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■ אבני דרך בהתפתחותה של החברה

1975

הקמת מפעל לייצור כבלי פלדה

1983

הקמת מפעל לייצור קונצרטינות

1999

הקמת מפעל חדש והעברתם של כל פסי הייצור אליו

2000

הפעלת פס ייצור עבור מוליכי אלומיניום

2001

פיתוח פטנט – גדר פריסה מהירה

2002

פיתוח פטנט – אביזר הצלה "ספיידר" לחילוץ מבניינים גבוהים

2005

הקמת מפעל חדש לייצור מוליכי אלומיניום ואביזרי הצלה תחת "מוסרות טכנולוגיות"

2008

הפעלת קו ייצור – כבלי פלדה בקוטרים של עד 60 מ"מ

2010

פיתוח פטנט – גדר סכינים קשיחה מרותכת

■ לקוחותיה העיקריים של החברה:

1. משרד הבטחון וצה"ל
2. חברת החשמל לישראל
3. נמלי ישראל
4. יצרני מעליות
5. חברות בנייה
6. יצרני חממות
7. חנויות לחומרי בניין

■ החברה מייצאת למספר רב של

מדינות, ביניהן:

1. ארה"ב
2. הולנד
3. בלגיה
4. יוון
5. קפריסין
6. אנגליה
7. גרמניה
8. פינלנד
9. קנדה





פרופיל החברה

■ הסטוריית החברה

מוסרות בע"מ נוסדה בעיר נתיבות ב-1975 על ידי מרן פסח. המפעל משתרע על שטח של מעל ל-20,000 מ"ר, ומעסיק כ-100 עובדים.

המחזור השנתי של החברה עומד על יותר מ-\$15,000,000.

המוצרים העיקריים של החברה הם:

1. כבלי פלדה 3,000 טון בשנה
2. מוליכי אלומיניום 2,000 טון בשנה
3. קונצרטינות וגידור 2,500 טון בשנה
4. אביזרי הרמה



■ ציוד המעבדה כולל:

מאפיינים גיאומטריים:

מיקרומטר

קליבר (מד זחיח)

מאפיינים מכניים:

מכונת מבחן כיפוף חוטים

מכונת מבחן פיתול חוטים

מכונת מבחן מאמץ מתיחה עבור כבלים (עד 1,000 ק"ג)

מכונת מבחן מאמץ מתיחה עבור כבלי פלדה (עד 25,000 ק"ג)

מכונת מבחן מאמץ מתיחה עבור כבלי פלדה (עד 150,000 ק"ג)

מכונת מבחן התעיפות כבלים

מכונת מבחן התעיפות כבלי פלדה

מאפיינים חשמליים:

אוהם-מטר (Ohm Meter)

מיקרו אוהם-מטר (Micro Ohm Meter)

מאפיינים כימיים:

מד עובי ציפוי אולטרה-סאונד

(Ultrasonic Coating Thickness Meter)

ערכת מבחנות עבור מבחן ציפוי אבץ לכבלי

פלדה.

כיוול ציוד בקרת האיכות מתבצע לפחות פעם בשנה. נעשה שימוש בציוד חשמלי על כל המכונות על מנת לזהות ולמנוע ליקויים.

■ תקני עבודה

המוצרים שלנו נבדקים על ידי מכון התקנים הישראלי (מת"י), לפי הסטנדרטיים הישראליים. בנוסף, המוצרים מיוצרים לפי הסטנדרטים הבינלאומיים המקובלים.

כבלי פלדה מיוצרים לפי:

תקן ישראלי EN 565 12385, ותקנים מקבילים נוספים.

מוליכי אלומיניום מיוצרים לפי:

5/IEC JDH6042A;EN50182

קונצרטינות מיוצרות לפי:

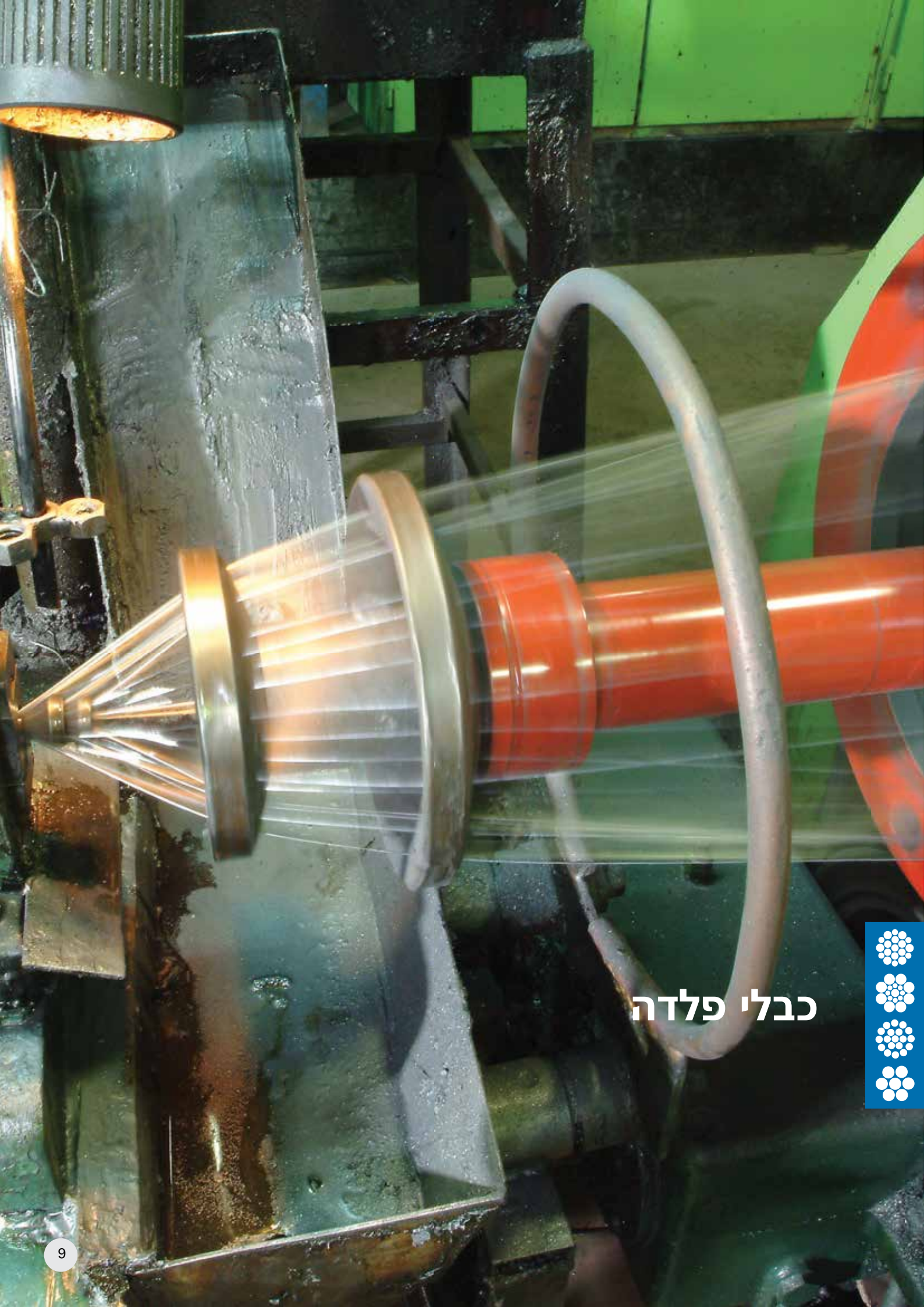
-17-5660- D, NSN-52489-MIL -B
0233047



9001 ISO

מערכת בקרת האיכות של מוסרות בע"מ מוסמכת מאז 1995 על פי תקן ISO 9001. מכון התקנים הישראלי (מת"י), ארגון ממשלתי עצמאי וחבר באיגוד IQNET, מפקח על החברה באופן שוטף. בקרת האיכות הנה חלק מכל רובד בחברה. הניהול, הייצור והפיתוח נעשים כולם על פי תקנים מקובלים ומפוקחים. תכונות פיזיקליות של חומרי הגלם, עבודות בתהליך ייצור ומוצרים סופיים נבדקים בתדירות יום-יומית. המעבדה הממוחשבת שלנו משרתת את צרכי החברה והלקוחות שלה, כמו גם את צרכיהן של מעבדות טכניות אחרות. לראשונה זכתה מוסרות באישור של חברת ללוידס הבינלאומית לאספקת כבלים לאוניות ולאסדות קידוח ימיים.





כבלי פלדה



צור קשר

מוסרות בע"מ

רח' בעלי המלאכה, אזור התעשייה נתיבות, ישראל
טל': 08-6705700 פקס: 08-9942997

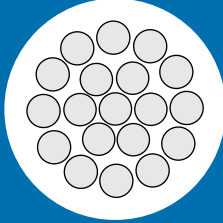
מרכז השיווק

רח' המרכבה 47, אזור התעשייה חולון, ישראל 58851
טל': 03-5599260 פקס: 03-5599261



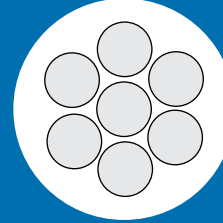


SPIRAL ROPE 1X19 CONSTRUCTION: (1+6+12)



EN 12385

SPIRAL ROPE 1X7 CONSTRUCTION: (1+6)



EN 12385

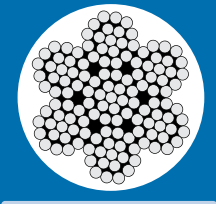
Nominal Diameter	Weight	Calculated Breaking Load	Minimum Breaking Load	Nominal Diameter	Weight	Calculated Breaking Load	Minimum Breaking Load
		180Kg/mm ²	180Kg/mm ²			180Kg/mm ²	180Kg/mm ²
mm	Kg/m	Kg	Kg	mm	Kg/m	Kg	Kg
1	0,00495	107	94,5	0.6	0.00181	39.2	35.3
1,5	0.0111	242	213	0.8	0.00372	69.7	62.7
2	0.0198	430	378	1	0.00502	109	98.6
2.5	0.0310	671	591	1.5	0.0113	245	221
3	0.0446	967	851	2	0.0201	436	392
3.5	0.0607	1320	1160	2.5	0.0314	681	613
4	0.0793	1720	1510	3	0.0452	980	882
5	0.124	2690	2360	3.5	0.0615	1330	1206
6	0.178	3870	3400	4	0.0803	1740	1570
7	0.243	5260	4630	4.5	0.102	2210	1980
8	0.317	6870	6050	5	0.126	2720	2450
9	0.401	8700	7660	6	0.181	3920	3530
10	0.495	10700	9450	7	0.246	5340	4800
11	0.599	13000	11400	8	0.321	6970	6270
12	0.713	15500	13600	9	0.407	8820	7940
13	0.837	18200	16000	10	0.502	10900	9800
14	0.971	21100	18500	12	0.723	15700	14100
15	1.11	24200	21300	14	0.984	21300	19200
16	1.27	27500	24200	16	1.29	27900	25100
17	1.43	31000	27300				

CONSTRUCTION CROSS SECTION EXAMPLE	CONSTRUCTION OF ROPE		CONSTRUCTION OF STRAND					
	ITEM	QUANTITY	ITEM		QUANTITY			
	Strands	6	Wires	5 to 9				
	outer strands	6	Outer wires	4 to 8				
layers of strands	1	Layers of wires	1					
Wires in rope (excluding metallic core)	30 to 54							
TYPICAL EXAMPLE		No. OF OUTER WIRES		OUTER WIRE FACTOR ¹⁾				
ROPE	STRAND	TOTAL	PER STRAND					
6X7	1-6	36	6		0,106			
Min. breaking force factor:		K1=0,332	K2=0,359		K3=0,388			
Nominal length mass factor ¹⁾		W1=0,345	W2=0,348					
Nominal metallic cross-sectional area factor ¹⁾		C1=0,369	C2=0,432					

Nominal rope diameter mm	Approximate nominal length mass ¹⁾ kg/100m		Minimum breaking force kN			
			Rope Grade			
			1770		1960	
	Fibre core	Steel core	Fibre core	Steel core	Fibre core	Steel core
1	2	3	4	5 ²⁾	6	7 ²⁾
2	1,38	1,54	2,35	2,54	2,60	2,81
3	3,11	3,46	5,29	5,72	5,86	6,33
4	5,52	6,14	9,40	10,2	10,40	11,3
5	8,63	9,60	14,7	15,9	16,3	17,6
6	12,4	13,8	21,2	22,9	23,4	25,3
7	16,9	18,8	28,8	31,1	31,9	34,5
8	22,1	24,6	37,6	40,7	41,6	45,0
9	27,9	31,1	47,6	51,5	52,7	57,0
10	34,5	38,4	58,8	63,5	65,1	70,4
11	41,7	46,5	71,1	76,9	78,7	85,1
12	49,7	55,3	84,6	91,5	93,7	101
13	58,3	64,9	99,3	107	110	119
14	67,6	75,3	115	125	128	138
16	88,3	98,3	150	163	167	180
18	112	124	190	206	211	228
20	138	154	235	254	260	281

MILITARY SPECIFICATION MIL-W-83420E WIRE ROPE CARBON STEEL AND CORROSION RESISTANT WIRE ROPE

CONSTRUCTION 7x19 7x(1+6+12)	Nominal Diameter	Tolerance on Diameter	Construction	Minimum breaking load		Weight per 100 ft	Nominal Diameter
				comp A	comp B		
				Lbs	Lbs		
	in	in	—	Lbs	Lbs	Lbs	mm
	1/16	0.010	7x19	480	480	0.75	1.58
	3/32	0.012	7x19	1000	920	1.74	2.38
	1/8	0.014	7x19	2000	1760	2.90	3.17
	5/32	0.016	7x19	2800	2400	4.50	3.96
	3/16	0.018	7x19	4200	3700	6.50	4.76
	7/32	0.018	7x19	5600	5000	9.60	5.55
	1/4	0.018	7x19	7000	6400	11.00	6.35
	9/32	0.020	7x19	8000	7800	13.90	7.14
	5/16	0.022	7x19	9800	9000	17.30	7.93
	3/8	0.026	7x19	14400	12000	24.30	9.52



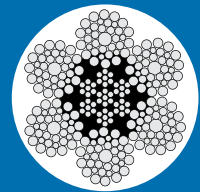
Composition B - Corrosion Resistant Steel
Composition A - Carbon Steel tin or Zinc Coated



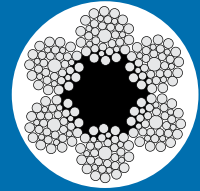
CONSTRUCTION CROSS SECTION EXAMPLE	CONSTRUCTION OF ROPE		CONSTRUCTION OF STRAND				
	ITEM	QUANTITY	ITEM		QUANTITY		
	Strands	6	Wires	15 to 26			
outer strands	6	Outer wires	7 to 12				
layers of strands	1	Layers of wires	2 to 3				
Wires in rope (excluding steel core)	90 to 156						
TYPICAL EXAMPLE		No. OF OUTER WIRES	OUTER WIRE FACTOR ¹⁾				
ROPE	STRAND	TOTAL	PER STRAND				
6X25F-IWRC							
6X19S	1-9-9	54	9	0,080			
6X25F	1-6-6F-12	72	12	0,064			
6X19W	1-6-6+6	72	12	6	0,073		
				6	0,055		
6X26WS	1-5-5+5-10	60	10	0,074			
	Min. breaking force factor:	K1=0,330	K2=0,356				
	Nominal length mass factor ¹⁾	W1=0,359	W2=0,400				
	Nominal metallic cross-sectional area factor ¹⁾	C1=0,384	C2=0,449				
Nominal rope diameter mm	Approximate nominal length mass ¹⁾ kg/100m		Minimum breaking force kN				
			Rope Grade				
			1770		1960		2160
	Fibre core	Steel core	Fibre core	Steel core	Fibre core	Steel core	Steel core
1	2	3	4	5	6	7	8
6	12,9	14,4	21,0	22,7	23,3	25,1	27,7
7	17,6	19,6	28,6	30,9	31,7	34,2	37,7
8	23,0	25,6	37,4	40,3	41,4	44,7	49,2
9	29,1	32,4	47,3	51,0	52,4	56,5	62,3
10	35,9	40,0	58,4	63,0	64,7	69,8	76,9
11	43,3	48,4	70,7	76,2	78,3	84,4	93,0
12	51,7	57,6	84,1	90,7	93,1	100	111
13	60,7	67,6	98,7	106	109	118	130
14	70,4	78,4	114	124	127	137	151
16	91,9	102	150	161	166	179	197
18	116	130	189	204	210	226	249
20	144	160	234	252	259	279	308
22	174	194	283	305	313	338	372
24	207	230	336	363	373	402	443
26	243	270	395	426	437	472	520
28	281	314	458	494	507	547	603
32	368	410	598	645	662	715	787
36	465	518	757	817	838	904	997
40	574	640	935	1 010	1 040	1 120	1 230
44	695	774	1 130	1 220	1 250	1 350	1 490
48	827	922	1 350	1 450	1 490	1 610	1 770
52	971	1 080	1 580	1 700	1 750	1 890	2 080
56	1 130	1 250	1 830	1 980	2 030	2 190	2 410
60	1 290	1 440	2 100	2 270	2 330	2 510	2 770

1) Informative only

CONSTRUCTION CROSS SECTION EXAMPLE	CONSTRUCTION OF ROPE		CONSTRUCTION OF STRAND			
	ITEM	QUANTITY	ITEM		QUANTITY	
	Strands	6	Wires	29 to 57		
	outer strands	6	Outer wires	12 to 18		
layers of strands	1	Layers of wires	3 to 4			
Wires in rope (excluding steel core)	174 to 342					
TYPICAL EXAMPLE		No.OF OUTER WIRES	OUTER WIRE FACTOR ¹⁾			
ROPE	STRAND	TOTAL	PER STRAND			
6X31WS	1-6-6+6-12	72	12	0,064		
6X36WS	1-7-7+7-14	84	14	0,056		
6X41WS	1-8-8+8-16	96	16	0,050		
6X49WS	1-8-8-8+8-16	96	16	0,050		
6X46WS	1-9-9+9-18	108	18	0,045 5		
Min. breaking force factor:		K1=0,330	K2=0,356			
Nominal length mass factor ¹⁾		W1=0,367	W2=0,409			
Nominal metallic cross-sectional area factor ¹⁾		C1=0,393	C2=0,460			



6X41WS-IWRC



6X36WS-FC

Nominal rope diameter mm	Approximate nominal length mass ¹⁾ kg/100m		Minimum breaking force kN				
			Rope Grade				
	Fibre core	Steel core	1770		1960		2160
			Fibre core	Steel core	Fibre core	Steel core	Steel core
1	2	3	4	5	6	7	8
8	23,5	26,2	37,4	40,3	41,4	44,7	49,2
9	29,7	33,1	47,3	51,0	52,4	56,5	62,3
10	36,7	40,9	58,4	63,0	64,7	69,8	76,9
11	44,4	49,5	70,7	76,2	78,3	84,4	93,0
12	52,8	58,9	84,1	90,7	93,1	100	111
13	62,0	69,1	98,7	106	109	118	130
14	71,9	80,2	114	124	127	137	151
16	94,0	105	150	161	166	179	197
18	119	133	189	204	210	226	249
20	147	164	234	252	259	279	308
22	178	198	283	305	313	338	372
24	211	236	336	363	373	402	443
26	248	276	395	426	437	472	520
28	288	321	458	494	507	547	603
32	376	419	598	645	662	715	787
36	476	530	757	817	838	904	997
40	587	654	935	1 010	1 040	1 120	1 230
44	711	792	1 130	1 220	1 250	1 350	1 490
48	846	942	1 350	1 450	1 490	1 610	1 770
52	992	1 110	1 580	1 700	1 750	1 890	2 080
56	1 150	1 280	1 830	1 980	2 030	2 190	2 410
60	1 320	1 470	2 100	2 270	2 330	2 510	2 770

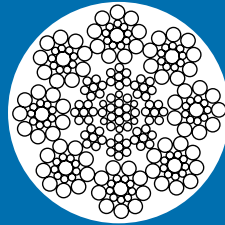
1) Informative only



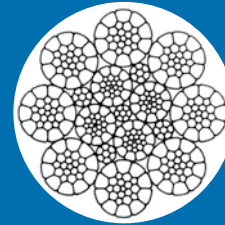
CONSTRUCTION CROSS SECTION EXAMPLE	CONSTRUCTION OF ROPE		CONSTRUCTION OF STRAND				
	ITEM	QUANTITY	ITEM		QUANTITY		
	Strands	8	Wires	15 to 26			
	outer strands	8	Outer wires	7 to 12			
layers of strands	1	Layers of wires	2 to 3				
Wires in rope (excluding metallic core)	120 to 208						
TYPICAL EXAMPLE		No.OF OUTER WIRES	OUTER WIRE FACTOR ¹⁾				
ROPE	STRAND	TOTAL	PER STRAND				
8X19S	1-9-9	72	9	0,065 5			
8X25F	1-6-6F-12	96	12	0,052 5			
8X19W	1-6-6+6	96	12 6	0,060 6			
			6	0,045 0			
8X26WS	1-5-5+5-10	80	10	0,060 0			
	Min. breaking force factor:	K1=0,293	K2=0,356				
	Nominal length mass factor ¹⁾	W1=0,340	W2=0,407				
	Nominal metallic cross-sectional area factor ¹⁾	C1=0,349	C2=0,457				
8X19S-FC							
8X25F-IWRC							
Nominal rope diameter mm	Apporoximate nominal length mass ¹⁾ kg/100m		Minimum breaking force kN				
	Fibre core	Steel core	Rope Grade				
1770			1960		2160		
			Fibre core	Steel core	Fibre core	Steel core	Steel core
1	2	3	4	5	6	7	8
8	21,8	26,0	33,2	40,3	36,8	44,7	49,2
9	27,5	33,0	42,0	51,0	46,5	56,5	62,3
10	34,0	40,7	51,9	63,0	57,4	69,8	76,9
11	41,1	49,2	62,8	76,2	69,5	84,4	93,0
12	49,0	58,6	74,7	90,7	82,7	100	111
13	57,5	68,8	87,6	106	97,1	118	130
14	66,6	79,8	102	124	113	137	151
16	87,0	104	133	161	147	179	197
18	110	132	168	204	186	226	249
20	136	163	207	252	230	279	308
22	165	197	251	305	278	338	372
24	196	234	299	363	331	402	443
26	230	275	351	426	388	472	520
28	267	319	407	494	450	547	603
32	348	417	531	645	588	715	787
36	441	527	672	817	744	904	997
40	544	651	830	1 010	919	1 120	1 230
44	658	788	1 000	1 220	1 110	1 350	1 490
48	783	938	1 200	1 450	1 320	1 610	1 770
52	919	1 100	1 400	1 700	1 550	1 890	2 080
56	1 070	1 280	1 630	1 980	1 800	2 190	2 410
60	1 220	1 470	1 870	2 270	2 070	2 510	2 770

