

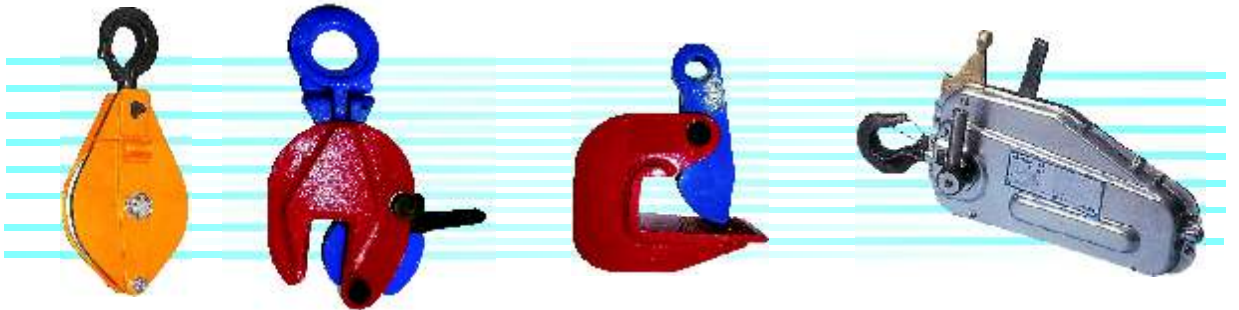
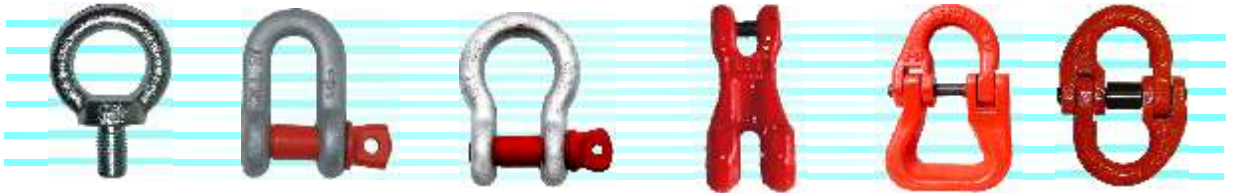
Care

LIFTING EQUIPMENTS



- ▶ WIRE ROPES / WIRE ROPE SLINGS
- ▶ CHAINS / CHAIN SLINGS
- ▶ CARE MAKE POLYESTER SLINGS (FLAT & ENDLESS)
- ▶ INDEF CHAIN PULLEY BLOCK
- ▶ INDEF ELECTRIC HOIST & TROLLEYS
- ▶ DEE / BOW SHACKLES
- ▶ RATCHET LASHING BELT
- ▶ PULLING & LIFTING MACHINES
- ▶ AND ALL TYPES OF LIFTING TACKLES





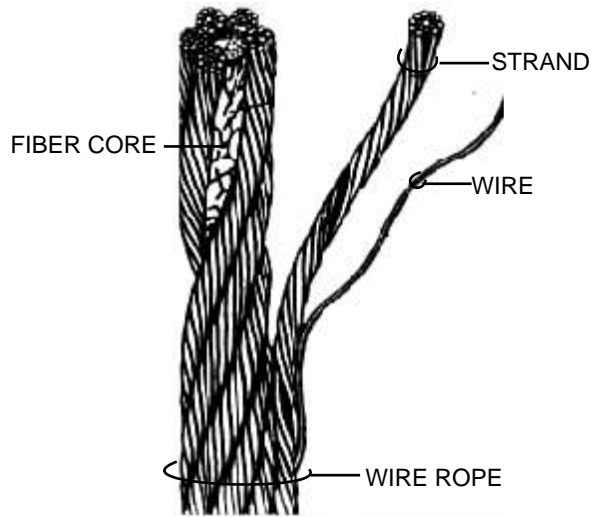
GENERAL INFORMATION OF STEEL WIRE ROPES

Wire Rope is defined as a Construction of several strand, wound helically in one or more layers. Strand is an element of Rope Cossetting of assembly of several wires of appropriate shapes & dimensions spun helically in one or more layers. Wire rope is designed in such a fashion that it can transmit force longitudinally along it's axis. Wire rope has properties like strength, flexibility & depend edibility.

CONSTRUCTION OF WIRE ROPES

The design of a wire rope is determined by

- Strand construction
- Rope construction
- The Core



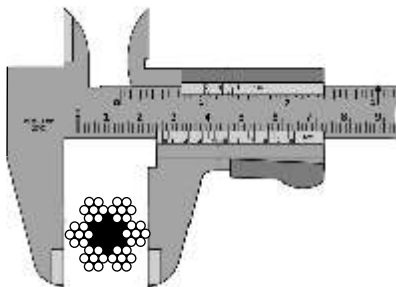
GRADES OF WIRE ROPES

Steel Wire Rope are classified according to the tensile strength of the wire which is used in the manufacture of the rope and according to the finish of the wire, mainly galvanized and ungalvanized.

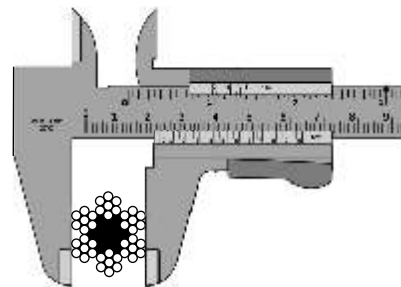
ACCORDING TO INTERNATIONAL STANDARDS THE FOLLOWING RANGES OF TENSILE STRENGTH ARE POPULAR.

Tensile Designation		Tensile Strength Designation	
N/mmsq	Kg/mm ²	N/mmsq	Kg/mm ²
1570	160	1570-1960	160-200
1770	180	1770-2150	180-210
1960	200	1960-2340	200-300

HOW TO MEASURE ROPE SIZE



Correct Measuring
(measured over the crowns of the strands)



In-Correct Measuring
(measured over the Flats of the strands)

WIRE ROPE LAY

The lays of wire rope, with few exceptions are mainly divided into two kinds - Lang's lay and Regular lay. Lang's lay rope offers a better bearing surface when in use and can be expected to serve for a longer period than the regular rope, which meanwhile is more flexible than lang's lay rope and easily spliced.



RIGHT HAND
LANG'S LAY
(RHLL.L/Z)



LEFT HAND
LANG'S LAY
(LHLL.US)



RIGHT HAND
REGULAR LAY
(RHLL.O/Z)



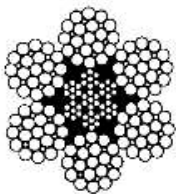
RIGHT HAND
REGULAR LAY
(LHRL.O/S)

WIRE ROPE CORES

The core of a wire rope is the central member around which the main strands are laid the main function of the core is to serve as a seat for the strands, providing sufficient support and to keep them in their proper position throughout the life of the rope. It is also an effective lubricant carrier.

THERE ARE THREE TYPES OF CORES COMMONLY USED IN THE STEEL WIRE ROPE.

- Independent wire rope core (I.W.R.C.)
- Wire Strand Core (W.S.C.)
- Fibre Core (F. C.) either Natura or Synthetic



Independent wire rope core
(I.W.R.C.)



Wire Strand Core
(W.S.C.)

