14	9	53	45	28	M12	65	40	290	
16	16	11	60	48	32	M14	75	45	350	
18	18	11	62	53	34	M14	80	50	450	
22	20~22	12	78	62	44	M18	100	60	960	
25	24~25	13	86	68	48	M20	110	65	1,250	
28	26~28	14	94	75	54	M22	120	70	1,700	

Classified Code 11504

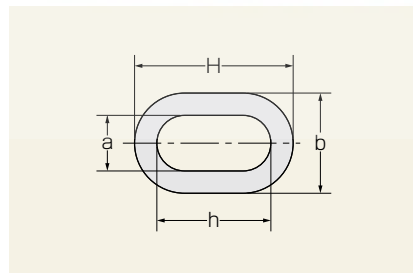
Wire Rope Clip (Plate type)



Standardized Size Code	Size	Dia of Thread (mm)	Weight (g)	Price
04S5	4.5	W3/16	16	
06	6	W1/4	26	

Classified Code 11508

Stainless Tube Double Type



●When you rock the stainless wire rope, especially using in the water, please use stainless tube not Aluminium one to prevent corrosion with electricity.

Standardized Size Code	Size	a (mm)	b (mm)	h (mm)	H (mm)	Length (mm)	Weight (g)	Price
02	2	2.5	5.8	4.1	7.6	8.0	1.5	
03	3	3.5	7.5	6.9	11.0	12.2	4	
04	4	4.5	8.3	9.4	13.5	16.0	7.5	
06	6	7.0	14.0	13.4	20.0	25.2	29	
08	8	10.0	18.0	18.5	26.5	34.0	61	
10	10	11.5	20.5	21.5	30.7	42.0	103.5	
12	12	14.0	24.0	27.7	38.0	48.0	167	

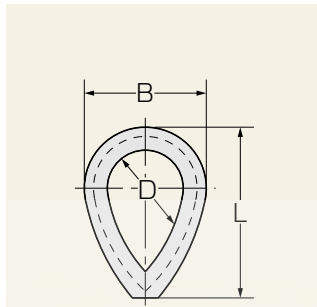
2mm~4mm

Classified Code 11503

Thimbles

6mm~

Classified Code 11501

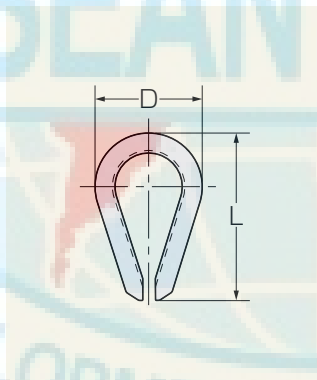


Solid Type
● From 2 To 4mm=solid type

Standardized Size Code	Size	L (mm)	B (mm)	D (mm)	Weight (g)	Price
02	*2	19	15	6	4	
03	*3	30	24	10	14	
04	*4	38	28	14	22	
06	6	36	27	16	20	
08	8	48	36	22	40	
09	9	51	40	25	50	
10	10	58	45	28	60	
12	12	68	54	34	90	
14	14	78	61	38	140	
16	16	92	72	44	190	
18	18	100	75	48	270	
20	20	112	86	54	390	
22	22	122	95	60	510	
24	24	136	105	65	630	
26	26	144	110	70	880	
28	28	156	120	75	1,100	
30	30	166	130	80	1,300	

Classified Code 11522

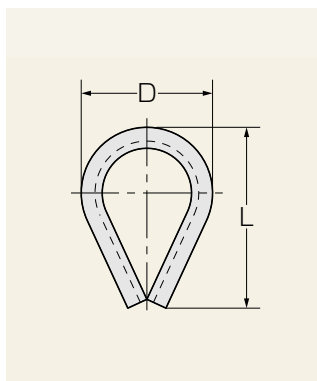
Plate Thimbles



Standardized Size Code	Size	L (mm)	D (mm)	Weight (g)	Price
02S5	2.5	25	12.5	1.8	
03	3	26	14.5	3	
04	4	27	17.5	4	
05	5	33	20	5	
06	6	36	24	11	
08	8	49	31	20	
09	9·10	58	38	36	
12	12	68	43	48	

Classified Code 11517

Rope Thimbles



Standardized Size Code	Size	L (mm)	D (mm)	Weight (g)	Price
09	9	36	23	20	
12	12	51	37	40	
16	16	56	42	60	
19	19	64	47	90	
22	22	76	54	140	
25	25	80	61	190	

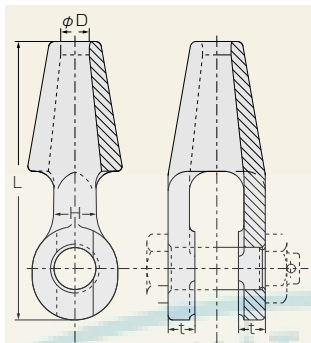


Stainless Wire Rope Attachment

Classified Code **11520**

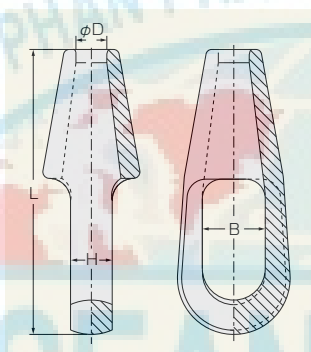
Wire Rope Scket

Open Type



Standardized Size Code	Size	D (mm)	L (mm)	H (mm)	t (mm)	S.W.L kN (tf)	Weight (kg)	Price
O16	16	20	193	24	13	25.5 (2.6)	1.54	
O18	18	23	210	27	15	32.4 (3.3)	2.18	
O20	20	25	227	30	18	40.2 (4.1)	2.93	
O22	22.4	30	245	33	20	50.0 (5.1)	3.96	
O24	24	32	262	36	22	57.9 (5.9)	5.21	
O25	25	33	281	39	24	67.7 (6.9)	6.92	
O28	28	36	298	41	26	78.5 (8.0)	8.41	

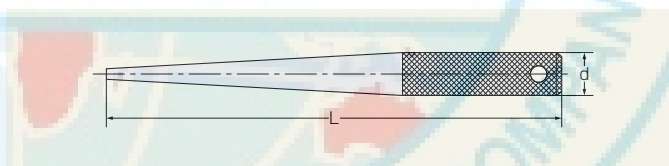
Closed Type



Standardized Size Code	Size	D (mm)	B (mm)	L (mm)	H (mm)	S.W.L kN (tf)	Weight (kg)	Price
C16	16	20	40	193	24	25.5 (2.6)	1.18	
C18	18	23	43	210	27	32.4 (3.3)	1.64	
C20	20	25	47	227	30	40.2 (4.1)	2.24	
C22	22.4	30	52	245	33	50.0 (5.1)	2.95	
C24	24	32	56	262	36	57.9 (5.9)	3.84	
C25	25	33	60	281	39	67.7 (6.9)	4.89	
C28	28	36	65	298	41	78.5 (8.0)	5.87	

Classified Code **11511**

Spike



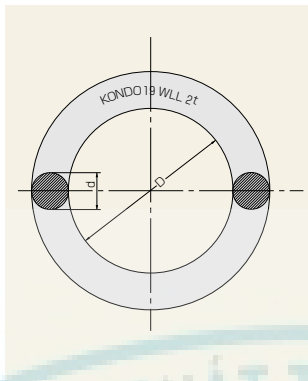
Standardized Size Code	Size	d (mm)	L (mm)	Weight (kg)	Price
16200	16	16	200	210	
19200	19	19	200	300	
22250	22S	22	250	450	
22300	22L	22	300	510	
25300	25S	25	300	700	
25350	25L	25	350	900	
28350	28S	28	350	1,200	
28400	28L	28	400	1,380	