1) Informative only

DOUBLE PARALLEL



8 STRANDS DOUBLE PARALLEL

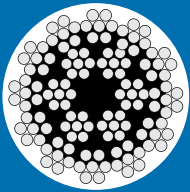


8 STRANDS DOUBLE PARALLEL COMPACTED

Diameter						
mm	Kg/m	MBL 1960N/mm ²	MBL 2160N/mm ²	Kg/m	MBL 1960N/mm ²	MBL 2160N/mm ²
7	0.21	4.000	4.400			
7.5	0.24	4.500	4.960			
8	0.27	5.170	5.687			
9	0.35	6.500	7.260			
10	0.43	8.230	9.053	0.50	9.400	10.340
11	0.55	10.100	11.110	0.60	11.000	12.100
12	0.66	12.300	13.530	0.73	13.500	14.800
14	0.89	16.740	18.414	0.95	18.000	19.800
16	1.17	21.870	24.057	1.26	23.800	26.180
18	1.48	27.680	30.448	1.57	29.800	32.780
20	1.83	34.170	37.587	1.97	37.300	41.030
22	2.22	41.350	45.485	2.36	44.600	49.050
24	2.64	49.210	54.131	2.78	52.500	57.750
26	3.10	57.750	63.525	3.27	61.800	67.980
28	3.59	66.980	73.678	3.87	73.200	80.520
30	4.13	76.890	84.579	4.40	83.300	91.630
32	4.70	87.480	96.228	5.04	95.300	104.830
34	5.38	100.200	110.220	5.71	108.000	118.800
36	5.95	110.720	121.792	6.38	121.000	133.100
38	6.71	127.000	139.700	7.14	135.000	148.500
40	7.34	136.690	150.359	7.88	149.000	163.900



CONSTRUCTION CROSS SECTION EXAMPLE



18X7-FC+1

CONSTRUCTION OF ROPE

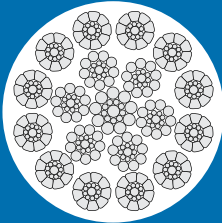
CONSTRUCTION OF STRAND

CONSTRUCTION OF ROPE		CONSTRUCTION OF STRAND		
ITEM	QUANTITY	ITEM	QUANTITY	
Strands	17 to 18	Wires	5 to 9	
outer strands	10 to 12	Outer wires	4 to 8	
layers of strands	2	Layers of wires	1	
Wires in rope (excluding wire strand centre)	85 to 162			
TYPICAL EXAMPLE		No. OF OUTER WIRES		OUTER WIRE FACTOR ¹⁾
ROPE	STRAND	TOTAL	PER STRAND	
17X7	1-6	66	6	0,070
18X7	1-6	72	6	0,063 2
Min. breaking force factor:		K1=0,328	K3=0,328	
Nominal length mass factor ¹⁾		W1=0,382	W3=0,401	
Nominal metallic cross-sectional area factor ¹⁾			C3=0,433	

Nominal rope diameter mm	Approximate nominal length mass ¹⁾ kg/100m		Minimum breaking force kN	
			Rope Grade	
			1770	1960
	Fibre centre	Steel centre	Fibre or steel centre	Fibre or steel centre
1	2	3	4	5
6	13,8	14,4	20,9	23,1
7	18,7	19,6	28,4	31,5
8	24,4	25,7	37,2	41,1
9	30,9	32,5	47,0	52,1
10	38,2	40,1	58,1	64,3
11	46,2	48,5	70,2	77,8
12	55,0	57,7	83,6	92,6
13	64,6	67,8	98,1	109
14	74,9	78,6	114	126
16	97,8	103	149	165
18	124	130	188	208
20	153	160	232	257
22	185	194	281	311
24	220	231	334	370
26	258	271	392	435
28	299	314	455	504

1) Informative only

NON ROTATING WIRE ROPES

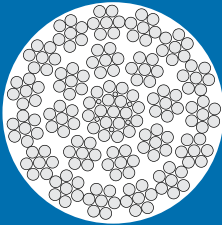


ROTEX 19

Rotex 19

A rotation resistant wire rope.
Rotex 19 has 12 outer compacted strands.
Fully Lubricated.
Suitable for low and medium lifting heights.

Nominal Diameter	Metallic Cross-Section	Weight	Minimum Breaking Load		
			1770 N/mm ² kN	1960 N/mm ² kN	2160 N/mm ² kN
mm	mm ²	Kg/100m			
8	35	30	49	55	59
9	44	38	62	69	74
10	54	47	76	84	90
11	65	57	92	101	109
12	78	68	111	123	132
13	91	80	128	142	153
14	106	93	151	167	179
15	121	107	171	189	204
16	138	122	195	216	232
17	156	137	222	246	264
18	175	154	249	275	296
19	195	171	277	306	329
20	216	190	307	339	365
21	238	209	336	372	400
22	261	230	369	409	439
23	285	251	403	447	480
24	311	273	441	488	525
25	337	297	477	528	567
26	365	321	518	573	616
28	423	372	598	662	712
29	454	399	644	713	766
30	486	427	689	762	819
32	553	486	783	867	932
34	624	549	884	979	1052
36	699	615	989	1095	1177



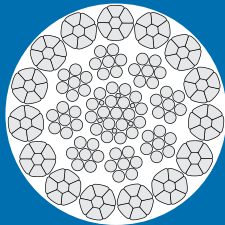
ROTEX 24

Rotex 24

Rotating resistant wire rope.
Flexible.
Rotex 24 has high breaking load.
Fully lubricated.
Recommended for tower cranes.
Available in lang's and regular lay.

Nominal Diameter	Metallic Cross-Section	Weight	Minimum Breaking Load	
			1960 N/mm ² kN	2160 N/mm ² kN
mm	mm ²	Kg/100m		
7.2	24	24.7	38	42
8	30	29.1	48	53
9	39	36.8	62	68
10	48	45.4	77	85
11	58	54.9	93	102
12	69	65.4	110	121
13	81	76.7	129	143
14	94	89.0	150	165
16	123	116	196	216
18	156	147	249	274
20	192	182	307	338
22	232	220	370	408
24	276	262	449	494
26	324	307	527	580
28	375	356	610	672
30	430	382	700	770
32	490	465	795	875
36	620	588	1000	1110
38	690	656	1118	1230
40	765	726	1245	1370

NON ROTATING WIRE ROPES

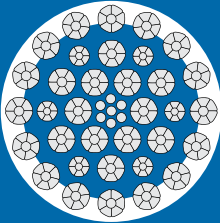


ROTEX 24C

Rotex 24 compacted

Rotex 24 is a rotation resistant wire rope.
 Rotex 24 has 15 compacted outer strands.
 Rotex 24 is fully lubricated.
 Very high breaking load.
 Very good rotation resistant, recommended for tower cranes.
 Available in lang's and regular lay.

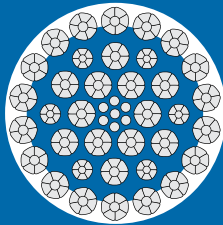
Nominal Diameter	Metallic Cross-Section	Apporoximate nominal length mass	Minimum Breaking Load	
			1960 N/mm ² kN	2160 N/mm ² kN
mm	mm ²	Kg/100m		
8	32.5	30	52.9	58.2
9	41	38	66.7	73.5
10	50.5	47	82.5	90.5
11	61.3	56	99.7	109.9
12	72.8	67	118.4	130.5
13	85.5	79	139	153.3
14	99.2	91	161.4	177.8
16	130	119	211	233
18	164	151	266.8	294
20	202.5	186	329.4	363
22	245	225	398.5	439
24	291	268	457	503
26	342	315	536	589
28	397	366	620	682
30	455	420	715	786
32	519	475	810	891
36	655	600	1025	1127

**ROTEX 35C****Rotex 35 compacted**

A rotation resistant wire rope, fully compacted.
Fully lubricated.
Suitable also for multiply layer spooling.
Recommended for high lifting heights.

Nominal Diameter	Metallic Cross-Section	Weight	Minimum Breaking Load		
			1770 N/mm ² kN	1960 N/mm ² kN	2160 N/mm ² kN
mm	mm ²	Kg/100m			
10	56	51	80	88	96
11	69	62	98	109	118
12	81	73	118	131	142
13	96	86	140	155	168
14	110	99	160	178	193
15	126	114	184	204	222
16	146	131	210	232	252
17	163	137	236	262	284
18	184	165	269	297	323
19	204	183	297	329	357
20	227	204	329	364	369
22	276	248	398	441	479
23	300	270	435	482	523
24	326	294	472	522	567
25	346	313	503	557	605
26	376	328	552	610	663
28	443	398	438	707	768
29	469	422	681	754	819
30	502	454	728	806	876
32	572	515	825	914	993
34	646	581	932	1033	1122
35	687	619	991	1097	1191
36	727	655	1044	1156	1256

NON ROTATING WIRE ROPES



ROTEX 37

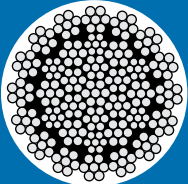
Rotex 37

Rotex 37 is fully compacted.
 Rotex 37 has very high breaking load, is very flexible.
 Fully lubricated.
 Suitable for high lifting heights.
 Available in lang's and regular lay.

Nominal Diameter	Metallic Cross-Section	Weight	Minimum Breaking Load		
			1770 N/mm ² kN	1960 N/mm ² kN	2160 N/mm ² kN
mm	mm ²	Kg/100m			
10	58	52	82	91	98
11	71	64	102	113	121
12	86	78	120	133	143
13	100	91	142	157	169
14	117	105	161	180	195
15	134	121	185	206	225
16	152	137	215	237	255
17	172	155	239	266	286
18	196	175	272	302	324
19	215	193	301	334	359
20	238	214	335	372	399
22	288	259	407	452	486
23	315	283	441	490	527
24	342	308	480	533	572
25	364	327	511	570	612
26	399	359	555	617	662
28	462	415	653	726	779
29	493	443	691	768	824
30	527	474	739	821	882
32	598	539	843	936	1005
34	675	607	953	1059	1137
35	717	645	1012	1125	1208
36	756	680	1071	1190	1278



CONSTRUCTION CROSS SECTION EXAMPLE



35(W)x7

CONSTRUCTION OF ROPE		CONSTRUCTION OF STRAND		
ITEM	QUANTITY	ITEM	QUANTITY	
Strands	28 to 40	Wires	5 to 9	
outer strands	15 to 18	Outer wires	4 to 8	
layers of strands	3	Layers of wires	1	
Wires in rope	196 to 280			
TYPICAL EXAMPLE		No. OF OUTER WIRES		OUTER WIRE FACTOR ¹⁾
ROPE	STRAND	TOTAL	PER STRAND	
35(W)x7	1-6	96	6	0,046 1
Min. breaking force factor:		K3=0,360 ²⁾		K3=0,350 ³⁾
Nominal length mass factor ¹⁾		W3=0,454		
Nominal metallic cross-sectional area factor ¹⁾		C3=0,480		

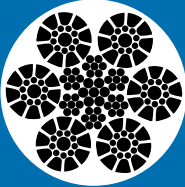
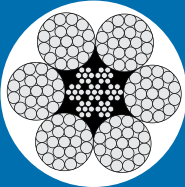
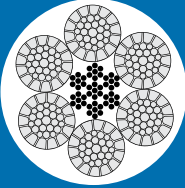
Nominal rope diameter mm	Apporoximate nominal length mass ¹⁾ kg/100m	Minimum breaking force kN	
		Rope grade 1960	Rope grade 2160
1	2	3	4
8	29,1	45,2	48,4
9	36,8	57,2	61,2
10	45,4	70,6	75,6
11	54,9	85,4	91,5
12	65,4	102	109
13	76,7	119	128
14	89,0	138	148
16	116	181	194
18	147	229	245
20	182	282	302
22	220	342	366
24	262	406	435
26	307	477	511
28	356	553	593
32	465	723	774
36	588	914	980
38	656	1020	1090
40	726	1130	1210

1) Informative only

2) Up to and including rope grade 1960

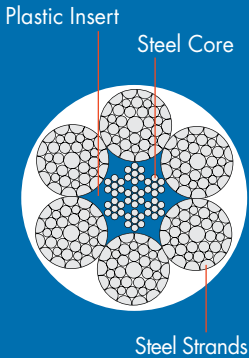
3) Greater than rope grade 1960 up to and including rope grade 2160

POWEROPE - COMPACTED STRANDS WIRE ROPE

	Nominal diameter	Weight	Calculated breaking load		Minimum breaking load		
			1960 N/mm ² (200 kg/mm ²)	1960 N/mm ² (200 kg/mm ²)	1960 N/mm ² (200 kg/mm ²)	1960 N/mm ² (200 kg/mm ²)	
	mm	kg/m	kN	TON	kN	TON	
 6X19 SEALE	8	28.2	65.0	6.63	54.1	5.52	
	9	36.9	85.1	8.68	68.3	6.97	
	10	44.9	103.5	10.55	84.3	8.60	
	11	54.6	126.0	12.85	103.2	10.53	
	12	64.3	148.3	148.3	15.12	123.0	12.55
	13	75.8	174.7	174.7	17.82	144.9	14.79
 6X25 FILLER	14	87.6	201.9	20.59	167.5	17.09	
	15	100.2	230.9	23.55	192.2	19.61	
	16	112.9	260.3	26.54	215.6	22.00	
	17	128.9	279.3	30.32	246.4	25.15	
	18	141.7	326.7	33.31	270.6	27.61	
	19	160.5	370.0	37.73	306.7	31.30	
 6X36 WARRINGTON-SEALE	20	177.1	408.4	41.64	338.6	34.55	
	21	196.7	453.5	46.24	375.1	38.27	
	22	218.2	503.1	51.30	417.2	42.57	
	23	235.2	542.4	55.31	449.5	45.87	
	24	257.4	593.5	60.52	490.9	50.09	
	25	276.1	636.6	64.91	527.1	53.79	
	26	302.2	696.8	71.05	577.0	58.88	
	27	322.3	743.2	75.79	616.7	62.93	
	28	344.9	795.2	81.09	659.0	67.24	
	29	371.1	855.8	87.27	711.5	72.61	
	30	395.7	912.5	93.05	757.3	77.28	
	32	449.1	1035.6	105.60	860.5	87.81	
	34	507.9	1171.3	119.43	969.6	98.95	
	35	567.8	1309.4	133.52	1085.0	110.72	
	38	634.0	1461.8	149.06	1210.2	123.49	
1Kg=9.80665 N (Newton)	40	705.5	1626.8	165.89	1348.5	137.60	



PLASTIC INSERTS FOR STEEL WIRE ROPES

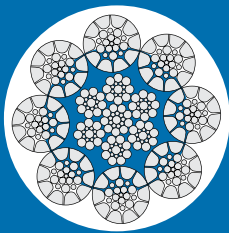


Steel wire rope with a Nylon insulated steel core (I.W.R.C.) has an improved service life. The combination of Nylon and Steel created the following characteristics when a rope is used in a dynamic application:

- Less inside wear between the rope layers.
- Better corrosion resistance.
- Better shocks absorption.



Users report that, the service life of a wire rope with Nylon insulated steel core can grow up to three times than those of a regular steel wire rope.



NC 8X26

8X26 WARRINGTON SEALE, COMPACTED + NYLON INSULATED I.W.R.C.

NC 8x26 is recommended for:

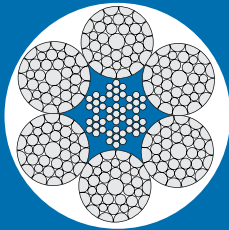
- Containers bridge cranes (shifting and ship to shore).
- Overhead traveling hoists (indoor and out door).
- Mobile cranes.
- Boom cable.
- Mineral loading cranes.

Best performs on single and multiple coiling.

Diameter mm	Weight kg/m	Metalic Cross-Section mm ²	Minimum Breaking Load	
			180 kg/mm ²	200 kg/mm ²
13	0.80	89.6	13,650	15,200
14	0.92	103.9	15,850	17,600
15	1.06	119.3	18,200	20,250
16	1.21	135.7	20,700	23,000
18	1.53	171.8	26,250	29,150
19	1.70	191.4	29,200	32,500
20	1.89	212.1	32,400	36,000
22	2.28	256.6	39,200	43,600
24	2.72	305.4	46,700	51,850
26	3.19	358.4	54,800	60,900
28	3.70	415.6	63,550	70,600
30	4.25	477.1	72,950	81,050
32	4.87	546.9	83,600	92,900
34	5.49	617.5	94,450	104,950
36	6.16	692.2	105,850	117,600
38	6.86	778.6	119,050	132,300
40	7.61	854.5	130,700	145,250
42	8.38	943.8	144,350	160,400
44	9.20	1,034	158,150	175,700

PLASTIC INSERTS FOR STEEL WIRE ROPES

6X36 WARRINGTON SEALE COMPACTED + NYLON INSULATED I.W.R.C.



NC 6X36

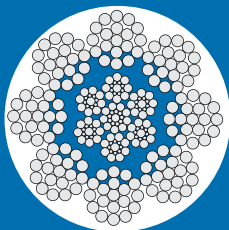
NC 6x36 is recommended for:

- Containers bridge cranes (shifting and ship to shore).
- Overhead traveling hoists (indoor and out door).
- Mobile cranes.
- Boom cable.
- Mineral loading cranes.

Best performs on single and multiple coiling.

Diameter mm	Weight kg/m	Metalic Cross-Section mm ²	Minimum Breaking Load	
			180 kg/mm ²	200 kg/mm ²
13	0.77	86.6	13,050	14,500
14	0.89	100.5	15,150	16,800
15	1.03	115.3	17,400	19,350
16	1.17	131.2	19,800	22,000
18	1.48	166.1	25,050	27,850
19	1.65	185.0	27,950	31,050
20	1.82	205.0	30,950	34,400
22	2.21	248.1	37,500	41,650
24	2.63	295.2	44,600	49,550
26	3.08	346.5	52,350	58,200
28	3.58	401.8	60,700	67,450
30	4.11	461.3	69,700	77,450
32	4.67	524.9	79,300	88,150
34	5.27	592.5	89,550	99,500
36	5.91	664.3	100,400	111,550
38	6.59	740.1	111,850	124,300
40	7.30	820.1	123,950	137,750
42	8.05	904.1	136,650	151,850
44	8.83	992.3	150,000	166,650

8X25 FILLER NYLON INSULATED I.W.R.C.