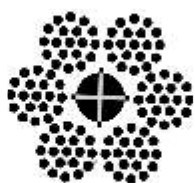
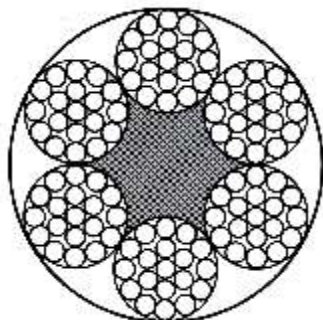


Fibre Core (F. C.)

SELECTING PROPER WIRE ROPE

Wire Rope applications have to meet the major requirements, such as strength, abrasive resistance, flexibility, resistance to crushing, fatigue and corrosion resistance. All these factors are to be considered for proper choice of wire rope, carefully weighing the relative importance of these factors.

WIRE ROPE 6 X 19 CONSTRUCTION



**FIBRE CORE
6 X 19 (12 / 6 / 1)**

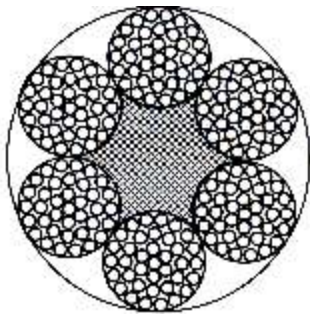


**STEEL CORE
6 X 19 (12 / 6 / 1)**

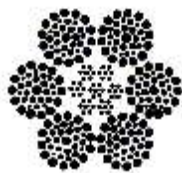


Nominal Diameter +4% - 1% (1) mm	Approximate Mass		Maximum Breaking Load Corresponding to Tensile Designation of wire					
			1570 N/mm ²		1770 N/mm ²		1960 N/mm ²	
	Fibre core (2) kg/ 100 m	Steel core (3) kg/100 m	Fibre core (4) Kn	Steel core (5) kn	Fibre core (6) kn	Steel core (7) kn	Fibre core (8) kn	Steel core (9) kn
8	22.1	24.3	31	33	35	37.6	39	41.6
9	28.0	30.8	39	42	44	47.5	49	52.6
10	34.6	38.0	48	52	54	58.7	60	65.0
11	41.9	46.0	58	63	66	71.0	73	70.7
12	49.8	54.0	69	75	78	84.6	87	93.6
13	58.5	64.3	82	88	92	99.0	102	110
14	67.8	74.5	95	102	107	115	118	127
16	88.6	97.4	124	133	139	150	154	166
18	112	123	156	160	176	190	195	210
19	125	137	174	188	196	212	217	234
20	138	152	193	208	218	235	241	260
22	167	184	234	252	263	284	292	314
24	199	219	278	300	313	338	347	375
26	234	257	326	352	368	397	407	439
28	271	---	378	---	426	---	472	---
32	354	---	494	---	557	---	617	---
36	448	---	625	---	705	---	781	---
38	499	---	697	---	785	---	870	---
40	554	---	772	---	870	---	964	---
44	670	---	934	---	1053	---	1166	---
48	797	---	1112	---	1253	---	1388	---
52	936	---	1305	---	1471	---	1629	---

WIRE ROPE 6 x 36 CONSTRUCTION



**FIBRE CORE
6 X 36 (14/7/7)**

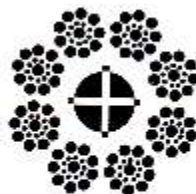
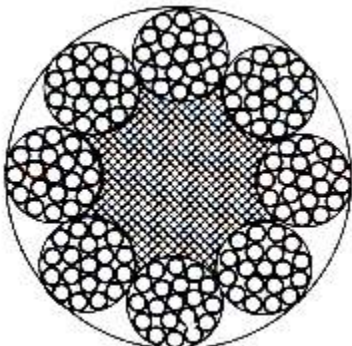


**STEEL CORE
6x36 (14/7/7)**

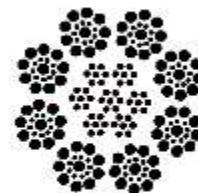


Nominal Diameter +4% - 1% (1) mm	Approximate Mass		Maximum Breaking Load Corresponding to Tensile Designation of wire					
			1570 N/mm ²		1770 N/mm ²		1960 N/mm ²	
	Fibre core (2) kg/ 100 m	Steel core (3) kg/100 m	Fibre core (4) Kn	Steel core (5) kn	Fibre core (6) kn	Steel core (7) kn	Fibre core (8) kn	Steel core (9) kn
8	22.1	24.4	30	32	33	36	37	40
9	28.0	30.8	37	40	42	46	47	51
10	34.6	38.1	46	50	52	56	58	62
11	41.9	46.1	56	60	63	68	78	76
12	49.8	54.8	67	72	75	81	83	90
13	58.5	64.3	78	84	88	95	98	105
14	67.8	74.6	91	98	102	110	113	122
16	88.6	97.4	118	128	134	144	148	160
18	112	123	150	162	169	183	187	202
19	125	137	167	180	188	203	209	225
20	138	152	185	200	209	225	231	250
22	167	184	224	242	253	273	280	302
24	199	219	267	288	301	325	333	359
26	234	257	313	338	353	381	391	422
28	271	297	363	392	409	442	453	489
32	354	389	474	512	534	577	592	639
36	448	492	600	648	676	730	749	809
38	499	549	668	722	753	813	834	901
40	554	608	741	880	835	902	924	998
44	678	---	896	---	1010	---	1119	---
48	797	---	1066	---	1202	---	1331	---
52	936	---	1252	---	1411	---	1562	---
56	1085	---	1451	---	1636	---	1812	---

WIRE ROPE 8x19 CONSTRUCTION



**FIBRE CORE
8x19 (9/9/1)**

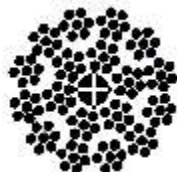
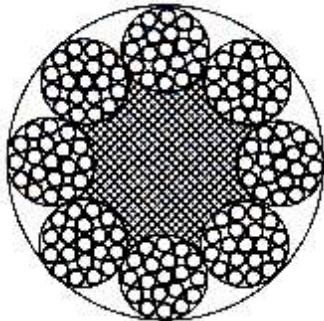


**STEEL CORE
8x19 (9/9/1)**



Nominal Diameter +4% - 1% (1) mm	Approximate Mass (2) kg/ 100 m	Maximum Breaking Load Corresponding to Tensile Designation of wire		
		1230 N/mm ² (3) kg/100 m	1420 N/mm ² (4) Kn	1570 N/mm ² (5) kn
8	22.3	23	26	29
9	28.2	29	33	37
10	34.8	35	41	45
11	42.2	43	49	55
12	50.2	51	59	65
13	58.9	60	69	76
14	68.3	69	80	88
16	89.2	90	104	115
18	113	114	132	146
19	126	127	147	163
20	139	141	163	180

