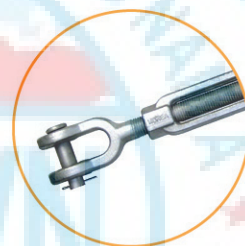


English Edition **2018**

DAICHANG MARINE TECH

HULL FITTING | LIFTING GEAR | RIGGING EQUIPMENT
SINCE 1990



EYEBOLT SHACKLE LIFTING HOOK
WIRE ROPE ACCESSORY CHAIN & ACCESSORY RAIL ACCESSORY BLOCKS

Greeting

For the future
of the industry leaders





BEYOND THE BEST TECHNOLOGY AND QUALITY TO THE LEADER OF INDUSTRIES FOR THE FUTURE

We sincerely wish the continued prosperity of your company.
It gives a great pleasure to welcome you to our website and to introduce our products to you.

Under the managerial philosophy of Honesty, Trust, and Development, Daciahg Marine Tech Co., Ltd. has continued to grow ever since its inception to this day, because all staff has had strong affection for our every single product and because we have made ceaseless efforts in research and development.

More importantly, I believe that our success was possible thanks to constant encouragement and warm support of our customers, who have continued to love and lead us.

In order for us to grow to a future leader that stays ahead of rivals, we will continue to contribute to the development of the national economy and to meet the needs of our customers based on the development of new products through technological innovations, rational business management and cost cutting effects, as we are committed to creating a prosperous tomorrow under the motto of co-existence and safety.

Recognizing that we must become more vigilant to improve our quality, secure competitive edge, and meet the demand of our customers, and redouble efforts, we striving day and night to create more advanced, and safer products.

Would like to take this opportunitu to thank once again for the encouragement and wonderful support that you extended to us over the past years.

Sincerely wish for your continued guidance and support for us in the coming years.

I hope that you find this catalog useful and helpfuls to you.

Best Regards,

President Mr. Hyo Sung, Kim

History



1990	10	Established "Daichang Co."
1993	03	Extension to #118-4 Samrak, Sasang, Busan, Korea
2000	08	Certified ISO 9002;1994 (BVQI)
2001	07	Established Daichang Marine Tech Co.,. Ltd.
	10	Entry MARINE WEEK 2001
2003	06	Certified CE mark (BV) – TURNBUCKLE, SHACKLE, HOOK
2004	12	Certified CLEAN Workshop (Ministry of Labor)
2005	05	Products Liability
2007	06	Extension to #119-1 Samrak, Sasang, Busan, Korea
2008	06	Materials & Compoments company (Ministry of knowledge Economy)
2009	02	Certificate of R&D team (Korea Industrial technology Association)
		Certified ISO 14000;2004 (Korea Int'l standard certification)
	04	INNO-BIZ Company (Korea Small & Midium Business Administration)
	06	Patent (Wire rope socket testing Zig) Promising export firm (Korea Small & Midium Business Administration)
	09	Established JIN JU Factory (Forging division)
	10	Trademark registered
2011	07	Certificate of Product-Specific Approved Exporter
	09	Certified CE mark (BV) – EYEBOLT, SOCKET, LINK
	09	Established HWA JEON Factory (Machining division)
2012	08	The First Leading Company (Small & Midium Business Corporation)
2013	04	Italy Ship's society "RINA" certificated (Forging)
	07	U.S. Ship's society "ABS" certificated (Forging)
2014	08	Jinju Factory 1,600ton forging line extension
2015	07	Grand prize of Small & Medium Business Administration in Busan
2015	08	Patent 10-1544554 (The development of oil spill stopper from cracked tanker)
2016	03	The best company of Defense Procurement (Defense Acquisition Program Admin.)
2017	01	Excellent firm to Localize of Defense parts (Defense Minister)
2017	02	MAIN Biz(Korea Small & Medium Business Administration)
2017	07	Defense Quality Management System(DQMS)

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Certification

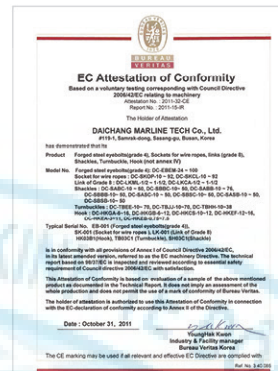
BV



ISO 9001 Head Office



ISO 9001 HwaJeon Factory



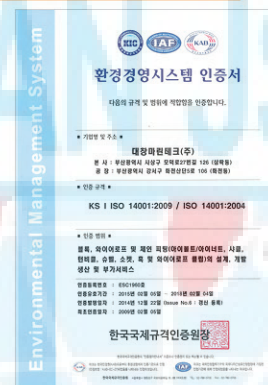
CE mark

nqa



ISO/TS 16949 JinJu Factory

Korean Standards Association



ISO 14001

Defense Acquisition Program Administration



Defense Quality Management System

Classification society

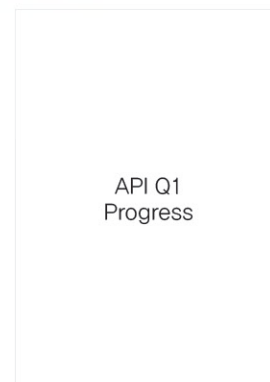


ABS



RINA

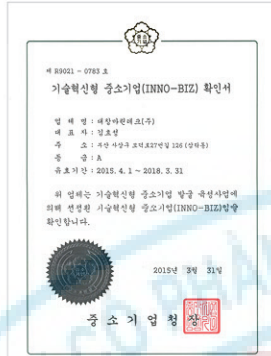
API



API

According to continuous research and development,
we will become to highest quality and advanced technology company.

Korea Small & Medium Business Administration



INNOBIZ



MAINBIZ

Small & Medium Business Administration



The First Leading Company

Korean Intellectual Property Office



Patent 10-0902273



Patent 10-1544554



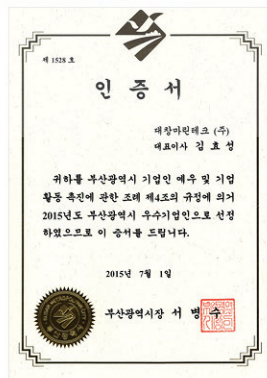
Registered Trademark

Ministry of Labor



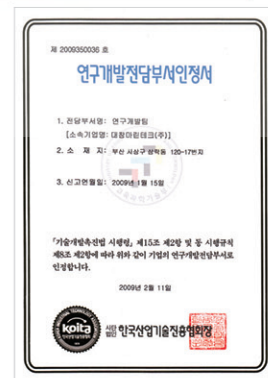
CLEAN Workshop

BUSAN City



Grand prize of Small & Medium Business Administration

Certification of R&D Team



Korea Industrial Technology Association

Head Office

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Fax. +82-51-301-7872



Hwajeon Factory

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Tel. +82-51-832-6078
Fax. +82-51-832-7872



Jinju Factory

237, Jisu-ro, Jisu-myeon, Jinju-si, Gyeongsangnam-do
Tel. +82-55-759-6556
Fax. +82-55-759-9559



No.	Forging Press	Trimming Press	Heating Device
1	2,500 ton	400 ton	1,300 kW
2	2,500 ton	350 ton	1,300 kW
3	1,350 ton	150 ton	600 kW
4	1,350 ton	200 ton	600 kW
5	1,600 ton	200 ton	800 kW

※ Rolling machine, Circular, Etc.

Equipment

We are researching and developing new products through innovation to produce advanced and safer products.



Horizontal Load Test Machine

Type	Electric power meter
Correction	Korea Research Institute of Standards and Science(KRISS)
Capacity	9,807 kN(1,000 tonnes)
Length	4m
Load Cell	LS-T1200
Maker	Daichang Marine / CURIOTEC

3D Measuring Machine

Type	3D coordinate measuring
Model	BH-V 710
Platen Size	1,110*1,630 mm
Maker	Mitutoyo

R&D

Spelter Socket Test Jig

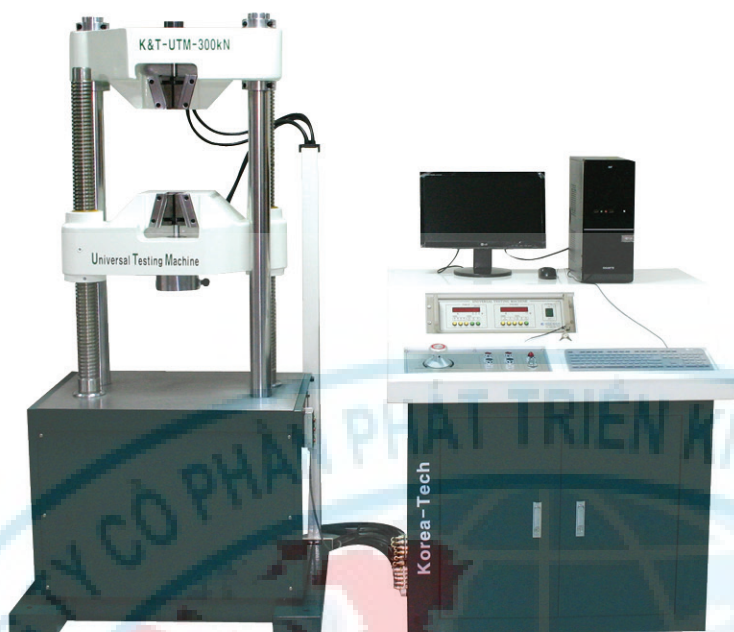
The development of oil spill stopper from cracked tanker



Patent
(제10-0902273호)



Patent
(제10-1544554호)



UTM

Type Universal•Material testing machine
Model K&T-UTM-300
Capacity 300 kN
Test Speed 5~100 mm/min
Maker Korea Tech



Hardness Tester

Name Brinell Hardness Tester
Model SB-500
Size 3,000 kgf
RAM Dia. 108 mm
Maker SAM IL



Impact Tester

Name Charpy Impact Tester
Model KSI-30CD
Size 30 kgf-m
Angle 143°
Maker Korea Tech

GENERAL WARNING

☞ These warning and caution on this catalog should be reviewed and discussed with distributors and end user before using our product.

We strongly recommend that you read the application. If there is an accident or damage due to misuse, the responsibility is with the user.

We are always doing our best to provide better quality and safe product.

☞ The SWL on this catalog is the maximum load when the new condition items are used under usual environment.

Shocking loading and extraordinary conditions must be discussed with us when selecting products.

☞ Our products are developed in-line load. Even though it is in-line, never exceed load limit.

It should be prevented from other direction pull. Side direction, exceeding load or shocking load is reduced the life of products.

SWL is load in constant steady state, it is better to use safely avoiding rotation, moving and turnover.

☞ Regular inspection must be conducted deformation, wear and parts breakaway and if they are founded, it should be changed to new condition product. And if wear or deformation is founded, it should be checked the use environment such as shocking or exceeding loading. If you found products for defects, it should be asked to us to check the product and we will take a careful inspection and give credible answer.

The safety is not guaranteed when products are treated with extra welding, heat treatment, bending.

UNIT CONVERSION

UNIT	LENGTH	FORCE	PRESSURE & TORQUE
M(Mega) = 1,000,000	1 inch = 25.4 mm	1 kgf = 9.80665 N	1 ksi = 6.894757 MPa
K(Kilo) = 1,000	1 mile = 1760 yard	1 N = 0.22481 lbf	1 Pa = 1 N/m ²
m(mili) = 0.001	1 yard = 3 feet	1 lbf = 0.453592 kgf	1 N.m = 10.1972 kgf.cm
μ(micro) = 0.000001	1 feet = 12 inch		1 lbf.ft = 13.82555 kgf.cm
			1,000 psi = 6.894757 MPa

EYE BOLT



EYEBOLT / EYEBOLT EUROPEAN TYPE / EYENUT

EYEBOLT MANUAL

GENERAL

- The eyebolt/eye nut is used for lifting machinery or equipment which cannot be lifted by hand or by forklift.
- Eyebolts are produced according to KS B 1033 and DIN 580 while eye nuts are produced according to KS B 1034 and DIN 582.
- The service load of the eyebolt and eye nut means the maximum allowable load against the linear load. If the load direction is away from the vertical line from the section surface, the service load is also reduced in proportion to the rate.
- Forged steel eyebolt/eyenut is produced by machined after forging.
- Supplying electric plate or self color.
- Stainless steel eyebolt/eyenut produced by machined after forging or casting.
- The eyebolt/eye nut should be inspected for any deformation, wearing or defect within at least 6 months.
- The products which exceed the limit of 5% in deformation or wearing should be relieved of their load and replaced with new ones.

CAUTION

Before Use

- Be sure to use personal protection equipment. (Such as footwear, gloves, crash helmet, etc.)
- The work place must always be well lit.
- Remove dangerous articles from the area before work.
- The specification, use condition and use method of the product should be checked and the products should be used in a proper way.
- Check the products for any defect, wearing or deformation. Use only the product whose safety is assured.
- Damaged or worn eyebolt/eye nut must not be used.
- Threaded part of eyebolt/eye nut should be clean and also the combined objects.

Using

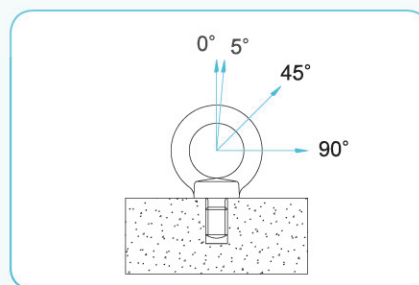
- Always follow the rules carefully. (Overloading & Improper use can result in injury.)
- Products over the 15kg weight must be used with an appliance tool. (Forklift, cranes, hoists, etc.)
- Where applicable, it is important to locate out of the danger zones. (A falling load may cause serious injury or even death.)
- Never repair, alter, rework, or reshape a hook by welding, heating, burning, bending or grinding.
- Side loading or shocking may cause product's deformation or breakage.
- Tighten eye bolt/eye nut securely against load and the pulling should be same as tightening direction.

After Used

- After used products, should be inspected with elongation, wear and defect. If they are founded something wrong, must discard immediately.
- In case of founding something wrong from products, should be checked of the load, working condition, and over-load.

■ Installation for Angular Loading

From in-line	Adjusted Working Load
~ 5°	100% of SWL
6 ~ 45°	30% of SWL
46 ~ 90°	25% of SWL
91° ~	WRONG

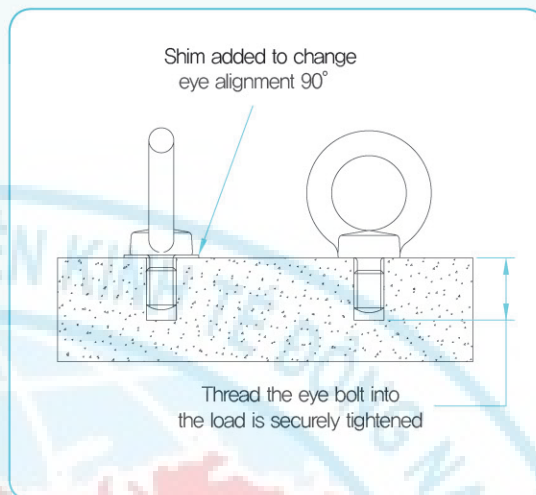


- It is better to use avoiding side loading, it should be followed the above table in case of angular lifts.

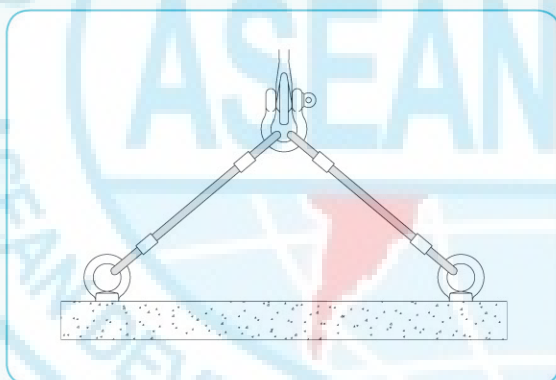
■ Adjustment of change rotation

Add shims(washers) of proper thickness to adjust the angle of the plane of the eye to match the sling line.
Required washer thickness for the amount of unthreading rotation required.

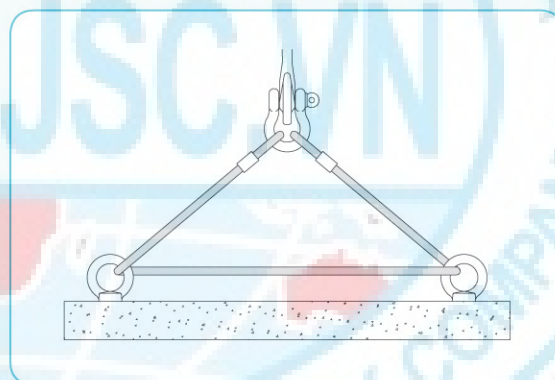
Size(mm)/ Thickness of washer(mm)		Size(inch)/ Thickness of washer(mm)	
M8	0.313	5/16"	0.353
M10	0.375	3/8"	0.397
M12	0.438	1/2"	0.488
M16	0.500	5/8"	0.577
M20	0.625	3/4"	0.635
M24	0.750	1"	0.794
M30	0.875	1-1/4"	0.907
M36	1.000	1-1/2"	1.058
M42	1.125	1-3/4"	1.270
M48	1.250	2"	1.411
M64	1.500	2-1/2"	1.588
M80	1.500	3-1/2"	1.588
M100	1.500	4"	1.588



■ In case of more than two slings



RIGHT

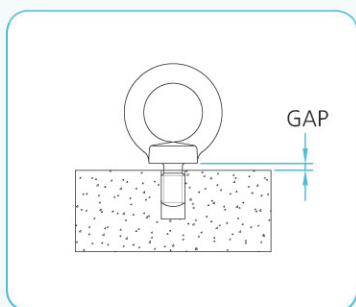


WRONG

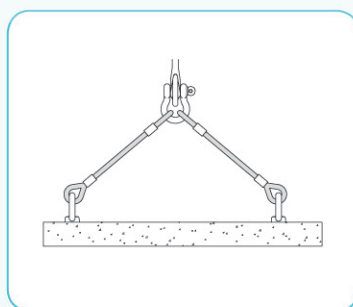
- Attached properly between eye bolts and load, apply force slowly and watch the load carefully and be prepared stop applying force if the load starts bucking.

- Do not reeve slings from one eye bolt to another. It will alter the load angle of loading.