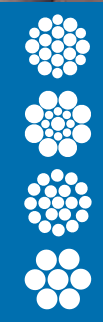
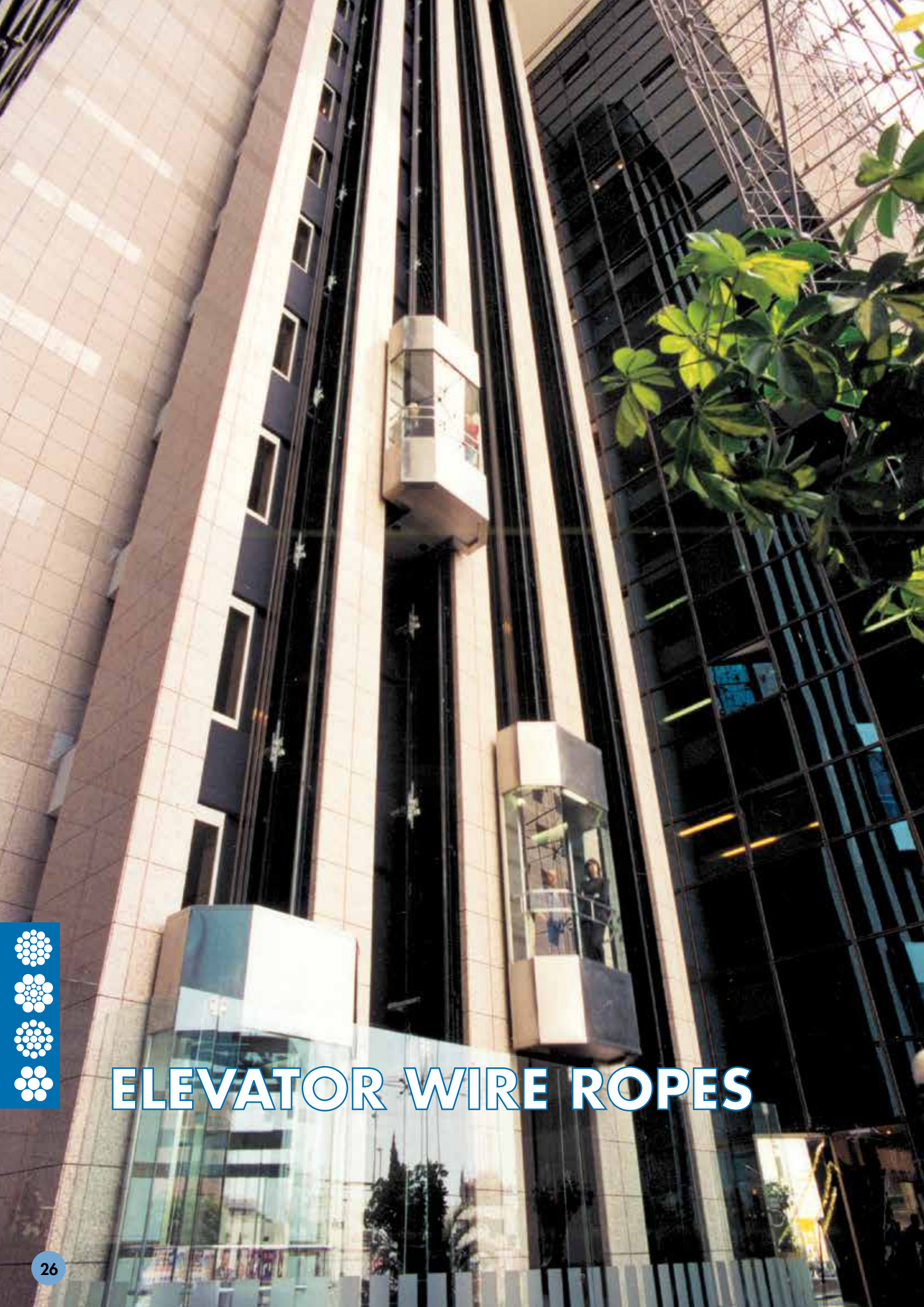
NC 8X25

NC 8x25 is recommended for:

- Containers bridge cranes (shifting and ship to shore).
- Overhead traveling hoists (indoor and out door).
- Mobile cranes.
- Mineral loading cranes.

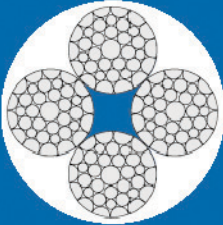
Best performs on single coiling.


Diameter mm	Weight kg/m	Metalic Cross-Section mm ²	Minimum Breaking Load	
			180 kg/mm ²	200 kg/mm ²
13	0.76	82.1	12,450	13,850
14	0.85	92.0	13,950	15,500
15	1.03	111.6	16,900	18,800
16	1.16	125.8	19,050	21,250
18	1.46	158.6	24,100	26,750
19	1.61	174.9	26,550	29,500
20	1.78	193.1	29,350	32,600
22	2.23	241.9	36,750	40,850
24	2.61	283.5	43,050	47,850
26	3.07	333.4	50,650	56,300
28	3.58	389.1	59,100	65,700
30	4.09	444.4	67,550	75,050
32	4.59	499.4	75,900	84,350
34	5.28	573.5	87,200	96,900
36	5.88	638.8	97,100	107,900
38	6.60	717.1	109,000	121,150
40	7.28	791.1	120,300	133,650
42	8.06	876.4	133,250	148,050
44	8.85	961.4	146,200	162,450

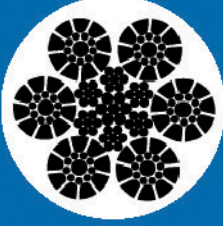


ELEVATOR WIRE ROPES

STEEL WIRE ROPES FOR POWERED SCAFFOLDS AND TRACTION MACHINES

 4 x 36	Nominal Diameter	Weight	Minimum Breaking Load (KN)
	mm	kg/m	2160
	8.2-8.4	0.26	46.5
	9-9.5	0.34	66
	11	0.49	88.7
	16	1.01	179

 5 x 19 seale	Nominal Diameter	Weight	Minimum Breaking Load (KN)
	mm	kg/m	2160
	8.2-8.4	0.28	50.04
	9-9.5	0.36	68.7
	11	0.51	96.3
	16	1.10	189

 6 x 19 seale	Nominal Diameter	Weight	Minimum Breaking Load (KN)
	mm	kg/m	2160
	8.2-8.4	0.28	47
	9-9.5	0.36	67.8
	11	0.53	94.2
	16	1.10	188



STEEL WIRE ROPES FOR ELEVATORS

CONSTRUCTION CROSS SECTION EXAMPLE	CONSTRUCTION OF ROPE		CONSTRUCTION OF STRAND			
	ITEM	QUANTITY	ITEM		QUANTITY	
	Strands	6	Wires		19 to 29	
	outer strands	6	Outer wires		9 to 14	
layers of strands	1	Layers of wires		2		
Wires in rope	114 to 174					
TYPICAL EXAMPLE		No.OF OUTER WIRES		OUTER WIRE FACTOR ¹⁾		
ROPE	STRAND	TOTAL	PER STRAND			
6X19S	1-9-9	54	9		0,080	
6X25F	1-6-6F-12	72	12		0,064	
6X19W	1-6-6+6	72	12	6	0,073 8	
				6	0,055 6	
Min. breaking force factor:		$K_2 = 0,330$				
Nominal length mass factor ¹⁾		$W_2 = 0,359$				
Nominal metallic cross-sectional area factor ¹⁾		$C_2 = 0,384$				
Nominal rope diameter	Apporoximate nominal length mass ¹⁾	Minimum breaking force kN				
mm	kg/100m	Dual tensile		Single tensile		
		Rope Grade 1180/1770	Rope Grade 1370/1770	Rope Grade 1150	Rope Grade 1770	
6	12,9	16,3	17,8	18,7	21,0	
6,5	15,2	19,1	20,9	21,9	24,7	
8 ²⁾	23,0	28,9	31,7	33,2	37,4	
9	29,1	36,6	40,1	42,0	47,3	
10 ²⁾	35,9	45,2	49,5	51,8	58,4	
11 ²⁾	43,4	54,7	59,9	62,7	70,7	
12	51,7	65,1	71,3	74,6	84,1	
13 ²⁾	60,7	76,4	83,7	87,6	98,7	
14	70,4	88,6	97,0	102	114	
15	80,8	102	111	117	131	
16 ²⁾	91,9	116	127	133	150	
18	116	146	160	168	189	
19 ²⁾	130	163	179	187	211	
20	144	181	198	207	234	
22 ²⁾	174	219	240	251	283	

1) Informative only

2) Preferred sizes

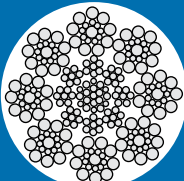
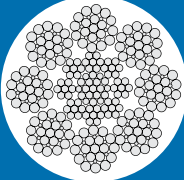
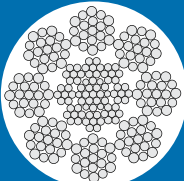
STEEL WIRE ROPES FOR ELEVATORS

CONSTRUCTION CROSS SECTION EXAMPLE	CONSTRUCTION OF ROPE		CONSTRUCTION OF STRAND		
	ITEM	QUANTITY	ITEM	QUANTITY	
	Strands	8	Wires	19 to 29	
outer strands	8	Outer wires	9 to 14		
layers of strands	1	Layers of wires	2		
Wires in rope	152 to 232				
TYPICAL EXAMPLE		No. OF OUTER WIRES	OUTER WIRE FACTOR ¹⁾		
ROPE	STRAND	TOTAL	PER STRAND		
8X19S	1-8-8	72	9	0,065 5	
8X25F	1-6-6F-12	96	12	0,052 5	
8X19W	1-6-6+6	96	12 6	0,060 6	
			6	0,045 0	
Min. breaking force factor: Nominal length mass factor ¹⁾		K ₂ =0,293 W ₂ =0,340			
Nominal metallic cross-sectional area factor ¹⁾		C ₂ =0,349			
Nominal rope diameter	Approximate nominal length mass ¹⁾	Minimum breaking force kN			
		Dual tensile		Single tensile	
mm	kg/100m	Rope Grade 1180/1770	Rope Grade 1370/1770	Rope Grade 1150	
8 ²⁾	21,8	25,7	28,1	29,4	
9	27,5	32,5	35,6	37,3	
10 ²⁾	34,0	40,1	44,0	46,0	
11 ²⁾	41,1	48,6	53,2	55,7	
12	49,0	57,8	63,3	66,2	
13 ²⁾	57,5	67,8	74,3	77,7	
14	66,6	78,7	86,1	90,2	
15	76,5	90,3	98,9	104	
16 ²⁾	87,0	103	113	118	
18	110	130	142	149	
19 ²⁾	123	145	159	166	
20	136	161	176	184	
22 ²⁾	165	194	213	223	

1) Informative only
2) Preferred sizes



STEEL WIRE ROPES FOR ELEVATORS

CONSTRUCTION CROSS SECTION EXAMPLE	CONSTRUCTION OF ROPE		CONSTRUCTION OF STRAND			
	ITEM	QUANTITY	ITEM		QUANTITY	
 <p>8X19S-IWRC</p>	Strands	8	Wires		19 to 29	
	outer strands	8	Outer wires		9 to 14	
 <p>8X25F-IWRC</p>	ayers of strands	1	Layers of wires		2	
	Wires in rope	152 to 232				
 <p>8X19W-IWRC</p>	TYPICAL EXAMPLE		No.OF OUTER WIRES		OUTER WIRE FACTOR ¹⁾	
	ROPE	STRAND	TOTAL	PER STRAND		
	8X19S	1-9-9	72	9	0,065 5	
	8X25F	1-6-6F-12	96	12	0,052 5	
	8X19W	1-6-6+6	96	12 6	0,060 6	
				6	0,045 0	
Min. breaking force factor:			$K_2 = 0,356$			
Nominal length mass factor ¹⁾			$W_2 = 0,407$			
Nominal metallic cross-sectional area factor ¹⁾			$C_2 = 0,457$			
Nominal rope diameter	Apporoximate nominal length mass ¹⁾	Minimum breaking force kN				
		Dual tensile		Single tensile		
mm	kg/100m	Rope Grade 1370/1770	Rope Grade 1570/1770	Rope Grade 1570	Rope Grade 1770	
8 ²⁾	26,0	35,8	38,0	35,8	40,3	
9	33,0	45,3	48,2	45,3	51,0	
10 ²⁾	40,7	55,9	59,5	55,9	63,0	
11 ²⁾	49,2	67,6	71,9	67,6	76,2	
12	58,6	80,5	85,6	80,5	90,7	
13 ²⁾	68,7	94,5	100	94,5	106	
14	79,8	110	117	110	124	
15	91,6	126	134	126	142	
16 ²⁾	104	143	152	143	161	
18	132	181	193	181	204	
19 ²⁾	147	202	215	202	227	
20	163	224	238	224	252	
22 ²⁾	197	271	288	271	305	

1) Informative only
2) Preferred sizes



ALUMINIUM CONDUCTORS

ALUMINIUM CONDUCTORS



ACSR

ALUMINIUM CONDUCTORS STEEL REINFORCED

ASTM: B230, Specification for Aluminum 1350-H19 Wire for Electrical Purposes.
 B232, Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated Steel Reinforced (ACSR)
 B498, Specification for Zinc-Coated (Galvanized) Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR)

Physical Properties											
CODE	SIZE AWG OR KCMIL	STRANDING # & DIA OF STREDS IN.		DIAMETER (IN.)		rated Strenght Lbs.	WEIGHT			PERCENT OF TOTAL WEIGHT	
		Aluminum	Steel	Complete Conductor	Steel Core		LBS./1000FT.			Aluminum	Steel
							Total	Aluminum	Steel		
TURKEY	6	6 X 0.0661	1 X 0.0661	0.198	0.066	1190	36.0	24.4	11.6	67.9	32.1
SWAN	4	6 X 0.0834	1 X 0.0834	0.250	0.083	1860	57.4	39.0	18.4	67.9	32.1
SWANATE	4	7 X 0.0772	1 X 0.1029	0.257	0.102	2360	67.0	39.0	28.0	58.1	41.9
SPARROW	2	6 X 0.1052	1 X 0.1052	0.316	0.105	2850	91.2	61.9	29.3	67.9	32.1
SPARATE	2	7 X 0.0974	1 X 0.1299	0.325	0.129	3640	107.0	62.3	44.7	58.1	41.9
ROBIN	1	6 X 0.1181	1 X 0.1181	0.355	0.118	3550	115.0	78.1	36.9	67.9	32.1
RAVEN	1/0	6 X 0.1327	1 X 0.1327	0.398	0.132	4380	145.0	98.4	46.6	67.9	32.1
QUAIL	2/0	6 X 0.1489	1 X 0.1489	0.447	0.149	5300	183.0	124.2	58.8	67.9	32.1
PIGEON	3/0	6 X 0.1672	1 X 0.1672	0.502	0.167	6620	230.0	155.9	74.1	67.9	32.1
PENGUIN	4/0	6 X 0.1878	1 X 0.1878	0.563	0.187	8350	291.0	197.6	93.4	67.9	32.1
WAXWING	266.8	18 X 0.1217	1 X 0.1217	0.609	0.121	6880	289.0	249.8	39.2	86.45	13.55
PARTRIDGE	266.8	26 X 0.1013	7 X 0.0788	0.642	0.236	11300	366.0	250.4	115.6	68.6	31.4
MERLIN	336.4	18 X 0.1367	1 X 0.1367	0.684	0.136	8700	365.0	315.5	49.5	86.45	13.55
LINNET	336.4	26 X 0.1137	7 X 0.0884	0.721	0.265	14100	462.0	316.5	145.5	68.6	31.4
ORIOLE	336.4	30 X 0.1059	7 X 0.1059	0.741	0.317	17300	526.0	317.0	309.0	60.35	39.65
CHICKADEE	397.5	18 X 0.1486	1 X 0.1486	0.743	0.148	9900	431.0	372.5	58.5	86.45	13.55
IBIS	397.5	26 X 0.1236	7 X 0.0961	0.783	0.288	16300	546.0	374.1	171.9	68.6	31.4
LARK	397.5	30 X 0.1151	7 X 0.1151	0.806	0.345	20300	622.0	375.1	246.9	60.35	39.65
PELICAN	477	18 X 0.1628	1 X 0.1628	0.814	0.162	11800	517.0	446.8	70.2	86.45	13.55
FLIKER	477	24 X 0.1410	7 X 0.0940	0.846	0.282	17200	614.0	449.5	164.5	73.25	26.75
HAWK	477	26 X 0.1354	7 X 0.1053	0.858	0.316	19500	655.0	448.6	206.4	68.6	31.4
HEN	477	30 X 0.1261	7 X 0.1261	0.883	0.378	23800	746.0	449.0	296.3	60.35	39.65
OSPREY	556.5	18 X 0.1758	1 X 0.1758	0.879	0.175	13700	603.0	521.1	81.9	86.45	13.55
PARAKEET	556.5	24 X 0.1523	7 X 0.1015	0.914	0.304	19800	716.0	524.2	191.8	73.25	26.75
DOVE	556.5	26 X 0.1463	7 X 0.1138	0.927	0.341	22600	765.0	523.9	241.1	68.6	31.4
EAGLE	556.5	30 X 0.1362	7 X 0.1362	0.953	0.409	27800	871.0	523.3	345.7	60.35	39.65
PEACOCK	605	24 X 0.1588	7 X 0.1059	0.953	0.318	21600	779.0	570.2	208.8	73.25	26.75
SWIFT	636	36 X 0.1329	1 X 0.1329	0.930	0.133	13800	643.0	596.0	47.0	92.7	7.3
KINGBIRD	636	18 X 0.1880	1 X 0.1880	0.940	0.188	15700	690.0	596.4	93.6	86.45	13.55
ROOK	636	24 X 0.1628	7 X 0.1085	0.977	0.326	22600	818.0	598.0	219.2	73.25	26.75
GROSBEAK	636	26 X 0.1564	7 X 0.1216	0.990	0.365	25200	874.0	598.7	275.3	68.6	31.4
EGRET	639	30 X 0.1456	19 X 0.0874	1.019	0.437	31500	987.0	600.2	386.8	60.9	39.1
FLAMINGO	666.6	24 X 0.1667	7 X 0.1111	1.000	0.333	23700	858.0	628.2	229.8	73.25	26.75
STARLING	715.5	26 X 0.1659	7 X 0.1290	1.051	0.387	28400	984.0	674.2	309.8	68.6	31.4
REDWING	715.5	30 X 0.1544	19 X 0.0926	1.081	0.463	34600	1109	675	434	60.9	39.1
COOT	795	36 X 0.1486	1 X 1486	1.040	0.148	16800	804	745	59	92.7	7.3
TERN	795	45 X 0.1329	7 X 0.0886	1.063	0.266	22100	895	748.9	146.1	83.7	16.3
CUCKOO	795	24 X 0.1820	7 X 0.1213	1.092	0.364	27900	1024	750	274	73.2	26.8
CONDOR	795	54 X 0.1213	7 X 0.1213	1.093	0.364	28200	1022	748	274	73.25	26.75
DRAKE	795	26 X 0.1749	7 X 0.1360	1.108	0.408	31500	1093	749	344	68.6	31.4

ALUMINIUM CONDUCTORS

ACSR

ALUMINIUM CONDUCTORS STEEL REINFORCED

ASTM: B230, Specification for Aluminum 1350-H19 Wire for Electrical Purposes.
 B232, Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated Steel Reinforced (ACSR)
 B498, Specification for Zinc-Coated (Galvanized) Steel Core Wire for Aluminum Conductors,
 Steel Reinforced (ACSR)

Physical Properties											
CODE	SIZE AWG OR KCMIL	STRANDING # & DIA OF STRENS IN.		DIAMETER (IN.)		rated Strength Lbs.	WEIGHT			PERCENT OF TOTAL WEIGHT	
				Complete Conductor	Steel Core		LBS./1000FT.				
		Aluminum	Steel				Total	Aluminum	Steel	Aluminum	Steel
MALLARD	795	30 X 0.1628	19 X 0.0977	1.140	0.489	38400	1234	751	483	60.9	39.1
RUDDY	900	45 X 0.1414	7 X 0.0943	1.131	0.283	24400	1013	847	166	83.7	16.3
CANARY	900	54 X 0.1291	7 X 0.1291	1.162	0.387	31900	1158	848	310	73.25	26.75
CORNCRAKE	954	20 X 0.2184	7 X 0.0971	1.165	0.291	25600	1074	899	175	83.7	16.3
REBIRD	954	24 X 0.1994	7 X 0.1329	1.196	0.399	33500	1228	899	329	73.2	26.8
TOWHEE	954	48 X 0.1410	7 X 0.1097	1.175	0.329	28500	1123	899	224	80.1	19.9
RAIL	954	45 X 0.1456	7 X 0.0971	1.165	0.291	25900	1075	899	176	83.7	16.3
CARDINAL	954	54 X 0.1329	7 X 0.1329	1.196	0.399	33800	1228	899	329	13.25	26.75
ORTOLAN	1033.5	45 X 0.1515	7 X 0.1010	1.213	0.303	27700	1163	973	190	83.7	16.3
CURLEW	1033.5	54 X 0.1383	7 X 0.1383	1.246	0.415	36600	1329	973	356	73.25	26.75
BLUEJAY	1113.0	45 X 0.1573	7 X 0.1049	1.259	0.315	29800	1245	1049	205	83.8	16.2
FINCH	1113.0	54 X 0.1436	19 X 0.0862	1.293	0.431	39100	1430	1054	376	73.7	26.3
BUNTING	1192.5	45 X 0.1628	7 X 0.1085	1.302	0.326	32000	1342	1123	219	83.8	16.2
GRACKLE	1192.5	54 X 0.1486	19 X 0.0892	1.338	0.446	41900	1531	1128	403	73.7	26.3
SKYLARK	1272.0	36 X 0.1880	1 X 0.1880	1.317	0.188	26400	1286	1192	94	92.7	7.3
BITTERN	1272.0	45 X 0.1681	7 X 0.1121	1.345	0.336	34100	1432	1198	234	83.8	16.2
PHEASANT	1272.0	54 X 0.1535	19 X 0.0921	1.382	0.461	43600	1634	1205	429	73.7	26.3
DIPPER	1351.5	45 X 0.1733	7 X 0.1155	1.386	0.347	36200	1521	1273	248	83.8	16.2
MARTIN	1351.5	54 X 0.1582	19 X 0.0949	1.424	0.475	46300	1735	1279	456	73.7	26.3
BOBOLNK	1431.0	45 X 0.1783	7 X 0.1189	1.427	0.357	38300	1611	1348	263	83.8	16.2
PLOVER	1431.0	54 X 0.1628	19 X 0.0977	1.465	0.489	49100	1838	1355	483	73.7	26.3
LAPWING	1590.0	45 X 0.1880	7 X 0.1253	1.504	0.376	42200	1790	1498	292	83.8	16.2
FALCON	1590.0	45 X 0.1716	19 X 0.1030	1.545	0.515	54500	2042	1505	537	73.7	26.3
CHUKAR	1780.0	84 X 0.1456	19 X 0.0874	1.602	0.437	51000	2072	1685	387	81.3	18.7
MOCKINGBIRD	2034.5	72 X 0.1681	7 X 0.1122	1.681	0.336	46800	2163	1929	234	89.2	10.8
BLUEBIRD	2156.0	84 X 0.1602	19 X 0.0961	1.762	0.481	60300	2508	2040	468	81.4	18.6
KIWI	2167.0	72 X 0.1735	7 X 0.1157	1.735	0.347	49800	2300	2051	249	89.2	10.8
THRASHER	2312.0	76 X 0.1744	19 X 0.0814	1.802	0.407	56700	2523	2188	335	86.7	13.3
JOREA	2515.0	76 X 0.1819	19 X 0.0850	1.880	0.425	61700	2749	2384	365	86.7	13.3
High Strength ACSR											
GROUSE	80.0	8 X 0.1000	1 X 0.1670	0.367	0.1670	5200	149.0	75.1	73.9	50.4	49.6
PETREL	101.8	12 X 0.0921	7 X 0.0921	0.491	0.2763	10400	254.0	95.9	158.1	37.8	62.2
MINORCA	110.8	12 X 0.0961	7 X 0.0961	0.481	0.2883	11300	276.0	103.9	172.1	37.8	62.2
LEGHORN	134.6	12 X 0.1059	7 X 0.1059	0.530	0.3177	13600	336.0	127.0	209.0	37.8	62.2
GUINEA	159.0	12 X 0.1151	7 X 0.1151	0.576	0.3453	16000	396.0	149.1	246.9	37.8	62.2
DOTTEREL	176.9	12 X 0.1214	7 X 0.1214	0.607	0.3642	17300	441.0	166.4	274.6	37.8	62.2
DORKING	190.8	12 X 0.1261	7 X 0.1261	0.631	0.3783	18700	476.0	179.0	296.3	37.8	62.2
COCHIN	211.3	12 X 0.1327	7 X 0.1327	0.663	0.3981	20700	527.0	198.8	328.2	37.8	62.2
BRAHMA	203.2	16 X 0.1127	19 X 0.0977	0.714	0.4885	28400	675.0	189.9	485.1	28.3	71.7