WIRE ROPE 18x7 CONSTRUCTION



**FIBRE CORE
18x7 (6/1)**

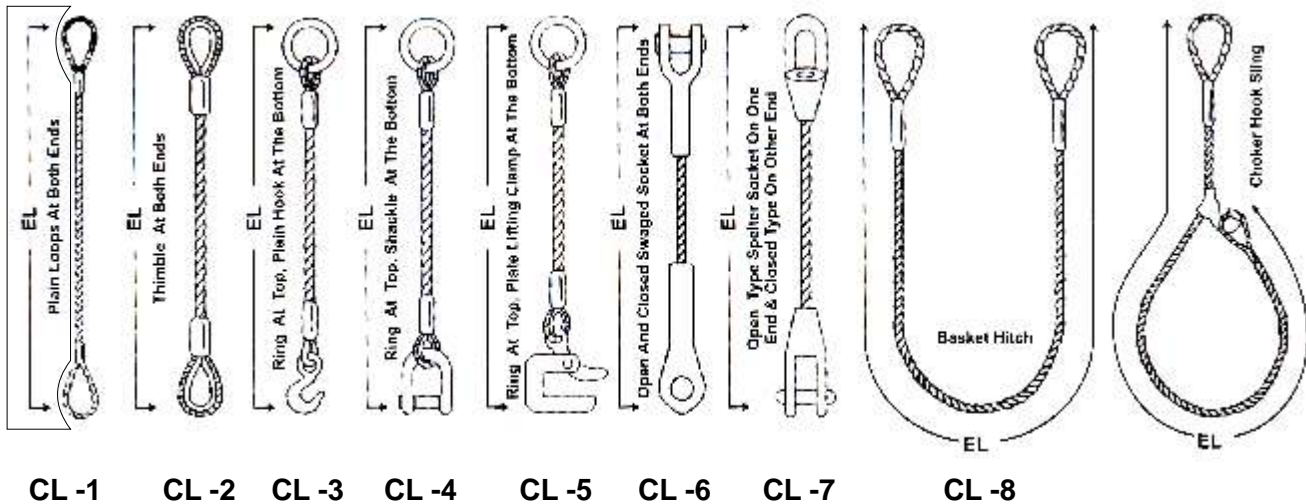


**STEEL CORE
18x7 (6/1)**



Nominal Diameter +4% - 1% (1) mm	Approximate Mass		Maximum Breaking Load Corresponding to Tensile Designation of wire					
			1570 N/mm2		1770 N/mm2		1960 N/mm2	
	Fibre core (2) kg/ 100 m	Steel core (3) kg/100 m	Fibre core (4) Kn	Steel core (5) kn	Fibre core (6) kn	Steel core (7) kn	Fibre core (8) kn	Steel core (9) kn
8	24.5	25.7	32	33	36	37	40	41
9	31.0	32.6	41	42	46	47	51	52
10	38.3	40.2	50	52	56	58	62	64
11	46.3	48.6	61	62	68	70	76	78
12	55.1	57.9	72	74	81	84	90	93
13	64.7	67.9	85	87	95	98	106	109
14	75.0	78.8	98	101	111	114	122	126
16	98.0	103	128	132	144	149	160	165
18	124	130	162	167	183	188	202	208
19	138	145	181	186	204	210	225	232
20	153	161	200	206	226	232	250	257
22	185	195	242	249	273	281	302	311
24	220	231	288	297	325	335	360	370
26	259	272	338	348	381	393	490	435
28	300	315	392	404	442	455	639	504
32	392	412	512	527	577	595	749	659
36	496	521	648	668	731	753	809	833
40	612	643	800	824	902	929	999	1029

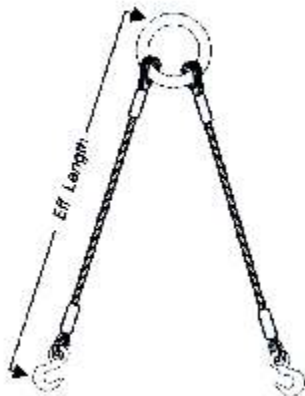
SINGLE PART WIRE ROPE SLING



Maximum Rope Breaking Load Corresponding to Tensile Designation of wire			
Minimum Rope Size	Vertical	Basket	Choker
6	250	500	190
8	550	1100	310
9	670	1340	500
10	800	1600	600
12	1200	2400	900
13	1400	2800	1050
14	1750	3500	1300
16	2000	4000	1500
18	2500	5000	1875
19	3000	6000	5560
20	3300	6600	2475
22	4000	8000	3000
24	4600	9200	3450
25	5000	10000	3750
28	6500	13000	4875
32	8000	16000	6000
35	9200	18400	6900
36	10400	20800	7800
38	12000	24000	9000
40	12700	25400	9625
44	16700	33400	12625
48	20000	40000	15000
52	23000	46000	17250

NOTE : The capacities mentioned above is for Standard 6 * 19 Fibre Core Wire Ropes

MULTI - LEG WIRE ROPE SLING



DOUBLE LEGGED
WIRE ROPE SLING

CL - 9



THREE LEGGED
WIRE ROPE SLING

CL - 10



FOUR LEGGED WIRE ROPE SLING

CL - 11



CL - 12

Rope Diameter	SWL 2 Leg Sling	SWL 3 Leg Sling	SWL 4 Leg Sling
mm	90°	90°	90°
3	100	149	200
4	185	275	370
5	280	530	700
6	350	530	700
8	775	1200	1615
9	950	1270	1700
10	1100	1700	2260
12	1700	2550	3400
14	2500	3600	4800
16	2800	4250	5660
18	3500	5300	8500
20	4600	7210	9500
22	5600	8490	11315
24	6500	9760	13010
25	7000	10600	14150
28	9200	13800	18400
32	11300	16970	22630
35	13000	19500	26025
36	14700	22065	29420
38	16900	25460	33950
40	17900	26950	35950
45	28200	42433	56580
50	32500	48800	65065

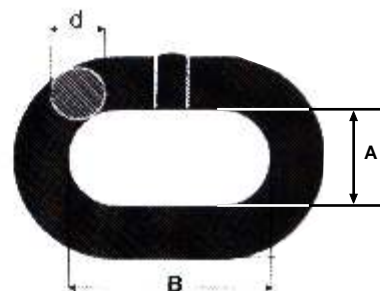
NOTE : The capacities mentioned above is for Standard 6 * 19 Fibre Core Wire Ropes

LIFTING CHAINS

GRADE 80 SHORT LINK ALLOY STEEL CHAIN



GRADE 30 SHORT LINK MILD STEEL CHAIN



Size mm (d)	Inside Length (B) mm	Inside Width (A) mm	Alloy Steel Chain Swl (Tons)	Mild Steel Chain Swl (Tons)
6	18	7.5	1.2	0.44
7	21	9	1.5	0.63
8	24	10	2	0.80
9	27	11	2.5	1
10	30	12.5	3.2	1.25
12	36	15	4.8	1.80
13	39	16.3	5.4	---
16	48	20	8	3.20
18	54	23	10	4
20	60	25	12.5	5
22	66	28	15.3	6
25	75	32	18	8
28	84	38	28	10
32	96	40	32	12

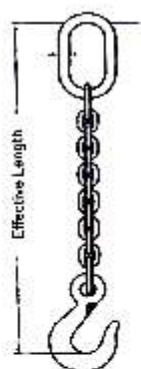
Remove from service if you detect



Reduction in working load when Chain is used in the following Temperature

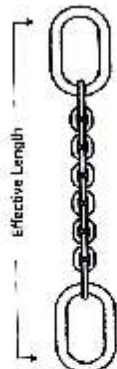
Temperature of Chain in Degree			
Celsius	Fahrenheit	Reduction in Working Load limit while Heated	Reduction in Working Load limit while Heated
260	500	none	none
315	600	10%	none
370	700	20%	none
430	800	30%	none
480	900	40%	10%
540	1000	50%	15%