Stainless Round Ring

Classified Code 115A8

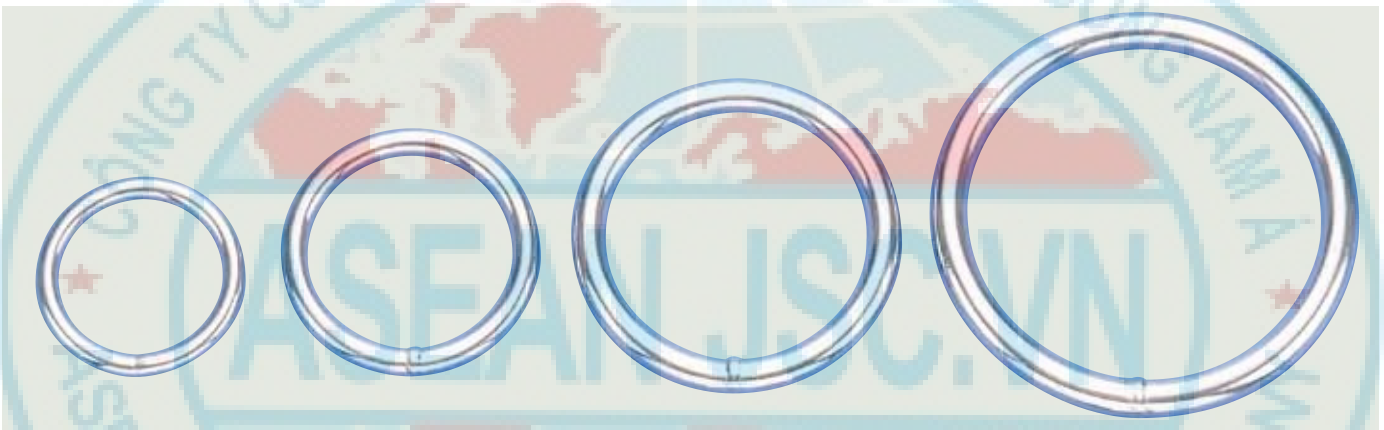
Forged Round Ring



Standardized Size Code	Size (mm)		W.L.L. kN (tf)	Weight (kg)	Price
	d	D			
16	16	70	9.8 (1.0)	0.43	
19	19	85	19.6 (2.0)	0.66	
22	22	100	24.5 (2.5)	1.14	
25	25	115	29.4 (3.0)	1.66	

Classified Code 11510

Welded Round Ring



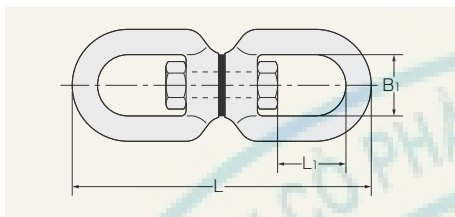
Standardized Size Code	Size (Dia×I.D)	Price	Standardized Size Code	Size (Dia×I.D)	Price	Standardized Size Code	Size (Dia×I.D)	Price
03020	3×20		09030	9×30		16065	16×65	
03025	3×25		09040	9×40		16070	16×70	
03030	3×30		09045	9×45		16080	16×80	
04025	4×25		09050	9×50		16100	16×100	
04030	4×30		09055	9×55		16110	16×110	
04035	4×35		09060	9×60		16120	16×120	
05025	5×25		09070	9×70		16130	16×130	
05030	5×30		09080	9×80		16150	16×150	
05035	5×35		09090	9×90		19075	19×75	
05040	5×40		09100	9×100		19090	19×90	
05050	5×50		10050	10×50		19100	19×100	
06030	6×30		10060	10×60		19110	19×110	
06035	6×35		10070	10×70		19130	19×130	
06040	6×40		10075	10×75		19150	19×150	
06045	6×45		10080	10×80		19180	19×180	
06050	6×50		10090	10×90		19200	19×200	
07040	7×40		10100	10×100		22090	22×90	
07045	7×45		11050	11×50		22100	22×100	
07050	7×50		11060	11×60		22110	22×110	
08030	8×30		12050	12×50		22125	22×125	
08035	8×35		12060	12×60		22150	22×150	
08040	8×40		12070	12×70		22180	22×180	
08045	8×45		12100	12×100		22200	22×200	
08050	8×50		13050	13×50		25100	25×100	
08055	8×55		13055	13×55		25110	25×110	
08060	8×60		13060	13×60		25125	25×125	
08070	8×70		13065	13×65		25150	25×150	
08080	8×80		13070	13×70		25180	25×180	
08100	8×100		13075	13×75		25200	25×200	
			13080	13×80				
			13100	13×100				



Stainless Swivel

5~13 **Classified Code 116Z1** 16~32 **Classified Code 11601**

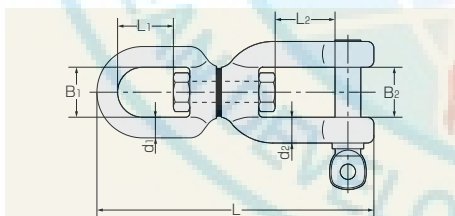
Swivel



Standardized Size Code	Size	L	L1	B1	Weight (g)	S.W.L kN (tf)	Price
05	5	60	13	13	34	0.8 (0.08)	
06	6	65	15	15	51	1.3 (0.13)	
08	8	90	22	20	131	2.5 (0.25)	
09	9	105	23	23	183	2.9 (0.29)	
10	10	115	27	24	260	3.0 (0.3)	
13	13	154	35	32	580	5.9 (0.6)	
16	16	188	45	38	1,100	9.8 (1.0)	
19	19	231	50	42	2,250	15.7 (1.6)	
22	22	254	52	47	3,130	20.6 (2.1)	
25	25	295	67	63	4,820	25.5 (2.6)	
28	28	336	76	70	6,600	31.4 (3.2)	
32	32	384	87	80	9,500	41.2 (4.2)	

Classified Code 11601

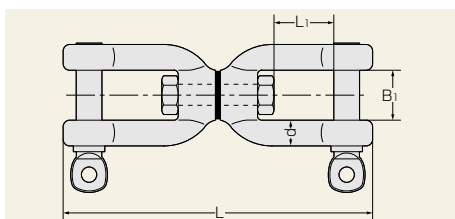
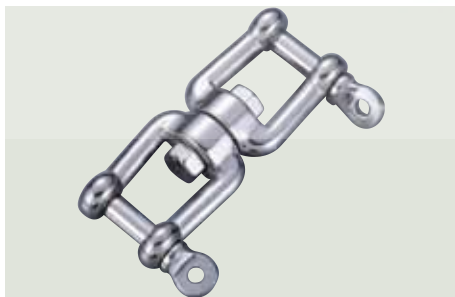
Swivel SC (Single Shackle Type)



Standardized Size Code	Size	d1	d2	L	L1	L2	B1	B2	Weight (g)	S.W.L kN (tf)	Price
SC06	6	6	6	62	15	11	15	12	60	1.2 (0.12)	
SC08	8	8	8	90	22	17	21	16	150	2.0 (0.2)	
SC10	10	10	10	113	27	22	24	20	290	3.0 (0.3)	
SC13	13	10	13	136	25	28	24	26	500	3.9 (0.4)	
SC16	16	13	16	173	35	37	31	32	970	5.9 (0.6)	
SC19	19	16	19	208	45	48	38	38	1,650	9.8 (1.0)	
SC22	22	19	22	248	50	57	42	44	2,650	15.7 (1.6)	

Classified Code 11601

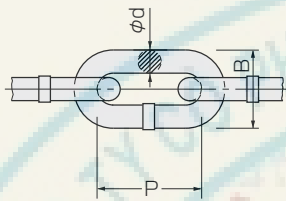
Swivel SC (Double Shackle Type)



Standardized Size Code	Size	d	L	L1	B1	Weight (g)	S.W.L kN (tf)	Price
CC06	6	6	64	11	12	64	1.2 (0.12)	
CC08	8	8	87	16	16	164	2.0 (0.2)	
CC10	10	10	113	22	20	324	3.0 (0.3)	
CC13	13	13	134	28	26	680	3.9 (0.4)	
CC16	16	16	190	37	32	1,280	5.9 (0.6)	
CC19	19	19	228	48	38	2,050	9.8 (1.0)	
CC22	22	22	264	57	44	3,300	15.7 (1.6)	