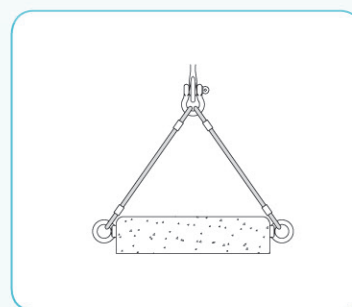
■ Safety Use



WRONG



WRONG(Direction)

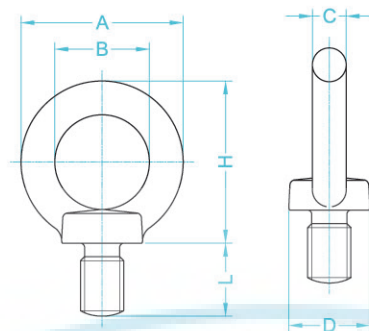


WRONG(Angle)

EYE BOLT METRIC

SPECIFICATION

PL

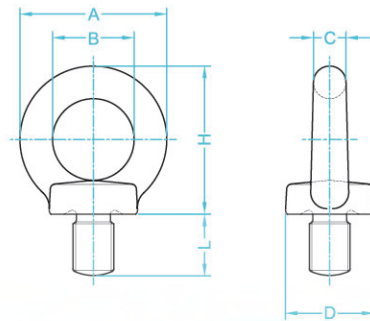


Product Code	Size (mm)	SWL(WLL) (kg)	Dimension(mm)						Weight (kg)
			A	B	C	D	H	L	
EBMM-001	6	40	32.6	20	6.3	16	33	15	0.03
EBMM-002	8	80	32.6	20	6.3	16	33	15	0.03
EBMM-003	10	150	41	25	8	20	42	18	0.07
EBMM-004	12	220	48	29	9.5	24	50	22	0.12
EBMM-005	14	330	55	32	11.5	28	55	25	0.17
EBMM-006	16	450	60	35	12.5	30	60	27	0.2
EBMM-007	18	550	66	37	14.5	33	66	30	0.3
EBMM-008	20	630	72	40	16	35	71	30	0.4
EBMM-009	22	790	80	44	18	40	80	35	0.6
EBMM-010	24	950	90	50	20	45	90	38	0.8
EBMM-011	30	1,500	110	60	25	60	110	45	1.6
EBMM-012	36	2,300	133	70	31.5	70	131.5	55	2.8
EBMM-013	42	3,400	151	80	35.5	80	150.5	65	4.3
EBMM-014	48	4,500	170	90	40	90	170	70	5.9
EBMM-015	56	6,500	210	110	50	110	210	90	11.1
EBMM-016	64	9,000	210	110	50	110	210	90	11.7
EBMM-017	80	15,000	266	140	63	130	263	105	23
EBMM-018	100	20,000	360	190	85	180	350	130	55
EBMM-019	120	30,000	360	190	85	180	350	145	60

- Material : Forged carbon steel
- Test Load : Proof Load = SWL (WLL) × 3,
Breaking Load = reference KS B 1033
- Surface : Electric plated / Self color
- Reference : KS B 1033
- The Others : Available with other material
M6~M14 : Made in CHINA
M16~M24 : Made in KOREA or CHINA
M30~M120 : Made in KOREA

EYE BOLT EUROPEAN TYPE

SPECIFICATION



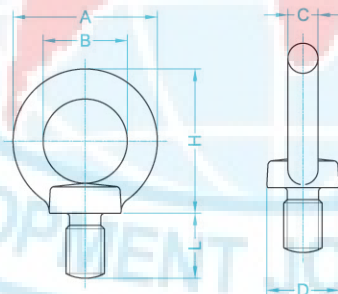
- Material : Forged carbon steel
- Test Load : Proof Load = SWL (WLL) × 2,
Breaking Load = SWL (WLL) × 5
- Surface : Electric plated / Self color
- Reference : ISO 3266 / DIN 580

Product Code	Size (mm)	SWL(WLL) (kg)	Dimension(mm)						Weight (kg)
			A	B	C	D	H	L	
EBEM-001	24	1,800	90	50	20	50	90	36	0.7
EBEM-002	30	3,600	108	60	24	65	109	45	1.7
EBEM-003	36	5,100	126	70	28	75	128	54	2.7
EBEM-004	42	7,000	144	80	32	85	147	63	4
EBEM-005	48	8,600	166	90	38	100	168	68	6.4
EBEM-006	56	11,500	184	100	42	110	187	78	8.8
EBEM-007	64	16,000	206	110	48	120	208	90	12.4
EBEM-008	72	21,000	260	140	60	150	260	100	23.3
EBEM-009	80	28,000	296	160	68	170	298	112	34.2
EBEM-010	100	38,000	330	180	75	190	330	130	49.1

ALLOY STEEL EYE BOLT

ALLOY STEEL EYE BOLT

SPECIFICATION



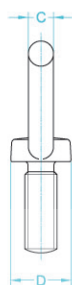
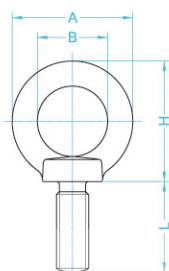
- Material : Forged Alloy steel
- Test Load : Proof Load = SWL (WLL) × 3,
Breaking Load = reference KS B 1033
- Surface : Self color / Blacken
- The Others : *M8~M12 : Made in CHINA
M16~M80 : Made in KOREA

Product Code	Size (mm)	SWL(WLL) (kg)	Dimension(mm)						Weight (kg)
			A	B	C	D	H	L	
EBEA-001	8	160	32.6	20	6.3	16	33	15	0.03
EBEA-002	10	300	41	25	8	20	42	18	0.07
EBEA-003	12	440	48	29	9.5	24	50	22	0.12
EBEA-004	16	900	60	35	12.5	30	60	27	0.2
EBEA-005	20	1,260	72	40	16	35	71	30	0.4
EBEA-006	24	1,900	90	50	20	45	90	38	0.8
EBEA-007	30	3,000	110	60	25	60	110	45	1.6
EBEA-008	36	4,600	133	70	31.5	70	131.5	55	2.8
EBEA-009	42	6,800	151	80	35.5	80	150.5	65	4.3
EBEA-010	48	9,000	170	90	40	90	170	70	5.9
EBEA-011	56	13,000	210	110	50	110	210	90	11.1
EBEA-012	64	18,000	210	110	50	110	210	90	11.7
EBEA-013	80	30,000	266	140	63	130	263	105	23

EYE BOLT LONG SIZE

SPECIFICATION

PL



- Material : Forged carbon steel
- Test Load : Proof Load = SWL (WLL) × 3,
Breaking Load = reference KS B 1033
- Surface : Electric plated
- The others : Made in KOREA or CHINA

Product Code	Size (mm)	SWL(WLL) (kg)	Dimension(mm)						Weight (kg)
			A	B	C	D	H	L	
EBMS-001	10×25	150	41	25	8	20	42	25	0.08
EBMS-002	10×35	150	41	25	8	20	42	35	0.08
EBMS-003	12×30	220	48	29	9.5	24	50	30	0.12
EBMS-004	12×40	220	48	29	9.5	24	50	40	0.14
EBMS-005	12×50	220	48	29	9.5	24	50	50	0.14
EBMS-006	16×40	450	60	35	12.5	30	60	40	0.25
EBMS-007	16×50	450	60	35	12.5	30	60	50	0.26
EBMS-008	20×40	630	72	40	16	35	71	40	0.43
EBMS-009	20×50	630	72	40	16	35	71	50	0.45
EBMS-010	20×60	630	72	40	16	35	71	60	0.47

STAINLESS STEEL EYE BOLT METRIC

STAINLESS STEEL EYE BOLT METRIC

SPECIFICATION

PL



- Material : Cast / Forged Stainless Steel
- The others : M6~M24 : Made in CHINA(Cast)
M30~M80 : Made in KOREA(Forged)

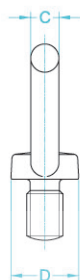
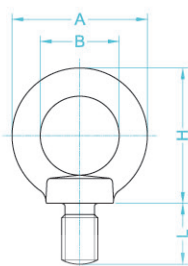
Product Code	Size (mm)	Dimension(mm)						Weight (kg)
		A	B	C	D	H	L	
EBSM-011	6	32.6	20	6.3	16	33	15	0.03
EBSM-001	8	32.6	20	6.3	16	33	15	0.03
EBSM-002	10	41	25	8	20	42	18	0.07
EBSM-003	12	48	29	9.5	24	50	22	0.12
EBSM-012	14	55	32	11.5	28	55	25	0.17
EBSM-004	16	60	35	12.5	30	60	27	0.2
EBSM-013	18	66	37	14.5	33	66	30	0.3
EBSM-005	20	72	40	16	35	71	30	0.4
EBSM-014	22	80	44	18	40	80	35	0.6
EBSM-006	24	90	50	20	45	90	38	0.8
EBSM-007	30	110	60	25	60	110	45	1.6
EBSM-008	36	133	70	31.5	70	131.5	55	2.8
EBSM-009	42	151	80	35.5	80	150.5	65	4.3
EBSM-010	48	170	90	40	90	170	70	5.9
EBSM-011	64	210	110	50	110	210	90	11.7
EBSM-012	80	226	140	63	130	263	105	23

EYE BOLT INCH

EYE BOLT INCH

SPECIFICATION

PL



- Material : Forged carbon steel
- Test Load : Proof Load = SWL (WLL) × 3,
Breaking Load = reference KS B 1033
- Reference : Electric plated/Self color
- The Others : 1/4 ~ 1" : Made in CHINA
1-1/4~2" : Made in KOREA

Product Code	Size (inch)	SWL(WLL) (kg)	Dimension(mm)						Weight (kg)
			A	B	C	D	H	L	
EBIN-012	1/4	40	32.6	20	6.3	16	33	15	0.03
EBIN-001	5/16	80	32.6	20	6.3	16	33	15	0.03
EBIN-002	3/8	130	41	25	8	20	42	18	0.06
EBIN-003	1/2	250	48	29	9.5	24	50	22	0.12
EBIN-004	5/8	440	60	35	12.5	30	60	30	0.2
EBIN-005	3/4	580	72	40	16	35	71	30	0.4
EBIN-006	7/8	880	80	44	18	40	80	35	0.6
EBIN-007	1	1,100	90	50	20	45	90	38	0.8
EBIN-008	1-1/4	1,700	110	60	25	60	110	45	1.5
EBIN-009	1-1/2	2,600	133	70	31.5	70	131.5	55	2.8
EBIN-010	1-3/4	4,000	151	80	35.5	80	150.5	65	4.3
EBIN-011	2	5,100	170	90	40	90	170	70	6.2

STAINLESS STEEL EYE BOLT INCH

STAINLESS STEEL EYE BOLT INCH

SPECIFICATION

PL



- Material : Cast / Forged Stainless Steel
- The others : 5/16"~1" : Made in CHINA
Order Made(Special Spec.)

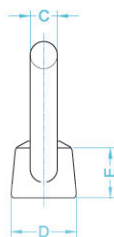
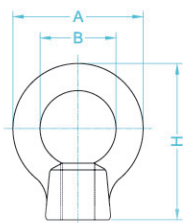
Product Code	Size (inch)	Dimension(mm)						Weight (kg)
		A	B	C	D	H	L	
EBSI-001	5/16	32.6	20	6.3	16	33	15	0.03
EBSI-002	3/8	41	25	8	20	42	18	0.06
EBSI-003	1/2	48	29	9.5	24	50	22	0.1
EBSI-004	5/8	60	35	12.5	30	60	30	0.2
EBSI-005	3/4	72	40	16	35	71	30	0.4
EBSI-006	7/8	80	44	18	40	80	35	0.6
EBSI-007	1	90	50	20	45	90	38	0.8
EBSI-008	1-1/4	110	60	25	60	110	45	1.5
EBSI-009	1-1/2	133	70	31.5	70	131.5	55	2.8

EYE NUT METRIC

EYE NUT METRIC

SPECIFICATION

PL



- Material : Forged carbon steel
- Test Load : Proof Load = SWL (WLL) × 3,
Breaking Load = reference KS B 1033
- Surface : Electric plated / Self color
- Reference : KS B 1034
- The Others : M6~M24, M48, M64 : Made in CHINA

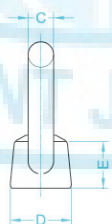
Product Code	Size (mm)	SWL(WLL) (kg)	Dimension(mm)						Weight (kg)
			A	B	C	D	E	H	
ENMM-001	6	40	32.6	20	6.3	16	12	39.3	0.04
ENMM-002	8	80	32.6	20	6.3	16	12	39.3	0.04
ENMM-003	10	150	41	25	8	20	15	48.5	0.06
ENMM-004	12	220	50	30	10	25	19	61	0.1
ENMM-005	14	330	60	35	12.5	30	23	72	0.2
ENMM-006	16	450	60	35	12.5	30	23	72	0.2
ENMM-007	18	550	72	40	16	35	28	86	0.4
ENMM-008	20	630	72	40	16	35	28	86	0.4
ENMM-009	22	790	80	44	18	40	33	100	0.6
ENMM-010	24	950	90	50	20	45	38	111	0.8
ENMM-011	30	1,500	110	60	25	60	46	135	1.6
ENMM-012	36	2,300	133	70	31.5	70	55	161.5	3
ENMM-013	42	3,400	151	80	35.5	80	64	184.5	4.4
ENMM-014	48	4,500	170	90	40	90	73	208	6.1
ENMM-015	64	9,000	210	110	50	110	90	256	10.2

STAINLESS STEEL EYE NUT METRIC

STAINLESS STEEL EYE NUT METRIC

SPECIFICATION

PL



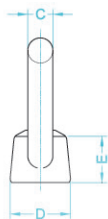
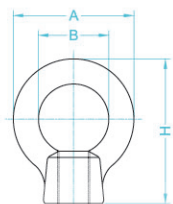
- Material : Cast / Forged Stainless Steel
- The others : M6~M24 : Made in CHINA

Product Code	Size (mm)	Dimension(mm)						Weight (kg)
		A	B	C	D	E	H	
ENSM-001	8	32.6	20	6.3	16	12	39.3	0.03
ENSM-002	10	41	25	8	20	15	48.5	0.06
ENSM-003	12	50	30	10	25	19	61	0.1
ENSM-004	16	60	35	12.5	30	23	72	0.2
ENSM-005	20	72	40	16	35	28	86	0.4
ENSM-006	22	80	46	18	40	33	100	0.6
ENSM-007	24	90	50	20	45	38	111	0.8
ENSM-008	30	110	60	25	60	46	135	1.6
ENSM-009	36	133	70	31.5	70	55	161.5	3

EYE NUT INCH

SPECIFICATION

PL



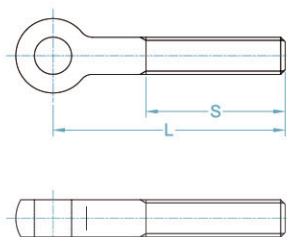
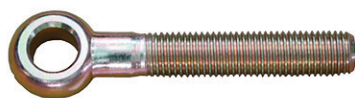
- Material : Forged carbon steel
- Test Load : Proof Load = SWL (WLL) × 3,
Breaking Load = reference KS B 1034
- Surface : Electric plated / Self color
- The others : Made in CHINA

Product Code	Size (Inch)	SWL(WLL) (kg)	Dimension(mm)						Weight (kg)
			A	B	C	D	E	H	
ENIN-001	5/16	80	32.6	20	6.3	16	12	39.3	0.03
ENIN-002	3/8	130	41	25	8	20	15	48.5	0.07
ENIN-003	1/2	250	50	30	10	25	19	61	0.1
ENIN-004	5/8	440	60	35	12.5	30	23	72	0.2
ENIN-005	3/4	580	72	40	16	35	28	86	0.4
ENIN-006	7/8	880	82	46	18	40	33	100	0.6
ENIN-007	1	1,100	90	50	20	45	38	111	0.8

HINGE BOLT

HINGE BOLT

SPECIFICATION



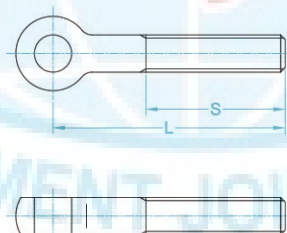
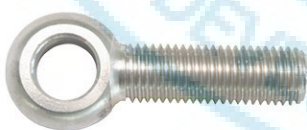
- Material : Carbon steel
- Surface : Self color / Electric plated
- The Others : Made in KOREA or CHINA

Product Code	Size (mm)	Dimension(mm) L, S																
		40	45	50	55	60	65	70	75	80	85	90	100	110	120	130	140	150
BTHC-001	6	•	-	•	-	•	-	•	-	-	-	-	•	-	-	-	-	-
BTHC-002	8	25	•	35	-	45	-	55	-	55	-	65	75	85	95	100	110	120
BTHC-003	10	20	•	30	•	40	•	50	•	60	•	70	75	85	95	100	110	120
BTHC-004	12	-	-	30	•	40	•	50	•	55	•	65	75	85	95	100	110	120
BTHC-005	16	-	-	-	-	40	-	50	•	60	•	70	75	85	95	100	110	120
BTHC-006	20	-	-	-	-	-	-	•	-	55	-	65	75	85	90	90	100	110
BTHC-006	22	-	-	-	-	-	-	-	-	-	-	•	•	•	•	•	•	•

STAINLESS STEEL HINGE BOLT

STAINLESS STEEL HINGE BOLT

SPECIFICATION



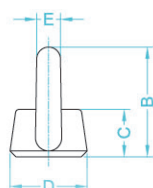
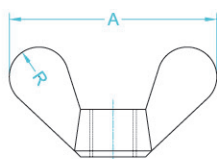
- Material : Stainless Steel
- The Others : Available various sizes as per request
Made in KOREA or CHINA

Product Code	Size (mm)	Dimension(mm) L, S																
		40	45	50	55	60	65	70	75	80	85	90	100	110	120	130	140	150
BTHS-001	6	•	•	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BTHS-002	8	25	•	35	-	45	-	55	-	55	-	65	75	85	95	100	110	120
BTHS-003	10	20	•	30	•	40	•	50	•	60	-	70	75	85	95	100	110	120
BTHS-004	12	•	-	30	•	40	•	50	•	55	-	65	75	85	95	100	110	120
BTHS-005	16	-	-	-	-	40	-	50	-	60	-	70	75	85	95	100	110	120
BTHS-006	20	-	-	-	-	-	-	•	-	55	-	65	75	85	90	90	100	110

BUTTERFLY NUT

BUTTERFLY NUT

SPECIFICATION



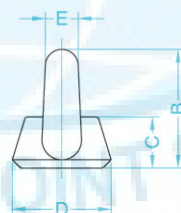
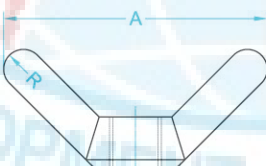
- Material : Cast Stainless Steel
- The Others : Made in CHINA

Product Code	Size (mm)	Dimension(mm)						Weight (kg)
		A	B	C	D	E	R	
BNMM-001	10	48	24	10	18	6	6	0.03
BNMM-002	12	58	30	12	22	7	7.5	0.05
BNMM-003	16	68	35	14	25	8	8	0.09
BNMM-004	20	86	44	18	33	9	11	0.15
BNMM-005	24	114	58	23	45	13	13	0.34

HORN NUT

HORN NUT

SPECIFICATION



- Material : Cast Stainless Steel
- The Others : Made in CHINA

Product Code	Size (mm)	Dimension(mm)						Weight (kg)
		A	B	C	D	E	R	
HNMM-001	10	56	26	11	19	5	4	0.03
HNMM-002	12	73	35	15	25	7	5.5	0.08
HNMM-003	16	90	42	19	31	8	7	0.1
HNMM-005	20	106	50	22	37	9	8	0.2
HNMM-007	22	118	60	29	45	16	9	0.4
HNMM-009	24	132	65	34	50	18	10	0.6

SHACKLE



SCREW PIN TYPE SHACKLE(B.C), (S.C)

SAFETY BOLT TYPE SHACKLE(B.B) (S.B)

ALLOY STEEL SHACKLE(B.B)

SHACKLE MANUAL

GENERAL

- Shackles are used in lifting and static systems as removable links to connect wire rope, chain and other fittings.
- The Working Load Limit(WLL/SWL) should be applied in a straight pull and overloads must not be made.
- Screw pin shackles are mainly used for non-permanent applications and Bolt-type shackles are preferably used for long term or permanent applications.
- Chain shackles are used mainly on one-leg systems whereas Anchor shackles on multi-leg systems.
- Ensure that the pin is correctly screwed into the shackle eye, then secure using a wrench or other suitable tool.
- Make sure that the shackle is supporting the load correctly under WLL, i.e. along that axis of the shackle body centerline, avoid bending loads, unstable loads and do not apply overloads.
- Avoid from acidic fluid, chemical solution and steam for maintaining good condition.
- Remove the loads when the shape of shackle is changed more than 5% comparing to the original, and replace the shackle.