ALLOY STEEL GR80 CHAIN SLING

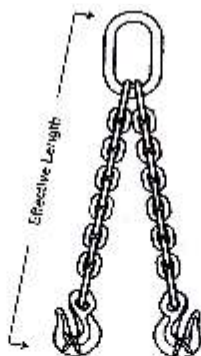


SINGLE LEG CHAIN SLING

CL - 13

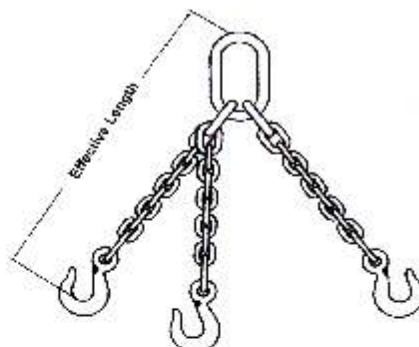


CL - 14



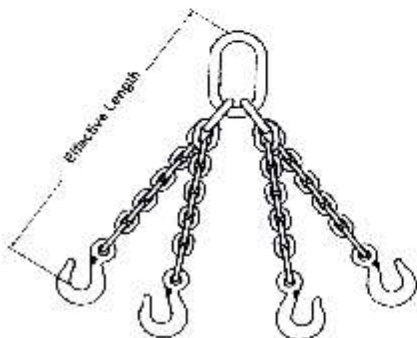
2 LEG CHAIN SLING

CL - 15



3LEG CHAIN SLING

CL - 16



FOUR LEG CHAIN SLING

CL - 17



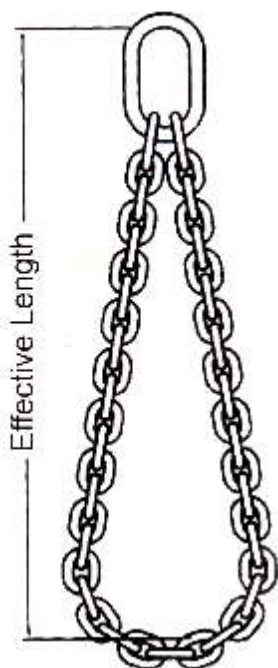
ENDLESS CHAIN SLING

CL - 18

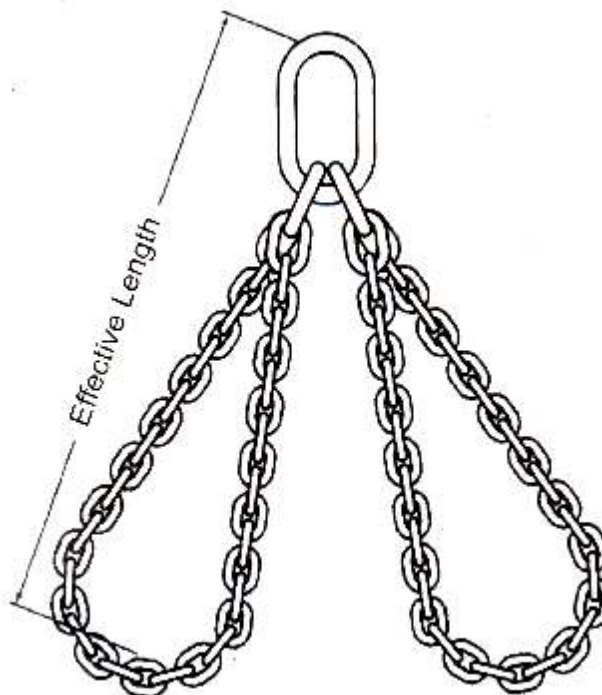
MULTI - LEG CHAIN SLING CHART

Size	Single Leg	Double Leg	Double Leg	Three Leg	Three Leg	Four Leg	Four Leg	Endless
mm	0 Degree	60 Degree	90 Degree	60 Degree	90 Degree	60 Degree	90 Degree	0 Degree
	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton
6	1.25	2	1.55	3	2.3	4	43	1.87
8	2	3.5	3	5	4	7	6	3.0
10	3.2	5.5	4.5	8	7	11	9	4.8
12	4.8	8	6.5	12	10	16	13	7.02
16	8	14	11	21	17	28	23	12
18	10	17	14	26	21	35	28	15
20	12.5	22	18	32	26	43	35	18.75
22	16	28	23	42	34	55	45	24
25	20	34	28	52	42	69	56	30
28	25	43	35	65	53	86	71	37.5
32	32	55	45	83	68	110	90	48

SINGLE & DOUBLE LOOP GR80 CHAIN SLING

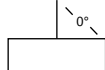
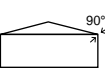


**Single Loop
CL - 19**



**Double Loop
CL - 20**

SIZES AND WORKING LOAD LIMITS - (GRADE 80)

Chain Trade Size	6MM	8MM	10MM	12MM	16MM	18MM	20MM	22MM	25MM	28MM	32MM
Working load Limit (Kgs.)* Single Loop 	1.12	2.0	3.2	4.8	8.0	10.0	12.5	16.0	25.0	28.0	32.0
Working load Limit (Kgs.)* Double Loop Chain Sling 	1.80	2.8	4.5	7.0	11.2	14.2	17.7	22.6	28.0	35.0	45.0

POLYESTER WEBBING SLINGS



SIMPLEX WEBBING SLING CHART

			CAPACITY					
Item Code	Width	Color	S.W.L.	S.W.L.	S.W.L.	S.W.L.	S.W.L.	Guaranted breaking load
			Vertical	Basket	Choker	45 Deg	90 Deg	
	MM		M* = 1	M = 2	M = 0.8	M = 1.8	M = 1.8	
			Kgs	Kgs	Kgs	Kgs	Kgs	Kgs
SW 500	25	VIOLET	500	1000	400	900	700	3500
SW 1000	50	GREEN	1000	2000	800	1800	1400	7000
SW 15000	75	YELLOW	1500	3000	1200	2700	2100	10500
SW 2000	100	GREY	2000	4000	1600	3600	2800	14000
SW 2500	125	RED	2500	5000	2000	4500	3500	17500
SW 3000	150	BROWN	3000	6000	2400	5400	4200	21000
SW 4000	200	BLUE	4000	8000	3200	7200	5600	28000
SW 5000	250	ORANGE	5000	10000	4000	9000	7000	35000
SW 6000	300	ORANGE	6000	12000	4800	10800	8400	42000

DUPLEX WEBBING SLING CHART

			CAPACITY					
Item Code	Width	Color	S.W.L.	S.W.L.	S.W.L.	S.W.L.	S.W.L.	Guaranted breaking load
			Vertical	Basket	Choker	45 Deg	90 Deg	
	MM		M* = 1	M = 2	M = 0.8	M = 1.8	M = 1.8	
			Kgs	Kgs	Kgs	Kgs	Kgs	Kgs
DW 1000	25	VIOLET	1000	2000	800	1800	1400	7000
DW 2000	50	GREEN	2000	4000	1600	3600	2800	14000
DW 3000	75	YELLOW	3000	6000	2400	5400	4200	21000
DW 4000	100	GREY	4000	8000	3200	7200	5600	28000
DW 5000	125	RED	5000	10000	4000	9000	7000	35000
DW 6000	150	BROWN	6000	12000	4800	10800	8400	42000
DW 8000	200	BLUE	8000	16000	6400	14400	11200	56000
DW 10000	250	ORANGE	10000	20000	8000	18000	14000	70000
DW 12000	300	ORANGE	12000	24000	9600	21600	16800	84000