Stainless Link Chain



Normal Size	Actual d	Pitch P	Outside Width B	Test Load (kN)	W.L.L kN(tf)	Weight (kg/m)
3	3.0	24.0	11.0	1.47	0.74 (0.075)	0.144
4	3.8	26.0	13.6	1.96	0.98 (0.1)	0.248
5	4.8	27.0	17.0	5.88	2.94 (0.3)	0.406
6	5.8	31.0	20.4	9.8	4.9 (0.5)	0.606
7	7.0	34.0	24.5	11.8	5.9 (0.6)	0.890
8	8.0	36.0	27.0	14.7	7.35 (0.75)	1.206
9	9.0	39.0	30.5	19.6	9.8 (1.0)	1.554
11	10.4	45.0	35.5	24.5	12.25 (1.25)	2.322
13	12.0	52.0	42.0	29.4	14.7 (1.5)	2.754



Size	Carton Box	Classified Code 113A2	Plastic Reel	Classified Code 113A2	Steel Drum		Classified Code 113A3
	Standardized Size Code	Price	Standardized Size Code	Price	Standardized Size Code	Length (m)	Price
3	03		D03		03200	200	
4	04		D04		04200	200	
5	05				05200	200	
					05100	100	
6	06		D06		06200	200	
					06100	100	
7	07				07100	100	
8	08				08100	100	
9	09				09100	100	
11	11				11	60	
13	13				13	60	

We have long link chain, short link chain, and other chains.



Stainless Hook / Connecting Fitting

without Latch **Classified Code 115A6**

Forged Cargo Hook

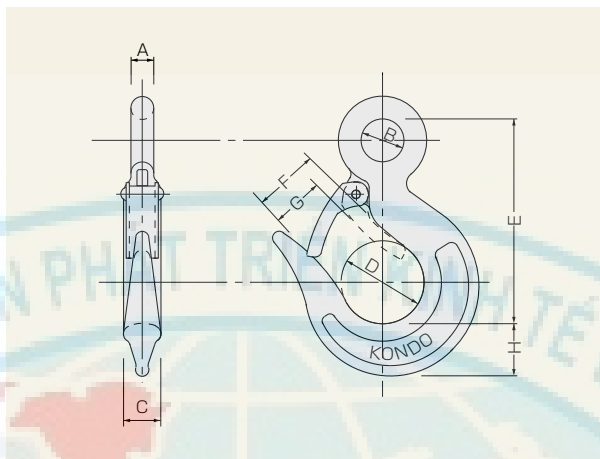
with Latch **Classified Code 115A7**



without latch



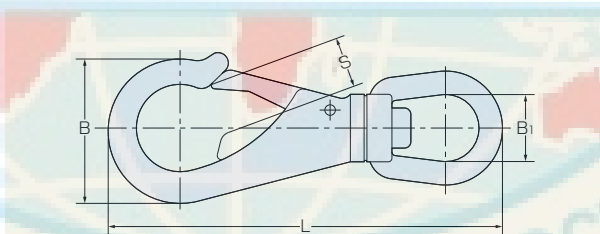
with latch



Standardized Size Code	Size	A	B	C	D	E	F	G	H	Weight (kg)	Price	
											without Latch	with Latch
S3	0.32t	8.5	16	14	31	76.5	25	21	19	0.2		
S5	0.5t	10	20	15.5	35	89.5	28	22	23	0.33		
01	1t	13	25	22	43	110	33	25	27	0.73		
02	2t	16	34	26.5	49	131.5	39	29	37	1.25		
03	3.2t	20	41	32.5	54	156	44	34.5	41	2.1		

Classified Code 115Z9

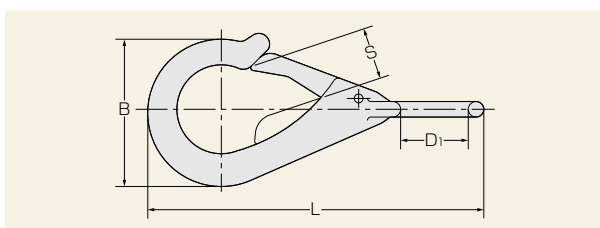
A Type Hook (Swivel eye snap)



Standardized Size Code	Size	L	B	B ₁	S	Weight (kg)	W.L.L N (kg)	Price
A1	A1	83	30	16	10	58	294 (30)	
A2	A2	94	38	19	12	96	392 (40)	
A3	A3	113	44	22	15	148	490 (50)	

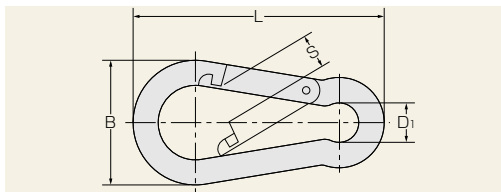
Classified Code 115Z9

B Type Hook (Rigged eye snap)



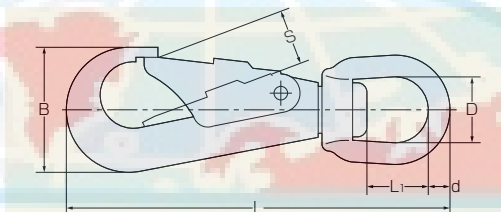
Standardized Size Code	Size	L	B	D ₁	S	Weight (kg)	W.L.L N (kg)	Price
B0	B0	54	24	9	7	24	196 (20)	
B1	B1	72	30	16	9	42	294 (30)	
B2	B2	81	35	18	13	64	392 (40)	
B3	B3	98	45	21	15	120	490 (50)	

Spring Hook



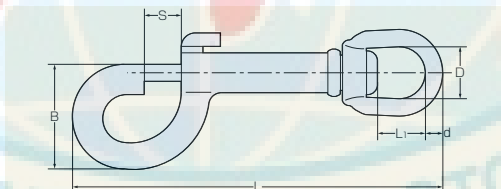
Standardized Size Code	Size	L	B	S	D1	Weight (g)	W.L.L N (kg)	Price
05	5	50	25	8	10	20	588 (60)	
06	6	60	30	9	11	29	686 (70)	
08	8	80	40	9	13	65	882 (90)	
10	10	100	50	12	16	129	1,176 (120)	

Spring Swivel Snap



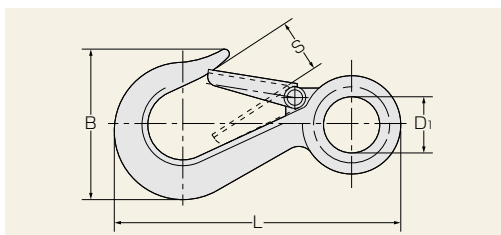
Standardized Size Code	Size	d	L	L1	B	D	S	Weight (g)	W.L.L N (kg)	Price
S0	3	55	9	18	12	4	16	294 (30)		
S1	4	69	11	23	13	7	18	392 (40)		
S2	4	83	14	28	17	9	41	490 (50)		

Swivel Eye Snap



Standardized Size Code	Size	d	L	L1	B	D	S	Weight (g)	W.L.L N (kg)	Price
K0	3	64	10	18	11	6.5	22	294 (30)		
K1	4	75	12	21	13	7.5	30	490 (50)		
K2	4	85	14	24	17	8.5	50	686 (70)		
K3	5	90	18	24	20	8.5	55	686 (70)		

Strong Snap Ring

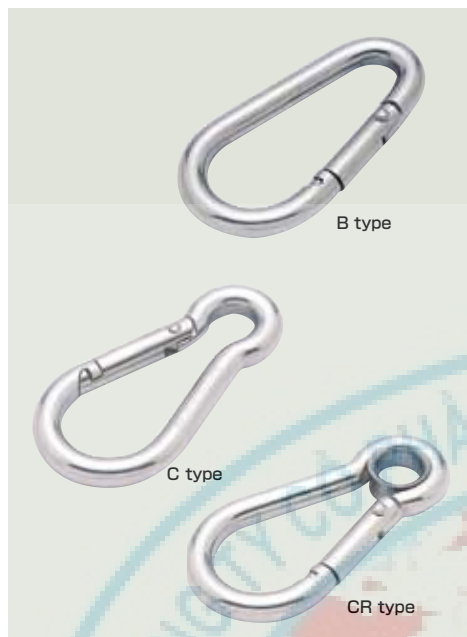


Standardized Size Code	Size	L	B	S	D1	Weight (g)	W.L.L N (kg)	Price
X2	X2	102	56	16	21	130	931 (95)	
X3	X3	120	62	18	28	180	980 (100)	