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ALUMINIUM CONDUCTORS STEEL REINFORCED

Electrical Properties

CODE	SIZE & STRANDING		RESISTANCE				60 HZ RESISTANCE 1 FT. EQUIVALENT SPACING			
	AWG OR KCMIL	ALUM/ STEEL	DC OHMS/1000 FT. @20° C	AC 60 HZ (OHMS/1000 FT.)			Capacitve (MEGOHM- 1000 FT)	INDUCTIVE (OHMS/1000 FT.)		
				@25° C	@50° C	@75° C		@25° C	@50° C	@75° C
TURKEY	6	6/1	0.6419	0.6553	0.7500	0.8159	0.7513	0.1201	0.1390	0.1439
SWAN	4	6/1	0.4032	0.4119	0.4794	0.5218	0.7149	0.1152	0.1314	0.1369
SWANNATE	4	7/1	0.3989	0.4072	0.4633	0.5165	0.7102	0.1133	0.1239	0.1303
SPARROW	2	6/1	0.2534	0.2591	0.3080	0.3360	0.6785	0.1100	0.1235	0.1277
SPARATE	2	7/1	0.2506	0.2563	0.2966	0.3297	0.6737	0.1081	0.1176	0.1206
ROBIN	1	6/1	0.2011	0.2059	0.2474	0.2703	0.6600	0.1068	0.1191	0.1224
RAVEN	1/0	6/1	0.1593	0.16333	0.1972	0.2161	0.6421	0.1040	0.1138	0.1163
QUAIL	2/0	6/1	0.1265	0.1301	0.1616	0.1760	0.6241	0.1017	0.1117	0.1135
PIGEON	3/0	6/1	0.1003	0.1034	0.1208	0.1445	0.6056	0.0992	0.1083	0.1095
PENGUIN	4/0	6/1	0.0195	0.0822	0.1066	0.1157	0.5966	0.0964	0.1047	0.1053

								INDUCTIVE (OHMS/1000 FT.)	GMR (FT.)
WAXWING	266.8	18/1	0.0644	0.0657	0.0723	0.0788	0.576	0.0934	0.0197
PARTRIDGE	266.8	26/7	0.0637	0.0652	0.0714	0.0778	0.565	0.0881	0.0217
MERLIN	336.4	18/1	0.0510	0.0523	0.0574	0.0625	0.560	0.0877	0.0221
LINNET	336.4	26/7	0.0506	0.0517	0.0568	0.0619	0.549	0.0854	0.0244
ORIOLE	336.4	30/7	0.0502	0.0513	0.0563	0.0614	0.544	0.0843	0.0255
CHICKADEE	397.5	18/1	0.0432	0.0443	0.0487	0.0528	0.544	0.0856	0.0240
IBIS	397.5	26/7	0.0428	0.0438	0.0481	0.0525	0.0539	0.0835	0.0265
LARK	397.5	30/7	0.0425	0.0434	0.0477	0.0519	0.533	0.0824	0.0277
PELICAN	477.0	18/1	0.0360	0.0369	0.0405	0.0441	0.528	0.0835	0.0263
FLICKER	477.0	24/7	0.0358	0.0367	0.0403	0.0439	0.524	0.0818	0.0283
HAWK	477.0	26/7	0.0357	0.0366	0.0402	0.0438	0.522	0.0814	0.0290
HEN	477.0	30/7	0.0354	0.0362	0.0389	0.0434	0.517	0.0803	0.0340
OSPREY	556.5	18/1	0.0309	0.0318	0.0348	0.0379	0.518	0.0818	0.0284
PARAKEET	556.5	24/7	0.0307	0.0314	0.0347	0.0377	0.512	0.0801	0.0306
DOVE	556.5	26/7	0.0305	0.0314	0.0345	0.0375	0.510	0.0795	0.0313
EAGLE	556.5	30/7	0.0300	0.0311	0.0341	0.0371	0.505	0.0786	0.0328
PEACOCK	605.0	24/7	0.0282	0.0290	0.0378	0.0347	0.505	0.0792	0.0319
SWIFT	636.0	36/1	0.0267	0.0281	0.0307	0.0334	0.509	0.0806	0.0300
KINGBIRD	636.0	18/1	0.0269	0.0278	0.0306	0.0332	0.507	0.0805	0.0301
ROOK	636.0	24/7	0.0268	0.0277	0.0300	0.0330	0.502	0.0786	0.0327
GROSBEAK	636.0	26/7	0.0267	0.0275	0.0301	0.0328	0.500	0.0780	0.0335
EGRET	636.0	30/19	0.0266	0.0273	0.0299	0.0326	0.495	0.0769	0.0351
FLAMINGO	666.0	24/7	0.0256	0.0263	0.0290	0.0314	0.498	0.0780	0.0335
STARLING	715.5	26/7	0.0238	0.0244	0.0269	0.0292	0.490	0.0767	0.0355
REDWING	715.5	30/19	0.0236	0.0242	0.0267	0.0290	0.486	0.0756	0.0372
COOT	795.0	36/1	0.0217	0.0225	0.0247	0.0268	0.492	0.0780	0.0335
TERN	795.0	45/7	0.0216	0.0225	0.0246	0.0267	0.488	0.0764	0.0352
CUCKOO	795.0	24/7	0.0215	0.0223	0.0243	0.0266	0.484	0.0763	0.0361
CONDOR	795.0	54/7	0.0215	0.0222	0.0244	0.0265	0.484	0.0759	0.0368
DRAKE	7975.0	26/7	0.0214	0.0222	0.0242	0.0263	0.482	0.0756	0.0375

ALUMINIUM CONDUCTORS

ACSR

ALUMINIUM CONDUCTORS STEEL REINFORCED

Electrical Properties										
Code	Size & Stranding		RESISTANCE				60 HZ RESISTANCE 1 FT. EQUIVALENT SPACING			
	AWG or KCMIL	Alum/ Steel	DC Ohms/1000 ft. @20° C	AC 60 HZ (OHMS/1000 FT.)			Capacitive (Megohm- 1000 FT)	Inductive Ohms/ 1000 FT.	GMR (FT.)	
				@25° C	@50° C	@75° C				
MALLARD	795.0	30/19	0.0213	0.0220	0.0241	0.0261	0.477	0.0744	0.0392	
RUDDY	900.0	45/7	0.0191	0.0200	0.0218	0.0237	0.479	0.0755	0.0374	
CANARY	900.0	54/7	0.0190	0.0197	0.0216	0.0235	0.474	0.0744	0.0392	
CORNCRAKE	954.0	20/7	0.0180	0.0188	0.0206	0.0224	0.474	0.0751	0.0378	
REDBIRD	954.0	24/7	0.0179	0.0186	0.0204	0.0221	0.470	0.074	0.0396	
TOWHEE	954.0	48/7	0.0180	0.0188	0.0205	0.0223	0.473	0.0745	0.0391	
RAIL	954.0	45/7	0.0180	0.0188	0.0206	0.0223	0.474	0.0748	0.0385	
CARDINAL	954.0	54/7	0.0179	0.0186	0.0205	0.0222	0.470	0.0757	0.0404	
ORTOLAN	1033.5	45/7	0.01667	0.0175	0.0191	0.0208	0.468	0.0739	0.0401	
CURLEW	1033.5	54/7	0.0165	0.0172	0.0189	0.0295	0.464	0.0729	0.0420	
BLUEJAY	1113.0	45/7	0.0155	0.0163	0.0178	0.0193	0.462	0.0731	0.0416	
FINCH	1113.0	54/19	0.0154	0.0161	0.0176	0.0191	0.458	0.0702	0.0436	
BUNTING	1192.5	54/7	0.0144	0.0152	0.0167	0.0181	0.456	0.0723	0.0431	
GRACKLE	1192.5	54/19	0.0144	0.0151	0.0165	0.0179	0.452	0.0710	0.0451	
SKYLARK	1272.0	36/1	0.0135	0.0145	0.0159	0.0173	0.4555	0.072	0.0427	
BITTERN	1272.0	45/7	0.0135	0.0144	0.0157	0.0170	0.451	0.072	0.0445	
PHEASANT	1272.0	54/19	0.0135	0.0142	0.0155	0.0169	0.447	0.070	0.0466	
DIPPER	1351.5	45/7	0.0127	0.0136	0.0148	0.0161	0.447	0.071	0.0459	
MARTIN	1351.5	54/19	0.0127	0.0134	0.0147	0.0159	0.442	0.070	0.0480	
BOBOLINK	1431.0	45/7	0.0120	0.0129	0.0141	0.0152	0.442	0.070	0.0472	
PLOVER	1431.0	54/19	0.0120	0.0127	0.0134	0.0151	0.438	0.069	0.0495	
LAPWING	1590.0	45/7	0.0108	0.0117	0.0127	0.0138	0.434	0.069	0.0498	
FALCON	1590.0	54/19	0.0108	0.0116	0.0126	0.0137	0.430	0.068	0.0521	
CHUKAR	1780.0	84/19	0.0097	0.0106	0.0115	0.0125	0.424	0.067	0.0534	
MOCKINGBIRD	2034.5	72/7	0.0085	0.0096	0.0104	0.0112	0.416	0.066	0.0553	
BLUEBIRD	2156.0	84/19	0.0080	0.0090	0.0098	0.0105	0.409	0.065	0.0588	
KIWI	2167.0	72/7	0.0080	0.0092	0.0099	0.0106	0.411	0.068	0.0570	
THRASHER	2312.0	76/19	0.0075	0.0086	0.0092	0.0100	0.405	0.065	0.0600	
JOREA	2515.0	76/19	0.0069	0.0081	0.0087	0.0093	0.399	0.064	0.0621	
High Srength ACSR							60 HZ RESISTANCE 1 FT. EQUIVALENT SPACING			
							Capacitive (Megohm- 100 Ft.)	INDUCTIVE (OHMS/1000 FT.)		
	@25° C	@50° C	@75° C							
GROUSE	80.0	8/1	0.2065	0.2110	0.2362	0.2612	0.6547	0.1047	0.1129	0.1150
PETREL	101.8	12/7	0.1583	0.1625	0.2072	0.2394	0.6193	0.1019	0.1161	0.1282
MINORCA	110.8	12/7	0.1454	0.1491	0.1932	0.2233	0.6125	0.1017	0.1176	0.1269
LEGHORN	134.6	12/7	0.1198	0.1233	0.1638	0.1894	0.5972	0.0998	0.1148	0.1227
GUINEA	159.0	12/7	0.1014	0.1045	0.1426	0.1653	0.5845	0.0979	0.1117	0.1189
DOTTEREL	176.9	12/7	0.0911	0.0945	0.1301	0.1513	0.5760	0.0970	0.1102	0.1169
DORKING	190.8	12/7	0.0845	0.0875	0.1229	0.1424	0.5697	0.0956	0.1093	0.1150
COCHING	211.3	12/7	0.0763	0.0792	0.1125	0.1311	0.5618	0.0945	0.1074	0.1129
BRAHMA	203.2	16/19	0.0764	0.0790	0.1089	0.1348	0.5507	0.0934	0.1074	0.1121

ALUMINIUM CONDUCTORS STEEL REINFORCED - TYPE AL1/ST1A - EN 50182

Code	Old Code	Areas			No. of wires		Wires diameter		Diameter		Mass per unit length kg/km	Rated strength kN	Dc resistance Om/km	Final modulus of elasticity N/mm ²	Coefficient of linear expansion 1/K	Current carrying capacity A
		Al	Steel	Total	Al	Steel	Al	Steel	Core	Cond						
		mm ²	mm ²	mm ²												
15-AL1/3-ST1A	16/2.5	15.3	2.54	17.8	6	1	1.80	1.80	1.80	5.40	61.6	5.8	1,876.9	81 000	1,92E-05	105
24-AL1/4-ST1A	25\4	23.9	3.98	27.8	6	1	2.25	2.25	2.25	6.75	96.3	8.95	1,201.2	81 000	1,92E-05	140
34-AL1/6-ST1A	35/6	34.4	5.73	40.1	6	1	2.70	2.70	2.70	8.10	138.7	12.37	0,834.2	81 000	1,92E-05	170
44-AL1/32-ST1A	44/32	44.0	31.7	75.6	14	7	2.00	2.40	7.20	11.2	369.3	44.24	0,657.4	110 000	1,50E-05	
48-AL1/8-ST1A	50/8	48.3	8.04	56.3	6	1	3.20	3.20	3.20	9.60	194.8	16.81	0,593.9	81 000	1,92E-05	210
51-AL1/30-ST1A	50/30	51.2	29.8	81.0	12	7	2.33	2.33	6.99	11.7	374.7	42.98	0,564.4	107 000	1,53E-05	
70-AL1/11-ST1A	70/12	69.9	11.4	81.3	26	7	1.85	1.44	4.32	11.7	282.2	26.27	0,413.2	77 000	1,89E-05	290
94-AL1/15-ST1A	95/15	94.4	15.3	109.7	26	7	2.15	1.67	5.01	13.6	380.6	34.93	0,306.0	77 000	1,89E-05	350
97-AL1/56-ST1A	95/55	96.5	56.3	152.8	12	7	3.20	3.20	9.60	16.0	706.8	77.85	0,299.2	107 000	1,53E-05	
106-AL1/76-ST1A	105/75	105.7	75.5	181.2	14	19	3.10	2.25	11.30	17.5	885.3	105.82	0,274.2	110 000	1,50E-05	
122-AL1/20-ST1A	120/20	121.6	19.8	141.4	26	7	2.44	1.90	5.70	15.5	491.0	44.5	0,237.6	77 000	1,89E-05	410
122-AL1/71-ST1A	120/70	122.1	71.3	193.4	12	7	3.60	3.60	10.80	18.0	894.5	97.92	0,236.4	107 000	1,53E-05	
128-AL1/30-ST1A	125/30	127.9	29.8	157.8	30	7	2.33	2.33	6.99	16.3	587.0	56.41	0,226.0	82 000	1,78E-05	425
149-AL1/24-ST1A	150/25	148.9	24.2	173.1	26	7	2.70	2.10	6.30	17.1	600.8	53.67	0,194.0	77 000	1,89E-05	470
172-AL1/40-ST1A	170/40	171.8	40.1	211.8	30	7	2.70	2.70	8.10	18.9	788.2	74.89	0,168.3	82 000	1,78E-05	520
184-AL1/30-ST1A	185/30	183.8	29.8	213.6	26	7	3.00	2.33	6.99	19.0	741.0	65.27	0,157.1	77 000	1,89E-05	535
209-AL1/34-ST1A	210/35	209.1	34.1	243.2	26	7	3.20	2.49	7.47	20.3	844.1	73.36	0,138.1	77 000	1,89E-05	590
212-AL1/49-ST1A	210/50	212.1	49.5	261.5	30	7	3.00	3.00	9.00	21.0	973.1	92.46	0,136.3	82 000	1,78E-05	610
231-AL1/30-ST1A	230/30	230.9	29.8	260.8	24	7	3.50	2.33	6.99	21.0	870.9	72.13	0,125.0	74 000	1,96E-06	630
243-AL1/39-ST1A	240/40	243.1	39.5	282.5	26	7	3.45	2.68	8.04	21.8	980.1	85.12	0,118.8	77 000	1,89E-05	645
264-AL1/34-ST1A	265/35	263.7	34.1	297.7	24	7	3.74	2.49	7.47	22.4	994.4	81.04	0,109.5	74 000	1,96E-05	680
304-AL1/49-ST1A	300/50	304.3	49.5	353.7	26	7	3.86	3.00	9.00	24.4	1227.3	105.09	0,094.9	77 000	1,89E-05	740
305-AL1/39-ST1A	305/40	304.6	39.5	344.1	54	7	2.68	2.68	8.04	24.1	1151.2	96.8	0,094.9	70 000	1,93E-05	740
339-AL1/30-ST1A	340/30	339.3	29.8	369.1	48	7	3.00	2.33	6.99	25.0	1171.2	91.71	0,085.2	62 000	2,05E-05	790
382-AL1/49-ST1A	380/50	381.7	49.5	431.2	54	7	3.00	3.00	9.00	27.0	1442.5	121.3	0,075.8	70 000	1,93E-05	840
386-AL1/34-ST1A	385/35	386.0	34.1	420.1	48	7	3.20	2.49	7.47	26.7	1333.6	102.56	0,074.9	62 000	2,05E-05	850
434-AL1/56-ST1A	435/55	434.3	56.3	490.6	54	7	3.20	3.20	9.60	28.8	1641.3	133.59	0,066.6	70 000	1,93E-05	900
449-AL1/39-ST1A	450/40	448.7	39.5	488.2	48	7	3.45	2.68	8.04	28.7	1549.1	119.05	0,064.4	62 000	2,05E-05	920
490-AL1/64-ST1A	490/65	490.3	63.6	553.8	54	7	3.40	3.40	10.20	30.6	1852.9	150.81	0,059.0	70 000	1,93E-05	960
494-AL1/34-ST1A	495/35	494.4	34.1	528.4	45	7	3.74	2.49	7.47	29.9	1632.6	117.96	0,058.4	61 000	2,09E-05	985
511-AL1/45-ST1A	510/45	510.5	45.3	555.8	48	7	3.68	2.87	8.61	30.7	1765.3	133.31	0,056.6	62 000	2,05E-05	995
550-AL1/71-ST1A	550/70	549.7	71.3	620.9	54	7	3.60	3.60	10.80	32.4	2077.2	166.32	0,052.6	70 000	1,93E-05	1 020
562-AL1/49-ST1A	560/50	561.7	49.5	611.2	48	7	3.86	3.00	9.00	32.2	1939.5	146.28	0,051.5	62 000	2,05E-05	1 040
571-AL1/39-ST1A	570/40	571.2	39.5	610.6	45	7	4.02	2.68	8.04	32.2	1887.1	136.4	0,050.6	61 000	2,09E-05	1 050
653-AL1/45-ST1A	650/45	653.5	45.3	698.8	45	7	4.30	2.87	8.61	34.4	2159.9	156.18	0,044.2	61 000	2,09E-05	1 120
679-AL1/86-ST1A	680/85	678.6	86.0	764.5	54	19	4.00	2.40	12.00	36.0	2549.7	206.56	0,042.6	68 000	1,94E-05	1 150
1046-AL1/45-ST1A	1045/45	1045.6	45.3	1 090.9	72	7	4.3	2.87	8.61	43.0	3248.2	218.92	0,027.7	60 000	2,17E-05	1 580