POLYESTER WEBBING SLINGS



TRIPLEX WEBBING SLING CHART

			CAPACITY					
Item Code	Width	Color	S.W.L. Vertical	S.W.L. Basket	S.W.L. Choker	S.W.L. 45 Deg	S.W.L. 90 Deg	Guaranteed breaking load
	MM		M* = 1 Kgs	M = 2 Kgs	M = 0.8 Kgs	M = 1.8 Kgs	M = 1.8 Kgs	Kgs
TW 1500	25	VIOLET	1500	3000	1200	2700	2100	10500
TW 3000	50	GREEN	3000	6000	2400	5400	4200	21000
TW 4500	75	YELLOW	4500	9000	3600	8100	6300	31500
TW 6000	100	GREY	6000	12000	4800	10800	8400	42000
TW 7500	125	RED	7500	15000	6000	13500	10500	52500
TW 9000	150	BROWN	9000	18000	7200	16200	12600	63000
TW 12000	200	BLUE	12000	24000	9600	21600	16800	84000
TW 15000	250	ORANGE	15000	30000	12000	27000	21000	105000
TW 18000	300	ORANGE	18000	36000	14400	32400	25200	126000

QUADRAPLEX WEBBING SLING CHART

			CAPACITY					
Item Code	Width	Color	S.W.L. Vertical	S.W.L. Basket	S.W.L. Choker	S.W.L. 45 Deg	S.W.L. 90 Deg	Guaranteed breaking load
	MM		M* = 1 Kgs	M = 2 Kgs	M = 0.8 Kgs	M = 1.8 Kgs	M = 1.8 Kgs	Kgs
QW 2000	25	VIOLET	2000	4000	1600	3600	2800	14000
QW 4000	50	GREEN	4000	8000	3200	7200	5600	28000
QW 6000	75	YELLOW	6000	12000	4800	10800	8400	42000
QW 8000	100	GREY	8000	16000	6400	14400	11200	56000
QW 10000	125	RED	10000	20000	8000	18000	14000	70000
QW 12000	150	BROWN	12000	24000	9600	21600	16800	84000
QW 16000	200	BLUE	16000	32000	12800	28800	22400	112000
QW 20000	250	ORANGE	20000	40000	16000	36000	28000	140000
QW 24000	300	ORANGE	24000	48000	19200	43200	33600	168000
QW 30000	300	ORANGE	30000	60000	24000	54000	42000	210000

POLYSTER WEBBING SLINGS & CARGO RATCHET LASHING

MULTI - LEG POLYSTER SLINGS



			CAPACITY				
			1 Leg		2 Leg		3&4 Leg
Item Code	Width	Color	90 Deg	60 Deg	30 Deg	60 Deg	30 Deg
	MM						
ML 25	25	VIOLET	1000	1750	1000	3460	2000
ML 50	50	GREEN	2000	3500	2000	6900	4000
ML 75	75	YELLOW	3000	5200	3000	10400	6000
ML 100	100	GREY	4000	7000	4000	13850	8000
ML 125	125	RED	5000	8650	5000	17350	10000
ML 150	150	BROWN	6000	10400	6000	20750	12000
ML 200	200	BLUE	8000	13850	8000	27700	16000
ML 250	250	ORANGE	10000	17350	10000	34650	20000
ML 300	300	ORANGE	12000	20750	12000	41550	24000



CARGO RATCHET LASHING

Item Code	Width	Color	Minimum Breaking Load (kgs)
RL 25	25 MM	ORANGE	2000
RL 25	25 MM	VOILET	2000
RL 50	50 MM	BLUE	5000
RL 50	50 MM	GREEN	5000
RL 75	75 MM	BLUE	8000
RL75	75 MM	YELLOW	8000



ROUND ENDLESS SLING

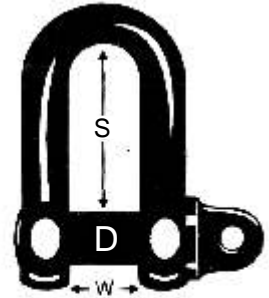


ROUND ENDLESS SLING CHART

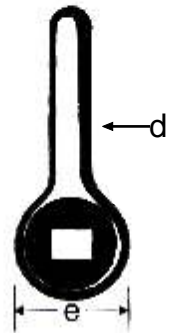
			CAPACITY					
			S.W.L.	S.W.L.	S.W.L.	S.W.L.	S.W.L.	Guaranted breaking load
Item Code	Width	Color	Vertical	Basket	Choker	45 Deg	90 Deg	
	MM		M* = 1	M = 2	M = 0.8	M = 1.8	M = 1.8	
			Kgs	Kgs	Kgs	Kgs	Kgs	Kgs
RES - 500	15	VIOLET	500	1000	400	900	700	3500
RES - 1000	18	GREEN	1000	2000	800	1800	1400	7000
RES - 2000	20	YELLOW	2000	4000	1600	3600	2800	14000
RES - 3000	22	GREY	3000	6000	2400	5400	4200	21000
RES - 4000	25	RED	4000	8000	3200	7200	5600	28000
RES - 5000	27	BROWN	5000	10000	4000	9000	7000	35000
RES - 6000	32	BLUE	6000	12000	4800	10800	8400	42000
RES - 8000	38	ORANGE	8000	16000	6400	14400	11200	56000
RES - 10000	46	ORANGE	10000	20000	8000	18000	14000	70000
RES - 12000	58	ORANGE	12000	24000	9600	21600	16800	84000
RES - 15000	70	ORANGE	15000	30000	12000	27000	21000	105000
RES - 20000	78	ORANGE	20000	40000	16000	36000	28000	140000
RES - 25000	90	ORANGE	25000	50000	20000	45000	35000	175000
RES - 30000	100	ORANGE	30000	60000	24000	54000	42000	210000
RES - 36000	114	ORANGE	36000	72000	28800	64800	50400	252000
RES - 40000	125	ORANGE	40000	80000	32000	72000	56000	280000
RES - 50000	180	ORANGE	50000	100000	40000	90000	70000	350000
RES - 75000	200	ORANGE	75000	150000	60000	135000	105000	525000
RES - 100000	250	ORANGE	100000	200000	80000	180000	140000	700000

SCREW PIN SHACKLE (IS - 6130)

Forged - Quenched and tempered, with alloy pins, Shackles can be furnished proof tested with certificates to standards, such as ABS, NV, Lody's or other certification. Charge for proof testing and certification available when Galvanized self coloured



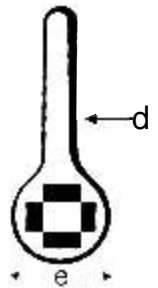
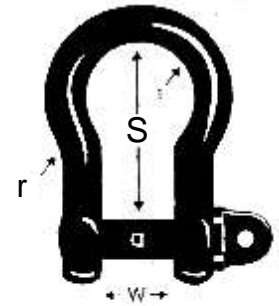
SCREW PIN TYPE DEE SHACKLE CL - 21