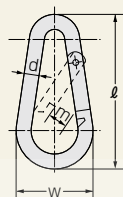


Classified Code **11515**

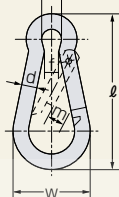
Snap Hooks



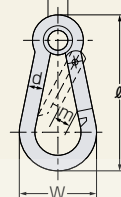
B type



C type



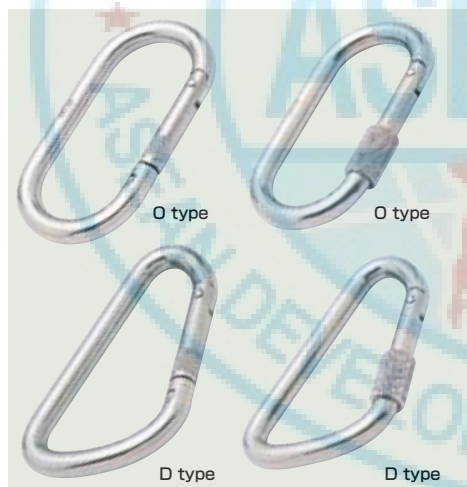
CR type



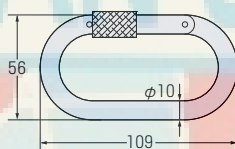
Type	d	w	l	d'	f	m	Weight (g)	W.L.L (kg)	Number
6B	6	31	60	—	—	—	27.5	35	20pcs×10
6C				9	6	8	28		
6CR				—	—	—	29		
8B	8	40	80	—	—	—	65	75	20pcs×10
8C				10	8	9	66		
8CR				—	—	—	66.5		
10B	10	55	110	—	—	15	142	150	10pcs×10
10C				15	10	13	143		
10CR				—	—	—	146		
12B	12	70	140	—	—	20	266	200	5pcs×10
12C				20	13	19	267		
12CR				—	—	—	270		

Classified Code **11515**

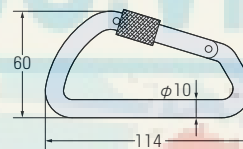
Carabiner



O type



D type



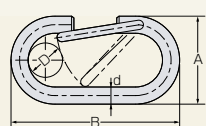
Type	Dia	size	Open	Weight (g)	W.L.L (kg)
O type without ring	10	56×109	20	148	135
with ring			18	160	215
D type without ring	10	60×114	19	155	235
with ring			17	165	235

Classified Code **11515**

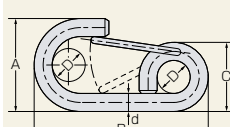
C Link • Q Link



C link



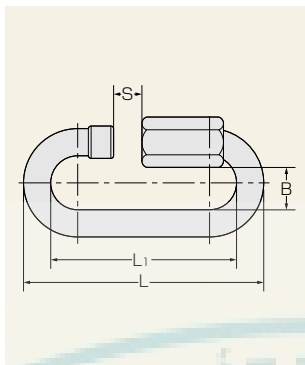
Q link



Size d	A	B	D	Weight (g)	W.L.L (kg)	Number
4	16	38	5	7.5	12	20pcs×10
5	25	50	8.5	16	16	
6	32	62	12	30	20	
7	35	66	13	41	30	
8	38	71	14	60	45	
9	41	75	15	76	55	10pcs×10
10	44	80	14	105	70	
12	60	110	20	205	85	5pcs×4
16	76	150	34	482	170	

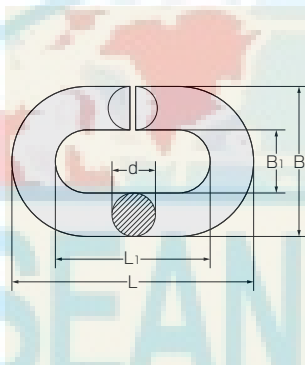
Size d	A	B	C	D	Weight (g)	W.L.L (kg)	Number
6	32	61	24	11	32	20	20pcs×10
8	38	69	29	12	61	45	
10	44	82	36	15	111	70	10pcs×10

Ring Catch



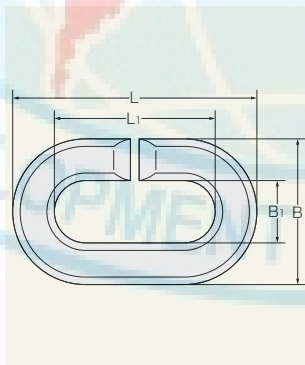
Standardized Size Code	Size	L	L ₁	B	S	Weight (g)	W.L.L (kg)	Price
03S5	3.5	36	29	10	4	9	30	
04	4	40	32	12	5	11	50	
05	5	49	39	13	6	22	80	
06	6	57	45	14	8	38	150	
08	8	74	58	18	10	80	350	
09	9	80	62	20	11	102	500	
10	10	89	69	22	12	144	700	
13	13	105	81	24	14	225	800	

C Ring



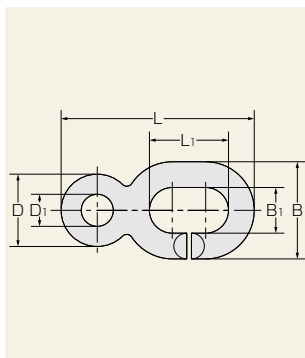
Standardized Size Code	Size d	L	L ₁	B	B ₁	Weight (g)	W.L.L (kg)	Price
05	5	30	20	17	7	8	20	
06	6	35	23	20	8	18	30	
08	8	47	31	27	11	44	50	
09	9	53	35	31	13	58	100	
11	11	65	43	37	15	106	150	
13	13	77	51	44	18	167	200	
16	16	94	62	54	22	315	250	
19	19	109	71	68	30	510	300	
22	22	135	91	78	34	800	400	
25	25	150	100	86	36	1,240	600	

Strong C Ring



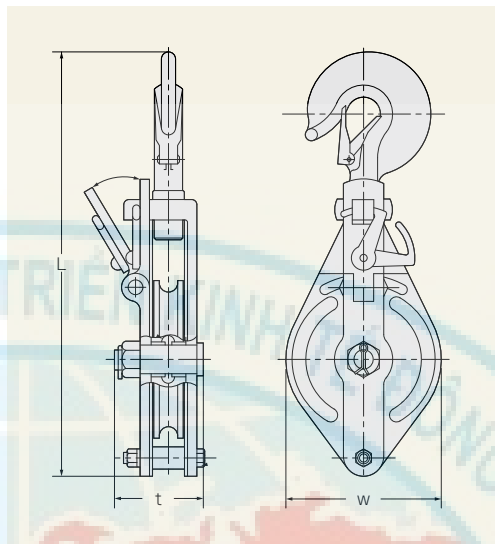
Standardized Size Code	Size d	L	L ₁	B	B ₁	Weight (g)	W.L.L (kg)	Price
13S	13	77	50	49	20	170	200	
16S	16	97	64	57	24	320	390	
19S	19	115	76	67	28	540	520	
22S	22	134	88	79	33	840	690	
25S	25	152	100	89	37	1,230	880	
28S	28	168	111	96	41	1,650	1,050	

C Ring (with small ring)



Standardized Size Code	L	L ₁	B	B ₁	D	D ₁	Weight (g)	W.L.L (kg)	Price
S13	118	48	60	28	44	20	350	200	

Alps Stainless Block

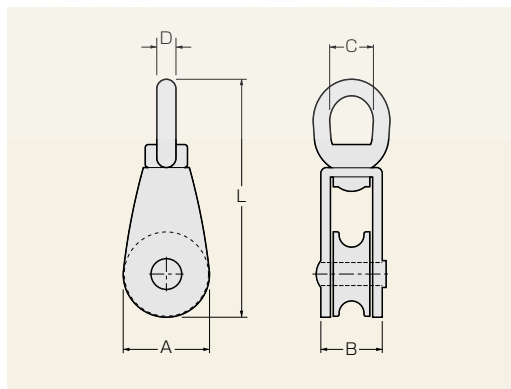


■ Specification (Block · Snatch)