CAUTION

Before Use

- Be sure to use personal protection equipment. (Such as footwear, gloves, crash helmet, etc.)
- The work place must always be well lit.
- Remove dangerous articles from the area before work.
- The specification, use condition and use method of the product should be checked and the products should be used in a proper way.
- Check the products for any defect, wearing or deformation. Use only the product whose safety is assured.

Using

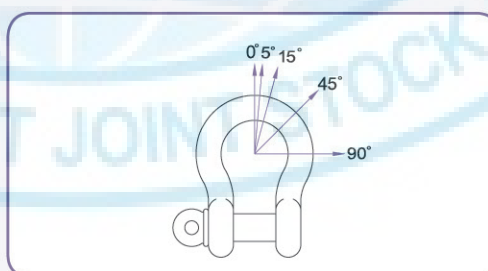
- Always follow the rules carefully. (Overloading & Improper use can result in injury.)
- Products over the 15kg weight must be used with an appliance tool. (Forklift, cranes, hoists, etc.)
- Where applicable, it is important to locate out of the danger zones.
(A falling load may cause serious injury or even death.)
- Never repair, alter, rework, or reshape a hook by welding, heating, burning, bending or grinding.
- Side loading or shocking may cause product's deformation or breaking.

After Used

- After used products, should be inspected with elongation, wear and defect. If they are founded something wrong, must discard immediately.
- In case of founding something wrong from products, should be checked of the load, working condition, and over-load.

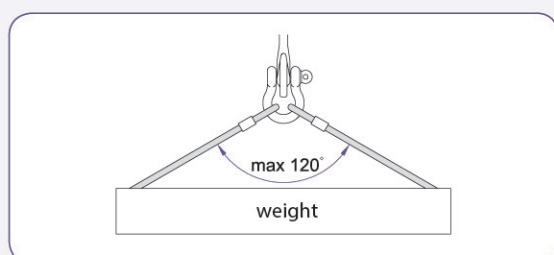
■ Installation for Angular Loading

From in-line	Adjusted Working Load
~ 5°	100% of SWL
6 ~ 15°	85% of SWL
16 ~ 45°	70% of SWL
46 ~ 90°	50% of SWL
91° ~	WRONG



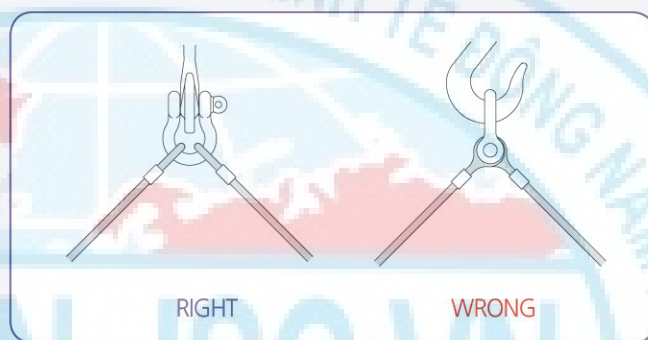
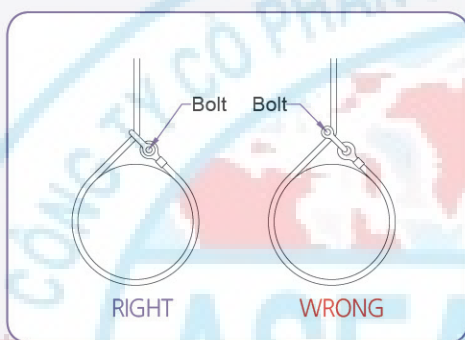
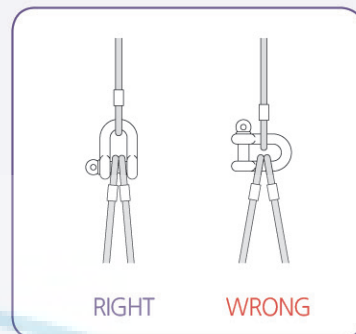
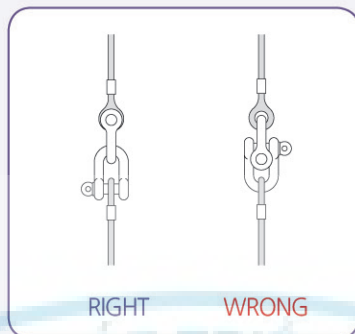
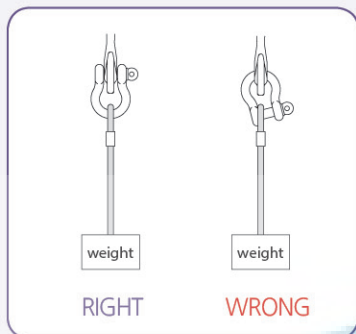
- It is better to use avoiding side loading, it should be followed the above table in case of angular lifts.
- Side loading is only in case of Anchor shackles.

■ Multi-leg slings

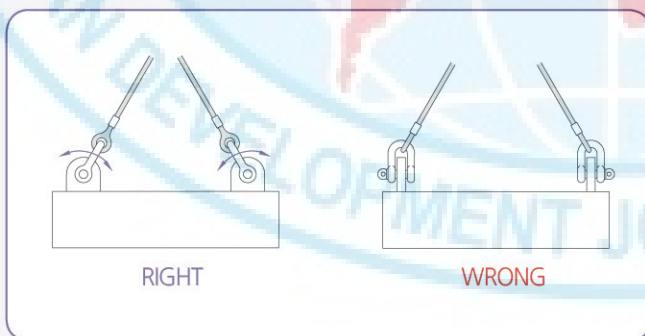


- When a shackle is used to connect two slings to the hook of a lifting device, Anchor shackle must be assembled with the slings in the shackles body and the hook engaged with the shackle pin. The angle between the slings should not exceed 120°.

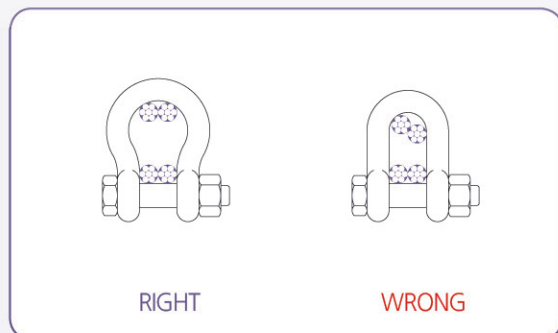
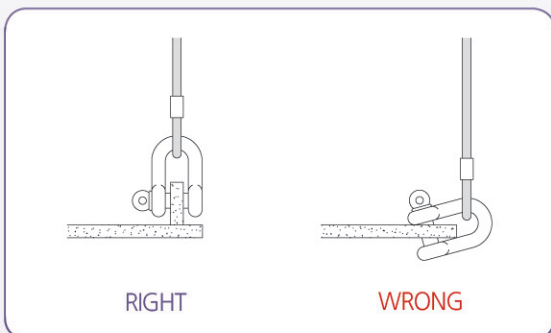
■ Safety Use



- Avoid moving or rotation the shackle pin.
- If necessary, use a shackle with bolt/nut type shackle.

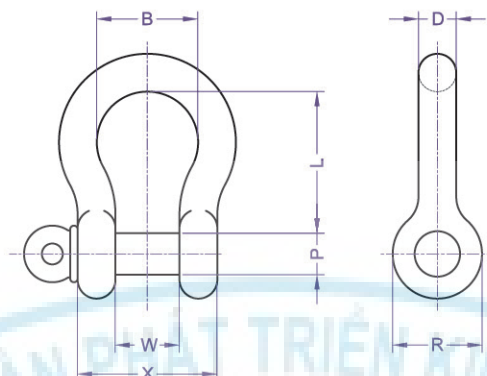


- Make sure that the chain shackle is supporting the load correctly, along the axis of the shackle body centerline.



SCREW PIN TYPE SHACKLE(B.C)

SPECIFICATION



100% Proof Load Tested
over 2" size

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)							Weight (kg)
			B	D	L	P	R	W	X	
SHBC-001	5/16	0.75	20	8	32	10	20	13.5	29.5	0.1
SHBC-002	3/8	1	24	10	36	12	24	17	37	0.1
SHBC-003	1/2	2	34	13	48	16	30	21	47	0.3
SHBC-004	5/8	3.25	43	16	60	19	40	27	59	0.6
SHBC-005	3/4	4.75	51	19	73	22	48	32	70	1
SHBC-006	7/8	6.5	58	22	85	25	54	37	81	1.5
SHBC-007	1	8.5	68	25	95	28	58	43	94	2.2
SHBC-008	1-1/8	9.5	74	28	109	32	67	46	103	3.2
SHBC-009	1-1/4	12	83	32	119	35	76	51	115	4.3
SHBC-010	1-3/8	13.5	92	35	134	38	84	57	127	5.9
SHBC-011	1-1/2	17	98	38	146	42	92	60	136	7.7
SHBC-012	1-3/4	25	127	45	177	50	109	73	163	14.2
SHBC-013	2	35	146	51	197	58	127	83	185	20.3

STANDARD

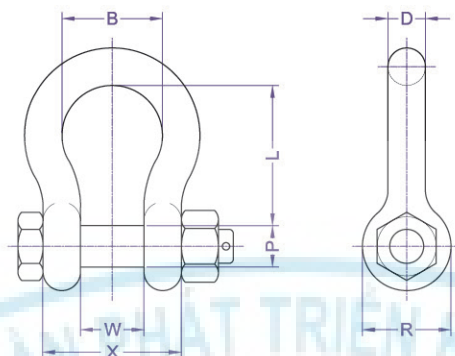
- Material : Forged carbon steel body & Alloy steel screw pin
- Test Load : Proof Load = SWL (WLL) × 2, Breaking Load = SWL (WLL) × 6
- Surface : Body(Hot Dip Galvanized), Pin(Painted, Orange)
- Reference : Federal specification, RR-C-271D
- The Others : Available certificate of NDT (M/T, U/T), 3rd Party Inspection test report.

COMMERCIAL

- Material : Forged carbon steel body & screw pin
- Test Load : Proof Load = SWL (WLL) × 1.5, Breaking Load = SWL (WLL) × 4
- Surface : Electric plated body & pin
- The Others : Available certificate of NDT (M/T, U/T), 3rd Party Inspection test report.

SAFETY BOLT TYPE SHACKLE(B.B)

SPECIFICATION



100% Proof Load Tested
over 2" size

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)							Weight (kg)
			B	D	L	P	R	W	X	
SHBB-001	1/2	2	34	13	48	16	30	21	47	0.4
SHBB-002	5/8	3.25	43	16	60	19	40	27	59	0.7
SHBB-003	3/4	4.75	51	19	73	22	48	32	70	1.1
SHBB-004	7/8	6.5	58	22	85	25	54	37	81	1.8
SHBB-005	1	8.5	68	25	95	28	58	43	94	2.6
SHBB-006	1-1/8	9.5	74	28	109	32	67	46	103	3.8
SHBB-007	1-1/4	12	83	32	119	35	76	51	115	5
SHBB-008	1-3/8	13.5	92	35	134	38	84	57	127	6.8
SHBB-009	1-1/2	17	98	38	146	42	92	60	136	8.4
SHBB-010	1-3/4	25	127	45	177	50	109	73	163	14.9
SHBB-011	2	35	146	51	197	58	127	83	185	22.6
SHBB-012	2-1/2	55	184	69	267	70	150	115	253	46.4
SHBB-013	3	85	200	79	330	83	168	128	292	79
SHBB-014	3-1/2	120	229	92	372	95	203	133	324	120
SHBB-015	4	150	254	102	368	108	229	140	344	150

STANDARD

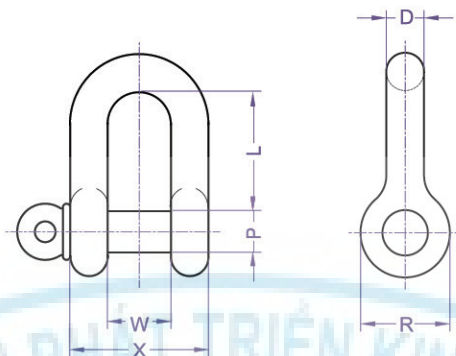
- Material : Forged carbon steel body & Alloy steel bolt
- Test Load : Proof Load = SWL (WLL) × 2, Breaking Load = SWL (WLL) × 6
- Surface : Body(Hot Dip Galvanized), Bolt(Painted, Orange)
- Reference : Federal specification, RR-C-271D
- The Others : Available certificate of NDT (M/T, U/T), 3rd Party Inspection test report.

COMMERCIAL

- Material : Forged carbon steel body & screw pin
- Test Load : Proof Load = SWL (WLL) × 1.5, Breaking Load = SWL (WLL) × 4
- Surface : Electric plated body & bolt
- The Others : Available certificate of NDT (M/T, U/T), 3rd Party Inspection test report.

SCREW PIN TYPE SHACKLE(S.C)

SPECIFICATION



100% Proof Load Tested
over 2" size

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)						Weight (kg)
			D	L	P	R	W	X	
SHSC-001	1/2	2	13	42	16	30	21	47	0.3
SHSC-002	5/8	3.25	16	51	19	40	27	59	0.5
SHSC-003	3/4	4.75	19	60	22	48	32	70	0.9
SHSC-004	7/8	6.5	22	71	25	54	37	81	1.4
SHSC-005	1	8.5	25	82	28	60	43	94	2
SHSC-006	1-1/8	9.5	28	92	32	67	46	103	2.8
SHSC-007	1-1/4	12	32	99	35	76	51	115	3.9
SHSC-008	1-1/2	17	38	121	42	92	60	136	7
SHSC-009	1-3/4	25	45	146	50	109	73	163	12.5
SHSC-010	2	35	51	162	58	127	83	185	17.8

STANDARD

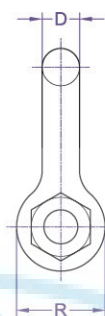
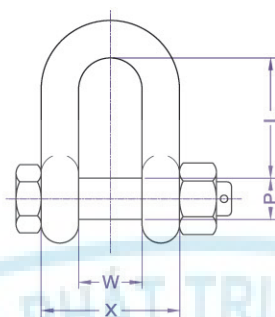
- Material : Forged carbon steel body & Alloy steel screw pin
- Test Load : Proof Load = SWL (WLL) × 2, Breaking Load = SWL (WLL) × 6
- Surface : Body(Hot Dip Galvanized), Pin(Painted, Orange)
- Reference : Federal specification, RR-C-271D
- The Others : Available certificate of NDT (M/T, U/T), 3rd Party Inspection test report.

COMMERCIAL

- Material : Forged carbon steel body & screw pin
- Test Load : Proof Load = SWL (WLL) × 1.5, Breaking Load = SWL (WLL) × 4
- Surface : Electric plated body & pin
- The Others : Available certificate of NDT (M/T, U/T), 3rd Party Inspection test report.

SAFETY BOLT TYPE SHACKLE(S.B)

SPECIFICATION



100% Proof Load Tested
over 2" size

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)						Weight (kg)
			D	L	P	R	W	X	
SHSB-001	1/2	2	13	42	16	30	21	47	0.4
SHSB-002	5/8	3.25	16	51	19	40	27	59	0.6
SHSB-003	3/4	4.75	19	60	22	48	32	70	1
SHSB-004	7/8	6.5	22	71	25	54	37	81	1.7
SHSB-005	1	8.5	25	82	28	60	43	94	2.3
SHSB-006	1-1/8	9.5	28	92	32	67	46	103	3.4
SHSB-007	1-1/4	12	32	99	35	76	51	115	4.5
SHSB-008	1-1/2	17	38	121	42	92	60	136	7.8
SHSB-009	1-3/4	25	45	146	50	109	73	163	13.7
SHSB-010	2	35	51	162	58	127	83	185	20

STANDARD

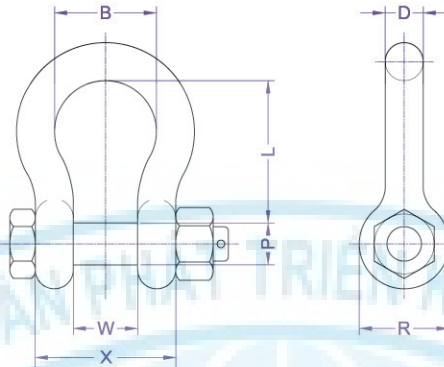
- Material : Forged carbon steel body & Alloy steel bolt
- Test Load : Proof Load = SWL (WLL) × 2, Breaking Load = SWL (WLL) × 6
- Surface : Body(Hot Dip Galvanized), Bolt(Painted, Orange)
- Reference : Federal specification, RR-C-271D
- The Others : Available certificate of NDT (M/T, U/T), 3rd Party Inspection test report.

COMMERCIAL

- Material : Forged carbon steel body & screw pin
- Test Load : Proof Load = SWL (WLL) × 1.5, Breaking Load = SWL (WLL) × 4
- Surface : Electric plated body & bolt
- The Others : Available certificate of NDT (M/T, U/T), 3rd Party Inspection test report.

ALLOY SHACKLE(B.B)

SPECIFICATION



**100% Proof Load Tested
over 2" size**

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)							Weight (kg)
			B	D	L	P	R	W	X	
SHAB-001	1-1/2	30	98	38	146	42	92	60	136	8.4
SHAB-002	1-3/4	40	127	45	177	50	109	73	163	14.9
SHAB-003	2	55	146	51	197	58	127	83	185	22.6
SHAB-004	2-1/2	85	184	69	267	70	150	115	253	46.4
SHAB-005	3	120	200	79	330	83	168	128	292	79
SHAB-006	3-1/2	150	229	92	372	95	203	133	324	120
SHAB-007	4	175	254	102	368	108	229	140	344	150

- Material : Forged alloy steel body & bolt
- Test Load : Proof Load = SWL (WLL) × 2, Breaking Load = SWL (WLL) × 5.4
- Surface : Body(Hot Dip Galvanized), Bolt(Painted, Orange)
- Reference : Federal specification, RR-C-271D
- The Others : Available certificate of NDT (M/T, U/T), 3rd Party Inspection test report.