JAW INSIDE WIDTH	INSIDE LENGTH	BODY MATERIAL DIA	PIN DIA	EYE OUTSIDE DIA	SAFE WORKING LOAD TONES		
w	s = 2.5 w	d	D min	e min	GRADE 40	GRADE 63	GRADE 80
18	40	10	12	24	-	1.0	-
20	44	12	14	28	1.0	1.25	-
22	49	14	16	32	1.25	1.6	2.0
25	55	16	19	38	1.6	2.0	3.25
28	62	17	20	40	2.0	2.5	-
32	70	19	22	44	2.5	3.2	4.75
34	79	22	26	52	3.2	4.0	6.5
40	88	24	28	56	4.0	5.0	8.5
45	99	27	31	62	5.0	6.3	9.5
50	110	30	35	70	6.3	8.0	12.0
56	124	34	39	78	8.0	10	13.5
63	139	38	44	88	10	12.5	17
70	154	43	50	100	12.5	16	25
80	176	48	55	110	16	20	35
90	198	54	62	124	20	25	40
100	220	60	69	138	25	32	55
107	236	66	77	152	32	40	-
117	258	71	82	164	40	45	-
130	286	79	91	182	50	63	-
140	308	84	97	194	63	80	-
153	337	93	110	220	80	-	-

SCREW PIN SHACKLE (IS - 6130)

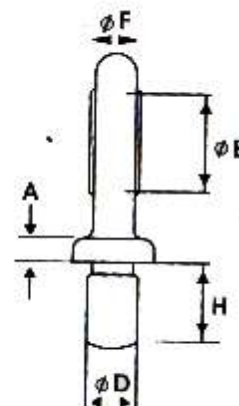
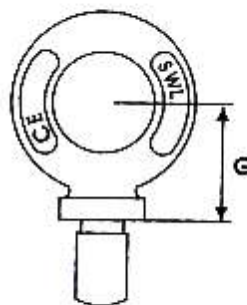
Forged - Quenched and tempered, with alloy pins, Shackles can be furnished proof tested with certificates to standards, such as ABS, NV, Lody's or other certification. Charge for proof testing and certification available when Galvanized self coloured



SCREW PIN TYPE BOW SHACKLE CL - 22

JAW INSIDE WIDH	INSIDE LENGTH	BODY MATERIAL DIA	PIN DIA	EYE OUTSIDE DIA	SAFE WORKING LOAD TONES		
w	s = 2.5 w	d	D min	e min	GRADE 40	GRADE 63	GRADE 80
18	45	11	12	24	-	1.0	-
20	50	13	14	28	1.0	1.25	-
22	55	14	16	32	1.25	1.6	2
25	63	16	19	38	1.6	2.0	3.25
28	70	18	20	40	2.0	2.5	-
32	80	20	22	44	2.5	3.2	4.75
36	90	23	26	52	3.2	4.0	6.5
40	100	25	28	56	4.0	5.0	8.5
45	110	28	31	62	5.0	6.3	9.5
50	125	32	35	70	6.0	8.0	12.0
56	140	36	39	78	8.0	10	13.5
63	155	40	44	88	10	12.5	17
70	175	45	50	100	12.5	16	25
80	200	50	55	110	16	20	35
90	225	58	62	124	20	25	-
100	250	63	69	138	25	32	55
107	270	38	77	154	32	40	-
117	295	75	82	164	40	45	-
130	325	85	91	182	45	63	-
140	350	88	98	196	63	80	-
155	390	95	110	220	80	-	-

FORGED ALLOY STEEL EYE BOLT



THREAD SIZE D	MAXIMUM LIFTNG (TONS)	E MIN	A MIN	G MAX	H MIN	F MAX
M 8	0.16	20	6	20	15	6.3
M 10	0.25	24	7.0	25	17	8
M 12	0.40	28	9.4	30	20	9.5
M 16	0.63	34	13	36	24	12.5
M 20	1.0	40	16.4	45	27	16
M 24	1.6	48	19.6	53	31	19
M 30	2.5	56	25	64	39	24
M 36	4.0	67	30.3	75	48	28
M 42	6.3	80	35.6	90	56	34
M 48	8	95	41	100	65	38
M 56	10	112	48.3	119	73	45
M 64	16	125	55.7	135	85	50
M 72	20	141	63.7	153	95	58
M 80	25	160	71.7	165	110	63
M 90	32	180	81.7	180	125	71
M 100	40	200	91.7	195	140	80

SWIVEL HOIST RING

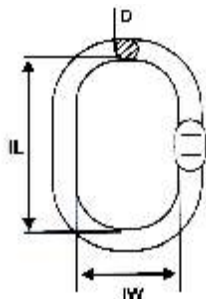


SIZES	SWL	BOLT	B	C	D	F	H
(MM)	(KGS)	(MM)	(MM)	(MM)	(MM)	(MM)	(MM)
M - 12	1000	12	40	100	50	16	45
M - 16	1600	16	50	110	50	18	52
M - 20	2500	20	56	132	70	20	60
M - 24	4000	24	70	156	70	22	70
M - 30	6000	30	80	188	75	25	90
M - 36	8000	36	95	258	90	30	140

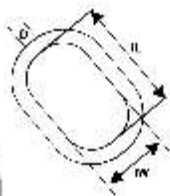
DATA TOLERANCE +/- 10%
 ABOVE HOIST RING ARE 180 DEGREE PIVOT AND 360 DEGREE SWIVEL

GRADE 80 CHAIN FITTINGS

CL-25 OVAL RING

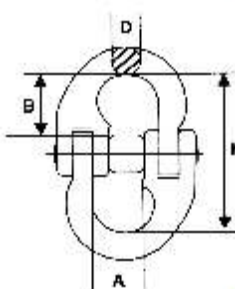


Working Load Limit	GR 80 Chain (mm)		Dimensions (mm)			Net Weight
	1 Leg	2 Leg	IL	IW	D	
Ton						Kg
1.25	6	-	100	60	11	0.2
2.5	7.8	6	120	70	14	0.4
4.0	10	7 / 8	140	80	17	0.7
6.3	-	-	150	90	19	1.0
8.0	13	10	160	95	22	1.5
11.5	-	-	180	110	25	2.2
15.0	16	13	190	105	28	2.7
17.0	-	-	200	120	30	3.5
20.0	19/22	16	240	140	34	5.1
25.0	-	-	250	150	38	7.0
30.0	26	19	250	150	40	8.0
37.0	32	22	300	180	45	12.0



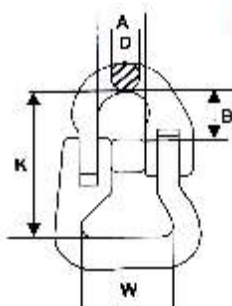
CL-26 MASTER RING WITH SUB RINGS

Working Load Limit	GR 80 Chain (mm)	Dimensions (mm)						Net Weight
		IL	IW	D	il	iw	d	
Ton	3 or 4 Legs							kg
3.2	7 / 8	160	95	22	140	80	17	2.8
6.7	10	200	120	30	160	95	22	6.0
12.8	13	250	150	40	180	105	28	13.0
17	16	300	200	50	200	110	32	23.01



CL-27 HAMMER LOCK

Working Load Limit	GR 80 Chain (mm)	Dimensions (mm)				Net Weight
		K	A	D	B	
Ton	MM					Kg
1.2	6	42	15.5	7	17	0.14
2.0	7 / 8	57	20.50	9.5	22	0.2
3.2	10	68	28	10.8	26	0.38
5.4	13	90	30	15	35	0.76
8.2	16	105	36	20	41	1.20
12.8	18 / 20	124	44	24	48	1.95
16.0	22	146	51	26	57	2.80
20.6	26	160	58	30	62	4.75
32.8	32	214	67.50	37	85	9.40