Sheave	Rope dia (mm)	Dia of pin (mm)	W.L.L (ton)
75mm 3"	14	13	0.5
100mm 4"	18	16	0.75
130mm 5"	20	19	1.5
150mm 6"	25	27	2.5

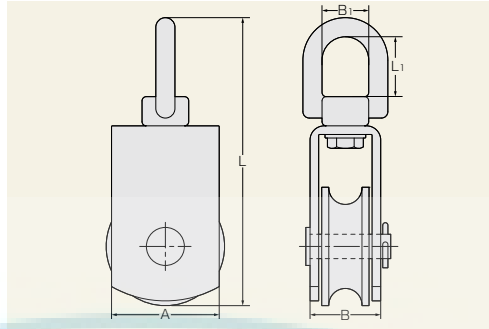
Sheave	Block						Snatch					
	Standardized Size Code	L	w	t	Weight (kg)	Price	Standardized Size Code	L	w	t	Weight (kg)	Price
75	BH 0751 BO 0751	277	79	48	1.2		SH 0751 SO 0751	240	76	53	1.2	
100	BH 1001 BO 1001	331	116	56	2.0		SH 1001 SO 1001	300	114	61	2.2	
130	BH 1301 BO 1301	393	132	64	5.5		SH 1301 SO 1301	356	132	70	5.0	
150	BH 1501 BO 1501	466	160	89	9.0		SH 1501 SO 1501	427	160	89	9.0	

AK Block



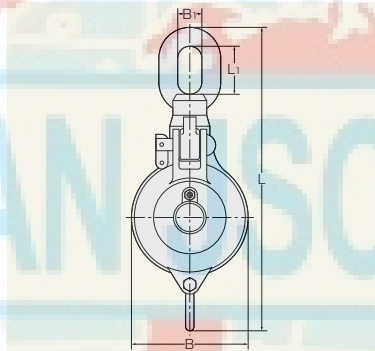
Standardized Size Code	Size (Sheave)	Rope dia	A	B	C	D	L	Weight (kg)	W.L.L (kg)	Price
BO 251	25	10	30	24	14	6	83	125	170	
BO 321	32	10	36	24	14	6	96	167	200	
BO 501	50	14	54	28	20	8	130	400	300	

Block for Mackerel Fishing



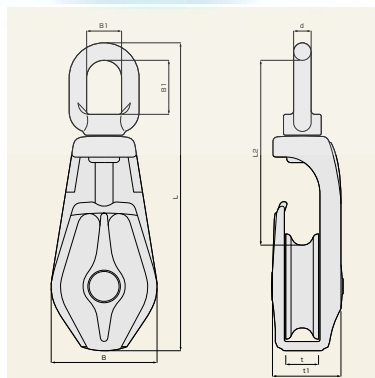
Standardized Size Code	Size (Sheave)	L	L ₁	B	B ₁	A	Rope Dia	Weight (kg)	W.L.L (kg)	Price
050	50	125	26	30	20	45	13	0.45	250	
075	75	180	38	33	24	65	15	0.9	450	
100	100	210	38	45	24	95	18	1.6	650	

Wire Rope Block



Standardized Size Code	Size (Sheave)	L	L ₁	B	B ₁	Rope Dia	Weight (kg)	W.L.L (t)	Price
DB0751	75	252	40	95	20	16	1.6	0.5	
DB1001	100	313	46	116	24	16	3.1	1.5	

Alligator Block

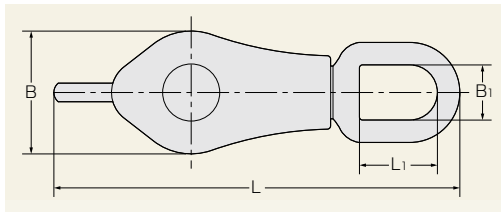


Standardized Size Code	Size (Sheave)	L	L ₁	B	B ₁	Rope Dia	Weight (kg)	W.L.L (t)	Price
050	50	150	27	50	20	14	0.6	0.35	
075	75	220	38	75	25	16	1.6	0.6	
100	100	274	45	100	31	22	3.3	1.0	
125	125	332	58	125	38	25	6.1	1.5	



Classified Code **11603**

Asano Block



Standardized Size Code	Sheave		L	L1	B	B1	Dia	Weight (kg)	W.L.L (kg)	Price
BO251	25	1 S Eye	94	18	27	13	10	0.11	170	
BO252	25	2S Eye	94	18	27	13	10	0.17	170	
BO321	32	1 S Eye	113	21	34	15	12	0.19	200	
BO322	32	2S Eye	113	21	34	15	12	0.29	200	
BO381	38	1 S Eye	122	21	40	15	13	0.27	200	
BO382	38	2S Eye	122	21	40	15	13	0.42	200	
BO501	50	1 S Eye	150	28	53	21	14	0.4	300	
BO502	50	2S Eye	150	28	53	21	14	0.61	300	
BO751	75	1 S Eye	223	38	78	25	16	1.15	550	
BO752	75	2S Eye	223	38	78	25	16	2.1	550	

Classified Code **11603**

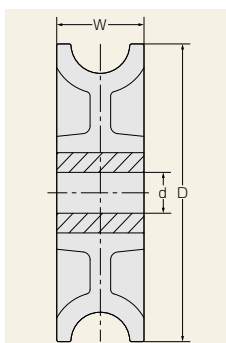
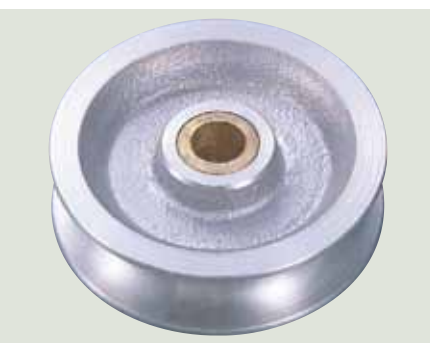
Asano Block type II



Sheave	Type	L	L1	B	B1	Sheave	Weight (kg) with SUS Sheave	Weight (kg) with Nylon Sheave	W.L.L (kg)	Spec of Sheave	
										Stainless	Nylon
75	1 S Hook	288	-	80	-	16	1.57	1.28	500	○	○
75	1 S Eye	256	38	80	25	16	1.47	1.18	550	○	○
75	1 S Snatch Hook	257	-	80	-	16	1.6	1.31	500	○	○
75	1 S Snatch Eye	236	38	80	25	16	1.53	1.24	550	○	○
75	2S Hook	288	-	80	-	16	2.39	1.81	500	○	○
75	2S Eye	256	38	80	25	16	2.23	1.65	550	○	○
75	1 S Hook Width	288	-	80	-	26	-	1.33	500	-	○
75	1 S Eye Width	256	38	80	25	26	-	1.23	550	-	○
75	1 S Snatch Hook Width	257	-	80	-	26	-	1.36	500	-	○
75	1 S Snatch Eye Width	236	38	80	25	26	-	1.29	550	-	○
100	1 S Hook	369	-	108	-	22	3.22	3.18	1,000	○	○
100	1 S Eye	315	41	108	31	22	2.79	2.34	950	○	○
100	1 S Snatch Hook	333	-	108	-	22	3.24	2.79	1,000	○	○
100	1 S Snatch Eye	290	41	108	31	22	2.82	2.37	950	○	○
100	2S Hook	369	-	108	-	22	4.52	3.62	1,000	○	○
100	2S Eye	315	41	108	31	22	4.19	3.29	950	○	○
100	1 S Hook Width	369	-	108	-	34	-	3.21	1,000	-	○
100	1 S Eye Width	315	41	108	31	34	-	2.36	950	-	○
100	1 S Snatch Hook Width	333	-	108	-	34	-	2.37	1,000	-	○
100	1 S Snatch Eye Width	290	41	108	31	34	-	2.4	950	-	○
125	1 S Eye	373	58	133	38	22	4.55	-	1,150	○	-
125	1 S Snatch Eye	355	58	133	38	22	4.63	-	1,150	○	-
125	2S Eye	373	58	133	38	22	6.52	-	1,150	○	-