ALUMINIUM ALLOY CONDUCTORS STEEL REINFORCED - TYPE AL3/ST1A - EN 50182

Code	Old Code	Areas			No. of wires		Wires diameter		Diameter		Mass per unit length kg/km	Rated strength kN	Dc resistance Om/km	Final modulus of elasticity N/mm ²	Coefficient of linear expansion 1/K	Current carrying capacity A
		Al	Steel	Total	Al	Steel	Al	Steel	Core	Cond						
		mm ²	mm ²	mm ²												
15-AL3/3-ST1A	16/2.5	15.3	2.54	17.8	6	1	1.80	1.80	1.80	5.40	61.6	7.48	2,160 2	81 000	1,92E-05	100
24-AL3/4-ST1A	25/4	23.9	3.98	27.8	6	1	2.25	2.25	2.25	6.75	96.2	11.69	1,382 5	81 000	1,92E-05	135
34-AL3/6-ST1A	35/6	34.4	5.73	40.1	6	1	2.70	2.70	2.70	8.10	138.6	16.66	0,960 1	81 000	1,92E-05	165
44-AL3/32-ST1A	44/32	44.0	31.7	75.6	14	7	2.00	2.40	7.20	11.2	369.1	49.08	0,756 6	110 000	1,50E-05	
48-AL3/8-ST1A	50/8	48.3	8.04	56.3	6	1	3.20	3.20	3.20	9.60	194.7	23.08	0,683 5	81 000	1,92E-05	200
51-AL3/30-ST1A	50/30	51.2	29.8	81.0	12	7	2.33	2.33	6.99	11.7	374.6	49.12	0,649 6	107 000	1,53E-05	
70-AL3/11-ST1A	70/12	69.9	11.4	81.3	26	7	1.85	1.44	4.32	11.7	282.0	33.96	0,475 6	77 000	1,89E-05	270
94-AL3/15-ST1A	95/15	94.4	15.3	109.7	26	7	2.15	1.67	5.01	13.6	380.3	45.79	0,352 1	77 000	1,89E-05	330
97-AL3/56-ST1A	95/55	96.5	56.3	152.8	12	7	3.20	3.20	9.60	16.0	706.5	90.40	0,344 4	107 000	1,53E-05	
106-AL3/76-ST1A	105/75	105.7	75.5	181.2	14	19	3.10	2.25	11.30	17.5	885.0	119.56	0,315 5	110 000	1,50E-05	
122-AL3/20-ST1A	120/20	121.6	19.8	141.4	26	7	2.44	1.90	5.70	15.5	490.6	59.09	0,273 4	77 000	1,89E-05	385
122-AL3/71-ST1A	120/70	122.1	71.3	193.4	12	7	3.60	3.60	10.80	18.0	894.2	114.41	0,272 1	107 000	1,53E-05	
128-AL3/30-ST1A	125/30	127.9	29.8	157.8	30	7	2.33	2.33	6.99	16.3	586.6	71.76	0,260 1	82 000	1,78E-05	400
149-AL3/24-ST1A	150/25	148.9	24.2	173.1	26	7	2.70	2.10	6.30	17.1	600.3	72.28	0,223 3	77 000	1,89E-05	445
172-AL3/40-ST1A	170/40	171.8	40.1	211.8	30	7	2.70	2.70	8.10	18.9	787.7	96.36	0,193 7	82 000	1,78E-05	490
184-AL3/30-ST1A	185/30	183.8	29.8	213.6	26	7	3.00	2.33	6.99	19.0	740.4	88.24	0,180 9	77 000	1,89E-05	505
209-AL3/34-ST1A	210/35	209.1	34.1	243.2	26	7	3.20	2.49	7.47	20.3	843.5	100.54	0,159 0	77 000	1,89E-05	555
212-AL3/49-ST1A	210/50	212.1	49.5	261.5	30	7	3.00	3.00	9.00	21.0	972.5	118.96	0,156 9	82 000	1,78E-05	575
231-AL3/30-ST1A	230/30	230.9	29.8	260.8	24	7	3.50	2.33	6.99	21.0	870.1	102.14	0,143 9	74 000	1,96E-05	595
243-AL3/39-ST1A	240/40	243.1	39.5	282.5	26	7	3.45	2.68	8.04	21.8	979.4	116.72	0,136 8	77 000	1,89E-05	605
264-AL3/34-ST1A	265/35	263.7	34.1	297.7	24	7	3.74	2.49	7.47	22.4	993.6	116.64	0,126 0	74 000	1,96E-05	640
304-AL3/49-ST1A	300/50	304.3	49.5	353.7	26	7	3.86	3.00	9.00	24.4	1 226.4	146.16	0,109 2	77 000	1,89E-05	700
305-AL3/39-ST1A	305/40	304.6	39.5	344.1	54	7	2.68	2.68	8.04	24.1	1 150.3	134.88	0,109 3	70 000	1,93E-05	700
339-AL3/30-ST1A	340/30	339.3	29.8	369.1	48	7	3.00	2.33	6.99	25.0	1 170.2	134.12	0,098 0	62 000	2,05E-05	740
382-AL3/49-ST1A	380/50	381.7	49.5	431.2	54	7	3.00	3.00	9.00	27.0	1 441.4	169.01	0,087 2	70 000	1,93E-05	790
386-AL3/34-ST1A	385/35	386.0	34.1	420.1	48	7	3.20	2.49	7.47	26.7	1 332.4	152.74	0,086 2	62 000	2,05E-05	800
434-AL3/56-ST1A	435/55	434.3	56.3	490.6	54	7	3.20	3.20	9.60	28.8	1 640.0	190.04	0,076 6	70 000	1,93E-05	845
449-AL3/39-ST1A	450/40	448.7	39.5	488.2	48	7	3.45	2.68	8.04	28.7	1 547.7	177.39	0,074 1	62 000	2,05E-05	865
490-AL3/64-ST1A	490/65	490.3	63.6	553.8	54	7	3.40	3.40	10.20	30.6	1 851.4	214.54	0,067 9	70 000	1,93E-05	905
550-AL3/71-ST1A	550/70	549.7	71.3	620.9	54	7	3.60	3.60	10.80	32.4	2 075.6	240.52	0,060 5	70 000	1,93E-05	960
562-AL3/49-ST1A	560/50	561.7	49.5	611.2	48	7	3.86	3.00	9.00	32.2	1 937.8	222.11	0,059 2	62 000	2,05E-05	980
679-AL3/86-ST1A	680/85	678.6	86.0	764.5	54	19	4.00	2.40	12.00	36.0	2 547.6	298.17	0,049 0	68 000	1,94E-05	1 080

ALL ALUMINIUM CONDUCTORS
TYPE AL1
EN 50182


Code	Old Code	Area mm ²	No. of wires	Diameter		Mass per unit length kg/km	Rated strength kN	Dc resistance Om/km	Final modulus of elasticity N/mm ²	Coefficient of linear expansion 1/K	Current carrying capacity A
				Wire	Cond						
				mm	mm						
16-AL1	16	15.9	7	1.7	5.10	43.4	3.02	1,798.6	60 000	2.30E-05	110
24-AL1	25	24.2	7	2.10	6.30	66.3	4.36	1,178.7	60 000	2.30E-05	145
34-AL1	35	34.4	7	2.50	7.50	93.9	6.01	0,831.7	60 000	2.30E-05	180
49-AL1	50	49.5	7	3.00	9.00	135.2	8.41	0,577.6	60 000	2.30E-05	225
48-AL1	50	48.3	19	1.80	9.00	132.9	8.94	0,594.4	57 000	2.30E-05	225
66-AL1	70	65.8	19	2.10	10.50	180.9	11.85	0,436.7	57 000	2.30E-05	270
93-AL1	95	93.3	19	2.50	12.50	256.3	16.32	0,308.1	57 000	2.30E-05	340
117-AL1	120	117	19	2.80	14.00	321.5	19.89	0,245.6	57 000	2.30E-05	390
147-AL1	150	147.1	37	2.25	15.80	405.7	26.48	0,196.0	57 000	2.30E-05	455
182-AL1	185	181.6	37	2.50	17.50	500.9	31.78	0,158.8	57 000	2.30E-05	520
243-AL1	240	242.5	61	2.25	20.30	671.1	43.66	0,119.3	55 000	2.30E-05	625
299-AL1	300	299.4	61	2.50	22.50	828.5	52.40	0,096.6	55 000	2.30E-05	710
400-AL1	400	400.1	61	2.89	26.00	1 107.1	68.02	0,072.3	55 000	2.30E-05	855
500-AL1	500	499.8	61	3.23	29.10	1 382.9	82.47	0,057.9	55 000	2.30E-05	990
626-AL1	625	626.2	91	2.96	32.60	1 739.7	106.45	0,046.4	55 000	2.30E-05	1 140
802-AL1	800	802.1	91	3.35	36.90	2 228.3	132.34	0,036.2	55 000	2.30E-05	1 340
1000-AL1	1000	999.7	91	3.74	41.10	2 777.3	159.95	0,029.1	55 000	2.30E-05	1 540



- All Aluminium Alloy Conductors - Type AL3
- All Aluminium Alloy Conductors - Type AL1
- Aluminium alloy conductors steel reinforced - Type AL3/ST1A
- Aluminium alloy conductors steel reinforced - Type AL1/ST1A

**ALL ALUMINIUM ALLOY
CONDUCTORS - TYPE AL3
EN 50182**



Code	Old Code	Area mm ²	No. of wires	Diameter		Mass per unit length kg/km	Rated strength kN	Dc resistance Om/km	Final modulus of elasticity N/mm ²	Coefficient of linear expansion 1/K	Current carrying capacity A
				Wire	Cond						
				mm	mm						
16-AL3	16	15.9	7	1.7	5.10	43.4	4.69	2,070 1	60 000	2.30E-05	105
24-AL3	25	24.2	7	2.10	6.30	66.2	7.15	1,356 6	60 000	2.30E-05	135
34-AL3	35	34.4	7	2.50	7.50	93.8	10.14	0,957 2	60 000	2.30E-05	170
49-AL3	50	49.5	7	3.00	9.00	135.1	14.60	0,664 7	60 000	2.30E-05	210
48-AL3	50	48.3	19	1.80	9.00	132.7	14.26	0,684 1	57 000	2.30E-05	210
66-AL3	70	65.8	19	2.10	10.50	180.7	19.41	0,502 6	57 000	2.30E-05	255
93-AL3	95	93.3	19	2.50	12.50	256.0	27.51	0,354 6	57 000	2.30E-05	320
117-AL3	120	117	19	2.80	14.00	321.2	34.51	0,282 7	57 000	2.30E-05	365
147-AL3	150	147.1	37	2.25	15.80	405.3	43.40	0,225 6	57 000	2.30E-05	425
182-AL3	185	181.6	37	2.50	17.50	500.3	53.58	0,182 7	57 000	2.30E-05	490
243-AL3	240	242.5	61	2.25	20.30	670.3	71.55	0,137 3	55 000	2.30E-05	585
299-AL3	300	299.4	61	2.50	22.50	827.5	88.33	0,111 2	55 000	2.30E-05	670
400-AL3	400	400.1	61	2.89	26.00	1 105.9	118.04	0,083 2	55 000	2.30E-05	810
500-AL3	500	499.8	61	3.23	29.10	1 381.4	147.45	0,066 6	55 000	2.30E-05	930
626-AL3	625	626.2	91	2.96	32.60	1 737.7	184.73	0,053 4	55 000	2.30E-05	1 075
802-AL3	800	802.1	91	3.35	36.90	2 225.8	236.62	0,041 7	55 000	2.30E-05	1 255
1000-AL3	1000	999.7	91	3.74	41.10	2 774.3	294.91	0,033 4	55 000	2.30E-05	1 450



SECURITY FENCES

RAPID SECURITY BARRIER



RAPID SECURITY BARRIER

REVOLUTIONARY FENCING PRODUCT - 2 MINUTES DEPLOYMENT FOR 300 METER (1000 FT)

CONCEPT

Rapid security barrier is the new revolutionary product of the fencing world. The barrier is a pyramid made of barbed tape concertina, supplied compressed and can be deployed rapidly at a speed of 300 meters (1000 ft.) per 2 minutes. The deployment is automatic and needs minimum manual actions. The result is that a security barrier is erected at a short time with minimum human touch.

DEPLOYMENT

The Deployment of each cassette is done in few seconds by 4 simple steps:

1. Loading the cassette on the truck and driving to the site.
2. Opening the bands.
3. Unloading the end of the pyramid and anchoring it to the ground.
4. Deploying – by driving the truck / tractor.

TECHNICAL INFORMATION AND SIZES

- The Rapid Security Barrier is supplied in compressed cassettes, each 100 meters (330 ft.) compressed to 0.8 meters (2.5 ft). a Cassette can contain up to 1000 meters (3300 ft.).
- Contain patented anchoring system with wire ropes.
- The barrier can be collected after deployment and then reused.
- No need for special trailers/trucks. Deployment/collection equipment can be adjusted to ordinary shovels.
- Electrical interface can be added.



1



2

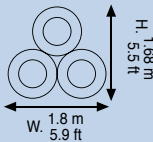


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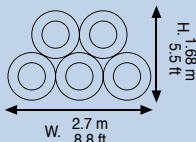
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3 Coils



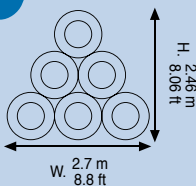
Length		Height		Width		Weight
Compressed	Deployed	Compressed	Deployed	Compressed	Deployed	
0.8m	100m	1.86m	1.68m	2m	1.8m	350kg
2.4m	300m	1.86m	1.68m	2m	1.8m	1050kg
8m	1000m	1.86m	1.68m	2m	1.8m	3500kg

5 Coils



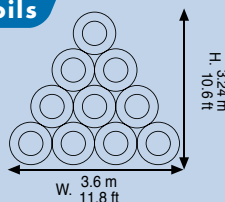
Length		Height		Width		Weight
Compressed	Deployed	Compressed	Deployed	Compressed	Deployed	
0.8m	100m	1.86m	1.68m	3m	2.7m	585kg
1.6m	200m	1.86m	1.68m	3m	2.7m	1170kg
2.4m	300m	1.86m	1.68m	3m	2.7m	1755kg
4m	400m	1.86m	1.68m	3m	2.7m	2925kg

6 Coils



Length		Height		Width		Weight
Compressed	Deployed	Compressed	Deployed	Compressed	Deployed	
0.8m	100m	2.75m	2.46m	3m	2.7m	700kg
1.6m	200m	2.75m	2.46m	3m	2.7m	1400kg
2.4m	300m	2.75m	2.46m	3m	2.7m	2100kg
4m	400m	2.75m	2.46m	3m	2.7m	3500kg

10 Coils



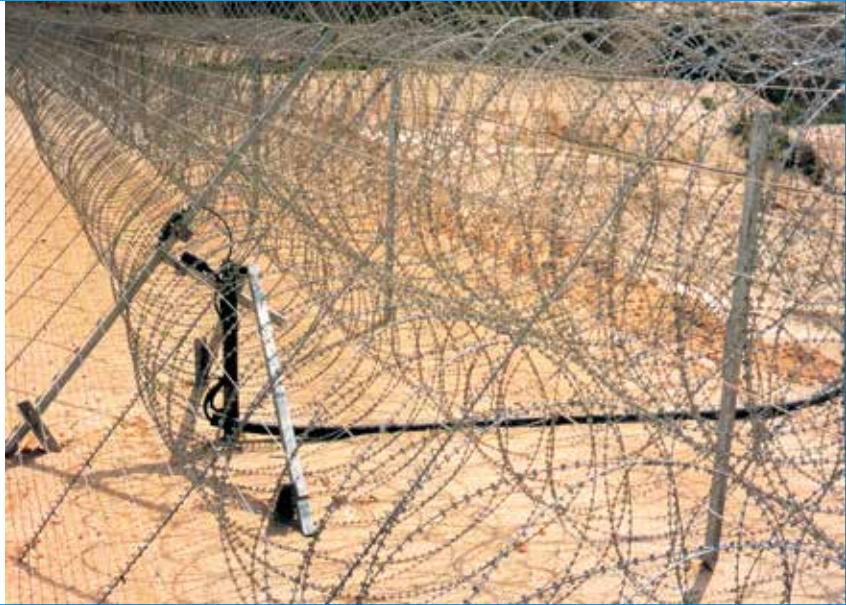
Length		Height		Width		Weight
Compressed	Deployed	Compressed	Deployed	Compressed	Deployed	
0.8m	100m	3.60m	3.24m	4m	3.6m	1170kg
1.2m	150m	3.60m	3.24m	4m	3.6m	1755kg
1.6m	200m	3.60m	3.24m	4m	3.6m	2340kg
2.0m	250m	3.60m	3.24m	4m	3.6m	2925kg



SHORT BLADE PROFILE

The barbed tape concertina is made of galvanized steel or stainless steel blades wrapped around high tensile galvanized steel or stainless steel wire. Barbed tape concertina with short blade profile uses mainly for military purposes such as borders fencing and military bases fencing.

Further it uses for civil purposes such as industrial yards fencing, private property fencing and prisons fencing. The short barbed tape concertina has the highest cost effectiveness it has as attractive as barbed wire price and much higher efficiency in preventing penetration.

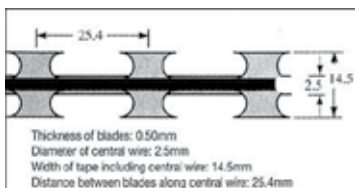


MATERIAL PROPERTIES



Item	Galvanized	Stainless steel	Combination
Core wire	Galvanized steel wire 2.5mm T/S 1560N/mm ²	Stainless steel AISI 302 wire 2.5mm T/S 1560N/mm ²	Galvanized steel wire 2.5mm T/S 1560N/mm ²
Blade	Galvanized steel tape thickness-0.50 mm	Stainless steel AISI 304/430 tape thickness-0.50 mm	Stainless steel AISI 304/430 tape thickness-0.50 mm
Clips	Galvanized steel tape thickness-1.70 mm	Stainless steel AISI 304 tape thickness-1.70 mm	Stainless steel AISI 304 tape thickness-1.70 mm
Handles	Galvanized mild steel 4 mm wire	Soft 4mm stainless steel AISI 304 wire	Galvanized mild steel 4 mm wire

GEOMETRICAL PROPERTIES



Coil dia	Extension / weight			Recommended clips rows
	33 loops	46 loops	456 loops	
1000mm	7m-9m/8kg	10m-12m/11.5kg	12m-15m/14kg	5 rows
900mm	5m-7m/7kg	8m-10m/10kg	10m-12m/12kg	5 rows
760mm	7m-9m/6kg	10m-12m/8.5kg	12m-15m/10.5kg	3 or 5 rows
630mm	5m-7m/5kg	8m-10m/7kg	10m-12m/9kg	3 rows
450mm	4m-6m/3.5kg	6m-8m/5kg	8m-10m/6kg	3 rows

BARBED TAPE CONCERTINA

LONG BLADE PROFILE

The barbed tape concertina is made of galvanized steel or stainless steel wrapped around high tensile galvanized steel or stainless steel wire.

Barbed tape concertina with long blade profile uses mainly for civil purposes such as highly secured strategic sites fencing, prisons fencing, and airports fencing. The long barbed tape concertina has the highest effectiveness in preventing penetration.

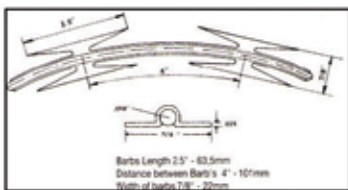


MATERIAL PROPERTIES

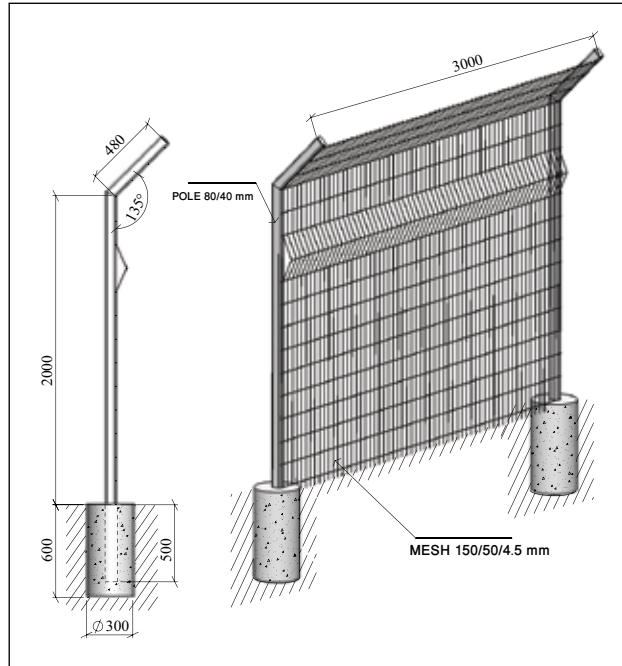
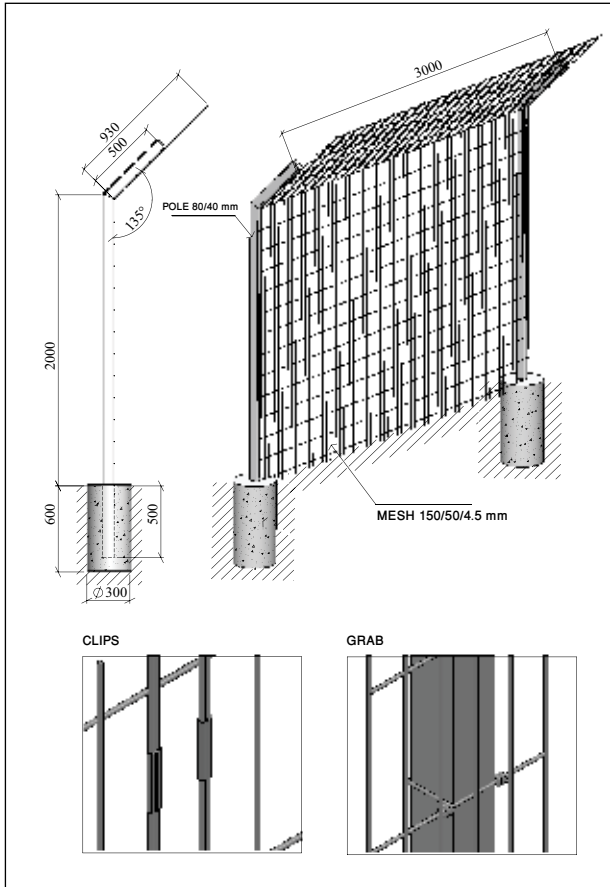
Item	MATERIAL PROPERTIES		
	Galvanized	Stainless steel	Combination
Core wire	Galvanized steel wire 2.5mm T/S 1560N/mm ²	Stainless steel AISI 302 wire 2.5mm T/S 1560N/mm ²	Galvanized steel wire 2.5mm T/S 1560N/mm ²
Blade	Galvanized steel tape thickness-0.60 mm	Stainless steel AISI 304/430 tape thickness-0.60 mm	Stainless steel AISI 304/430 tape thickness-0.60 mm
Clips	Galvanized steel tape thickness-1.70 mm	Stainless steel AISI 304 tape thickness-1.70 mm	Stainless steel AISI 304 tape thickness-1.70 mm
Handles	Galvanized mild steel 4 mm wire	Soft 4mm stainless steel AISI 304 wire	Galvanized mild steel 4 mm wire