TURNBUCKLE



TURNBUCKLE EYE & EYE / TURNBUCKLE JAW & JAW
/ TURNBUCKLE HOOK & HOOK / RIGGING SCREW / DEAD EYE

TURNBUCKLE MANUAL

GENERAL

- Turnbuckle is a device for adjusting of wire rope, chain and wire rod.
- The service load of the turn buckle is the linearly acting maximum load.
- Never apply more force than the turnbuckle's assigned Safe Working Load (SWL/WLL) rating.
- Never used for lifting applications.
- Available turnbuckle assembly combinations: Eye and Eye, Hook and Hook, Jaw and Jaw, Hook and Eye, Hook and jaw Jaw and Eye. (In case of SWL of Hook & Eye and Hook & Jaw is following the SWL of Hook & Hook)
- Forged jaw ends are fitted with bolts and nuts for 3/8" through 5/8", and pins and cotters on 3/4" through 2-3/4" sizes.
- Lock Nut is available as per request.
- The locking nut should be used to avoid or reduce the loosening of the turnbuckle.
- The turnbuckle should be inspected for deformation, wearing or defect within at least 6 months.
- The products which exceed the limit of 5% in deformation or wearing should be relieved of their load and replaced with new ones.
- The turn buckle is designed to be assembled with a shackle which is one size lower than the turn buckle

CAUTION

Before Use

- Be sure to use personal protection equipment. (Such as footwear, gloves, crash helmet, etc.)
- The work place must always be well lit.
- Remove dangerous articles from the area before work.
- The specification, use condition and use method of the product should be checked and the products should be used in a proper way.
- Check the products for any defect, wearing or deformation. Use only the product whose safety is assured.

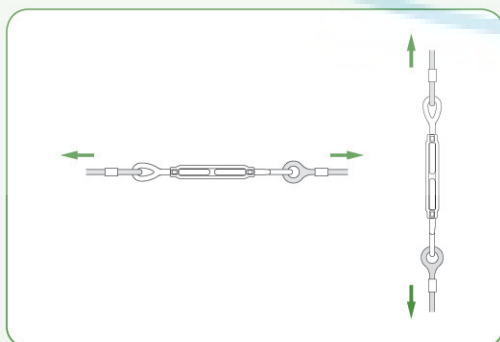
Using

- Always follow the rules carefully. (Overloading & Improper use can result in injury.)
- Products over the 15kg weight must be used with an appliance tool. (Forklift, cranes, hoists, etc.)
- Where applicable, it is important to locate out of the danger zones. (A falling load may cause serious injury or even death.)
- Never repair, alter, rework, or reshape a hook by welding, heating, burning, bending or grinding.
- Side loading or shocking may cause product's deformation or breaking.
- Jaw end-fitting should be checked to connect with cotter pin. If there is deformation on products, It should be replaced with new ones.

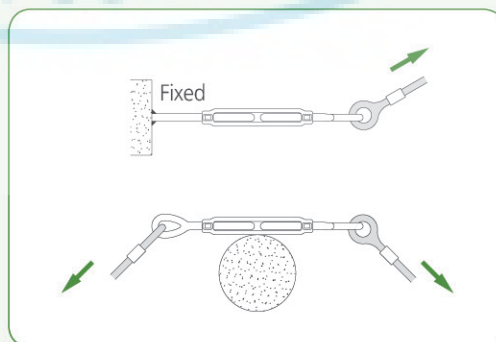
After Used

- After used products, should be inspected with elongation, wear and defect. If they are founded something wrong, must discard immediately.
- In case of founding something wrong from products, should be checked of the load, working condition, and over-load.

■ Safety Use



RIGHT



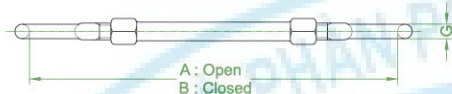
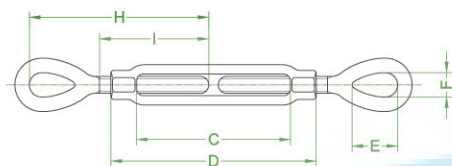
WRONG

- The SWL means the maximum allowable load against the linear load.

- Side loading or shocking may cause product's deformation or breakage.

TURNBUCKLE EYE & EYE

SPECIFICATION

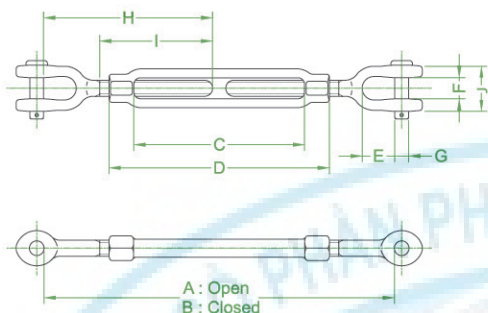


- Material : Forged carbon steel
- Test Load : Proof Load = SWL (WLL) × 2.5,
Breaking Load = SWL (WLL) × 5
- Surface : Hot Dip Galvanized
- Reference : American society of testing Materials,
ASTM F 1145
- The Others: Available certificate of NDT (M/T, U/T),
3rd Party inspection test report.
Available Lock Nut, Special design and
Materials as your requirement

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)									Weight (kg)
			A	B	C	D	E	F	G	H	I	
TBEE-001	3/8×6	0.5	428	286	152	180	28	13	9	143	97	0.3
TBEE-002	1/2×6	1	468	328	152	188	36	18	11	164	103	0.5
TBEE-003	1/2×9	1	621	404	229	265	36	18	11	202	141	0.9
TBEE-004	1/2×12	1	773	480	305	341	36	18	11	240	179	1.1
TBEE-005	5/8×6	1.6	502	366	152	198	44	22	12.5	183	109	1.3
TBEE-006	5/8×9	1.6	653	440	229	275	44	22	12.5	220	147	1.5
TBEE-007	5/8×12	1.6	807	518	305	351	44	22	12.5	259	185	1.6
TBEE-008	3/4×6	2.4	545	412	152	208	53	25	16	206	116	1.8
TBEE-009	3/4×9	2.4	698	488	229	285	53	25	16	244	154	2.2
TBEE-010	3/4×12	2.4	850	564	305	361	53	25	16	282	192	2.5
TBEE-011	3/4×18	2.4	1154	716	457	513	53	25	16	358	268	3.3
TBEE-012	7/8×12	3.3	885	602	305	371	60	32	19	301	198	3.3
TBEE-013	7/8×18	3.3	1189	754	457	523	60	32	19	377	274	4.9
TBEE-014	1×6	4.5	633	506	152	228	75	36	22	253	128	4
TBEE-015	1×12	4.5	938	658	305	381	75	36	22	329	204	5.3
TBEE-016	1×18	4.5	1242	810	457	533	75	36	22	405	280	6.3
TBEE-017	1×24	4.5	1549	964	610	686	75	36	22	482	357	8
TBEE-018	1-1/4×12	6.9	995	722	305	385	90	46	28	361	212	8.6
TBEE-019	1-1/4×18	6.9	1307	882	457	537	90	46	28	441	288	10.1
TBEE-020	1-1/4×24	6.9	1604	1026	610	690	90	46	28	513	364	11.8
TBEE-021	1-1/2×12	9.7	1043	776	305	401	103	54	32	388	222	12.6
TBEE-022	1-1/2×18	9.7	1347	928	457	553	103	54	32	464	298	14.8
TBEE-023	1-1/2×24	9.7	1652	1080	610	706	103	54	32	540	374	17
TBEE-024	1-3/4×18	12.7	1415	1002	458	570	117	60	38	501	310	22.2
TBEE-025	1-3/4×24	12.7	1719	1154	610	722	117	60	38	577	386	25.7
TBEE-026	2×24	16.8	1870	1310	610	738	146	68	45	655	405	39.6
TBEE-027	2-1/2×24	27.2	1935	1388	610	790	165	79	51	694	440	72.8
TBEE-028	2-3/4×24	34	1988	1448	610	790	178	83	57	724	440	84.1

TURNBUCKLE JAW & JAW

SPECIFICATION

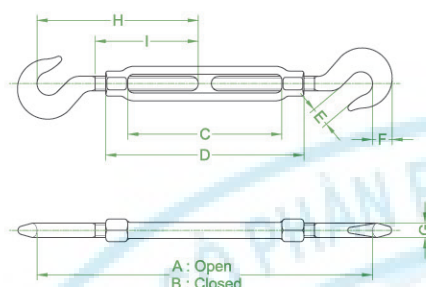
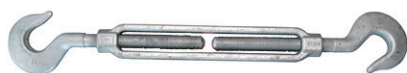


- Material : Forged carbon steel
- Test Load : Proof Load = SWL (WLL) × 2.5,
Breaking Load = SWL (WLL) × 5
- Surface : Hot Dip Galvanized
- Reference : American society of testing Materials,
ASTM F 1145
- The Others : Available certificate of NDT (M/T, U/T),
3rd Party inspection test report.
Available Lock Nut, Special design and
Materials as your requirement

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)										Weight (kg)
			A	B	C	D	E	F	G	H	I	J	
TBJJ-001	3/8×6	0.5	402	260	152	180	22	14	8	130	97	29	0.4
TBJJ-002	1/2×6	1	434	294	152	188	27	16	10	147	103	34	0.7
TBJJ-003	1/2×9	1	586	370	229	265	27	16	10	185	141	34	1
TBJJ-004	1/2×12	1	739	446	305	341	27	16	10	223	179	34	1.2
TBJJ-005	5/8×6	1.6	468	332	152	198	33	19	13	166	109	43	1.2
TBJJ-006	5/8×9	1.6	620	408	229	275	33	19	13	204	147	43	1.6
TBJJ-007	5/8×12	1.6	773	484	305	351	33	19	13	242	185	43	1.8
TBJJ-008	3/4×6	2.4	489	356	152	208	38	25	16	178	116	52	1.9
TBJJ-009	3/4×9	2.4	642	432	229	285	38	25	16	216	154	52	2.5
TBJJ-010	3/4×12	2.4	794	508	305	361	38	25	16	254	192	52	2.9
TBJJ-011	3/4×18	2.4	1098	660	457	513	38	25	16	330	268	52	3.7
TBJJ-012	7/8×12	3.3	825	542	305	371	45	30	19	271	198	63	4.2
TBJJ-013	7/8×18	3.3	1129	694	457	523	45	30	19	347	274	63	5.5
TBJJ-014	1×6	4.5	553	426	152	228	53	35	22	213	128	71	4.5
TBJJ-015	1×12	4.5	858	578	305	381	53	35	22	289	204	71	6.2
TBJJ-016	1×18	4.5	1162	730	457	533	53	35	22	365	280	71	7
TBJJ-017	1×24	4.5	1469	884	610	686	53	35	22	442	357	71	8.5
TBJJ-018	1-1/4×12	6.9	917	644	305	385	72	45	28	322	212	93	9.6
TBJJ-019	1-1/4×18	6.9	1221	796	457	537	72	45	28	398	288	93	11.9
TBJJ-020	1-1/4×24	6.9	1526	948	610	690	72	45	28	474	364	93	13.3
TBJJ-021	1-1/2×12	9.7	941	674	305	401	72	52	35	337	222	102	14
TBJJ-022	1-1/2×18	9.7	1245	826	457	553	72	52	35	413	298	102	17.1
TBJJ-023	1-1/2×24	9.7	1550	978	610	706	72	52	35	489	374	102	18.5
TBJJ-024	1-3/4×18	12.7	1329	916	458	570	87	60	41	458	310	124	26
TBJJ-025	1-3/4×24	12.7	1633	1068	610	722	87	60	41	534	386	124	29.6
TBJJ-026	2×24	16.8	1682	1122	610	738	96	66	51	561	405	134	42.1
TBJJ-027	2-1/2×24	27.2	1797	1250	610	790	115	76	57	625	440	157	84
TBJJ-028	2-3/4×24	34	1846	1306	610	790	116	92	70	653	440	174	99.4

TURNBUCKLE HOOK & HOOK

SPECIFICATION



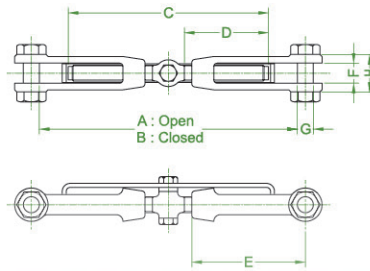
- Material : Forged carbon steel
- Test Load : Proof Load = SWL (WLL) × 2.5,
Breaking Load = SWL (WLL) × 5
- Surface : Hot Dip Galvanized
- Reference : American society of testing Materials,
ASTM F 1145
- The Others : Available certificate of NDT (M/T, U/T),
3rd Party inspection test report.
Available Lock Nut, Special design and
Materials as your requirement

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)									Weight (kg)
			A	B	C	D	E	F	G	H	I	
TBHH-001	3/8×6	0.5	414	272	152	180	14	14.5	9.5	136	97	0.4
TBHH-002	1/2×6	0.7	442	302	152	188	16	18	13	151	103	0.8
TBHH-003	1/2×9	0.7	595	378	229	265	16	18	13	189	141	0.9
TBHH-004	1/2×12	0.7	747	454	305	341	16	18	13	227	179	1.1
TBHH-005	5/8×6	1	478	342	152	198	22	22	16	171	109	1.2
TBHH-006	5/8×9	1	631	418	229	275	22	22	16	209	147	1.5
TBHH-007	5/8×12	1	783	494	305	351	22	22	16	247	185	1.6
TBHH-008	3/4×6	1.4	513	380	152	208	24	26.5	19	190	116	1.8
TBHH-009	3/4×9	1.4	666	456	229	285	24	26.5	19	228	154	2.4
TBHH-010	3/4×12	1.4	818	532	305	361	24	26.5	19	266	192	2.5
TBHH-011	3/4×18	1.4	1122	684	457	513	24	26.5	19	342	268	3.7
TBHH-012	7/8×12	1.8	859	576	305	371	29	30	22	288	198	3.7
TBHH-013	7/8×18	1.8	1163	728	457	523	29	30	22	364	274	4.5
TBHH-014	1×6	2.3	579	452	152	228	32	36	26	226	128	4.2
TBHH-015	1×12	2.3	884	604	305	381	32	36	26	302	204	5.4
TBHH-016	1×18	2.3	1188	756	457	533	32	36	26	378	280	6.4
TBHH-017	1×24	2.3	1495	910	610	686	32	36	26	455	357	7.8
TBHH-018	1-1/4×12	3	931	658	305	385	38	37	30	329	212	9.3
TBHH-019	1-1/4×18	3	1235	810	457	537	38	37	30	405	288	10.4
TBHH-020	1-1/4×24	3	1540	962	610	690	38	37	30	481	364	12.3
TBHH-021	1-1/2×12	3.4	1001	734	305	401	47	45	33	367	222	11.9
TBHH-022	1-1/2×18	3.4	1305	886	457	553	47	45	33	443	298	14.0
TBHH-023	1-1/2×24	3.4	1612	1040	610	706	47	45	33	520	374	16.4

RIGGING SCREW

SPECIFICATION

PL



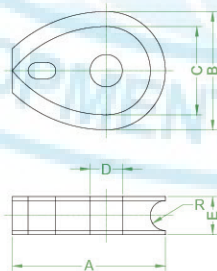
- Material : 14 ~ 22 mm : Forged steel
: 24 ~ 48 mm : Cast alloy steel
- Test Load : Proof Load = SWL (WLL) × 2,
Breaking Load = SWL (WLL) × 4
- Surface : Hot Dip Galvanized / Electric plated
- The Others : 34 ~ 48 mm : Special Order
14 ~ 18 mm : Made in CHINA

Product Code	Size (mm)	SWL(WLL) (ton)	Dimension(mm)								Weight (kg)
			A	B	C	D	E	F	G	H	
TBRS-001	14	2.1	688	464	350	151	220	30	22	56	5
TBRS-002	16	2.6	756	512	380	166	245	34	24	62	6.9
TBRS-003	18	3.3	820	560	420	180	265	37	27	69	9.3
TBRS-004	22	5.1	892	608	450	196	290	40	27	76	11.9
TBRS-005	24	5.9	952	656	480	206	310	44	30	82	16.1
TBRS-006	25	6.9	987	685	500	215	325	47	33	89	19.7
TBRS-007	30	9.2	1083	769	540	230	365	54	39	104	26.9
TBRS-008	45	21	1434	1038	740	310	490	75	62	139	82

DEAD EYE

DEAD EYE

SPECIFICATION



- Material : Cast Steel
- Test Load : Proof Load = SWL (WLL) × 2,
Breaking Load = SWL (WLL) × 4
- Surface : Hot Dip Galvanized
- The Others : Made in China
#45 Made in Korea

Product Code	Size (mm)	SWL(WLL) (ton)	Dimension(mm)						Weight (kg)
			A	B	C	D	E	R	
TBDT-001	14	2.1	105	80	60	24	28	10	0.9
TBDT-002	16	2.6	126	96	72	26	32	12	1.5
TBDT-003	18	3.3	135	103	77	30	35	13.5	1.8
TBDT-004	22	5.1	153	118	88	30	38	15	3.8
TBDT-005	25	6.9	180	140	104	35	44	18	5
TBDT-006	45	21	294	233	173	63	72	30	23

SWIVEL



BEARING SWIVEL EYE & EYE / EYE & HOOK
/ BEARING SWIVEL JAW & JAW / JAW & HOOK
/ BEARING SWIVEL JAW & EYE / COMPACT BEARING SWIVEL /
FORGED SWIVEL (SINGLE / DOUBLE)

SWIVEL MANUAL

GENERAL

- Never apply more force than the swivel's assigned Safe Working Load (SWL/WLL) rating.
- The Swivel suitable for frequent rotation under load.
- The regular swivel is supplied in self color, but bearing swivel painted by black and orange color spray.
- Hot dip galvanized or, other specification is available as your requirement.
- The bearing swivel have grease nipple and filled up the grease to get more longer life and easy rotation.
- Available with eye & eye, eye & hook, compact type, eye & jaw, jaw & jaw type and, various end fitting, too as your requirement.
- The swivel should be inspected for deformation, wearing or defect at least every 6 months.
- Products which exceed the limit of 5% in deformation or wearing should be relieved of their load and replaced with new ones.

CAUTION

Before Use

- Be sure to use personal protection equipment. (Such as footwear, gloves, crash helmet, etc.)
- The work place must always be well lit.
- Remove dangerous articles from the area before work.
- The specification, use condition and use method of the product should be checked and the products should be used in a proper way.
- Check the products for any defect, wearing or deformation. Use only the product whose safety is assured.