Classified Code **11606**

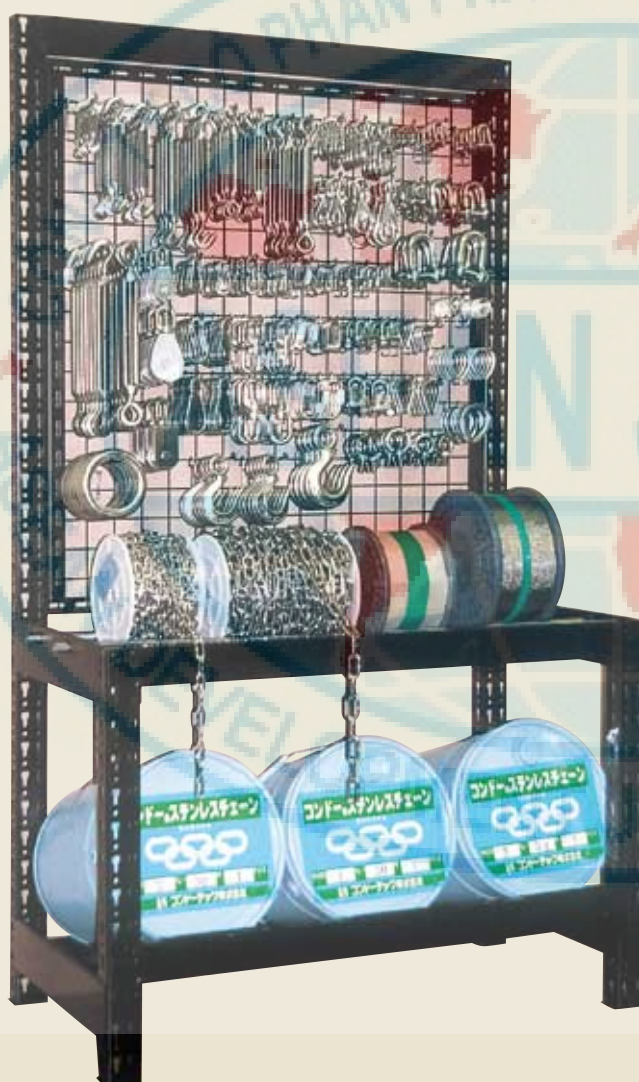
Stainless Sheave



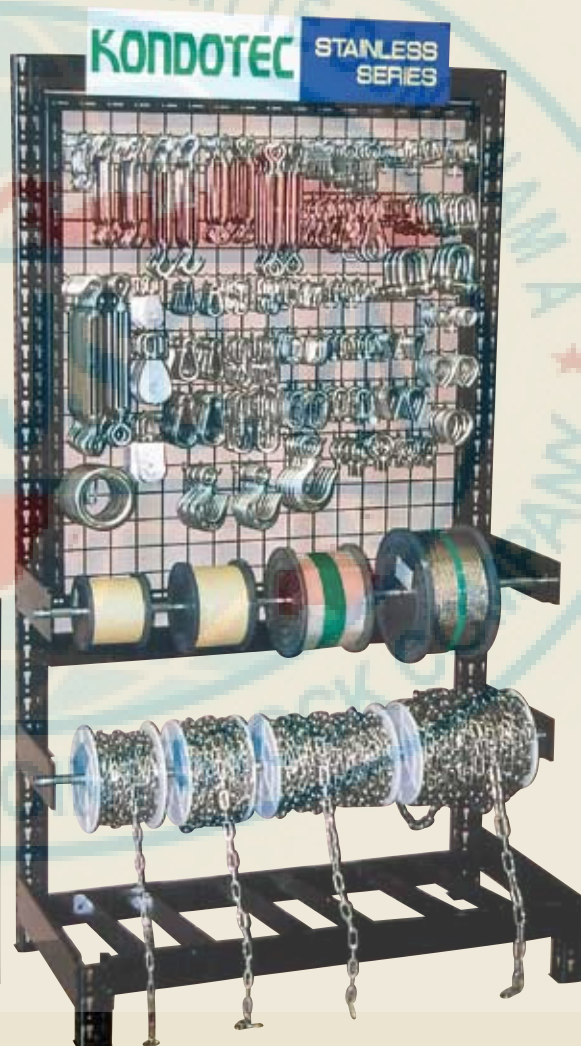
Standardized Size Code	Sheave (D)	d	W	Dia	Weight (kg)	Price
050	50	10	19	14	160	
075	75	13	22	16	350	
07524			24	16	380	
100	100	16	24	18	590	
10028			28	22	630	
10031			31	25	810	
125	125	20	28	22	1,260	



Display



I type

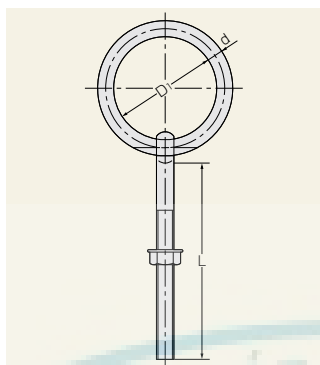


II type



Classified Code **11516**

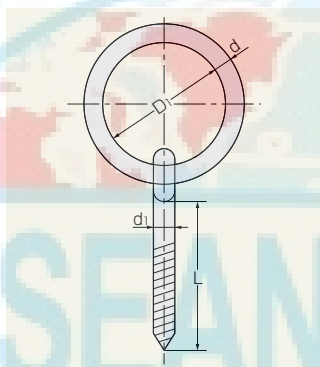
Eye Ring Bolt



Standardized Size Code	Size d	L	D ₁	Thread	Weight (g)	W.L.L (kg)	Price
05	5	50	30	M 6	30	50	
06	6	75	35	M 6	40	60	
08	8	75	45	M 8	90	90	
09	9	120	55	M10	145	100	
12	12	120	60	M12	180	110	
16	16	150	85	M16	865	150	

Classified Code **11611**

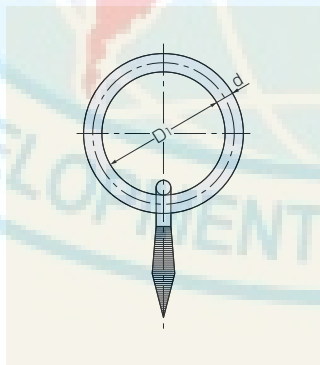
Screw Eye



Standardized Size Code	Size d	d ₁	L	D ₁	Weight (g)	W.L.L (kg)	Price
03	3	4	45	25	8	15	
05	5	6	55	30	27	30	
06	6	6	60	30	40	40	
07	7	8	60	50	77	70	
08	8	8	65	50	100	80	

Classified Code **11602**

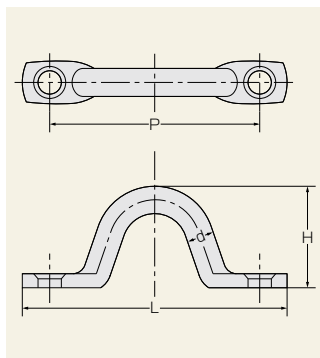
Driving Ring



Standardized Size Code	Size d	D ₁	Weight (g)	W.L.L (kg)	Price
03	3	25	8	15	
04	4	30	15	20	
05	5	35	28	30	
06	6	40	50	50	
08	8	45	92	80	

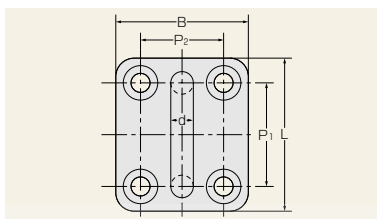
Classified Code **11612**

Eye Strap



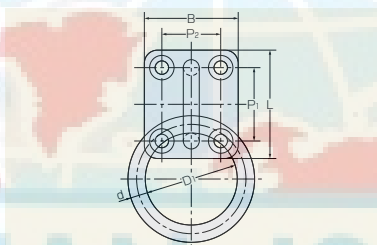
Standardized Size Code	Size d	L	P	H	Hole	Weight (g)	W.L.L (kg)	Price
05	5	50	40	18	4.2	9	30	
06	6	57	45	21	5.2	13	40	
08	8	63	48	25	5.2	26	45	