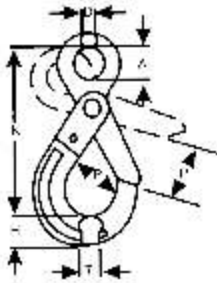


CL-28 WEB SLING CONNECTOR

Working Load Limit	GR 80 Chain (mm)	Dimensions (mm)				
		A	B	D	K	W
Ton	mm					
1.2	6	15	17	7	57	39
2.0	8	18	22	9	62	40
3.2	10	25	26	12	78	47
5.4	13	30	35	16	95	53
8.0	16	36	41	20	115	67
12.5	18 / 20	42	46	23	132	80
15.0	22	50	60	25	187	125
21	26	58	61	30	209	150
32	32	67	92	37	279	160

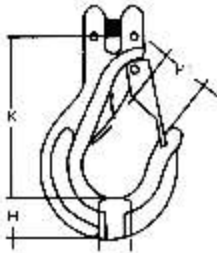
GRADE 80 HOOK & CHAIN FITTINGS

CL-29 SELF LOCKING EYE HOOK



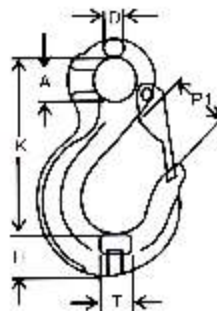
Working Load Limit	GR 80 Chain (mm)	Dimensions (mm)						Net Weight
		K	P	A	D	T	H	
Ton	(mm)							Kg
1.2	6	110	29	21	10	15	20	0.5
2.0	7 / 8	136	34	25	11	20	24	0.8
3.2	10	167	44	32	13	26	30	1.4
5.4	13	207	52	40	16	30	38	2.7
8.0	16	252	60	52	21	40	48	5.6
12.5	18 / 20	282	80	64	23	48	57	8.5
15.0	22	319	90	70	24	49	63	11.2
21.2	26	343	99	80	25	56	69	14.5

CL-30 CLEVIS CHAIN HOOK



Working Load Limit	GR 80 Chain (mm)	Dimensions (mm)				Net Weight
		K	P1	T	H	
Ton	mm					Kg
1.2	6	78	22	15	18	0.3
2.0	7 / 8	98	27	18	22	0.5
3.2	10	121	34	23	29	1.0
5.4	13	147	44	30	37	2.1
8.0	16	166	48	38	42	3.7
12.5	18 / 20	200	56	47	50	6.0

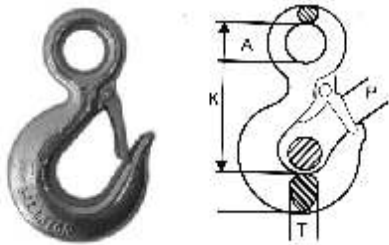
CL-31 EYE SLING HOOK WITH FLAT



Working Load Limit	mm	Dimensions (mm)						Net Weight
		K	P	A	D	T	H	
Ton	mm							Kg
1.2	6	80	23	20	9	16	20	0.3
2.0	7 / 8	98	28	25	11	20	23	0.4
3.2	10	121	36	32	14	23	31	0.9
5.4	13	152	40	40	18	28	38	1.7
8.0	16	184	44	50	22	32	47	3.2
12.5	18 / 20	218	45	60	26	43	48	5.2
15.0	22	244	73	50	31	50	74	8.5
21.2	26	279	77	64	35	60	80	12.7
31.5	32	352	114	88	40	60	86	16.5

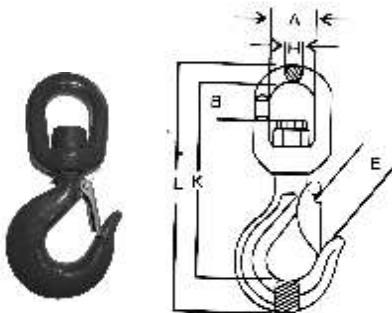
HOOKS FOR WIRE ROPE & CHAIN

CL- 32 WIRE ROPE & CHAIN EYE HOOK



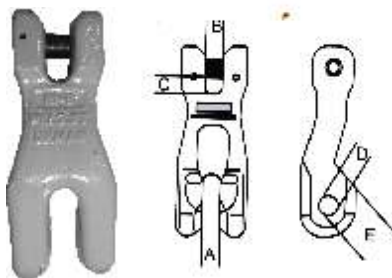
Working Load Limit (t)		Dimensions (mm)					
Carbon Steel	Alloy Steel	P	A	T	H	K	D
0.75	1	22	19	14	19	85	22
1	1.5	23	23	16	21	96	25
1.5	2	25	29	20	26	107	26
2	3	29	32	22	29	122	29
3	4.5	38	40	30	37	150	38
5	7	44	51	36	47	191	49
7.5	11	52	60	43	48	217	60
---	15	82	60	32	74	240	81
---	22	80	66	34	80	270	90

CL- 33 SWIVEL EYE HOOK



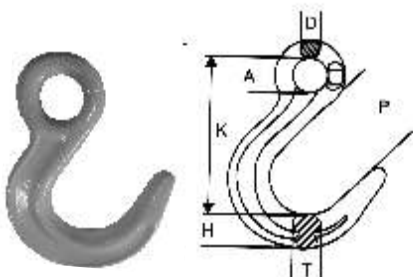
Working Load Limit	A	E	B	H	K	L
1.25	38	22	33	12.7	134	168
2	43	25	39	15.8	150	190
3.2	43	28	40	15.8	162	206
5.4	51	33	45	18	190	242
8.0	64	40	56	21.5	240	300
12.5	69	51	54	28	275	350
15	78	57	50	32	324	415

CL- 34 CHAIN SHORTNER



Working Load Limit	For Grade 80 Chain	Dimensions (mm)				N.W.
Ton	mm	A/B	C	D	E	Kg
1.1	6	6.7	8	7	11	0.16
2.0	7 / 8	8.7	10	9	16	0.40
3.2	10	12.5	14	12	25	0.94
5.4	13	16.5	17	15	32	1.92
8.0	16	20.5	19	19	39	3.16
12.5	18 / 20	21.5	23	22	46	6.20

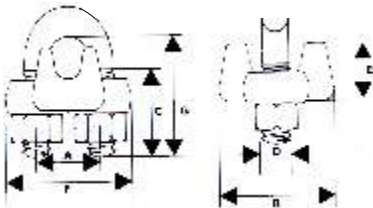
CL- 34 CHAIN SHORTNER



Working Load Limit	For Grade 80 Chain	Dimensions (mm)						N.W.
Tonnes	mm	K	P	A	D	T	H	Kg
2.0	7 / 8	122	61	24	12	20	30	0.7
3.15	10	150	74	31	15	24	34	1.2
5.3	13	180	88	40	20	34	42	2.3
8.0	16	215	98	49	24	43	50	4.0
12.5	19	248	112	60	28	46	57	6.0

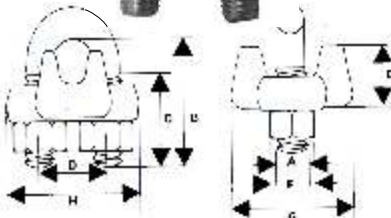
FORGED WIRE ROPE CLAMPS

INDIAN TYPE CLAMP



ROPE SIZE	A	B	C	D	E	F	G
8	M8	40	17	21	9	33	8
9	M10	50	21	26	11	41	10
10	M10	50	21	26	11	41	10
11	M12	60	25	31	13	49	12
12	M12	60	25	31	13	49	12
13	M12	64	27	32	15	51	12
14	M12	64	27	32	15	51	12
16	M14	74	31	38	17	59	14
18	M14	82	36	40	22	64	14
19	M14	82	36	40	22	64	14
20	M14	82	36	40	22	64	14
22	M16	92	40	45	24	72	16
24	M20	110	47	55	27	87	20
26	M20	110	51	57	31	91	20
28	M20	118	51	57	31	91	20