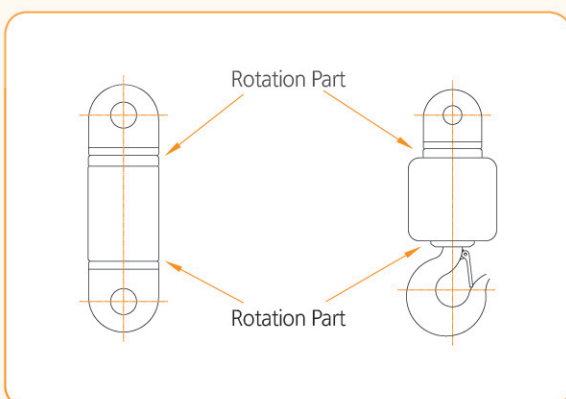
Using

- Always follow the rules carefully. (Overloading & Improper use can result in injury.)
- Products over the 15kg weight must be used with an appliance tool. (Forklift, cranes, hoists, etc.)
- Where applicable, it is important to locate out of the danger zones. (A falling load may cause serious injury or even death.)
- Never repair, alter, rework, or reshape a hook by welding, heating, burning, bending or grinding.
- Side loading or shocking may cause product's deformation or breaking.

After Used

- After used products, should be inspected with elongation, wear and defect. If they are founded something wrong, must disucard immediately.
- In case of founding something wrong from products, should be checked of the load, working condition, and over-load.

■ Safety Use

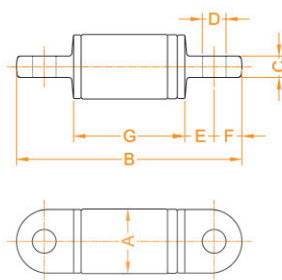


It should be always checked rotation part's gap, wearing and deformation before using. Founded defects, it should be relieved of their load and replaced with new ones.

BEARING SWIVEL EYE & EYE

SPECIFICATION

PL



- Material : Carbon Steel
- Test Load : Proof Load = SWL (WLL) × 2,
Breaking Load = SWL (WLL) × 5
- Surface : Spray painted (Black)

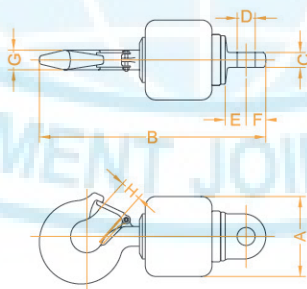
Product Code	Size (ton)	SWL(WLL) (ton)	Dimension(mm)							Weight (kg)
			A	B	C	D	E	F	G	
BSEE-001	1	1	49	174	12.5	21	24	23	80	1.4
BSEE-002	2	2	68	223	19	22	27	25	119	3.5
BSEE-003	3	3	76	278	26	29	36	34	138	6.5
BSEE-004	5	5	87	286	26	31	36	34	146	7.8
BSEE-005	8	8	106	364	40	43	48	46	176	15
BSEE-006	10	10	118	388	40	49	48	46	200	19
BSEE-007	15	15	128	457	40	49	64	52	225	27
BSEE-008	20	20	118	476	40	51	64	52	244	25.2
BSEE-009	30	30	138	612	64	59	70	70	332	50
BSEE-010	40	40	168	760	68	65	90	80	420	91

BEARING SWIVEL EYE & HOOK

BEARING SWIVEL EYE & HOOK

SPECIFICATION

PL



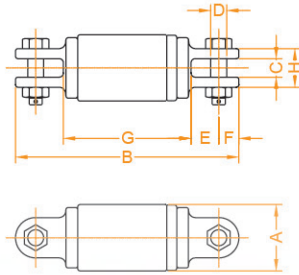
- Material : Carbon Steel
- Test Load : Proof Load = SWL (WLL) × 2,
Breaking Load = SWL (WLL) × 5
- Surface : Spray painted (Black)
10-20ton: order made

Product Code	Size (ton)	SWL(WLL) (ton)	Dimension(mm)								Weight (kg)
			A	B	C	D	E	F	G	H	
BSEH-001	1	1	98	284	19	22	27	25	26	30	7
BSEH-002	2	2	118	335	26(19)	26	36	34	26	30	11.5
BSEH-003	3	3	138	391	26(21)	31	36	34	34	38	17.5
BSEH-004	5	5	158	441	26(21)	31	36	34	38	44	27.6
BSEH-005	10	10	198	579	40	49	45	46	67	62	-
BSEH-006	15	15	236	681	40	49	60	52	80	80	-
BSEH-007	20	20	236	678	40	51	60	52	90	80	-

BEARING SWIVEL JAW & JAW

SPECIFICATION

PL



- Material : Carbon Steel
- Test Load: Proof Load = SWL (WLL) × 2,
Breaking Load = SWL (WLL) × 5
- Surface : Spray painted (Black)

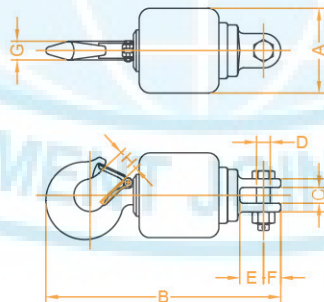
Product Code	Size (ton)	SWL(WLL) (ton)	Dimension(mm)								Weight (kg)
			A	B	C	D	E	F	G	H	
BSJJ-001	3	3	76	266	22	19	33	24	152	46	6.3
BSJJ-002	5	5	87	340	33	22	54	33	166	75	9.5
BSJJ-003	8	8	106	376	33	25	54	33	202	75	16.3
BSJJ-004	10	10	118	512	44	38	88	45	246	98	22
BSJJ-005	15	15	128	551	44	38	88	45	285	98	32
BSJJ-006	20	20	128	580	50	45	90	53	294	100	30

BEARING SWIVEL JAW & HOOK

BEARING SWIVEL JAW & HOOK

SPECIFICATION

PL



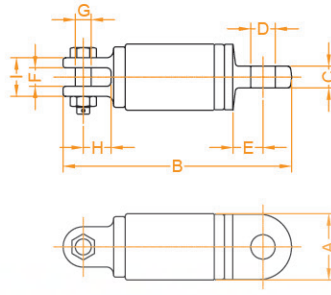
- Material : Carbon Steel
- Test Load: Proof Load = SWL (WLL) × 2,
Breaking Load = SWL (WLL) × 5
- Surface : Spray painted (Black)
10-20ton: order made

Product Code	Size (ton)	SWL(WLL) (ton)	Dimension(mm)									Weight (kg)
			A	B	C	D	E	F	G	H	I	
BSJH-001	2	2	118	329	22	19	33	24	26	30	46	11.4
BSJH-002	3	3	138	418	33	22	54	33	34	37	75	18.6
BSJH-003	5	5	158	468	33	22	54	33	38	42	75	29.0

BEARING SWIVEL JAW & EYE

SPECIFICATION

PL



- Material : Carbon Steel
- Test Load : Proof Load = SWL (WLL) × 2,
Breaking Load = SWL (WLL) × 5
- Surface : Spray painted (Black)

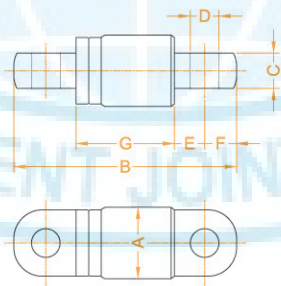
Product Code	Size (ton)	SWL(WLL) (ton)	Dimension(mm)									Weight (kg)
			A	B	C	D	E	F	G	H	I	
BSJE-001	3	3	76	272	26	29	36	22	19	33	46	6.4
BSJE-002	5	5	87	313	26	31	36	33	22	54	75	8.8
BSJE-003	8	8	106	370	40	43	48	33	25	54	75	15.6
BSJE-004	10	10	118	452	40	49	48	44	38	88	98	20.5
BSJE-005	15	15	128	504	40	49	64	44	38	88	98	29.5
BSJE-006	20	20	128	527	40	51	64	50	45	90	100	27.5

COMPACT BEARING SWIVEL

COMPACT BEARING SWIVEL

SPECIFICATION

PL



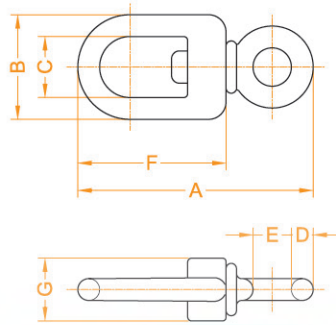
- Material : Carbon Steel
- Test Load : Proof Load = SWL (WLL) × 2,
Breaking Load = SWL (WLL) × 5
- Surface : Spray painted

Product Code	Size (ton)	SWL(WLL) (ton)	Dimension(mm)							Weight (kg)
			A	B	C	D	E	F	G	
BSCP-001	3	3	54	190	27	26	27	28	80	-
BSCP-002	5	5	59	220	33	30	31	33	92	2.9
BSCP-003	8	8	84	267	42	34	33	39	122	7.2
BSCP-004	12	12	94	295	50	41	41	45	123	10
BSCP-005	17	17	119	369	52	52	58	55	143	19
BSCP-006	22	22	125	431	58	52	55	63	195	26

SWIVEL SINGLE TYPE

SPECIFICATION

PL



- Material : Forged carbon steel
- Test Load : Proof Load = SWL (WLL) × 2,
Breaking Load = SWL (WLL) × 4
- Surface : Self color/Electric plated

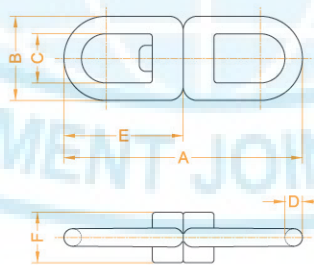
Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)							Weight (kg)
			A	B	C	D	E	F	G	
SVCS-001	1/2	0.5	132	60	36	12	22	82	36	0.6
SVCS-002	5/8	1	159	74	42	16	26	99	42	1
SVCS-003	3/4	1.5	189	83	45	19	30	115	48	1.5
SVCS-004	7/8	2	207	96	52	22	32	130	56	2.3
SVCS-005	1	2.5	233	102	52	25	35	145	60	3.1
SVCS-006	1-1/8	3	254	114	58	28	38	156	66	4.2
SVCS-007	1-1/4	5	271	128	64	32	40	166	68	5.6
SVCS-008	1-1/2	8	324	152	76	38	45	203	86	9.6

SWIVEL DOUBLE TYPE

SWIVEL DOUBLE TYPE

SPECIFICATION

PL



- Material : Forged carbon steel
- Test Load : Proof Load = SWL (WLL) × 2,
Breaking Load = SWL (WLL) × 4
- Surface : Self color/Electric plated

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)						Weight (kg)
			A	B	C	D	E	F	
SVCD-001	1/2	0.5	164	60	36	12	82	36	0.8
SVCD-002	5/8	1	198	74	42	16	99	42	1.3
SVCD-003	3/4	1.5	230	83	45	19	115	48	1.7
SVCD-004	7/8	2	260	96	52	22	130	56	3.2
SVCD-005	1	2.5	290	102	52	25	145	60	4.4
SVCD-006	1-1/8	3	312	114	58	28	156	66	5
SVCD-007	1-1/4	5	332	128	64	32	166	68	8.5
SVCD-008	1-1/2	8	406	152	76	38	203	86	14.5

LIFTING HOOK



CARBON STEEL EYE HOOK / ALLOY STEEL EYE HOOK
/ CARBON STEEL SHANK HOOK / ALLOY STEEL SHANK HOOK
/ SAFETY LATCH HOOK EYE TYPE / SAFETY LATCH HOOK CLEVIS TYPE

HOOK MANUAL

GENERAL

- The hook are produce by Forged carbon or alloy steel.
- Special Specification hook is available as your requirement.
- The eye hook and shank hook are used for lifting and produced with the preference according to KS B1335.
- In case of Shank hook, lifting load changeable according to the machining of shank part.
- Inspection should be conducted to check any deformation, wearing or defect within at least 6 months.
- The products which exceed the limit of 5% in deformation or wearing should be relieved of their load and replaced with new ones.

CAUTION

Before Use

- Be sure to use personal protection equipment. (Such as footwear, gloves, crash helmet, etc.)
- The work place must always be well lit.
- Remove dangerous articles from the area before work.
- The specification, use condition and use method of the product should be checked and the products should be used in a proper way.
- Check the products for any defect, wearing or deformation. Use only the product whose safety is assured.

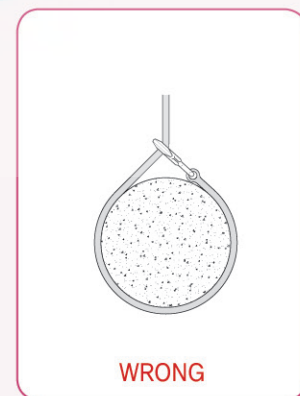
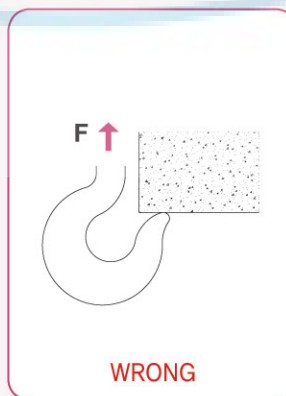
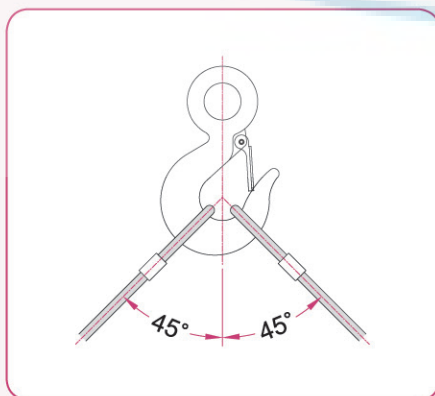
Using

- Always follow the rules carefully. (Overloading & Improper use can result in injury.)
- Products over the 15kg weight must be used with an appliance tool. (Forklift, cranes, hoists, etc.)
- Where applicable, it is important to locate out of the danger zones.
(A falling load may cause serious injury or even death.)
- Never repair, alter, rework, or reshape a hook by welding, heating, burning, bending or grinding.
- Side loading or shocking may cause product's deformation or breaking.
- When placing two sling legs in hook, make sure the angle from the vertical to the outermost leg is not greater than 45° , and between legs is less than 90°
- The gate must never support the load.

After Used

- After used products, should be inspected with elongation, wear and defect. If they are founded something wrong, must disucard immediately.
- In case of founding something wrong from products, should be checked of the load, working condition, and over-load.

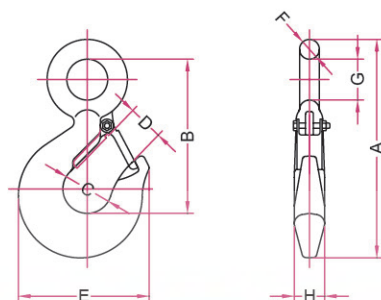
■ Safety Use



When placing two sling legs in hook, make sure the angle from the vertical to the outermost leg is not greater than 45° .

CARBON STEEL EYE HOOK

SPECIFICATION



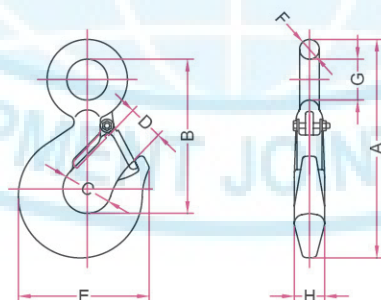
- Material : Forged carbon steel
- Test Load : Proof Load = SWL (WLL) × 2.5,
Breaking Load = SWL (WLL) × 5
- Surface : Electric plated

Product Code	Size (ton)	SWL(WLL) (ton)	Dimension(mm)								Weight (kg)
			A	B	C	D	E	F	G	H	
HKEC-001	0.75	0.75	113	82	31	23	76	9.5	19	14	0.3
HKEC-002	1	1	128	93	33	23	83	11	22	17	0.4
HKEC-003	1.5	1.5	144	104	36	26	93	12	28	20	0.7
HKEC-004	2	2	166	117	37	26	99	15	31	23	0.9
HKEC-005	3.2	3.2	207	147	48	30	125	18	40	32	1.9
HKEC-006	5	5	259	187	60	41	161	23	50	35	3.7
HKEC-007	7.5	7.5	316	230	76	54	202	28.5	62	43	5.8

ALLOY STEEL EYE HOOK

ALLOY STEEL EYE HOOK

SPECIFICATION



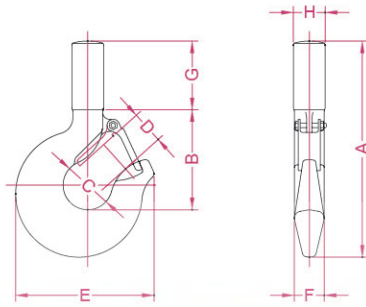
- Material : Forged carbon steel
- Test Load : Proof Load = SWL (WLL) × 2.5,
Breaking Load = SWL (WLL) × 5
- Surface : Electric plated

Product Code	Size (ton)	SWL(WLL) (ton)	Dimension(mm)								Weight (kg)
			A	B	C	D	E	F	G	H	
HKEA-001	3	3	166	117	37	26	99	15	31	23	0.9
HKEA-002	5.4	5.4	207	147	48	30	125	18	40	32	1.9
HKEA-003	7	7	259	187	60	41	161	23	50	35	3.7
HKEA-004	11	11	316	230	76	54	202	28.5	62	43	5.8

CARBON STEEL SHANK HOOK

SPECIFICATION

PL CE



- Material : Forged carbon steel
- Test Load : Proof Load = SWL (WLL) × 2.5,
Breaking Load = SWL (WLL) × 5
- Surface : Self color

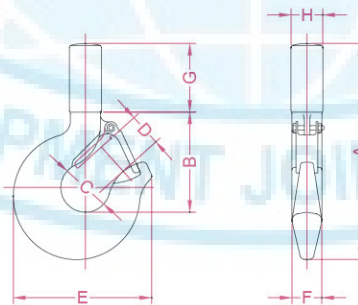
Product Code	Size (ton)	SWL(WLL) (ton)	Dimension(mm)								Weight (kg)
			A	B	C	D	E	F	G	H	
HKSK-001	2	2	187	85	45	30	115	26	63	27	1.3
HKSK-002	3	3	246	115	56	37	158	34	77	34	3.1
HKSK-003	5	5	276	135	62	42	169	38	90	38	4.1

ALLOY STEEL SHANK HOOK

ALLOY STEEL SHANK HOOK

SPECIFICATION

PL



- Material : Forged Alloy steel
- Test Load : Proof Load = SWL (WLL) × 2.5,
Breaking Load = SWL (WLL) × 5
- Surface : Orange painted

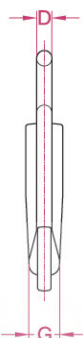
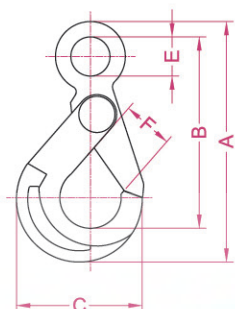
Product Code	Size (ton)	SWL(WLL) (ton)	Dimension(mm)								Weight (kg)
			A	B	C	D	E	F	G	H	
HKSA-001	15	15	396	175	85	62	232	67	145	60	14
HKSA-002	25	25	476	218	100	80	290	80	166	70	21