Eye Plate



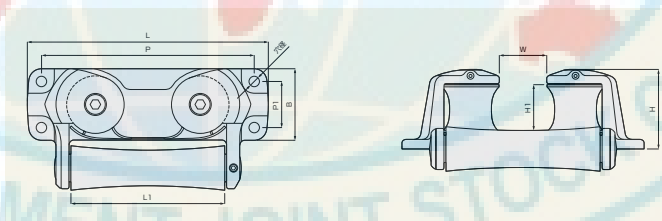
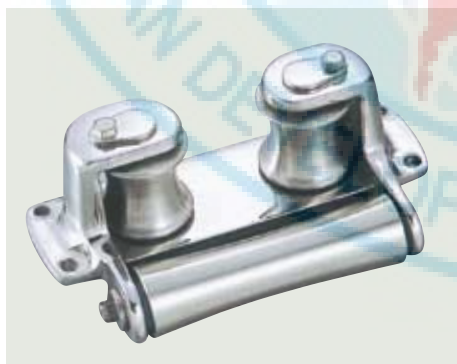
Standardized Size Code	Size d	L	B	P ₁	P ₂	Hole	Weight (g)	W.L.L (kg)	Price
5	5	35	30	22	18	4.2	23	20	
6	6	40	35	25	20	5.2	35	30	
8	8	50	40	35	25	5.2	65	40	

Ring Plate



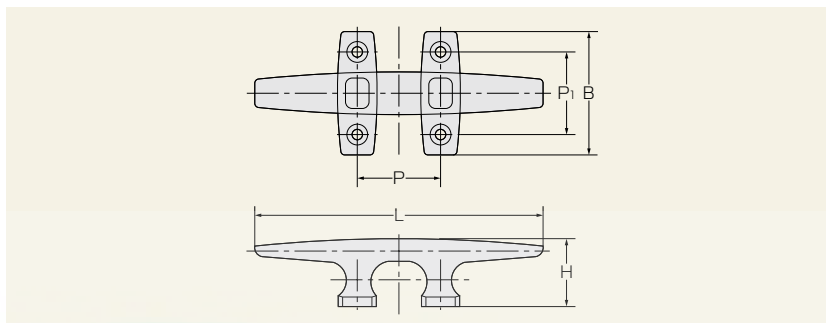
Standardized Size Code	Size d	L	B	P ₁	P ₂	D1	Hole (g)	Weight (g)	W.L.L (kg)	Price
6	6	40	35	25	20	40	5.2	69	30	
8	8	50	40	35	25	45	5.2	131	40	

Fair Leader



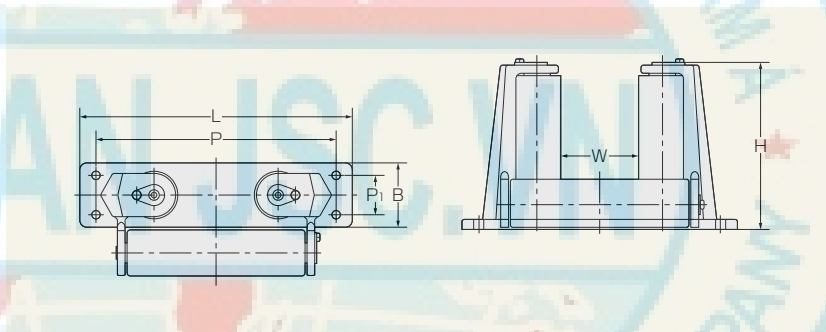
Size L	L	B	P	P ₁	W	H	Hole	Weight (kg)
150	152	45	134	29	30	50	6.5	1.1
200	204	60	182	42	46	66	9	2.5
250	250	75	229	54	77	70	10	4.5
300	300	90	272	62	88	87	11	7.95

Cleats



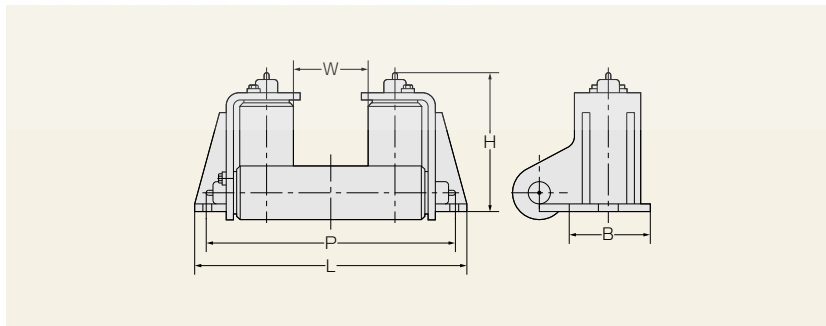
Size L	H	B	P	P ₁	Hole	Weight (kg)
100	24	16	30		5	0.12
140	33	60	40	40	5	0.31
180	40	70	50	50	6	0.54
220	48	85	60	60	6	0.93
260	55	100	70	70	8	1.25

Deck-End Roller



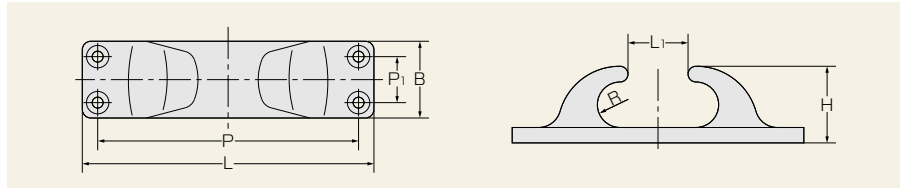
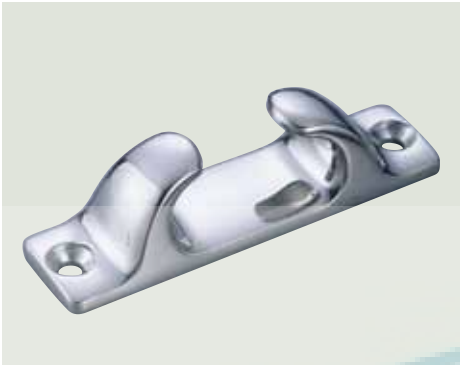
Size L	B	P	P ₁	W	H	Hole	Dia of Roller	Weight (kg)
260	60	230	36	75	160.5	9	45	7.3
320	75	280	45	90	194.5	11	55	13.6

Deck-End Roller (JIS Type)



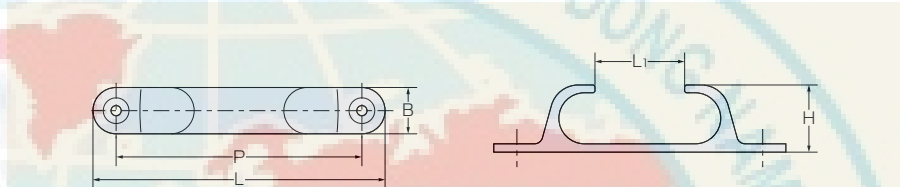
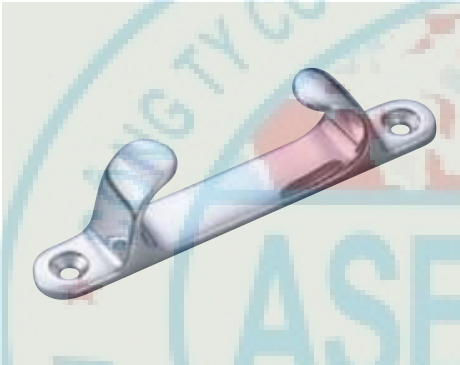
Size L	B	P	W	H	Hole	Dia of Roller	Weight (kg)	Remarks
340	100	310	83.7	176	16	76.3	20	JISF2020A
450	125	410	122.9	228.5	16	89.1	33	JISF2004A