GEOMETRICAL PROPERTIES

Coil dia	Extension / weight			Recommended clips rows
	33 loops	46 loops	456 loops	
1000mm	7m-9m/8kg	10m-12m/14kg	12m-15m/17kg	5 rows
900mm	5m-7m/9kg	8m-10m/12kg	10m-12m/15kg	5 rows
760mm	7m-9m/8kg	10m-12m/10kg		3 rows
630mm	5m-7m/6.5kg	8m-10m/7kg		3 rows
450mm	4m-6m/4.5kg			3 rows



WELDED WIRE MESH





**ACCESSORIES
and WIRE ROPE SLINGS**



Wire rope clips												
F mm	F "	A mm	E mm	H mm	I mm	L min	R mm	S mm	g	Nm	N	
3	(1/8)	M4	12	18	9	20	7	10	9	1,25	3	
5	(3/16)	M5	13	24	13	24	10	15	20	2,46	3	
6	(1/4)	M6	15	27	15	28	11	16	33	4,24	3	
8	(5/16)	M6	19	31	17	34	12	18	40	4,24	5	
10	(3/8)	M8	22	37	20	42	13	21	79	10,20	5	
11	(7/16)	M8	22	41	22	44	14	24	79	10,20	5	
13	(1/2)	M10	33	44	25	55	15	26	130	20,11	5	
14	(9/16)	M10	33	47	27	57	18	27	145	20,11	5	
16	(5/8)	M10	33	51	29	6	20	28	175	20,11	5	
18	(11/16)	M12	44	56	34	75	21	32	260	34,43	5	
20	(3/4)	M12	44	62	34	75	22	33	290	34,43	5	
22	(7/8)	M12	52	65	39	85	25	35	340	34,43	7	
26	(1")	M14	50	72	42	95	27	40	490	54,77	7	
30	(1"1/8)	M14	50	78	47	110	33	43	620	54,77	8	
34	(1"1/4)	M16	55	88	53	120	37	48	840	85,14	8	
40	(1"1/2)	M16	60	98	59	140	40	54	1120	85,14	8	

Light wire rope clips									
F mm	A mm	E mm	H mm	I mm	L mm	R mm	S mm	g	
2	M3	10	17	7	17	6	10	7	
3	M3	12	18	8	21	6	10	18	
4	M4	13	21	10	23	8	11	25	
5	M5	13	25	12	25	10	13	32	
6	M6	18	28	14	32	12	16	65	
8	M6	18	31	16	35	15	18	80	
10	M8	23	38	20	44	18	20	120	
13	M10	26	47	25	55	23	26	160	
16	M10	32	54	28	68	29	28	260	

Thimbles light type								
F mm	B mm	C mm	H mm	R mm	S mm	T mm	g	
2-3	16	9	16	5,5	0,6	45	2,3	
4	19	11	18	6,5	0,7	60	3,0	
5	24	14	22	7,5	0,8	75	5,0	
6	28	17	26	9,0	1,0	90	8,0	
8	33	19	30	12,0	1,2	168	15,0	
10	38	21	34	14,5	1,5	210	23,0	
12	44	30	46	16,0	1,8	252	44,0	
14	49	33	50	18,5	2,0	294	61,0	
16	57	40	59	21,0	2,0	336	83,0	
18	68	46	69	24,0	2,5	378	135,0	
20	78	51	77	27,0	3,0	540	215,0	
22	88	56	84	28,0	3,0	594	225,0	
25	92	60	91	31,0	3,5	675	330,0	
28	109	75	115	39,0	4,0	924	575,0	

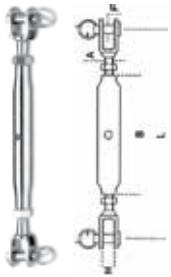
Hook and eye turnbuckles										
A mm	A w	B mm	C mm	F mm	H mm	L min	L max	- g	WLL kg	- min
M5	(3/16)	80	6,0	8	17	121	181	49	25	2,0
M6	(1/4)	80	8,0	10	22	132	195	61	60	2,5
M8	(5/16)	105	10,0	11	30	170	251	115	130	2,5
M10	(3/8)	125	12,5	14	36	204	296	202	180	3,5
M11	(7/16)	135	12,5	15	36	221	320	276	220	3,5
M12	(1/2)	140	17,5	17	56	244	350	400	300	4,0
M14	(9/16)	170	21,0	18	66	284	414	650	420	4,0
M16	(5/8)	190	24,0	25	77	330	475	1010	570	6,0
M18	(11/16)	205	27,0	27	85	363	517	1390	700	7,0
M20	(3/4)	220	30,0	28	95	391	555	1840	900	7,5
M22	(7/8)	240	34,0	34	106	433	612	2520	1100	9,0
M24	(1")	260	36,0	36	114	470	662	3450	1300	10,0

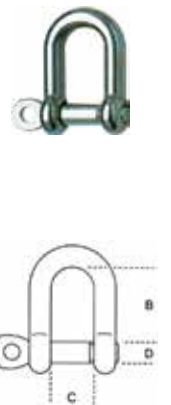
Eye and eye turnbuckles										
A mm	A w	B mm	F mm	H mm	L min	L max	- g	WLL kg	- min	
M5	(3/16)	80	8	16	118	175	48	110	2,0	
M6	(1/4)	80	10	20	130	193	62	150	2,5	
M8	(5/16)	105	11	22	158	240	109	250	2,5	
M10	(3/8)	125	14	27	192	289	194	350	3,5	
M11	(7/16)	135	15	29	206	310	267	600	3,5	
M12	(1/2)	140	17	33	226	332	325	650	4,0	
M14	(9/16)	170	18	35	256	386	520	850	4,0	
M16	(5/8)	190	25	49	306	451	820	1150	6,0	
M18	(11/16)	205	27	56	338	492	1260	1400	7,0	
M20	(3/4)	220	28	59	358	522	1530	1800	7,5	
M22	(7/8)	240	34	70	400	579	2220	2240	9,0	
M24	(1")	260	36	76	436	628	2740	2600	10,0	
M27	(1"1/8)	300	38	82	504	730	4770	3400	11,0	
M33	(1"1/4)	300	41	89	516	732	5880	5100	12,0	
-	1"3/8	300	43	95	532	740	7220	5500	13,0	
-	1"1/2	300	45	102	544	743	8850	6700	14,0	

Straight shackles									
D mm	D "	B mm	C mm	D1 mm	H mm	S min	g	WLL kg	
5	(3/16)	19	10	10	20	5	17	50	
6	(1/4)	25	13	13	25	6	30	100	
8	(5/16)	32	16	17	32	8	66	200	
10	(3/8)	38	19	20	39	10	116	300	
11	(7/16)	44	22	22	44	11	163	400	
12	(1/2)	51	25	26	49	12	22	500	

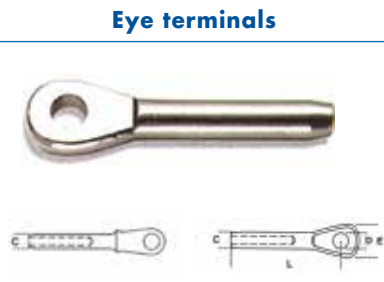
Carabine hooks					
DXL mm	A mm	B mm	C mm	C1 mm	g
4X40	7	13,5	7,0	4	12
5X50	7	16,0	8,0	4	17
6X60	8	18,0	8,5	5	27
7X70	8	22,0	11,0	8	44
8X80	9	22,5	12,0	8	63
9X90	9	26,5	13,0	8	92
10X100	12	30,0	15,0	10	128
11X120	16	36,0	18,0	11	190
12X140	19	44,0	20,0	13	260
13X160	28	50,0	22,0	15	350

MOSEROTH LTD.

	Jaw and jaw rigging turnbuckles						
	A mm	B mm	F mm	H mm	L min	L max	g
M5	80	5	10	127	189	54	
M6	90	5	10	145	190	70	
M8	110	7	10	179	265	145	
M10	121	9	12	220	300	290	
M12	154	12	16	260	375	480	

	Straight shackles					
	D mm	B mm	C mm	D1 mm	S min	g
4	14	8	8	4	7	
5	17	10	10	5	15	
5	17	10	10	5	15	
6	21	12	12	6	25	
8	23	16	16	8	55	
10	34	20	20	10	115	
12	41	24	24	12	195	
13	45	26	26	13	250	
16	51	32	32	16	460	
19	61	37	37	19	760	

	Jaw terminals							
	A mm	B mm	C mm	D mm	E mm	H mm	L min	g
3	40	6,5	5	6,2	9	65	18	
4	45	7,5	6	7,5	9	78	29	
5	50	9,0	8	10,5	11	87	53	
6	65	11,0	9	12,5	13	106	87	
8	75	14,0	12	13,3	22	123	160	

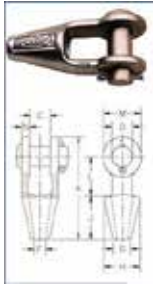
	Eye terminals							
	A mm	B mm	C mm	D mm	E mm	H mm	L min	g
3	43	6,5	6,5	13	4	56	14	
4	50	8,0	8,5	17	5	63	20	
5	50	9,0	10	20	6	76	35	
6	67	12,0	12,5	25	8	85	78	
8	75	16,0	14,5	29	10	107	165	

Crosby Clips G-450													
Rope Size (in.) (mm)	G-450 Stock No. Galv	Std. Package Qty	Weight Per 100 (kg)	Dimensions (mm)									
				A	B	C	D	E	F	G	H		
1/8	3-4	1010015	100	2.72	5.59	18.3	11.2	11.9	10.4	9.65	20.6	23.9	
3/16	5	1010033	100	4.54	6.35	24.6	14.2	15.0	12.7	11.2	23.9	28.5	
1/4	4-7	1010051	100	9.07	7.87	26.2	12.7	19.1	16.8	14.2	20.2	36.6	
5/16	8	1010079	100	13.6	9.65	35.1	19.1	22.4	18.3	17.5	33.3	42.9	
3/8	9-10	1010097	100	21.3	11.2	38.1	19.1	25.4	23.1	19.2	41.4	049.3	
7/16	11-12	1010113	50	34.5	12.7	47.8	25.4	30.2	26.3	33.3	46.0	58.0	
1/2	13	1010131	50	36.3	12.7	47.8	25.4	30.2	28.7	22.4	48.5	58.0	
9/16	14-15	1010159	50	47.2	14.2	57.0	31.8	33.3	31.0	23.9	52.5	63.5	
5/8	16	1010177	50	48.1	14.2	60.5	31.8	33.3	34.0	23.9	52.5	63.5	
3/4	18-20	1010195	25	68	15.9	70.0	36.6	38.1	35.8	26.9	57.0	72.0	
7/8	22	1010211	25	96	19.1	79.5	41.2	44.5	40.4	31.8	62.0	80.5	
1	24-26	1010239	10	118	19.1	89.0	46.0	47.8	45.2	31.8	67.0	88.0	
1 1/8	28-30	1010257	10	132	19.1	98.5	51.0	51.0	48.5	31.8	71.5	91.0	
1 1/4	32-34	1010275	10	195	22.4	108	54.0	58.5	55.5	36.6	79.5	105	
1 3/8	36	1010293	10	209	22.4	118	58.5	60.5	58.5	36.6	79.5	106	
1 1/2	38-40	1010319	10	245	22.4	125	60.5	65.5	62.0	36.6	86.5	113	

Eye Hooks S-320													
Working Load Limit t			Shank Hooks			Shank length Type	Weight Each (kg)	Eye Hooks					
Carbon	Alloy	Bronze	Stock No.					Stock No.				Weight Each (kg)	
			Carbon G-213-c S.C.	Alloy S-319-A S.C.	Bronze S-319-B S.C.	Carbon S-320-c S.C.	Carbon S-320-c Galv.	Alloy S-320-A S.C.					
.80	1.25	.50	1241044	1240064	1025107	Std.	.23	1220044	1023118	1221024	.25		
1.00	1.60	.60	1241114	1240134	1025125	Std.	.34	1220114	1023136	1221094	.34		
1.60	2.50	1.00	1241184	1240204	1025143	Std.	.45	1220184	1023154	1221164	.57		
2.00	3.20	1.40	1241254	1240274	1025161	Std.	.84	1220254	1023172	1221234	.77		
3.20	5.40	2.00	1241324	1240344	1025189	Std.	1.75	122.324	1023190	1221304	1.64		
5.00	8.00	3.50	1241394	1240414	1025205	Std.	3.29	1220394	1023216	1221374	3.22		
7.50	11.5	5.00	1241464	1240484	1025223	Std.	5.90	1220464	1023234	1221444	5.90		
10	16	6.50	1241534	1240554	1025241	Std.	7.83	1220534	1023252	1221514	8.40		
15	22	10	1241604	1240624	1025269	Std.	15.0	1220604	1023270	1221584	15.3		
20	30	-	1024386	1024803	-	Std.	24.0	1023289	-	1023546	27.2		
20	30	-	1024402	1024821	-	Long	38.8	-	-	-	-		
25	37	-	1024420	1024849	-	Std.	61.0	1023305	-	1023564	47.6		
25	37	-	1024448	1024867	-	Long	78.0	-	-	-	-		

Wedge Sockets s-421																				
Wire Rope Dia.		Stock No.			S-421 Weight each (kg)	Dimensions (mm)														
(in.)	(mm)	S-421 Complete Wedge and pin s.c.	S-421-W Wedge Only s.c.	A		B	C	D	F	G	H	J	K	L	P	R	S	T	U	V
3/8	9-10	1040304	1040466	91	143	65.0	20.6	20.6	14.2	28.7	52.2	57.0	26.9	63.5	39.6	11.2	52.0	11.2	31.8	35.0
1/2	11-13	1040322	1040484	2.15	173	87.5	25.5	25.4	17.5	35.1	71.5	76.0	33.3	70.0	49.3	12.7	62.0	13.5	44.5	48.0
5/8	14-16	1040340	1040509	3.52	207	103	31.8	30.2	22.3	44.5	84.0	93.5	38.1	82.5	57.2	14.2	79.5	17.5	51.0	55.5
3/4	18-19	1040368	1040527	5.33	248	122	38.1	35.1	25.4	32.2	100	111	44.5	101	70.0	16.8	92.1	19.8	59.0	65.0
7/8	20-22	1040386	1040545	9.30	283	139	44.5	41.4	28.7	58.5	114	127	51.0	114	79.5	19.1	160	22.3	68.3	74.5
1	24-26	1040402	1040563	13.7	324	155	50.8	50.8	33.3	65.0	127	146	57.0	127	95.0	22.3	117	26.2	73.0	83.5
1 1/8	28	1040420	1040581	19.7	365	171	57.2	57.0	38.1	47.5	140	165	63.5	143	108	25.4	136	30.2	79.5	90.0
1 1/4	30-32	1040448	1040607	26.0	406	187	63.5	63.5	41.4	81.0	152	184	70.0	159	121	28.7	147	33.3	86.0	97.0

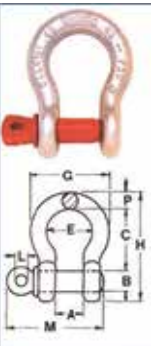
Grooveless Open Spelter Socket G-416															
Rope Dia. (in.)	Rope Dia. (mm)	Structural Strand Dia		Stock No. G-416 Galv	Weight Each (kg)	Dimensions (mm)									
		(in.)	(mm)			A	C	D	F	G	H	J	L	M	N
1/4	6-7	-	-	235051	.50	116	23.1	17.5	9.65	17.5	39.6	57.2	39.6	33.3	8.89
5/16-3/8	8-10	-	-	235053	.59	124	19.6	20.6	12.7	20.6	42.9	58.5	44.5	39.6	12.5
7/16-1/2	11-13	-	-	235055	1.02	141	25.4	25.4	14.2	23.9	49.9	63.5	51.0	49.3	15.0
9/16-5/8	14-16	1/2	13	235057	1.81	171	31.8	30.2	17.5	28.7	57.0	76.2	63.5	57.2	14.2
3/4	18	9/16-5/8	14-16	235059	2.64	203	38.1	35.1	20.6	31.8	70.0	89.0	76.2	70.0	18.0
7/8	18	9/16-5/8	14-16	235059	2.64	203	38.1	35.1	20.6	31.8	70.0	89.0	76.2	70.0	18.0
1	24-26	1 ³ / ₁₆ -7/8	20-22	235063	7.03	267	51.0	51.0	28.7	45.2	91.0	123	102	95.5	22.4
1 ¹ / ₈	28-30	1 ⁵ / ₁₆ -1	24-26	235065	9.75	298	57.2	57.2	31.8	51.0	102	125	114	105	25.4
1 ¹ / ₄ -1 ³ / ₈	32-35	1 ¹ / ₁₆ -1 ¹ / ₈	28	235067	14.1	333	63.5	63.5	38.1	58.0	116	138	117	121	28.7
1 ¹ / ₂	38	1 ³ / ₁₆ -1 ¹ / ₄	30-32	235069	21.4	384	76.2	76.2	44.5	76.0	140	165	165	146	33.3
1 ⁵ / ₈	40-42	1 ⁵ / ₁₆ -1 ³ / ₈	33-35	235071	24.4	413	76.2	76.2	44.5	76.0	140	165	165	146	33.3
1 ³ / ₄ -1 ⁷ / ₈	44-48	1 ⁷ / ₁₆ -1 ⁵ / ₈	36-40	235073	37.2	464	89.0	89.0	51.0	79.5	162	191	178	165	39.6





Grooveless Closed Spelter Sockets G417															
Rope Dia. (in.)	Rope Dia. (mm)	Structural Strand Dia		Stock No. G-416 Galv	Weight Each (kg)	Dimensions (mm)									
		(in.)	(mm)			A	C	D	F	G	H	J	L	M	N
1/4	6-7	-	-	235100	.23	116	12.7	39.6	22.4	9.65	17.5	39.6	75.2	12.7	46.0
5/16-3/8	8-10	-	-	235102	.34	125	15.8	42.9	24.6	12.7	20.6	42.9	57.2	17.5	52.5
7/16-1/2	11-13	-	-	235104	.68	140	17.5	51.0	29.5	14.2	23.9	51.0	63.5	22.4	58.5
9/16-5/8	14-16	1/2	13	235106	1.13	162	20.6	67.0	35.8	17.5	30.2	67.0	76.2	25.4	65.0
3/4	18	9/16-5/8	14-16	235108	1.93	194	26.9	26.2	42.2	20.6	33.3	70.0	89.0	31.8	77.5
7/8	20-22	1 ¹ / ₁₆ -3/4	18-19	235110	3.29	226	33.3	92.0	48.7	24.6	38.1	82.5	102	38.1	90.5
1	24-26	1 ³ / ₁₆ -7/8	20-22	235112	4.76	254	36.6	105	58.5	28.7	44.5	25.5	114	44.5	103
1 ¹ / ₈	26-30	1 ⁵ / ₁₆ -1	24-26	235114	6.46	283	39.6	114	65.0	31.8	51.0	105	127	51.0	116
1 ¹ / ₄ -1 ³ / ₈	32-35	1 ¹ / ₁₆ -1 ¹ / ₈	28	235116	8.96	309	41.4	128	71.0	38.1	58.5	119	138	56.5	129
1 ¹ / ₂	38	1 ³ / ₁₆ -1 ¹ / ₄	30-32	235118	13.2	355	49.3	137	81.0	41.4	70.5	132	151	62.5	155
1 ⁵ / ₈	40-42	1 ⁵ / ₁₆ -1 ³ / ₈	33-35	235120	16.3	390	54.0	146	82.5	44.5	76.2	140	165	70.0	171
1 ³ / ₄ -1 ⁷ / ₈	44-48	1 ⁷ / ₁₆ -1 ⁵ / ₈	36-40	235122	26.0	445	55.5	171	95.5	51.0	79.5	162	191	76.2	198





Crosby Shackles														
Nominal size (in.)	Working Load Limit (t)	Dimensions (mm)												
		A	B	C	D	E	F	G	H	L	M	N	P	
3/16	.33	9.70	6.35	22.4	4.83	15.2	14.2	24.9	37.3	4.06	28.5	-	44.83	
1/4	.50	11.9	7.87	28.7	6.35	19.8	15.5	32.5	46.7	4.83	35.1	34.0	6.35	
5/16	.75	13.5	9.65	31.0	7.87	21.3	19.1	37.3	53.0	5.59	42.2	40.4	7.87	
3/8	1	16.8	11.2	36.6	9.65	26.2	23.1	45.2	63.5	6.35	51.5	47.2	9.65	
7/16	1.5	19.0	12.7	42.9	11.2	29.5	26.9	51.5	74.0	7.87	60.5	54.0	11.2	
1/2	2	20.6	16.0	47.8	12.7	33.3	30.2	58.5	83.5	9.65	68.5	60.5	12.7	
5/8	3.25	26.9	19.1	60.5	16.0	42.9	38.1	74.5	106	11.2	85.0	74.0	17.5	
3/4	4.75	31.8	22.4	71.5	19.1	51.0	46.0	89.0	126	12.7	101	87.5	20.6	
7/8	6.5	36.6	25.4	84.0	22.4	58.0	53.0	102	148	12.7	114	97.0	24.6	
1	8.5	42.9	28.7	95.5	25.4	68.5	60.5	119	167	14.2	129	115	26.9	
1 ¹ / ₈	9.5	46.0	31.8	108	29.5	74.0	68.5	131	190	12.0	142	130	31.8	
1 ¹ / ₄	12	51.5	35.1	119	32.8	82.5	76.0	146	210	17.5	156	140	35.1	
1 ³ / ₈	13.5	57.0	38.1	133	36.1	92.0	84.0	162	234	19.1	174	156	38.1	
1 ¹ / ₂	17	60.5	41.4	146	39.1	98.5	92.0	175	254	20.6	187	165	41.2	
1 ³ / ₄	25	73.0	51.0	178	46.7	127	106	225	313	25.4	231	197	57.0	
2	35	82.5	57.0	197	53.0	146	122	253	347	31.0	263	222	61.0	
2 ¹ / ₂	55	105	70.0	267	67.0	184	145	327	453	35.1	330	-	79.5	