SAFETY LATCH HOOK EYE TYPE

SAFETY LATCH HOOK EYE TYPE

SPECIFICATION

PL



- Material : Forged Alloy steel
- Test Load : Proof Load = SWL (WLL) × 2.5,
Breaking Load = SWL (WLL) × 4
- Surface : Orange painted
- The others : For Grade 80 or 70 chain sling

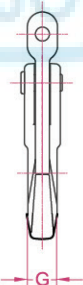
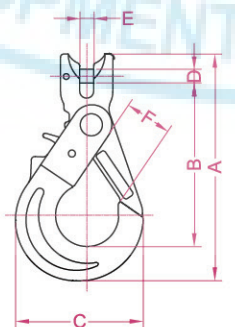
Product Code	Size (mm)	SWL(WLL) (ton)	Dimension(mm)							Weight (kg)
			A	B	C	D	E	F	G	
HKSE-002	7~8	2	169	133	87	11	25	35	20	0.8
HKSE-003	10	3.2	206	162	109	12	32	40	25	1.4
HKSE-004	13	5.4	264	204	140	15	40	50	32	2.9
HKSE-005	16	8.2	328	256	169	20	56	62	39	5.8

SAFETY LATCH HOOK CLEVIS TYPE

SAFETY LATCH HOOK CLEVIS TYPE

SPECIFICATION

PL



- Material : Forged Alloy steel
- Test Load : Proof Load = SWL (WLL) × 2.5,
Breaking Load = SWL (WLL) × 4
- Surface : Orange painted
- The others : For Grade 80 or 70 chain sling

Product Code	Size (mm)	SWL(WLL) (ton)	Dimension(mm)							Weight (kg)
			A	B	C	D	E	F	G	
HKSC-001	7~8	2	158	118	87	9	10	35	20	0.8
HKSC-002	10	3.2	195	141	109	12	12	40	25	1.5
HKSC-003	13	5.4	247	177	140	16	15	50	32	3.2
HKSC-004	16	8.2	299	213	169	20	19	62	39	6.8

WIRE ROPE ACCESSORY



OPEN SPELTER SOCKET PIN TYPE / OPEN SPELTER SOCKET BOLT/NUT TYPE
/ CLOSED SPELTER SOCKET / WEDGE SOCKET / BOOM PENDANT SOCKET
/ OPEN SWAGE SOCKET / CLOSED SWAGE SOCKET / WIRE ROPE CLIP

SPELTER SOCKET MANUAL

GENERAL

- Spelter socket are wire rope end-termination for connecting or, tied up.
- 100% tension strength effect of Wire rope's breaking load.
- 1/2~1-1/2"size Open/Closed spelter socket are produce by forged steel and, other size produce by casting alloy steel.
- Surface treatment products or, special specification sockets can supply as your requirement.
- The spelter socket shall be inspected for deformation, wearing or defect at least every 6 months.
- Products which exceed the limit of 5% in deformation or wearing should be relieved of their load and replaced with new ones.

CAUTION

Before Use

- Be sure to use personal protection equipment (such as footwear, gloves, crash helmet, etc.)
- The work place must always be well lit.
- Before work, remove dangerous articles from the area.
- Seizing: Seize the wire rope or strand as shown using soft annealed iron wire.
- The specification, use condition and use method of the product should be checked and the products are to be used in a proper way.
- Check the products for any defect, wearing or deformation. Use only products whose safety is assured.

Using

- Always follow the rules carefully. (Overloading & Improper use can result in injury.)
- Products over the 15kg weight must be used with an appliance tool. (Forklifts, cranes, hoists, etc.)
- Where applicable, it is important to locate outside the danger zones. (A falling load may cause serious injury or even death.)
- Never repair, alter, rework, or reshape a hook by welding, heating, burning, bending or grinding.
- If the product is subjected to shock or undue load, it may become deformed or may be destroyed.
- According to professionals, socketing should be in compliance with the use manual prepared by the resin manufacturer.

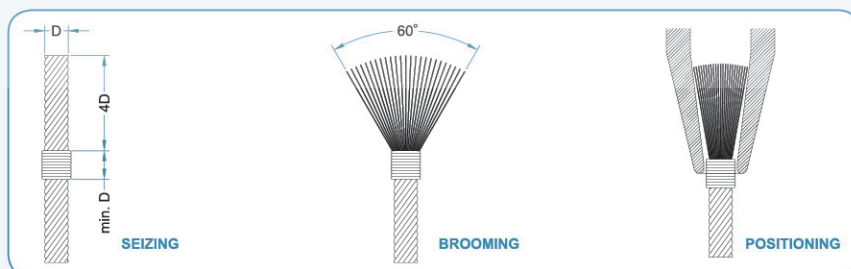
After Used

- After used products, should be inspection with elongation, wear and defect and, found anything else, must disuse, immediately.
- In case of found something wrong from products, should be need the check of load, working condition, and over-load, then.

■ Reference when seizing and brooming as following figure.

1. Socketing sequence

- Select the proper socket according to wire rope and object.
- Put the wire rope into the socket and seize it.
- Broom the end of the wire rope and then clean the broomed part.
- Seat the seized part onto the socket.
- Clog the entry of the socket so that the resin does not flow down.
- Pour the resin according to the manual prepared by the resin manufacturer.
- Dry the resin.
- Lubricate the wire rope at the customer's request or if necessary.
- Check if there is any problem in socketing using the assured load test.



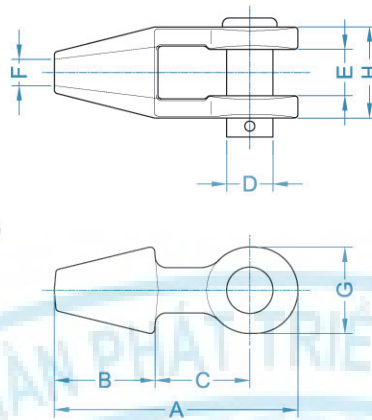
※ The socketing should be worked by expert.

OPEN SPELTER SOCKET PIN TYPE

SPECIFICATION

PL

CE



Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)								Weight (kg)
			A	B	C	D	E	F	G	H	
SKOP-001	5/16~3/8	2	123	57	44	20.5	20.5	13	39	43	0.7
SKOP-002	7/16~1/2	3	141	65	51	25.5	25.5	14	48	52	1.1
SKOP-003	9/16~5/8	5	171	74	65	30	32	18	57	64	1.6
SKOP-004	3/4	7	202	90	78	35	38	22	66	72	2.7
SKOP-005	7/8	10	235	100	93	41.5	45	25	80	85	4.5
SKOP-006	1	12	268	112	105	50.5	51	29	95	100	7
SKOP-007	1-1/8	15	294	122	117	57	57	32	105	111	9.1
SKOP-008	1-1/4~1-3/8	20	329	134	131	63.5	64	38	121	126	13.9
SKOP-009	1-1/2	25	384	154	156	70	76	42	137	144	21.6
SKOP-010	1-5/8	30	413	165	165	76	76	44	146	142	25
SKOP-011	1-3/4~1-7/8	40	464	192	176	89	90	51	166	170	37
SKOP-012	2~2-1/8	50	546	216	229	95	102	57	178	194	58
SKOP-013	2-1/4~2-3/8	65	596	230	254	108	116	64	198	226	76
SKOP-014	2-1/2~2-5/8	80	650	250	273	121	126	73	216	248	114
SKOP-015	2-3/4~2-7/8	90	693	280	279	127	133	80	230	280	143
SKOP-016	3~3-1/8	100	736	310	278	133	148	87	242	300	172
SKOP-017	3-1/4~3-3/8	120	784	330	298	140	158	92	254	318	197
SKOP-018	3-1/2~3-5/8	140	845	356	324	152	172	98	280	340	255

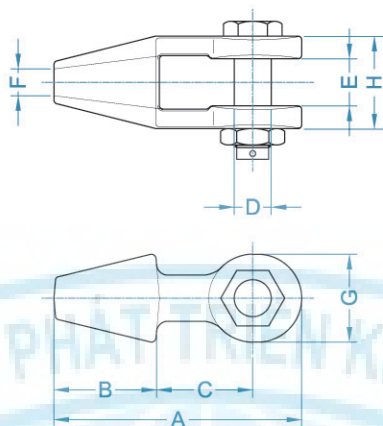
- Material : 1/2~1-1/2" (Forged carbon steel), 1-5/8"~3-1/2" (Cast alloy steel)
- Proof Load : SWL×2, Breaking Load : SWL×5
- Surface : Self Color or, Hot Dip Galv.
- Reference : Federal specification RR-S-550D
- 1/2"~3/4" size spelter socket have only 1 groove, 7/8"~1-1/2" size have two groove and, 1-5/8"~3-1/2" size have three groove.
- Available certificate of NDT (M/T, U/T), 3rd party Inspection test report.
- Special size, design and, another material will can supply as your requirement.

OPEN SPELTER SOCKET BOLT/NUT TYPE

SPECIFICATION

PL

CE



Product Code	Size (mm)	SWL(WLL) (ton)	Dimension(mm)								Weight (kg)
			A	B	C	D	E	F	G	H	
SKOB-001	16	2.6	171	74	65	25	32	20	57	64	1.7
SKOB-002	18	3.3	202	90	78	28	38	23	66	72	2.6
SKOB-003	20	4.1	202	90	78	31	38	25	66	72	2.8
SKOB-004	22	5.1	235	100	93	34	45	30	80	85	4.4
SKOB-005	24	5.9	268	112	105	37	51	32	95	100	7.1
SKOB-006	25	6.9	268	112	105	40	51	33	95	100	7.7
SKOB-007	28	8	294	122	117	43	57	36	105	111	9.2
SKOB-008	30	9.2	294	122	117	46	57	38	105	111	9.7
SKOB-009	32	10.5	329	134	131	49	64	40	121	126	14.4
SKOB-010	34	11.5	329	134	131	52	64	42	121	126	14.5
SKOB-011	36	13	384	154	156	55	76	44	137	144	22.7
SKOB-012	38	14.5	384	154	156	58	76	47	137	144	24.1

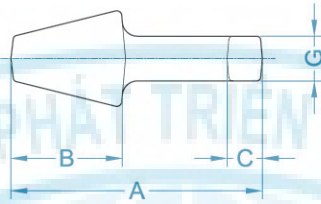
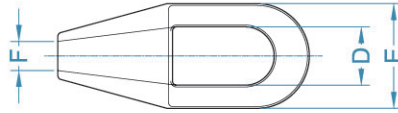
- Material : Forged carbon steel
- Proof Load : SWL×2, Breaking Load : SWL×5
- Surface : Self Color or, Hot Dip Galv.
- Reference : Federal specification RR-S-550D
Japanese Industrial Standard JIS F 3432
- 16~20MM" size spelter socket have only 1 groove, 22MM~38MM" size have two groove.
- Available certificate of NDT (M/T, U/T), 3rd party Inspection test report.
- Special size, design and, another material will can supply as your requirement.

CLOSED SPELTER SOCKET

SPECIFICATION

PL

CE



Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)							Weight (kg)
			A	B	C	D	E	F	G	
SKCL-001	5/16 ~ 3/8	2	125	57	15.5	25	43	13	17.5	0.4
SKCL-002	7/16 ~ 1/2	3	140	65	17	29	50	14	22	0.7
SKCL-003	9/16 ~ 5/8	5	161	74	21	36	67	18	25	1.5
SKCL-004	3/4	7	194	90	27	42	76	22	32	2.1
SKCL-005	7/8	10	223	100	32	48	92	25	38	3.5
SKCL-006	1	12	250	112	35	58	104	29	45	5
SKCL-007	1-1/8	15	279	124	38	65	114	32	51	6.8
SKCL-008	1-1/4 ~ 1-3/8	20	308	147	42	70	127	38	57	9.9
SKCL-009	1-1/2	25	354	160	49	81	137	42	60	12.9
SKCL-010	1-5/8	30	384	165	54	82	146	44	70	16
SKCL-011	1-3/4 ~ 1-7/8	40	438	190	56	96	172	51	76	24
SKCL-012	2 ~ 2-1/8	50	505	216	62	110	194	57	83	34
SKCL-013	2-1/4 ~ 2-3/8	65	546	228	70	128	216	67	92	45
SKCL-014	2-1/2 ~ 2-5/8	80	597	248	80	140	240	73	102	64
SKCL-015	2-3/4 ~ 2-7/8	90	645	280	80	158	272	80	124	100
SKCL-016	3 ~ 3-1/8	100	689	305	86	170	292	86	134	125
SKCL-017	3-1/4 ~ 3-3/8	120	743	330	103	184	312	92	146	142
SKCL-018	3-1/2 ~ 3-5/8	140	788	356	102	200	330	100	160	180

- Material : 1/2~1-1/2" (Forged carbon steel), 1-5/8"~3-1/2" (Cast alloy steel)
- Proof Load : SWL×2, Breaking Load : SWL×5
- Surface : Self Color or, Hot Dip Galv.
- Reference : Federal specification RR-S-550D
- 1/2"~3/4" size spelter socket have only 1 groove, 7/8"~1-1/2" size have two groove and, 1-5/8"~3-1/2" size have three groove.
- Available certificate of NDT (M/T, U/T), 3rd party Inspection test report.
- Special size, design and, another material will can supply as your requirement.

WEDGE SOCKET MANUAL

GENERAL

- Wedge socket are wire rope end-termination for connecting or, tied up.
- 75~90% tension strength effect of Wire rope's breaking load.
- Wedge socket are produce by Casting (alloy) steel
- The wedge socket should be applicate 6~8 Strand wire rope of designated size.
- The tail length of the dead end should be minimum of 6 rope diameters but not less than 6" and, not over 150mm length.
- Load may slip or if the wedge socket is not properly installed.
- Always select the wedge and socket for the wire rope size.
(The wire rope shall not pass through the "NO-GO" hole in the wedge)
- The wedge socket should be inspected for deformation, wearing or defect at least every 6 months.
- The product, if there is deformation or wearing which exceeds the limit of 5%, should be relieved of its forced load and replaced with a new one.

CAUTION

Before Use

- Be sure to use personal protection equipment. (Such as footwear, gloves, crash helmet, etc.)
- The work place must always be well lit.
- Before work, before remove dangerous articles from the area.
- The specification, use condition and use method of the product should be checked and the products should be used in a proper way.
- Check the products for any defect, wearing or deformation. Use only the product whose safety is assured.
- When the surface of the socket or pin has a fine scratch, it may be ground for use. However, welding is not allowed.
- Parts such as the wedge made by other manufacturers are not to be used.
- When the surface of the socket or pin has a fine scratch, it may be ground for use. However, welding is not allowed.
- Parts such as the wedge made by other manufacturers are not to be used.

Using

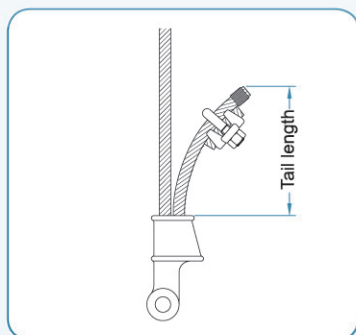
- Always follow the rules carefully. (Overloading & Improper use can result in injury.)
- Products over the 15kg weight must be used with an appliance tool. (Forklift, cranes, hoists, etc.)
- Where applicable, it is important to locate outside the danger zones.
(A falling load may cause serious injury or even death.)
- Never repair, alter, rework, or reshape a hook by welding, heating, burning, bending or grinding.
- Don't side load the wedge socket.
- Apply first load to fully seat the wedge and wire rope in the socket. this load should be of equal or greater weight than loads expected in use.

After Used

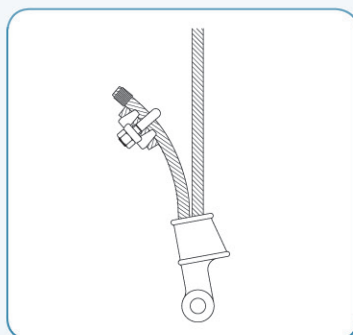
- After used products, should be inspection with elongation, wear and defect and, found anything else, must disuse, immediately.
- In case of found something wrong from products, should be need the check of load, working condition, and over-load, then.

■ using wedge socket as following figure.

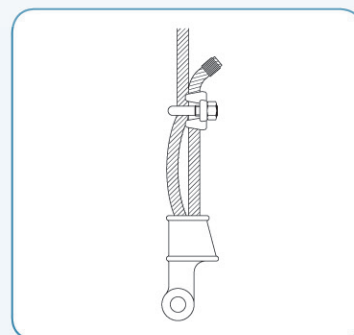
- The tail length of the dead end should be minimum of 6 rope diameters but not less than 6" and, not over 150mm length.



RIGHT



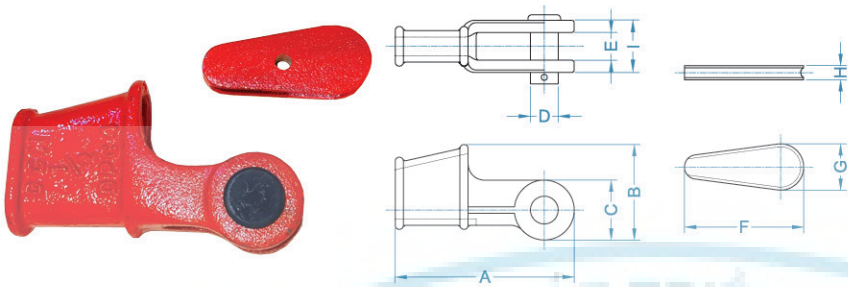
WRONG



WRONG

WEDGE SOCKET

SPECIFICATION



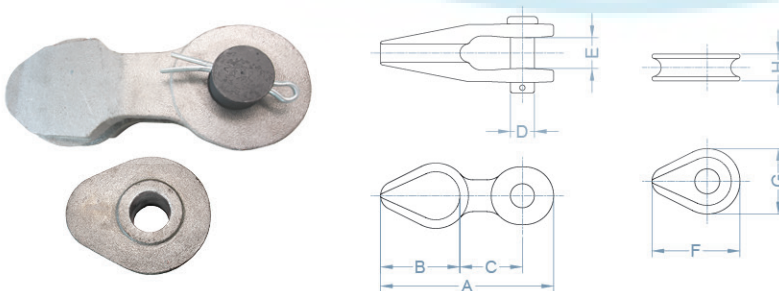
- Material : Casting Steel (Cast alloy steel)
- Proof Load : $SWL \times 2$,
Breaking Load : $SWL \times 5$
- Surface : Body & Wedge : Painted orange
Pin : Electric plated
- Reference : Federal specification RR-S-550D
- Special size, design and, another material will can supply as your requirement

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)									Weight (kg)
			A	B	C	D	E	F	G	H	I	
SKWG-001	3/8	1.5	150	81	46	20.5	21	75	36	12	43	1.5
SKWG-002	1/2	2.5	177	107	56	25.5	28	110	48	15	54	2.4
SKWG-003	5/8	3.5	215	128	66	30	34	130	60	20	64	4
SKWG-004	3/4	5	259	149	75	35	41	150	68	22	76	7.7
SKWG-005	7/8	7	298	166	90	41.5	44	160	68	24	84	10.4
SKWG-006	1	8.5	325	181	110	50.5	51	170	80	28	97	13.1
SKWG-007	1-1/8	10.5	370	205	112	57	56	200	90	30	110	19.9
SKWG-008	1-1/4	12.5	410	225	126	63.5	65	219	95	33	125	28
SKWG-009	1-3/8	14	480	264	156	63.5	70	250	114	40	130	41.7
SKWG-010	1-1/2	18	553	285	165	70	75	294	128	44	135	49.5
SKWG-011	1-5/8	21	618	311	176	76	76	310	124	45	142	68.9

BOOM PENDANT SOCKET

BOOM PENDANT SOCKET

SPECIFICATION



- Material : Casting Steel (Cast alloy steel)
- Proof Load : $SWL \times 2$,
Breaking Load : $SWL \times 5$
- The boom pendant socket should be applicate 6~8 Strand wire rope of designated size.