US TYPE CLAMP



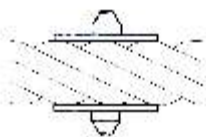
ROPE SIZE	A	B	C	D	E	F	G	H
3/8	.44	1.50	.75	1.00	.91	.75	1.63	1.94
1/2	.50	1.88	1.00	1.19	1.13	.88	1.91	2.28
5/8	.56	2.38	1.25	1.31	1.34	.94	2.06	2.50
3/4	.62	2.75	1.44	1.50	1.41	1.06	2.25	2.84
7/8	.75	3.12	1.62	1.75	1.59	1.25	2.44	3.16
1	.75	3.50	1.81	1.88	1.78	1.25	2.63	3.47
1-1/8	.75	3.88	2.00	2.00	1.91	1.25	2.81	3.59
1-1/4	.88	4.25	2.13	2.31	2.19	1.44	3.13	4.13
1-3/8	.88	4.63	2.31	2.38	2.31	1.44	3.13	4.19
1-1/2	.88	4.94	2.38	2.59	2.44	1.44	3.41	4.44
1-13/4	1.13	5.75	2.75	3.06	2.94	1.81	3.81	5.28
2	1.25	6.44	3.00	3.38	3.28	2.00	4.44	5.88



Right way of applying wire rope clamp



Wrong way of applying wire rope clamp



Step 1

APPLY FIRST CLIP - One base width from dead end of rope - U-Bolt over dead end-live and rests in clip saddle, Tighten nuts evenly recommended torque

Step 2

APPLY SECOUND CLIP - Nearest loop as possible - U-Bolt over dead end - turn on nuts firm but do not tighten.

Step 3

ALL OTHER CLIP - Space equally between first tow

Step 4

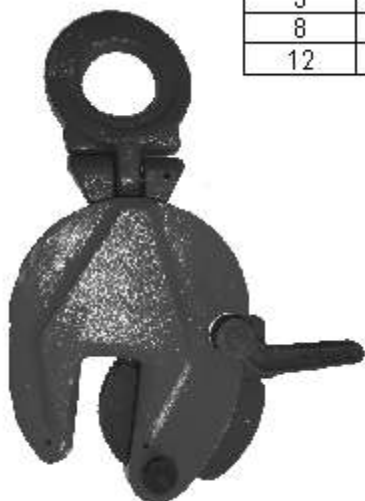
Apply tension and tighten all nuts to recommended torque
Apply tension in direction of arrow

Step 5

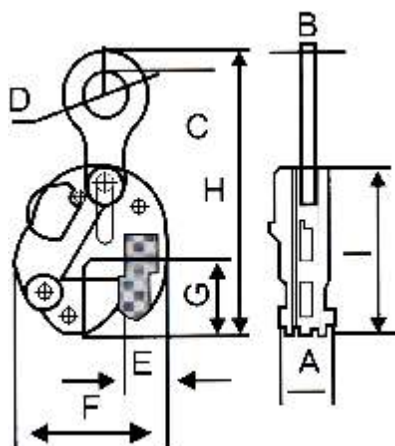
Recheck nut torque after rope has been in operation
Apply tension in direction of arrow

VERTICAL PLATE CLAMPS

WLL	Plate Thickness	A	B	C	D	E	F	G	H	I	J
Tons	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
1	0-16	59	12	16	45	32	122	73	277	155	50
2	0-22	61	16	23	55	45	165	90	340	190	55
3	5-30	72	16	28	60	55	195	110	374	227	70
5	16-50	82	20	33	70	70	250	135	458	275	90
8	40-80	100	25	40	80	80	345	175	568	370	130
12	50-90	107	28	45	90	105	430	182	635	380	150



CL - 38

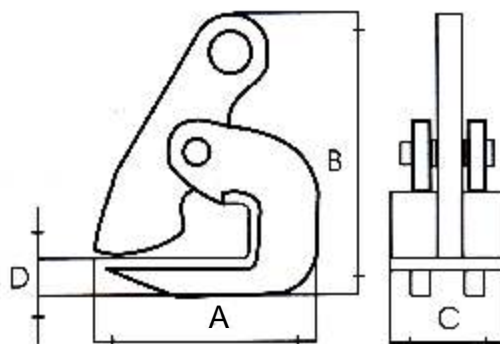


HORIZONTAL LIFTING CLAMPS

WLL/Per Pair	Steel Plate Thickness	A	B	C	D
Tons	mm	mm	mm	mm	mm
2	0 - 20	157	156	56	29
3	0 - 30	152	190	64	31
5	20 - 60	220	293	70	54
8	50 - 100	277	375	86	59
10	60 - 125	296	421	86	66



CL - 39



HEAVY DUTY PULLEY WITH BEARING

MANILA ROPE PULLEY BLOCK WITH BEARING

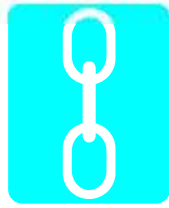


Dia. of Sheave (Inches)	Dia. of Rope (Inches)	S.W.L (Kgs)	No. of Sheave
3 1/2 "	1/2 "	100	Single
3 1/2 "	1/2 "	150	Double
3 1/2 "	1/2 "	250	Triple
4 "	5/8"	150	Single
4 "	5/8"	200	Double
4 "	5/8"	300	Triple
4 3/4 "	3/4 "	200	Single
4 3/4 "	3/4 "	400	Triple
4 3/4 "	3/4 "	500	Double
6 "	1 "	500	Single
6 "	1 "	1000	Double
6 "	1 "	1500	Triple
7 "	1 1/4 "	600	Single
7 "	1 1/4 "	1500	Double
7 "	1 1/4 "	2000	Triple
8 "	1 1/2 "	1000	Single
8 "	1 1/2 "	2000	Double
8 "	1 1/2 "	2500	Triple
10 "	2 "	1500	Single
10 "	2 "	2500	Double
10 "	2 "	4000	Triple

WIRE ROPE PULLEY BLOCK WITH BEARING

Size	Single Sheave / Snatch Capacity in Tons	Double Sheave Capacity in Tons	Triple Sheave Capacity in Tons
6" x 3/8"	1.0	1.5	2.0
6" 1/2"	1.5	2.0	2.5
8"x1/2"	1.5	2.58	3.0
8"x5/8"	2.0	3.0	4.0
10"x5/8"	2.5	4.0	4.5
10"x3/4"	3.0	5.0	5.0
12"x3/4"	3.0	5.0	8.0
12"x1"	5.0	10	10
12"x1 1/8"	10	15	20
14"x7/8"	6.0	8.0	10
14"x1"	8.0	10	10
14"x1 1/8"	10	15	15
16" x 1"	5.0	10	10
16"x1 1/8"	10	15	20





Care
LIFTING EQUIPMENTS

Office : S. No. 73/14, Adarsh Nagar, Dighi,
Pune-411 015. Telephone : 020-20267788

Branch Off. : N-43 JD-1-44-3, Behind Satguru Hotel,
Pawan Nagar, CIDCO, Nashik-422009.

E-mail - care.lifting@yahoo.in / sales@carelifting.com

Website : www.carelifting.com