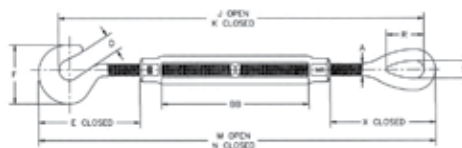
Clevis chain hook with integrated latch S-314A					
	Chain Size		S-314A Stock No.	Grade 8 Alloy Chain Working Load Limit † 4:1	Weight Each (kg)
	(in.)	(mm)			
	-	6	1225020	1.12	.32
	1/4-5/16	7-8	1225021	2.0	.73
	3/7	10	1225091	3.2	1.25
	1/2	13	1225161	5.4	2.18
5/8	16	1225162	8.2	3.67	

Chain Hook A-330																			
	Chain Size		Stock No.		Working Load Limit †		Weight Each (kg)	Dimensions (mm)											
	(in.)	(mm)	H-330 Carbon	A-330 Alloy	H-330 Carbon	A-330 Alloy		A	B	C	D	E	G	H	J	K	L	N	P
	1/4	7	1027105	1027249	1.18	1.43	.16	25.4	8.13	7.87	46.0	8.64	22.4	18.3	7.87	11.9	77.5	44.5	7.87
5/16	8	1027123	1027267	1.077	2.13	.29	30.2	9.91	9.14	54.0	11.2	24.6	23.1	9.65	15.0	93.0	52.5	9.65	51.5
3/8	10	1027141	1027285	2.45	2.99	.45	35.1	11.4	11.4	64.3	12.7	29.7	25.4	11.2	18.3	109	59.5	11.2	61.0
1/2	13	1027187	1027329	4.17	5.13	.95	47.8	19.1	17.8	90.5	16.8	38.9	31.8	16.0	19.8	145	75.5	16.0	81.0
5/8	16	1027203	1027347	5.22	8.21	1.91	58.0	23.1	21.3	112	19.8	45.2	39.6	20.6	27.7	179	109	19.1	104


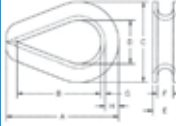
Chain Hook A-331																				
	Chain Size		Stock No.		Working Load Limit †		Weight Each (kg)	Dimensions (mm)												
	(in.)	(mm)	H-331 Carbon	A-331 Alloy	H-331 Slip Hook	A-331 Slip Hook		A	B	C	D	E	G	H	J	K	L	N	P	R
	1/4	7	1027383	1027524	.89	1.25	.23	26.9	11.2	11.2	70.0	23.9	30.2	20.8	22.2	12.7	102	54.0	9.65	65.0
5/16	8	1027409	1027542	1.30	1.95	.34	31.8	12.7	12.7	77.5	26.9	31.8	23.9	25.4	14.2	115	57.0	11.2	73.0	24.6
3/8	10	1027427	1027560	1.81	2.38	.51	37.3	15.0	15.0	92.0	33.3	38.1	28.7	30.2	16.8	131	65.0	11.9	82.5	26.9
7/16	11	1027445	1027588	2.27	3.18	.93	42.2	16.8	16.8	110	39.6	46.0	35.1	36.6	20.6	152	77.5	14.2	94.0	30.2
1/2	13	1027463	1027604	2.95	4.08	1.25	47.5	19.1	19.1	122	42.9	49.3	39.6	41.4	23.1	166	87.5	16.0	102	33.3
5/8	16	1027481	1027622	4.20	6.12	2.15	58.0	23.1	23.1	143	51.0	60.5	46.0	49.3	27.7	200	102	19.1	125	39.6
3/4	19	-	1027640	-	8.73	5.12	77.5	33.3	33.3	187	63.5	76.0	60.5	63.5	36.6	255	129	25.4	155	53.0


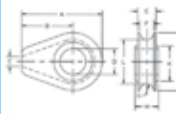
Standard ratchet type load binder L-140																	
	Model	Stock No.	Min-max Chain size (mm)	Working Load limit †	Proof Load (KN)	Minimum Ultimate Strength (KN)	Weight Each (kg)	Handle Legth (mm)	Barrel Length (mm)	Take Up (mm)	Dimensions (mm)						
											A	B	C	E	E1	F	F1
R-7	1048404	8-10	2.45	48.04	84.52	4.76	356	254	203	356	35.1	70.0	583	786	638	842	12.7
R-A	1048422	10-13	4.17	81.85	146.80	5.85	356	254	203	356	35.1	70.0	641	845	702	905	16.0
R-C	1048440	13-16	5.90	115.66	204.63	6.52	356	254	203	356	35.1	70.0	670	873	747	951	18.3

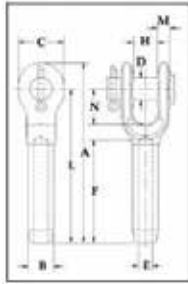
TURNBUCKLES



thead Diameter & Take up		Stock No. Glav.	Working Load limit t	Weight Each (kg) t	Dimensions (mm)									
(in.)	(mm)				A	D	E Closed	F	J Open	K Closed	M Open	N Closed	BB	
1/4X4	6.35X102	1030011	.18	.14	6.35	11.4	40.4	33.3	282	181	303	202	102	
5/16X4 1/2	7.94X114	1030039	.32	.21	7.94	12.7	49.3	38.1	325	211	351	236	114	
3/8X6	9.53X152	1030057	.45	.34	9.53	14.2	58.0	45.0	419	267	450	298	152	
1/2X6	12.7X152	1030075	.68	.73	12.7	16.8	74.5	58.0	453	300	492	340	152	
1/2X9	12.7X229	1030093	.68	.83	12.7	16.8	74.5	58.0	605	376	645	416	229	
1/2X12	12.7X305	1030119	.68	.94	12.7	16.8	74.5	58.0	757	453	797	492	305	
5/8X6	15.9X152	1030137	1.02	1.25	15.9	21.3	93.5	71.5	489	337	540	387	152	
5/8X9	15.9X229	1030155	1.02	1.42	15.9	21.3	93.5	71.5	641	413	692	464	229	
5/8X12	15.9X305	1030173	1.02	1.59	15.9	21.3	93.5	71.5	794	489	845	540	305	
3/4X6	19.1X152	1030191	1.36	1.76	19.1	24.9	115	84.5	530	378	591	439	152	
3/4X9	19.1X229	1030217	1.36	2.09	19.1	24.9	115	84.5	683	454	744	515	229	
3/4X12	19.1X305	1030235	1.36	2.46	19.1	24.9	115	84.5	835	530	896	591	305	
3/4X18	19.1X457	1030253	1.36	3.29	19.1	24.9	115	84.5	1140	683	1201	744	457	
7/8X12	22.2X305	1030271	1.81	3.67	22.2	28.7	132	96.0	870	565	940	635	305	
7/8X18	22.2X457	1030299	1.81	4.51	22.2	28.7	132	96.0	1175	718	1245	787	457	
1X6	25.4X152	1030315	2.27	4.23	25.4	31.8	148	108	600	478	678	526	152	
1X12	25.4X305	1030333	2.27	5.41	25.4	31.8	148	108	905	600	983	678	305	
1X18	25.4X457	1030351	2.27	6.35	25.4	31.8	148	108	1210	753	1288	830	457	
1X24	25.4X610	1030379	2.27	7.82	25.4	31.8	148	108	1515	905	1592	983	610	
1 1/4X12	31.8X305	1030397	2.27	8.62	31.8	38.1	183	130	964	659	1056	751	305	
1 1/4X18	31.8X457	1030413	2.27	10.4	31.8	38.1	183	130	1268	811	1360	903	457	
1 1/4X24	31.8X610	1030431	2.27	12.3	31.8	38.1	183	130	1573	964	1665	1056	610	
1 1/2X12	38.1X305	103049	3.40	12.5	38.1	47.8	212	146	1040	735	1129	824	305	
1 1/2X18	38.1X457	1030477	3.40	14.1	38.1	47.8	212	146	1345	887	1434	976	457	
1 1/2X24	38.1X610	1030495	3.40	17.0	38.1	47.8	212	146	1649	1040	1738	1129	610	

Extra heavy wire rope thimbles G-414													
 	Rope Dia.		Stock No.		Weight per 100 (kg)	Dimensions (mm)							
	(in.)	(mm)	G-414 Galv.	SS-414 Stainless		A	B	C	D	E	F	G	H
1/4	6-7	1037639	1037960	3.06	55.5	41.4	38.1	22.2	10.4	7.11	1.52	5.84	
5/16	8	1037657	1037988	5.10	63.5	47.8	46.0	26.9	12.7	8.64	2.03	7.11	
3/8	9-10	1037675	1038004	11.3	73.0	54.0	54.0	28.7	16.0	10.4	2.79	8.64	
7/16	11-12	1037693	-	13.6	82.5	60.5	60.5	31.8	18.3	11.9	3.30	9.65	
1/2	13	1037719	1038022	23.1	92.0	70.0	70.0	38.1	20.6	13.5	3.65	10.4	
9/16	14-15	1037737	-	23.1	92.0	70.0	68.5	38.1	22.2	15.0	3.65	10.4	
5/8	16	1037755	1038040	34.0	108	82.5	79.5	44.5	24.6	16.8	4.06	12.7	
3/4	18-20	1037773	1038068	67	127	95.5	97.0	51.0	31.0	19.8	5.59	16.8	
7/8	22	1037791	-	79	140	108	57.0	57.0	35.1	23.9	5.59	19.1	
1	24-26	1037817	-	125	156	114	125	63.5	39.6	26.9	6.35	22.2	
1 ¹ / ₈ -1 ¹ / ₄	28-30	1037835	-	181	178	130	149	73.0	46.0	33.3	6.35	28.7	
1 ¹ / ₄ -1 ³ / ₈	32-34	1037853	-	371	230	165	173	89.0	55.5	36.7	9.65	28.7	
1 ³ / ₈ -1 ¹ / ₂	36-38	1037871	-	533	229	159	181	89.0	65.0	39.6	12.7	28.7	
1 ⁵ / ₈	40	1037899	-	771	286	203	207	102	69.0	43.7	12.7	35.1	
1 ³ / ₄	44	1037915	-	805	310	229	216	114	72.0	46.7	12.7	33.3	

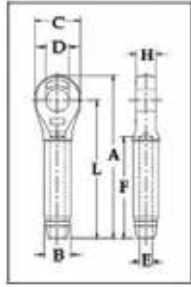
Solid wire rope thimbles S-412															
 	Rope Dia.		S-412 Stock No. S.C.	Weight Each (kg)	Dimensions (mm)										
	(in.)	(mm)			A	B	C	D	E	F	G	H	J	K	L
1/2	13	1037121	.30	71.5	44.5	6.35	26.9	19.1	14.2	7.11	22.4	54.0	41.4	39.6	
5/8	16	1037149	1.00	119	76.0	9.65	33.3	26.9	20.6	10.4	28.7	86.0	57.0	65.0	
3/4	18-20	1037167	1.05	119	76.0	9.65	38.1	26.9	20.6	10.4	35.1	89.0	57.0	65.0	
7/8	22	1037185	2.47	154	97.0	12.7	44.5	35.1	26.9	13.5	41.4	114	82.5	87.5	
1	24-26	1037201	2.38	154	97.0	12.7	54.0	35.1	26.9	13.5	46.0	114	82.5	87.5	
1 ¹ / ₈	28-30	1037229	4.21	184	116	16.0	60.5	44.5	33.3	16.8	52.5	137	98.5	103	
1 ¹ / ₄ -1 ³ / ₈	32-36	1037247	4.45	184	116	16.0	67.0	49.3	38.9	19.8	58.5	137	98.5	105	



S-501 Open Socket Specifications

Press/ Die Data


S-501 Stock No.	Rope Size (In.)	Weight Each (lbs.)	Before Swage Dimensions											Max After Swage Din. (In.)	Die Description	Stock No. / Side Load			
			A	B	C	D	E	F	H	L	M	N	Stock No.			Side Load			
													500 1000 1500 Ton 5 X 7			1500 3000 1500 Ton 6 X 12	1500 Ton 6 X 12	3000 Ton 6 X 12	
1039021	1/4	.52	4.78	.50	1.38	.69	.27	2.19	.69	4.00	.38	1.47	.46	1/4 Socket	1192845	-	-	-	
1039049	5/16	1.12	6.30	.78	1.62	.81	.34	3.25	.80	5.34	.48	1.67	.71	5/16-3/8 Socket	1192863	-	-	-	
1039067	3/8	1.30	6.30	.78	1.62	.81	.41	3.25	.80	5.34	.48	1.67	.71	5/16-3/8 Socket	1192863	-	-	-	
1039085	7/16	2.08	7.82	1.01	2.00	1.00	.49	4.31	1.00	6.69	.56	1.96	.91	7/16-1/2 Socket	1192881	-	-	-	
1039101	1/2	2.08	7.82	1.01	2.00	1.00	.55	4.31	1.00	6.69	.56	1.96	.91	7/16-1/2 Socket	1192881	-	-	-	
1039129	9/16	4.67	9.54	1.27	2.38	1.19	.61	5.38	1.25	8.13	.68	2.21	1.16	9/16-5/8 Socket	1192907	-	-	-	
1039147	5/8	4.51	9.54	1.27	2.38	1.19	.68	5.38	1.25	8.13	.68	2.21	1.16	9/16-5/8 Socket	1192907	-	-	-	
1039165	3/4	7.97	11.61	1.56	2.75	1.38	.80	6.44	1.50	10.00	.78	2.69	1.42	3/4 Socket	1192925	-	-	-	
1039183	7/8	11.52	13.37	1.72	3.13	1.63	.94	7.50	1.75	11.63	.94	3.20	1.55	7/8 Socket	1192943	-	-	-	
1039209	1	17.80	15.47	2.00	3.69	2.00	1.07	8.63	2.00	13.38	1.07	3.68	1.80	1 Socket	1192961	-	-	-	
1039227	1-1/8	25.25	17.35	2.25	4.06	2.25	1.19	9.75	2.25	15.00	1.19	4.18	2.05	1-1/8 Socket	1192989	-	-	-	
1039245	1-1/4	35.56	19.20	2.53	4.50	2.50	1.34	10.81	2.50	16.50	1.27	4.64	2.30	1-1/4 Socket	1193005	-	-	-	
1039263	1-3/8	43.75	21.10	2.81	5.25	2.50	1.46	11.88	2.41	18.13	1.46	5.25	2.56	1-3/8 Socket	1193023	-	-	-	
1039281	1-1/2	58.50	23.17	3.08	5.50	2.75	1.59	12.94	3.00	19.75	1.65	5.70	2.81	1-1/2 Socket	1193041	1191267	1195355	1195192	
1039307	1-3/4	88.75	26.70	3.40	6.25	3.50	1.87	15.06	3.50	23.00	2.07	6.67	3.06	1-3/4 Socket	1193069	1191276	1195367	1195209	
1042767	2	146.2	31.15	3.94	7.80	3.75	2.12	17.06	4.00	26.75	1.81	8.19	3.56	2 Socket	1193087	1191294	1195379	1195218	





S-502 Open Socket Specifications


Press/ Die Data

S-502 Stock No.	Rope Size (In.)	Weight Each (lbs.)	Before Swage Dimensions									Max After Swage Din. (In.)	Die Description	Stock No.		Side Load	
			A	B	C	D	E	F	H	L	500 1000 1500 Ton 5 X 7			1500 3000 1500 Ton 6 X 12	1500 Ton 6 X 12	3000 Ton 6 X 12	
1039325	1/4	.33	4.28	.50	1.38	.76	.27	2.19	.50	3.50	.46	1/4 Socket	1192845	-	-	-	
1039343	5/16	.75	5.42	.77	1.62	.88	.34	3.25	.68	4.50	.71	5/16-3/8 Socket	1192863	-	-	-	
1039361	3/8	.72	5.42	.78	1.62	.88	.41	3.25	.68	4.50	.71	5/16-3/8 Socket	1192863	-	-	-	
1039389	7/16	1.42	6.88	1.01	2.00	1.07	.49	4.31	.87	5.75	.91	7/16-1/2 Socket	1192881	-	-	-	
1039405	1/2	1.42	6.88	1.01	2.00	1.07	.55	4.31	.87	5.75	.91	7/16-1/2 Socket	1192881	-	-	-	
1039423	9/16	2.92	8.59	1.27	2.38	1.28	.61	5.38	1.14	7.25	1.16	9/16-5/8 Socket	1192907	-	-	-	
1039441	5/8	2.85	8.59	1.27	2.38	1.28	.68	5.38	1.14	7.25	1.16	9/16-5/8 Socket	1192907	-	-	-	
1039469	3/4	5.00	10.25	1.56	2.88	1.49	.80	6.44	1.33	8.63	1.42	3/4 Socket	1192925	-	-	-	
1039487	7/8	6.80	11.87	1.72	3.12	1.73	.94	7.50	1.53	10.09	1.55	7/8 Socket	1192943	-	-	-	
1039502	1	10.40	13.56	2.00	3.62	2.11	1.07	8.63	1.78	11.50	1.80	1 Socket	1192961	-	-	-	
1039520	1-1/8	14.82	15.03	2.25	4.00	2.37	1.19	9.75	2.03	12.75	2.05	1-1/8 Socket	1192989	-	-	-	
1039548	1-1/4	21.57	16.94	2.53	4.50	2.62	1.34	10.81	2.25	14.38	2.30	1-1/4 Socket	1193005	-	-	-	
1039566	1-3/8	28.54	18.59	2.81	5.00	2.62	1.46	11.88	2.29	15.75	2.56	1-3/8 Socket	1193023	-	-	-	
1039584	1-1/2	38.06	20.13	3.08	5.38	2.87	1.59	12.94	2.56	17.00	2.81	1-1/2 Socket	1193041	1191267	1193355	1195192	
1039600	1-3/4	51.00	23.56	3.40	6.25	3.63	1.87	15.06	3.08	20.00	3.06	1-3/4 Socket	1193069	1191276	1195367	1195209	
1042589	2	89.25	27.13	3.94	7.25	3.88	2.12	17.06	3.31	23.00	3.56	2 Socket	1193087	1191294	1195379	1195218	

Manual Chain Hoist															
	<table border="1"> <thead> <tr> <th>Chain Length</th> <th>WLL</th> </tr> </thead> <tbody> <tr> <td>3M</td> <td>0.5T</td> </tr> <tr> <td>3M</td> <td>1T</td> </tr> <tr> <td>3M</td> <td>1.5T</td> </tr> <tr> <td>3M</td> <td>2T</td> </tr> <tr> <td>3M</td> <td>3T</td> </tr> <tr> <td>3M</td> <td>5T</td> </tr> </tbody> </table>	Chain Length	WLL	3M	0.5T	3M	1T	3M	1.5T	3M	2T	3M	3T	3M	5T
	Chain Length	WLL													
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	3M	1T													
	3M	1.5T													
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	3M	5T													
	<table border="1"> <thead> <tr> <th>Chain Length</th> <th>WLL</th> </tr> </thead> <tbody> <tr> <td>5M</td> <td>0.5T</td> </tr> <tr> <td>5M</td> <td>1T</td> </tr> <tr> <td>5M</td> <td>1.5T</td> </tr> <tr> <td>5M</td> <td>2T</td> </tr> <tr> <td>5M</td> <td>3T</td> </tr> <tr> <td>5M</td> <td>5T</td> </tr> </tbody> </table>	Chain Length	WLL	5M	0.5T	5M	1T	5M	1.5T	5M	2T	5M	3T	5M	5T
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	5M	1T													
	5M	1.5T													
	5M	2T													
5M	3T														
5M	5T														

Trolley													
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	FOR BAR-SIZE	WLL											
	50-220MM	0.25T											
	50-220MM	1T											
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	90-220MM	3T											
114-220MM	5T												

Lever Hoist																	
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	Chain Length	WLL															
	1.5M	0.25T															
	1.5M	0.5T															
	1.5M	0.75T															
	1.5M	1T															
	1.5M	1.5T															
	1.5M	3T															
1.5M	6T																

Beam Clamp											
	<table border="1"> <thead> <tr> <th>Beam Size</th> <th>WLL</th> </tr> </thead> <tbody> <tr> <td>75-220MM</td> <td>1T</td> </tr> <tr> <td>75-220MM</td> <td>2T</td> </tr> <tr> <td>80-320MM</td> <td>3T</td> </tr> <tr> <td>80-320MM</td> <td>5T</td> </tr> </tbody> </table>	Beam Size	WLL	75-220MM	1T	75-220MM	2T	80-320MM	3T	80-320MM	5T
	Beam Size	WLL									
	75-220MM	1T									
	75-220MM	2T									
	80-320MM	3T									
80-320MM	5T										