Product Code	Size (mm)	SWL(WLL) (ton)	Dimension(mm)								Weight (kg)
			A	B	C	D	E	F	G	H	
SKBP-001	32 ~ 35	12.5	384	185	128	50	63	185	152	53	23.5
SKBP-002	38	18	432	205	143	50	75	207	170	63	33.5

SWAGE SOCKET MANUAL

GENERAL

- Swage socket are wire rope end-termination for connecting or, tied up.
- 95~100% tension strength effect of Wire rope's breaking load
- Open/Closed swage socket are produce by forged steel
- The swage socket should be applicate 6 Strand wire rope of designated size.
- Open/Closed swage sockets are supplying by self-color if don't have any requirement.
- Surface treatment products or, special swaging sockets can supply as your requirement.
- The swage socket should be inspected for any deformation, wearing or defect within at least 6 months.
- The product, if there is deformation or wearing which exceeds the limit of 5%, is to be relieved of its forced load and replaced with a new one.

CAUTION

Before Use

- Be sure to use personal protection equipment (such as footwear, gloves, crash helmet, etc.)
- The work place must always be well lit.
- Before work, remove dangerous articles from the area.
- The specification, use condition and use method of the product should be checked and the products should be used in a proper way.
- Check the products for any defect, wearing or deformation. Use only the product whose safety is assured.

Using

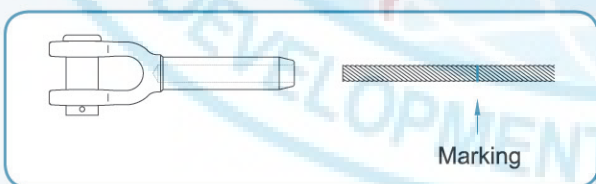
- Always follow the rules carefully. (Overloading & Improper use can result in injury.)
- Products over the 15kg weight must be used with an appliance tool. (Forklifts, cranes, hoists, etc.)
- Where applicable, it is important to locate outside the danger zones.
(A falling load may cause serious injury or even death.)
- Never repair, alter, rework, or reshape a hook by welding, heating, burning, bending or grinding.
- Swaging should be applicate through specialist by reasonable swaging mould.

After Used

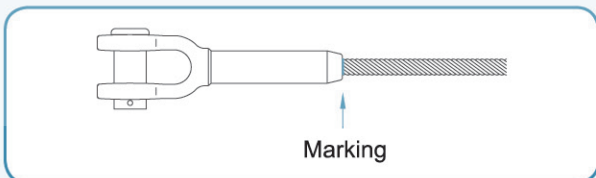
- After used products, should be inspection with elongation, wear and defect and, found anything else, must disuse, immediately.
- In case of found something wrong from products, should be need the check of load, working condition, and over-load, then.

■ Reference when swaging process as following figure.

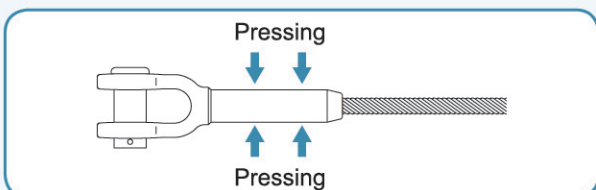
■ External diameter comparison before and after swaging



step1. Marking in the wire rope according to the swaging depth.



step2. Install wire rope up to marked in the swaging socket.



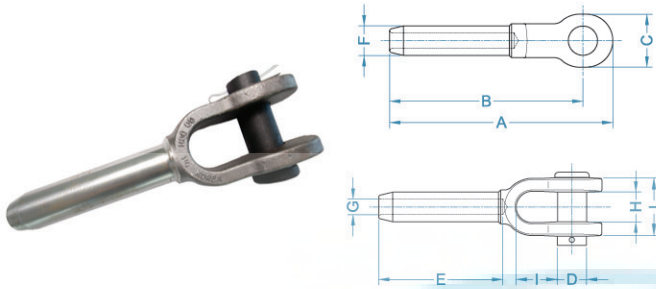
step3. Should be swaging according to swaging press instruction. (Swaging Load)

SIZE (inch)	Before swaging	After swaging (max.)
7/8	43.2	39.4
1	50.8	45.7
1-1/8	57	52.1
1-1/4	64.3	58.4
1-3/8	71.4	65
1-1/2	78.3	71.4

OPEN SWAGE SOCKET

SPECIFICATION

PL



- Material : Forged Carbon Steel
- Proof Load : SWL×2, Breaking Load : SWL×5
- Surface : Self Color or, Hot Dip Galv.
- Special size, design and, another material will can supply as your requirement
- During Swaging process, products of the appropriate standard (Wire Rope, Socket, Swaging dies etc.) must be used.

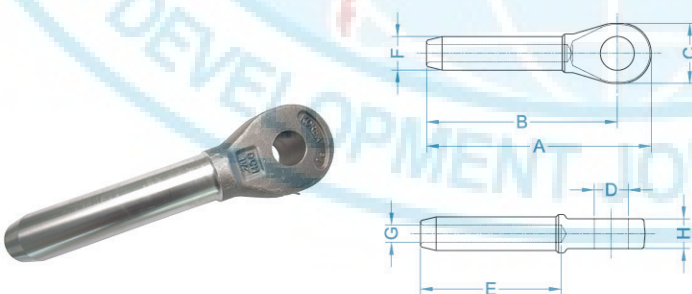
Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)										Weight (kg)
			A	B	C	D	E	F	G	H	I	J	
SKOS-005	7/8	10	339	293	80	41	189	43.2	24	45	62	87	5.3
SKOS-001	1	12	393	340	94	50.5	215	50.8	27	50	69	105	9.2
SKOS-006	1-1/8	15	438	379	105	57	243	57	30	57	80	113	11.5
SKOS-002	1-1/4	18	485	420	115	63.5	270	64.3	34	64	88	128	15.8
SKOS-003	1-3/8	20	512	447	115	63.5	295	71.4	37	64	88	128	17.5
SKOS-004	1-1/2	25	586	506	140	70	325	78.3	40.5	77	111	161	28

CLOSED SWAGE SOCKET

CLOSED SWAGE SOCKET

SPECIFICATION

PL



- Material : Forged Carbon Steel
- Proof Load : SWL×2, Breaking Load : SWL×5
- Surface : Self Color or, Hot Dip Galv.
- Special size, design and, another material will can supply as your requirement
- During Swaging process, products of the appropriate standard (Wire Rope, Socket, Swaging dies etc.) must be used.

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)								Weight (kg)
			A	B	C	D	E	F	G	H	
SKCS-005	7/8	10	301	255	79	43	189	43.2	24	38	3.1
SKCS-001	1	12	345	293	93	52	215	50.8	27	43	4.7
SKCS-006	1-1/8	15	380	322	102	59	243	57	30	50	6.7
SKCS-002	1-1/4	18	431	366	115	65	270	64.3	34	57	9.5
SKCS-003	1-3/8	20	458	393	115	65	295	71.4	37	57	12.4
SKCS-004	1-1/2	25	511	432	138	72	325	78.3	40.5	65	16.9

WIRE ROPE CLIP MANUAL

GENERAL

- Wire rope clips are used on wire rope eye-loop connections or complete-loop, end-to-end connections where socketing or splicing is not feasible when a non-permanent or temporary joint is required.
- The joint should not be situated in a place where there is permanent or long term vibration, contamination or corrosion if possible.
- Match the same sized clip to the same sized wire rope.
- 50~60% tension strength effect of Wire rope's breaking load.
- Wire rope clip's effect is due to fasten clip position, quantity and worker.
- Don't use with plastic coated wire rope. (should be remove coating before application of wire rope)
- Wire rope clips are produce by Forged steel and Hot dip galvanized.
- The wire rope clip should be inspected for deformation, wearing or defect within at least 6 months.
- The products which exceed the limit of 5% in deformation or wearing should be relieved of their load and replaced with new ones.

CAUTION

Before Use

- Be sure to use personal protection equipment. (Such as footwear, gloves, crash helmet, etc.)
- The work place must always be well lit.
- Before work, before remove dangerous articles from the area.
- The specification, use condition and use method of the product should be checked and the products should be used in a proper way.
- Check the products for any defect, wearing or deformation. Use only the product whose safety is assured.
- When the wire rope is secured by clip, the number of clips specified should be checked.
The turnback length should also be checked for design so as to secure more than that number.
- Before the product is secured with a wire rope clip, it should be retightened with the specified torque.

Using

- Always follow the rules carefully. (Overloading & Improper use can result in injury.)
- Products over the 15kg weight must be used with an appliance tool. (Forklifts, cranes, hoists, etc.)
- Where applicable, it is important to locate outside the danger zones.
(A falling load may cause serious injury or even death.)
- Never repair, alter, rework, or reshape a swivel by welding, heating, burning, bending or grinding.
- Subjecting the side of the product to shock or undue load can cause product deformation and destruction.
- Apply the first load to test the assembly. This load should be of equal or greater weight than the loads expected in use. Next, check and re-tighten nuts to the recommended torque.

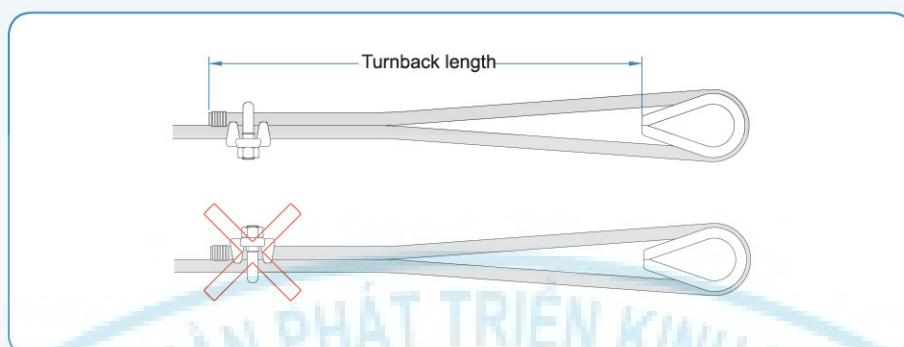
After Used

- After used products, should be inspection with elongation, wear and defect and, found anything else, must disuse, immediately.
- In case of found something wrong from products, should be need the check of load, working condition, and over-load, then.

■ The amount and torque of the clip necessary for fastening the wire rope are as shown in the table below.

Clip Size (inch)	Wire Size (inch)	Min No. of Clips (pcs)	Amount of Rope to Turn Back in inches (Turnback length / mm)	Torque in Ft.	
				N-m	kgf·m
1/2	1/2	3	290	58	5.9
5/8	5/8	3	305	80	8.2
3/4	3/4	4	460	116	11.8
7/8	7/8	4	485	203	20.7
1	1	5	660	203	20.7
1-1/8	1-1/8	6	865	203	20.7
1-1/4	1-1/4	7	1,120	330	33.5
1-3/8	1-3/8	7	1,120	330	33.5
1-1/2	1-1/2	8	1,370	330	33.5
1-3/4	1-3/4	8	1,550	725	73.8
2	2	8	1,800	1,017	103.8

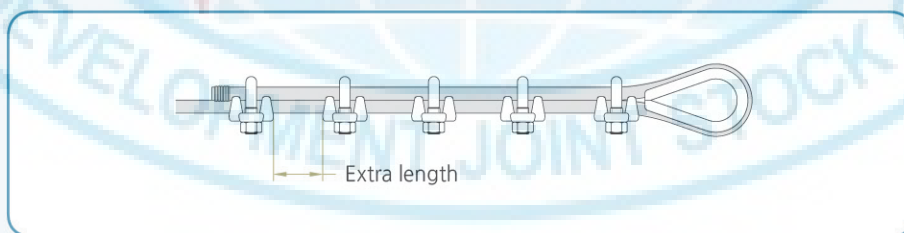
■ How to fasten wire rope clips?



step1. The first clip must be placed one saddle width from the turned back rope tail or dead end of the rope. U-bolt is fastened toward the dead-end direction of the rope. The first clip is fastened with the specified torque.



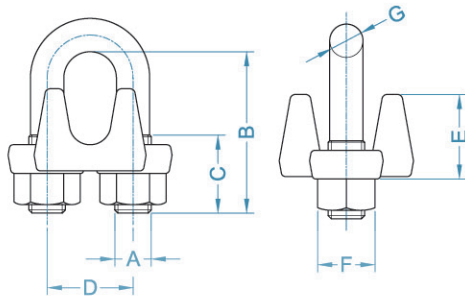
step2. The second wire rope clip must be placed immediately against the thimble but nevertheless in such a position that correct tightening of the grip does not damage the outer wires of the rope. The second clip is fastened with a force equal to or less than a specified torque to be fastened to each other.



step3. All other grips must be placed between the first and second clips in such a way that they are separated by at least one clear clip width from each other. Place a sufficient distance of 1.5 to 3 times the size of the clip between the clips, and fasten them at regular intervals. All clips are fastened to each other, but they are fastened with a force less than the specified torque. All clips are finished by alternately engaging with a specified torque.

WIRE ROPE CLIP

SPECIFICATION



Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)							Weight (kg)
			A	B	C	D	E	F	G	
WRCL-001	1/2	1.5	1/2"	48	27	30	26	22	11	0.3
WRCL-002	5/8	2.5	9/16"	65	32	33	37	24	12.5	0.5
WRCL-003	3/4	3.5	5/8"	75	40	38	37	27	14	0.7
WRCL-004	7/8	5	3/4"	80	45	45	44	31.5	17	1.1
WRCL-005	1	6	3/4"	90	45	47	46	31.5	17	1.3
WRCL-006	1-1/8	7.5	3/4"	100	50	51	50	31.5	17	1.4
WRCL-007	1-1/4	9	7/8"	110	55	59	54	36	20	2
WRCL-008	1-3/8	10	7/8"	118	60	61	60	36	20	2
WRCL-009	1-1/2	12.5	7/8"	125	62	64	63	36	20	2.2
WRCL-010	1-3/4	20	1-1/8"	146	70	77	73	45	26	4
WRCL-011	2	25	1-1/4"	165	78	86	81	47	29	5.5

- Material : Forged Carbon Steel
- Proof Load : SWL×2, Breaking Load : SWL×5
- Surface : Hot Dip Galv.

CHAIN ACCESSORY



MASTER LINK / CONNECTING LINK / CONNECTING LINK B TYPE / CLEVIS GRAB HOOK
/ ITALY TYPE HOOK / CLEVIS SLING HOOK / CLEVIS SLIP HOOK
/ EYE TYPE SAFETY HOOK / CLEVIS TYPE SAFETY HOOK

LINK MANUAL

GENERAL

- Master link use for 1, 2, 3 & 4 leg Sling leg.
- Connecting link for use chain sling and assembly with chain-chain or, chain-chain fitting.
- Master link and Connecting link produced by forged alloy steel.
- Orange painted surface of master link and connecting link.
(except connecting link size 1/4"~3/8". those sizes should be black color electro galv.)
- Special Specification fitting available as your requirement.
- The hook should undergo inspection for any deformation, wearing, or defect within at least 6 months.
- The products which exceed the limit of 5% in deformation or wearing should be relieved of their load and replaced with new ones.

CAUTION

Before Use

- Be sure to use personal protection equipment. (Such as footwear, gloves, cras helmet, etc.)
- The work place must always be well lit.
- Before work, remove dangerous articles from the area.
- The specification, use condition and use method of the product should be checked and the products should be used in a proper way.
- Check the products for any harmful defect, wearing or deformation. Use only the product whose safety is assured.

Using

- Always follow the rules carefully. (Overloading & Improper use can result in injury.)
- Products over the 15kg weight must be used with an appliance tool. (Forklift, cranes, hoists, etc.)
- Where applicable, it is important to locate outside the danger zones. (A falling load may cause serious injury or even death.)
- Never repair, alter, rework, or reshape a link by welding, heating, burning, bending or grinding.
- If any load or shock is placed on the side of the product, it may become deformed or be destroyed.
- The angle between sling legs should not exceed 120°. If the angle exceeds the specified degree, adjust the length of the chain so that the angle between sling legs can be kept within 120°.

After Used

- After used products, should be inspection with elongation, wear and defect and, found anything else, must disuse, immediately.
- In case of found something wrong from products, should be need the check of load, working condition, and over-load, then.
- Inspect the product for deformation, wearing or defect after use. If any problem is found, scrap the product immediately.
- If any problem is found with the product, check the load. Use conditions or misuse should also be checked.

■ Assembling of chain or fitting according to master link

Single leg sling



MASTER LINK	CHAIN	CONNECTING LINK	HOOK FOR CHAINS
1/2"	1/4"	1/4"	1/4"
5/8"	5/16"	5/16"	5/16"
3/4"	3/8"	3/8"	3/8"
1"	5/8"	5/8"	5/8"
1-1/4"	3/4"	3/4"	3/4"
1-1/2"	7/8"	7/8"	7/8"

Double leg sling



MASTER LINK	CHAIN	CONNECTING LINK	HOOK FOR CHAINS
1/2"	1/4"	1/4"	1/4"
5/8"	5/16"	5/16"	5/16"
3/4"	3/8"	3/8"	3/8"
1"	1/2"	1/2"	1/2"
1-1/4"	5/8"	5/8"	5/8"
1-1/2"	3/4"	3/4"	3/4"

Triple or Quadruple leg sling

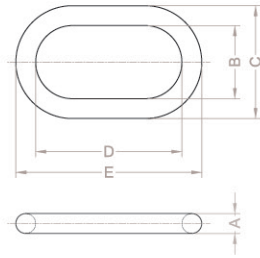


CONNECTING MASTER LINK	CHAIN	CONNECTING LINK	HOOK FOR CHAINS
3/4"	5/16"	5/16"	5/16"
1"	3/8"	3/8"	3/8"
1-1/4"	1/2"	1/2"	1/2"
1-1/2"	5/8"	5/8"	5/8"

MASTER LINK

SPECIFICATION

PL CE



- Material : Forged Alloy Steel
- Proof Load : $SWL \times 2$, Breaking Load : $SWL \times 5$
- Surface : Painted Orange
- Reference : ASTM A952
- When used as a chain sling, follow the load of the chain taking into consideration the angle of the sling and the like.