Fair Leader



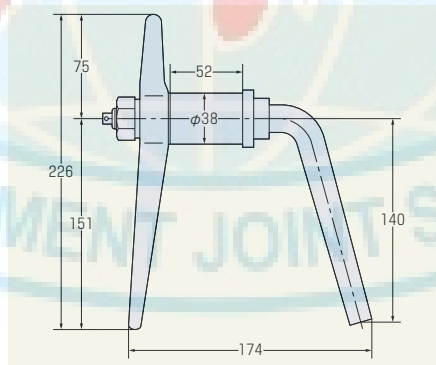
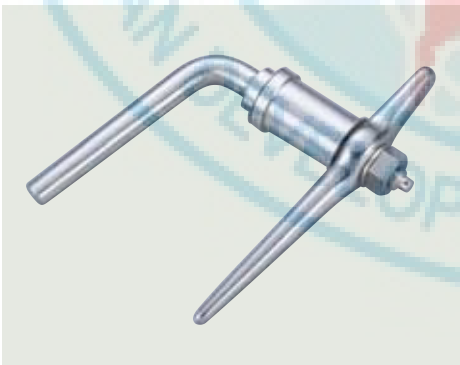
Size L	L ₁	B	P	P ₁	H	R	Hole	Weight (g)
150	31	40	130	—	40	12	8.5	530
200	40	50	180	30	54	16.5	8.5	1,300
250	50	60	220	34	65	19.5	11	2,450
300	62	65	270	35	80	24	13	3,500

Straight Chock



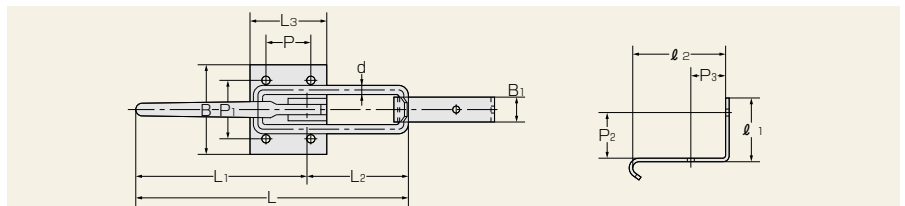
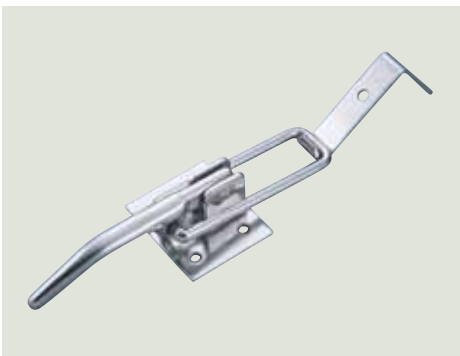
Size	L	L ₁	B	P	H	Size of Net	Hole	Weight (g)
5"	130	33	24	105.7	27	15.9	5	198
6"	150	47	24	127	35	24	6.4	205

Door Clip (B Type)



●Weight : 1,550g

Hatch Fitting

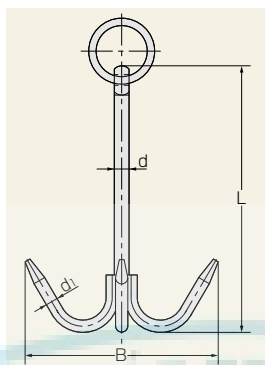


Size	d	L	L ₁	L ₂	L ₃	B	B ₁	P	P ₁	Hole	l ₁	l ₂	P ₂	P ₃	Hole	Weight (g) Body Plate
S	6	150	94	56	50	50	19	35	35	6.2	55	41	33	18	6.2	260 50
M	9	270	170	100	76	90	25	44	58	8	62	91	42.5	38	8.2	830 13
L	12	313	170	143	76	90	35	44	58	8.2	58	82	27	41	8.2	1,110 210



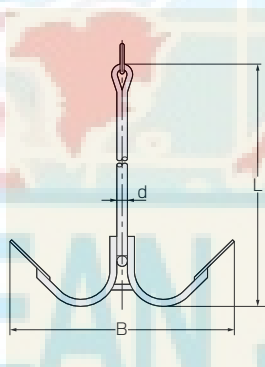
Stainless Fishing Implemet

Anchor



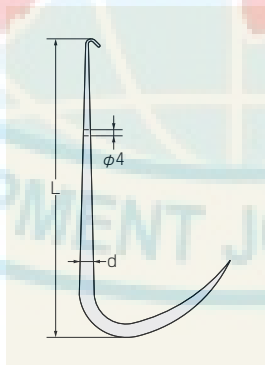
Size	d	d ₁	L	B	Weight (kg)
S	12	9	200	140	0.35
M	16	12	240	190	0.90
L	19	16	315	220	1.80
LL	22	19	375	250	3.00

Boat Anchor



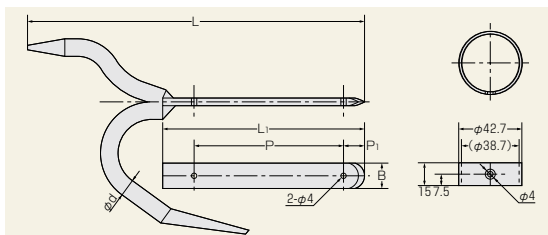
Size	d	L	B
3.5kg	22	540	419
5kg	22	700	508
7kg	25	870	573
10kg	28	990	653
12kg	28	1,150	697
15kg	32	1,260	815
20kg	36	1,500	875

Fishing Hook



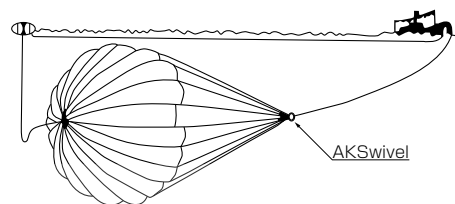
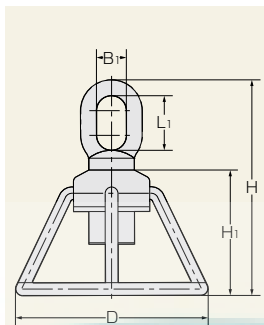
Size	d	L	Hole	Weight (g)
6	6	137	3.5	45
7	7	145	3.5	60
8	8	155	4	80
9	9	165	4	100
10	10	170	4	130
12	12	180	4	200

Boat Hacker



Size	d	L	L ₁	P ₁	P ₂	B	Weight (g)
7	7	170	115	80	30	58	72
9	9	192	120	98	32	70	120
12	12	225	128	98	32	70	262

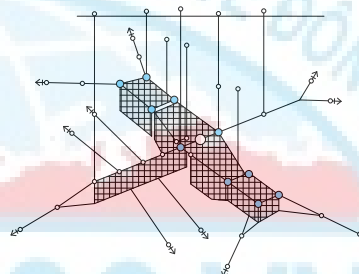
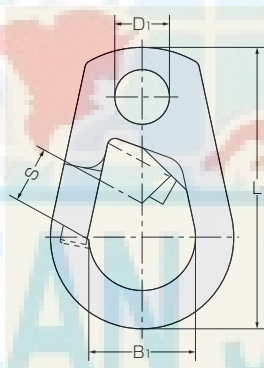
AK Swivel



(mm)

Size	D	H	H ₁	B ₁	L ₁	Weight (kg)	W.L.L (kg)
2 Type	200	222	130	32	56	3.54	1,300
3 Type	245	242	100	44	78	8.8	2,500
4 Type	300	305	143	54	98	16.5	4,000

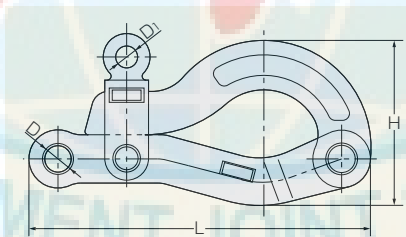
Snap Ring



(mm)

Size	L	B ₁	S	D ₁	Weight (kg)	W.L.L (kg)
1SR	167	64	32	33	1.4	450
2SR	205	80	40	39	2.2	700
3SR	240	94	53	45	3.2	750

Trawling Fitting



(mm)

Size	L	H	D	D ₁	Weight (kg)
S	200	93	16	13	1.5
M	250	111	19	16	2.6
L	300	134	23	20	5.0

Togging Rings

JS type	JW type	JV type	JL type



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