Cable Puller

Weight : 8.75 lbs


Cable Length : 12 Ft

.Cable Lift : 6 Ft

.Cable Diameter : 3/16-in

Leverage : 30:1



Wire clamp			
	Wire Diameter mm	Wire Surface Area mm	SwL (Kg)
	1-5	1-16	500
	3-9	6-35	1000
	4-12	16-70	1700
	8-16	50-150	3000

harness

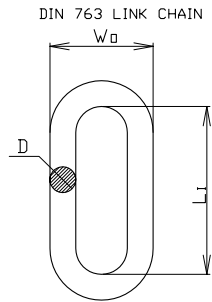
Energy absorber with lanyard



lifting eyebolts												
	A	P	D	E	F	H	P	R	S	g	Kg	Kg
M6	1	6	11	14	26	14	6	14	20	75	50	
M8	1,25	8	15	20	36	18	6	20	60	140	95	
M10	1,5	10	18	25	45	23	8	25	110	230	170	
M12	1,75	12	22	30	54	28	10	30	195	340	240	
M14	2	12	22	30	54	28	10	30	205	460	320	
M16	2	14	28	35	63	33	12	35	325	700	500	
M18	2,5	14	28	35	63	33	12	35	335	850	600	
M20	2,5	16	30	40	72	38	14	40	505	1200	830	
M22	2,5	16	30	40	72	38	14	40	520	1500	1000	
M24	3	20	38	50	90	48	18	50	1020	1800	1270	
M27	3	24	45	60	108	59	22	65	1705	2700	1900	
M30	3,5	24	45	60	108	59	22	65	1850	3600	2600	
M33	3,5	28	54	70	126	65	26	75	2675	4300	3000	
M33	2	28	54	70	126	65	26	75	2675	4300	3000	
M36	4	28	54	70	126	65	26	75	2700	5100	3700	
M36	3	28	54	70	126	65	26	75	2700	5100	3700	
M42	4,5	32	63	80	144	75	30	85	4000	7000	5000	
M42	3	32	63	80	144	75	30	85	4000	7000	5000	
M48	5	38	68	90	166	85	35	100	6500	8600	6100	
M48	3	38	68	90	166	85	35	100	6500	8600	6100	
M56	5,5	42	78	100	184	95	38	110	8400	11500	8300	
M56	4	42	78	100	184	95	38	110	8400	11500	8300	
M64	6	48	90	110	206	105	42	120	12700	16000	11000	
M64	4	48	90	110	206	105	42	120	12700	16000	11000	



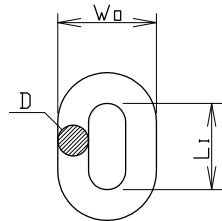
ZINC COATED CHAIN DIN 763



D	L1		W0		SAFE LOAD	LOAD TEST	BREAK LOAD	WEIGHT Kg/m	
	-/+	-/+	-/+	-/+	Kg	N	N		
4	0,5	32	1,5	16	0,8	100	2.000	6.000	0,27
5		35	1,8	20	1	160	3.150	10.000	0,43
6		42	2	24	1,2	224	4.500	14.000	0,63
7		49	2,5	28	1,4	300	6.000	18.000	0,86
8		52	2,5	32	1,6	400	8.000	25.000	1,1
10	1	65	3,2	40	2	630	12.500	40.000	1,75
13		82	4	52	2,5	1000	21.200	63.000	2,95
16		100	5	64	3,2	1600	33.000	100.000	4,45
20		120	6	75	3,8	2500	50.000	160.000	7

ZINC COATED CHAIN DIN 766

DIN 766 LINK CHAIN



D Diameter	L1	Length		In W0 min	out W0 max	11XL1	Zulassige		weight Kg/m
							Klasse A	Klasse B	
4	+0,2	16	+0,3 -0,2	5	13,7	176	+0,8 -0,4	+2,1 -1,1	0,32
5	+0,2	18,5	+0,4 -0,2	6	17	203,5	+0,9 -0,5	+2,4 -1,2	0,5
6	+0,2	18,5	+0,4 -0,2	7,2	20,2	203,5	+0,9 -0,5	+2,4 -1,2	0,8
7	+0,3	22	+0,4 -0,2	8,4	23,8	242	+1,1 -0,5	+3 -1,4	1,1
8	+0,3	24	+0,4 -0,2	9,6	27,2	264	+1,2 -0,6	+3,2 -1,5	1,4
9	+0,4	27	+0,5 -0,3	10,8	30,6	297	+1,3 -0,7	+3,6 -1,8	1,8
10	+0,4	28	+0,5 -0,3	12	34	308	+1,4 -0,7	+3,7 -1,9	2,2
11	+0,4	31	+0,5 -0,3	13,2	37,4	341	+1,5 -0,8	+4 -2	2,7
13	+0,5	36	+0,6 -0,3	15,6	44,2	396	+1,7 -0,9	+4,6 -2,4	3,8
14	+0,6	41	+0,7 -0,4	16,8	47,6	451	+2 -1	+5,4 -2,7	4,4
16	+0,6	45	+0,8 -0,4	19,2	54,4	495	+2,2 -1,1	+6 -3	5,7
18	+0,9	50	+0,8 -0,4	21,6	61,2	550	+2,5 -1,2	+6,6 -3,3	7,3
20	+1	56	+1 -0,5	24	68	616	+2,8 -1,4	+7,4 -3,7	9
23	+1,2	64	+1,1 -0,5	27,6	78,2	704	+3,2 -1,6	+8,4 -4,2	12
26	+1,3	73	+1,2 -0,6	31,2	88,4	803	+3,6 -1,8	+9,6 -4,8	15

GUNNEBO WEBBING SLING (GWS)



Flat webbing slings with eyes
According to European Standard EN 1492-1
Safety factor 7:1.
Made of 100% polyester

Type	WLL (tonnes)	Width (mm)	L1 min (M)	Width of eye (mm)	Weight per meter L1 (kg) approx
GWS	1 T	30	0,4	30	0,17
GWS	2 T	60	0,65	35	0,36
GWS	3 T	90	0,9	45	0,56
GWS	4 T	120	1,3	65	0,74
GWS	5 T	150	1,5	80	0,93
GWS	6 T	180	1,6	95	1,12
GWS	8 T	240	1,85	125	1,65
GWS	10 T	180	1,6	180	2,20
GWS	12 T	180	1,6	180	2,20
GWS	15 T	240	1,85	240	3,26

L1 = effective length
Other sizes can be produced upon request.
Sizes 1-4 ton are packed in a plastic bag with manufacture certificate, bar code and user instruction.

The inside length of eye is according to the European standard:
- A minimum of three times the width of the sling for widths up to 150 mm
- A minimum of two and a half time the width of the sling for widths over 150 mm

GUNNEBO LASHING SYSTEM, 50 MM ACC. TO EUROPEAN STANDARD EN 12195-2

LC = lashing capacity: Maximum direct tensile force that a lashing device can withstand when in use.
Safety factor: 2:1 complete system and metal parts
3:1 non-sewn polyester webbing
Elongation: Maximum 7% when polyester webbing subjected to the LC.
Marking: Traceability code similar to lifting products. A protected label ensures traceability at all circumstances.



GUNNEBO LASHING SYSTEM, 50MM

Type	Lashing capacity (tonnes)	Lashing strength (tonnes)	Short part L =	Long part L =
WLG 2T	2	4	0,5 M	9,5 M
WLG 2T	2	4	0,5 M	7,5 M

Standard fitting: wirehook.
Lashings with other fittings can be produced upon request.
Actual STF = 350 da N at SHF = 50 da N.
*1 ton equivalent to 1000daN

GUNNEBO LASHING SYSTEM, 50MM



Type	Lashing capacity (tonnes)	Lashing strength (tonnes)	Short part L =	Long part L =
WLE 5T	5	10	0,5 M	9,5 M
WLG 5T	5	10	0,5 M	9,5 M
WLS 3T	3	6	0,5 M	9,5 M
WLG 4T	4	8	0,5 M	7,5 M
WLG 4T	4	8	0,5 M	9,5 M

Standard fitting: wirehook 50mm.
Standard fitting WLS: stainless wirehook with latch.
Lashings with other fittings can be produced upon request.

GUNNEBO LASHING SYSTEM, 25-35 MM



WLG 0,5 T



WLG 1,5 T

Type	Lashing capacity (tonnes)	Lashing strength (tonnes)	Width (mm)	Short part L =	Long part L =
WLG 2,5T	2,5	5,0	35	0,5M	4,5M
WLG 2,5T	2,5	5,0	35	0,5M	5,5M
WLG 1,5T	1,5	3,0	25	0,4M	3,6M
WLG 1,5T	1,5	3,0	25	0,5M	4,5M
WLG 0,5T	0,5	1,0	25	0,4M	3,6M
WLG 0,5T	0,5	1,0	25	0,5M	4,5M

Standard fitting wirehook
25-35 mm lashing are packed in plastic bag with bar code marketing.



WLG 2,5T

Master link type M		Master link type M Connection to chain with G-link					
Code	WLL (tonnes)		Dim. in mm			Weight appr. kgs	
	EN1677-4 β 0-45°*	ASTM A952 SF 5:1	L	B	D		
M-6-10	1.25	1.5	100	60	11	0.2	
M-86-10	2.5	3.2	120	70	14	0.4	
M-108-10	4	5.2	140	80	17	0.8	
M-13-10	5.4	5.6	150	90	19	1.0	
M-1310-10	7.5	8	160	95	22	1.5	
M-1613-10	10	13.6	190	110	25	2.3	
M-19-10	12	16	200	120	30	3.5	
M-2016-10	17	20.6	240	140	34	5.3	
M-2220-10	25	30.9	250	150	38	7	
M-2622-10	28	32	250	150	40	8	
M-32-10	33	38.6	300	180	45	12	
M-3226-10	43	46.6	300	200	50	15	
M-3632-10	56	65	350	200	55	21	
M-4536-10	70	72.7	375	210	60	26	
M-90T-10	90	100	450	250	70	43	
M-100T-10	100	100	450	260	80	57	
M-125T-10**	125	125	450	260	80	57	

Master link type MT		Master link type MT Connection to chain with G-link								
Code	WLL (tonnes)		Dim. in mm							Weight appr. kgs
	EN1677-4 β 0-45°*	ASTM A952 SF 5:1	L1	L2	B	D	l	b	d	
MT-6-10***	3.5	5	270	150	90	19	120	70	14	1.8
MT-8-10***	5.2	8	300	160	95	22	140	80	17	3.0
MT-9-10	6.9	9.7	340	190	110	25	150	90	19	4.3
MT-10-10***	11.5	16	360	200	120	30	160	95	22	6.5
MT-13-10***	17	26	450	250	150	40	200	120	30	15
MT-16-10***	28	35	500	300	200	50	200	120	32	23
MT-20-10***	35	50	550	300	200	55	250	150	38	33
MT-22-10	53	75	610	350	200	60	260	140	45	46
MT-26-10	70	100	730	450	250	70	280	160	50	71
MT-32-10	90	125	750	450	260	80	280	160	55	91

Chain type KLB		Chain type KLB				
Code	WLL Tonnes*	D	Dim. in mm		H	Weight appr. kgs
			E			
KLB-6-8E	1.12	6	18		8.5	0.8
KLB-7-8E	1.5	7	21		10	1.1
KLB-8-8E	2.0	8	24		11	1.4
KLB-10-8E	3.15	10	30		14	2.2
KLB-13-8E	5.3	13	39		18	3.7
KLB-16-8E	8.0	16	48		22	5.6
KLB-19-8E	11.2	19	57		26	7.8
KLB-22-8E	15.0	22	66		30	11.0
KLB-26-8E	21.2	26	78		35	14.3
KLB-32-8E	31.5	32	96		43	23

Coupling link type G		Coupling link type G					
Code	WLL Tonnes*	For Chain size mm	L	Dim. in mm		E	Weight appr. kgs
				B	G		
G-6-8	1.12	6	44	15	7	17	0.1
G-7/8-8	2.0	7,8	56	18	9	22	0.2
G-10-8	3.2	10	68	25	12	26	0.3
G-13-8	5.4	13	88	29	15	33	0.7
G-16-3	8.0	16	104	36	19	40	1.1
G-18/20-8	12.5	19	125	43	22	48	1.8
G-22-8	15.5	22	150	49	24	59	3.0
G-26-8	21.6	26	160	58	29	61	4.6
G-32-8	32.0	32	200	70	36	78	8.6

Safety hook type BK										
	Code	WLL Tonnes*	For Chain size mm	L	Dim. in mm			G	H	Weight appr. kgs
					B	E	F			
					BK-6-8	1.12	6			
BK-7/8-8	2.0	7,8	137	36	25	11	17	23	0.8	
BK-10-8	3.2	10	168	44	32	13	25	29	1.5	
BK-13-8	5.4	13	208	54	40	16	28	38	2.8	
BK-16-8	8.0	16	254	63	50	20	37	49	5.6	
BK-18/20-8	12.5	19	290	68	60	22	42	57	7.9	
BK-22-8	15.5	22	320	80	70	24	47	62	11.2	
BK-26-8	21.6	26	345	100	80	25	50	68	14.5	
BK-28-8	25.0	28	400	120	90	27	62	81	22.0	

Swivel Safety hook type BKL											
	Code	WLL Tonnes*	For Chain size mm	L	Dim. in mm			F	G	H	Weight appr. kgs
					B	E	F				
					BKL-6-8	1.12	6				
BKL-7/8-8	2.0	7.8	183	36	27	36	12	17	23	1.1	
BKL-10-8	3.2	10	218	44	37	42	15	25	29	2.0	
BKL-13-8	5.4	13	276	54	43	48	19	28	38	3.8	
BKL-16-8	8.0	16	334	63	58	62	22	37	49	6.8	
BKL-18/20-8	12.5	19	367	69	80	74	26	42	56	10.8	

Safety hook type GBK										
	Code	WLL Tonnes*	For Chain size mm	D	Dim. in mm		H	Weight appr. kgs		
					B	G				
					GBK-7/8-8	2.0			7,8	112
GBK-10-8	3.2	10	137	42	21	26	1.1			
GBK-13-8	5.4	13	167	50	26	30	2.0			
GBK-16-8	8.0	16	198	60	30	38	4.2			

Sling hook type GKN										
	Code	WLL Tonnes*	For Chain size mm	L	Dim. in mm		H	Weight appr. kgs		
					B	G				
					GKN-7/8-8	2.0			7,8	96
GKN-10-8	3.2	10	121	34	23	29	1.0			
GKN-13-8	5.4	13	147	42	28	36	2.1			
GKN-16-8	8.0	16	170	56	33	43	3.4			
GKN-19/20-8	12.5	19	196	60	43	51	6.2			

Sling hook type GG										
	Code	WLL Tonnes*	For Chain size mm	Dim. in mm		B	Weight appr. kgs			
				L	L					
				GG-7-8	1.5			7	56	10
GG-10-8	3.2	10	78	12	0.8					
GG-13-8	5.4	13	97	15	1.5					
GG-16-8	8.0	16	124	19	2.8					
GG-19/20-8	12.5	19	145	22.5	4.8					

Container hook type CH-3										
	Code	WLL Tonnes*	L	B	Dim. in mm		G	E	Weight appr. kgs	
					H	F				
					CH-3	12.5				192
CH-3 Turned 45° left	12.5									
CH-3 Turned 45° right	12.5									






WORKING LOAD LIMITS (TONNES) GRADE 8 CHAIN							Acc. to EN 818-4:1996	
1-leg		2-leg		3-leg		4-leg		Choked endless sling
90°		β α		β α		β α		
For chain size mm		β 0°-45° α 0°-90°	β 45°-60° α 90°-120°	β 0°-45° α 0°-90°	β 45°-60° α 90°-120°			
6	1.12	1.6	1.12	2.36	1.7			1.8
7	1.5	2.12	1.5	3.15	2.24			2.5
8	2.0	2.8	2.0	4.25	3.0			3.15
10	3.15	4.25	3.15	6.7	4.75			5.0
13	5.3	7.5	5.3	11.2	8.0			8.5
16	8.0	11.2	8.0	17.0	11.8			12.5
19	11.2	16.0	11.2	23.6	17.0			18.0
22	15.0	21.2	15.0	31.5	22.4			23.6
26	21.2	30.0	21.2	45.0	31.5			33.5
32	31.5	45.0	31.5	67.0	47.5			50.0

Note: safety factor 4:1. Above limits refer to normal use and equally loaded sling legs.

GUNNEBO GRABIQ
LIFTING

Chain type KLA 8+	Grade 8+						Master Grab Duo, MGD	All-in-one compact top link for 2-leg slings.							
	Code	WLL Tonnes*	ϕ Dmm (nom)	p	W1	Weight kgs/m		Code	WLL Tonnes*	L	B	E	H	Weight kgs	
	EGKN 6-8+	1,5	6	18	8	1,0		MG 6-8+	2,1	144	90	60	17	0,7	
	EGKN 8-8+	2,5	8	24	11	1,7		MG 8-8+	3,5	171	100	75	21	1,4	
	EGKN 10-8+	4	10	30	14	2,6		MG 10-8+	5,6	211	124	90	24	2,5	
	EGKN 13-8+	6,5	13	39	18	4,5		MG 13-8+	9,1	262	148	105	29	5	
	EGKN 16-8+	10	16	48	22	6,6		MG 16-8+	14	309	175	120	35	8,9	
C-Grab, CG	For use with master links and choke.						C-Grab Duo, CGD	For use with master links.							
	Code	WLL Tonnes*	L	B	E	H	Weight kgs		Code	WLL Tonnes*	L	B	E	H	Weight kgs
	CG 6-8+	1,5	80	11	24	19	0,3		MG 6-8+	2,1	79	11	24	20	0,5
	CG 8-8+	2,5	107	12	32	24	0,8		MG 8-8+	3,5	106	12	32	29	1,3
	CG 10-8+	4	134	15	40	29	1,5		MG 10-8+	5,6	133	15	40	37	2,5
	CG 13-8+	6,5	172	18	52	38	3,2		MG 13-8+	9,1	173	18	52	46	5,5
	CG 16-8+	10	215	22	64	47	6,1		MG 16-8+	14	215	22	64	57	10,2
Safety hook, BKG							Sling hook, EGKN								
	Code	WLL Tonnes*	L	B	E	H	Weight kgs		Code	WLL Tonnes*	L	B	E	H	Weight kgs
	BKG 6-8+	1,5	91	29	15	21	0,5		EGKN 6-8+	1,5	86	27	17	20	0,4
	BKG 8-8+	2,5	120	36	20	27	1,0		EGKN 8-8+	2,5	95	31	17	22	0,5
	BKG 10-8+	4	142	44	25	33	1,8		EGKN 10-8+	4	121	41	23	30	1,0
	BKG 13-8+	6,5	178	54	32	40	3,1		EGKN 13-8+	6,5	145	49	28	38	2,0
	BKG 16-8+	10	216	61	39	51	5,6		EGKN 16-8+	10	170	59	36	45	3,8

WORKING LOAD LIMITS FOR SLINGS USING FIBRE CORED ROPE OF CLASSES 6X19 AND 6X36 IN GRADE 1770 AND HAVING FERRULE-SECURED EYE TERMINATIONS

	One leg sling	Two leg sling		Three and four leg sling		Endless sling
Angle to the vertical	0°	0° to 45°	over 45° to 60°	0° to 45°	over 45° to 60°	0°
						
	Direct	Direct	Direct	Direct	Direct	Choke hitch
Nominal rope diameter mm	Working load limits †					
8	0,700	0,950	0,700	1,50	1,05	1,10
9	0,850	1,20	0,850	1,80	1,30	1,40
10	1,05	1,50	1,05	2,25	1,60	1,70
11	1,30	1,80	1,30	2,70	1,95	2,12
12	1,55	2,12	1,55	3,30	2,30	2,50
13	1,80	2,50	1,80	3,85	2,70	2,90
14	2,12	3,00	2,12	4,35	3,15	3,30
16	2,70	3,85	2,70	5,65	4,20	4,35
18	3,40	4,80	3,40	7,20	5,20	5,65
20	4,35	6,00	4,35	9,00	6,50	6,90
22	5,20	7,20	5,20	11,0	7,80	8,40
24	6,30	8,80	6,30	13,5	9,40	10,0
26	7,20	10,0	7,20	15,0	11,0	11,8
28	8,40	11,8	8,40	18,0	12,5	13,5
32	11,0	15,0	11,0	23,5	16,5	18,0
36	14,0	19,0	14,0	29,0	21,0	22,5
40	17,0	23,5	17,0	36,0	26,0	28,0
44	21,0	29,0	21,0	44,0	31,5	33,5
48	25,0	35,0	25,0	52,0	37,0	40,0
52	29,0	40,0	29,0	62,0	44,0	47,0

WORKING LOAD LIMITS FOR SLINGS USING STEEL CORED ROPE OF CLASSES 6X19 AND 6X36 IN GRADE 1770 AND HAVING FERRULE-SECURED EYE TERMINATIONS

Nominal rope diameter mm	Working load limits †					
8	0,750	1,05	0,750	1,55	1,10	1,20
9	0,950	1,30	0,950	2,00	1,40	1,50
10	1,15	1,60	1,15	2,40	1,70	1,85
11	1,40	2,00	1,40	3,00	2,12	2,25
12	1,70	2,30	1,70	3,55	2,50	2,70
13	2,00	2,80	2,00	4,15	3,00	3,15
14	2,25	3,15	2,25	4,80	3,40	3,70
16	3,00	4,20	3,00	6,30	4,50	4,80
18	3,70	5,20	3,70	7,80	5,65	6,00
20	4,60	6,50	4,60	9,80	6,90	7,35
22	5,65	7,80	5,65	11,8	8,40	9,00
24	6,70	9,40	6,70	14,0	10,0	10,6
26	7,80	11,0	7,80	16,5	11,5	12,5
28	9,00	12,5	9,00	19,0	13,5	14,5
32	11,8	16,5	11,8	25,0	17,5	19,0
36	15,0	21,0	15,0	31,5	22,5	23,5
40	18,5	26,0	18,5	39,0	28,0	30,0
44	22,5	31,5	22,5	47,0	33,5	36,0
48	26,0	37,0	26,0	55,0	40,0	42,0
52	31,5	44,0	31,5	66,0	47,0	50,0