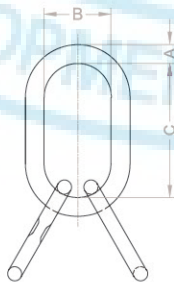
Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)					Weight (kg)
			A	B	C	D	E	
LKML-001	1/2	2.8	12.5	62	87	125	150	0.4
LKML-002	5/8	4	16	76	108	152	184	0.7
LKML-003	3/4	5.6	19	70	108	140	178	0.9
LKML-007	7/8	6.8	22.5	95	140	162	207	1.5
LKML-004	1	11	25	90	140	178	228	2.1
LKML-005	1-1/4	16.4	32	111	175	222	286	4.2
LKML-006	1-1/2	24.5	38	133	209	267	343	7.2
LKML-008	1-3/4	38	45	150	240	300	390	11.4
LKML-009	2	46	51	170	272	340	442	16.6
LKML-010	2-1/4	65	58	200	316	400	516	24.8

CONNECTING MASTER LINK

CONNECTING MASTER LINK

SPECIFICATION

PL CE



- Material : Forged Alloy steel
- Test Load : Proof Load = $SWL (WLL) \times 2$,
Breaking Load = $SWL (WLL) \times 5$
- Surface : Orange painted
- The others : SWL depends on the sling angle when using chain sling

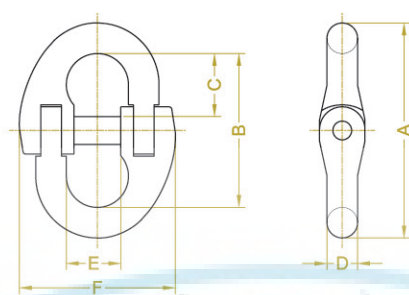
Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)						Weight (kg)
			A	B	C	D	E	F	
LKCM-003	1-1/4	16.4	32	111	222	25	88	150	7.9
LKCM-005	1-1/2	24.5	38	133	267	32	112	192	14.9

※ Other sizes are order made as per request

CONNECTING LINK

CONNECTING LINK

SPECIFICATION



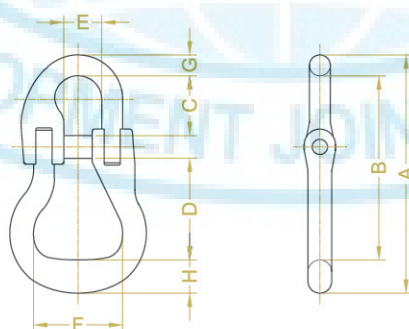
- Material : Forged Alloy Steel
- Proof Load : SWL×2,
Breaking Load : SWL×4
- Surface : Painted Orange
- Reference : ASTM A952

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)						Weight (kg)
			A	B	C	D	E	F	
LKCA-001	1/4	1.6	65	49	20	8	15	50	0.1
LKCA-002	5/16	2	73	55	24	9	17	58	0.2
LKCA-003	3/8	3.2	88	63	26	12.5	20	68	0.3
LKCA-004	1/2	5.4	116	84	30	16	28	86	0.7
LKCA-005	5/8	8.2	146	108	42	19	34	106	1.3
LKCA-006	3/4	12.8	168	124	47	22	42	121	1.9
LKCA-007	7/8	15.5	195	145	56	25	47	137	3.2
LKCA-008	1	21.6	213	152	58	31	55	159	4.5
LKCA-109	1 1/4 (Imported)	31.5	274	198	82	37.5	68	202	8.5

CONNECTING LINK TYPE B

CONNECTING LINK TYPE B

SPECIFICATION



- Material : Forged Alloy Steel
- Proof Load : SWL×2,
Breaking Load : SWL×4
- Surface : Painted Orange

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)								Weight (kg)
			A	B	C	D	E	F	G	H	
LKCB-001	3/4	12.8	238	181	47	104	42	94	22	35	3.3
LKCB-002	7/8	15.5	253	190	56	101	47	92	25	38	4.8
LKCB-003	1	21.6	293	217	58	123	55	108	31	45	6.3

CHAIN HOOK MANUAL

GENERAL

- The hook are produce by Forged carbon and alloy steel.
- Special Specification hook available as your requirement.
- The chain sling hook for chain accessory and reference according to ASTM A952.
- When two or more sling legs are used, see ASTM A906 to adjust the maximum service load.
- Check the grade of chain to use the correct hook.
- The hook should undergo inspection within at least 6 months for any deformation, wearing, or defect.
- The products which exceed the limit of 5% in deformation or wearing should be relieved of their load and replaced with new ones.

CAUTION

Before Use

- Be sure to use personal protection equipment (such as footwear, gloves, crash helmet, etc.)
- The work place must always be well lit.
- Before work, remove dangerous articles from the area
- The specification, use condition and use method of the product should be checked and the products should be used in a proper way.
- Check the products for any defect, wearing or deformation. Use only the product whose safety is assured.
- Check the latch before using a hook. Do not use products whose safety ring is detached or dislocated.
- Check the spring pin or division pin of the hook so that any deformed or worn out product can be replaced.

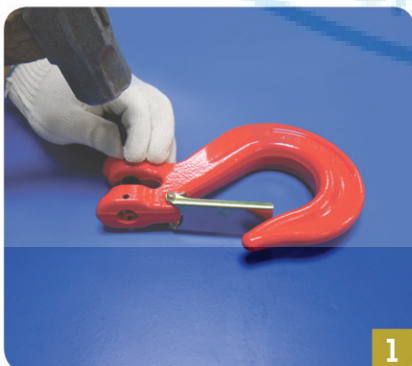
Using

- Always follow the rules carefully. (Overloading & Improper use can result in injury.)
- Products over the 15kg weight must be used with an appliance tool. (Forklift, cranes, hoists, etc.)
- Where applicable, it is important to locate outside the danger zones.
(A falling load may cause serious injury or even death.)
- Never repair, alter, rework, or reshape a hook by welding, heating, burning, bending or grinding.
- If loads or shocks are applied to the side of the product, it can cause deformation destruction of the product or the like.
- When using two sling legs, each sling must not exceed 45° from the vertical and the angle between the two sling legs can not exceed 90°.

After Used

- After used products, should be inspection with elongation, wear and defect and, found anything else, must disuse, immediately.
- In case of found something wrong from products, should be need the check of load, working condition, and over-load, then.

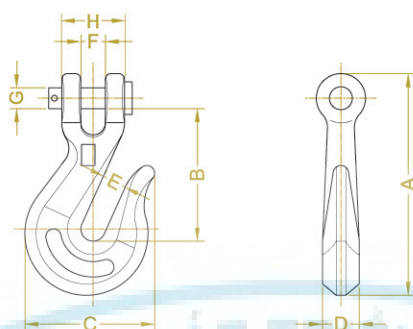
For devis style hooks and chains and assembly process, see the picture below.



1. Assemble by hammering one of the spring pins provided like a hook into the hole on the side of the devis.
2. After inserting the chain into the U-shaped groove of the devis, assemble so that the pin passes through the chain on the opposite side where the spring pin is assembled.
3. Using a hammer, strike the spring pin in the remaining hole on the side of the devis and assemble it.

CLEVIS GRAB HOOK

SPECIFICATION



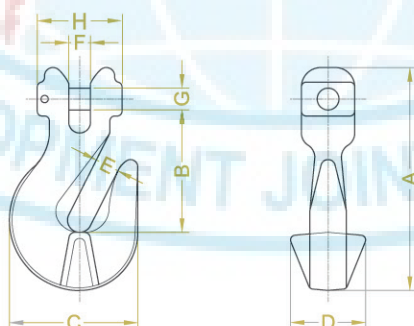
- Material : Forged Alloy Steel
- Proof Load : $SWL \times 2.5$,
Breaking Load : $SWL \times 4$
- Surface : Painted Orange
- Chain Sling for Grade80 or, 70

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)								Weight (kg)
			A	B	C	D	E	F	G	H	
HKGA-001	1/4	1.5	86	51	50	13	95	9.5	8	26	0.2
HKGA-002	5/16	2	99	59	57	16	11	11	9.5	28	0.3
HKGA-003	3/8	3.2	115	69	67	19	12.5	12.5	11	33	0.5
HKGA-004	1/2	5.4	143	84	87	24	16.5	16.5	14	42	1
HKGA-005	5/8	7.2	180	109	111	28	20	23	19	58	2

ITALY CLEVIS GRAB HOOK

CLEVIS GRAB HOOK ITALY TYPE

SPECIFICATION

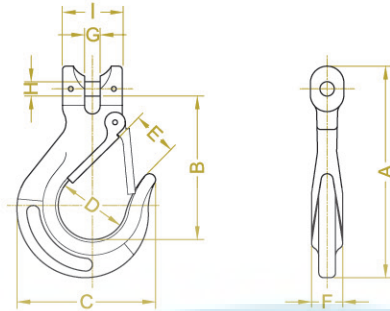


- Material : Forged Alloy Steel
- Proof Load : $SWL \times 2.5$,
Breaking Load : $SWL \times 4$
- Surface : Painted Orange
- Chain Sling for Grade80

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)								Weight (kg)
			A	B	C	D	E	F	G	H	
HKIT-001	5/16	2	92	50	53	31	10.2	10.2	9	37	0.4
HKIT-002	3/8	3.2	125	72	71	43	12.7	12.7	11	47	0.8
HKIT-003	1/2	5.4	155	90	90	52	16.7	16.7	16	56	1.5

CLEVIS SLING HOOK

SPECIFICATION



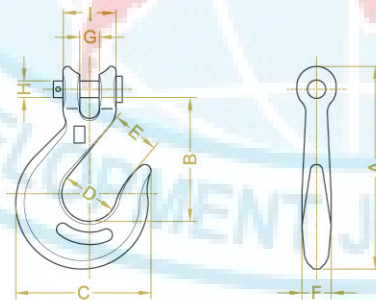
- Material : Forged Alloy Steel
- Proof Load : $SWL \times 2.5$,
Breaking Load : $SWL \times 4$
- Surface : Painted Orange
- Chain Sling for Grade80

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)									Weight (kg)
			A	B	C	D	E	F	G	H	I	
HKCS-001	3/8	3.2	177	120	116	57	41	26	13	12	50	1.2
HKCS-002	1/2	5.4	216	144	140	64	49	30	15	16	59	2.2

CLEVIS SLIP HOOK

CLEVIS SLIP HOOK

SPECIFICATION



- Material : Forged Alloy Steel
- Proof Load : $SWL \times 2.5$,
Breaking Load : $SWL \times 4$
- Surface : Painted Orange
- Chain Sling for Grade40

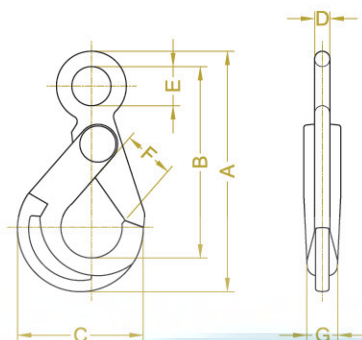
Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)									Weight (kg)
			A	B	C	D	E	F	G	H	I	
HKSL-001	3/8	2.4	132	81	88	36	32	19	12.5	11	35	0.7

SAFETY LATCH HOOK EYE TYPE

SAFETY HOOK EYE TYPE

SPECIFICATION

PL



- Material : Forged Alloy Steel
- Proof Load : $SWL \times 2.5$,
Breaking Load : $SWL \times 4$
- Surface : Painted Orange
- Chain Sling for Grade80 or, 70

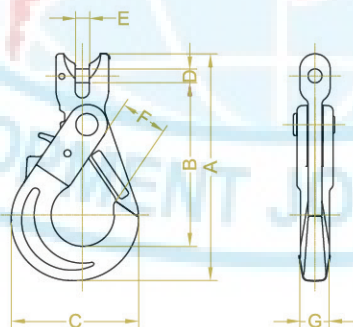
Product Code	Size (mm)	SWL(WLL) (ton)	Dimension(mm)							Weight (kg)
			A	B	C	D	E	F	G	
HKSE-002	7~8	2	169	133	87	11	25	35	20	0.8
HKSE-003	10	3.2	206	162	109	12	32	40	25	1.4
HKSE-004	13	5.4	264	204	140	15	40	50	32	2.9
HKSE-005	16	8.2	328	256	169	20	56	62	39	5.8

SAFETY LATCH HOOK CLEVIS TYPE

SAFETY HOOK CLEVIS TYPE

SPECIFICATION

PL



- Material : Forged Alloy Steel
- Proof Load : $SWL \times 2.5$,
Breaking Load : $SWL \times 4$
- Surface : Painted Orange
- Chain Sling for Grade80 or, 70

Product Code	Size (mm)	SWL(WLL) (ton)	Dimension(mm)							Weight (kg)
			A	B	C	D	E	F	G	
HKSC-001	7~8	2	158	118	87	9	10	35	20	0.8
HKSC-002	10	3.2	195	141	109	12	12	40	25	1.5
HKSC-003	13	5.4	247	177	140	16	15	50	32	3.2
HKSC-004	16	8.2	299	213	169	20	19	62	39	6.8

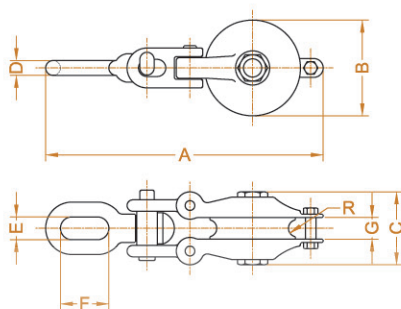
BLOCK & ORDER MADE



SNATCH BLOCK / CONTAINER TWIST HOOK / D-RING & STRAP

SNATCH BLOCK

SPECIFICATION



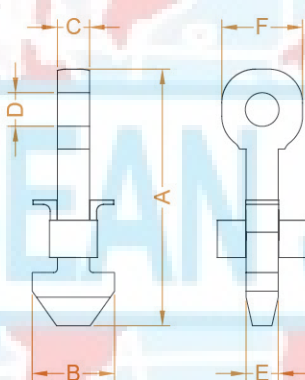
- Material : Forged Carbon Steel
- Proof Load : SWL×2,
Breaking Load : SWL×5
- Surface : Painted Black

Product Code	Size (inch)	SWL(WLL) (ton)	Dimension(mm)								Weight (kg)
			A	B	C	D	E	F	G	R	
BLSN-001	5	3	370	138	98	20	25	50	32	15	7.2
BLSN-002	6	5	488	166	128	26	40	85	36	15	14.6

CONTAINER TWIST HOOK

CONTAINER TWIST HOOK

SPECIFICATION



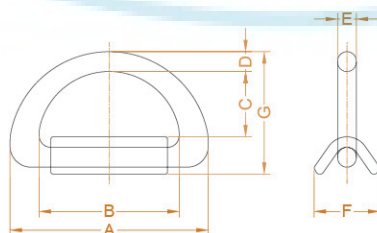
- Material : Alloy Steel
- Proof Load 24ton, Breaking Load 50ton
- Surface : Blacken
- Available certificate of NDT (M/T, U/T),
3rd party Inspection test report

Product Code	Size (ton)	SWL(WLL) (ton)	Dimension(mm)						Weight (kg)
			A	B	C	D	E	F	
CTTH-001	17	17	343	110	43	45	43	108	8.5

D-RING & STRAP

D-RING & STRAP

SPECIFICATION

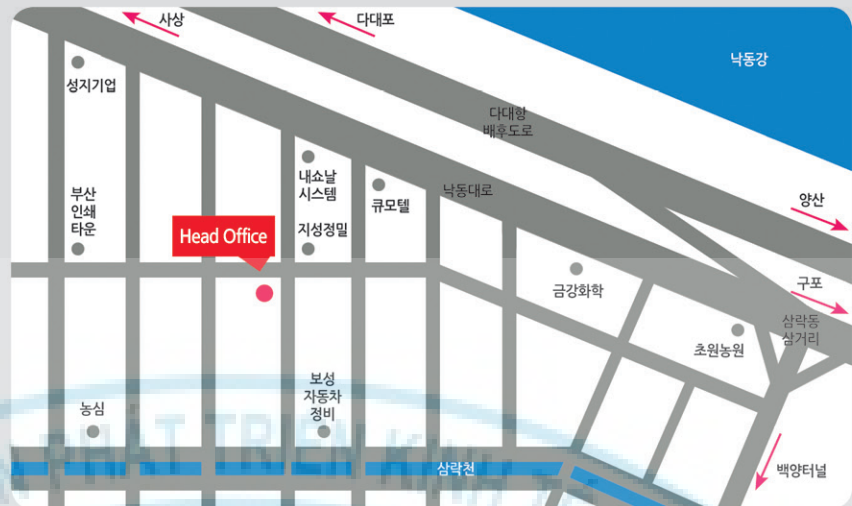


- Material : Forged Carbon or, Alloy Steel
- Safety Working Load : SWL is determined by the installer according to the usage environment which takes risk into consideration.
- Surface : Self Color
- Available certificate of NDT (M/T, U/T),
3rd party Inspection test report

Product Code	Size (mm)	Breaking load (ton)	Dimension(mm)							Weight (kg)
			A	B	C	D	E	F	G	
DRSR-001	13(C)	6	100	60	45	13	13	55	83	0.5
DRSR-002	13(A)	10	100	60	43	13	13	55	83	0.5
DRSR-003	16(C)	20	170	120	56	17	16	56	105	1.2
DRSR-004	19(C)	25	162	106	51	19	19	59	107	1.6
DRSR-005	22(C)	50	230	140	74	24	22	76	143	3.6

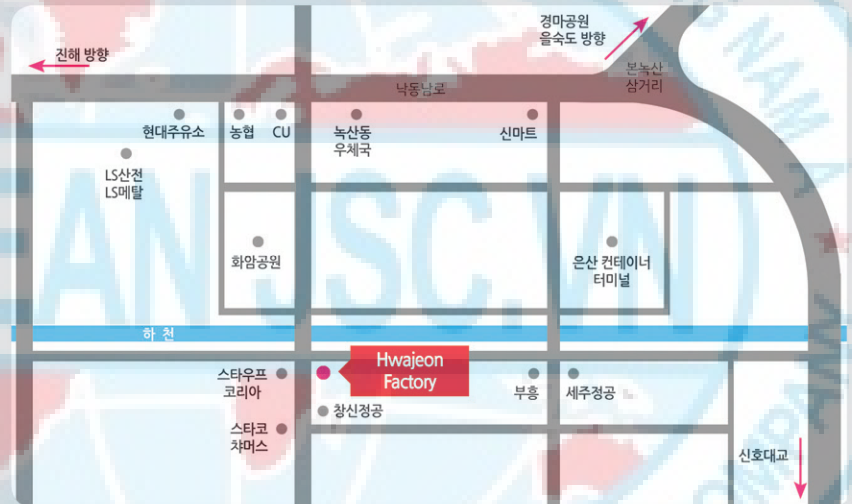
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