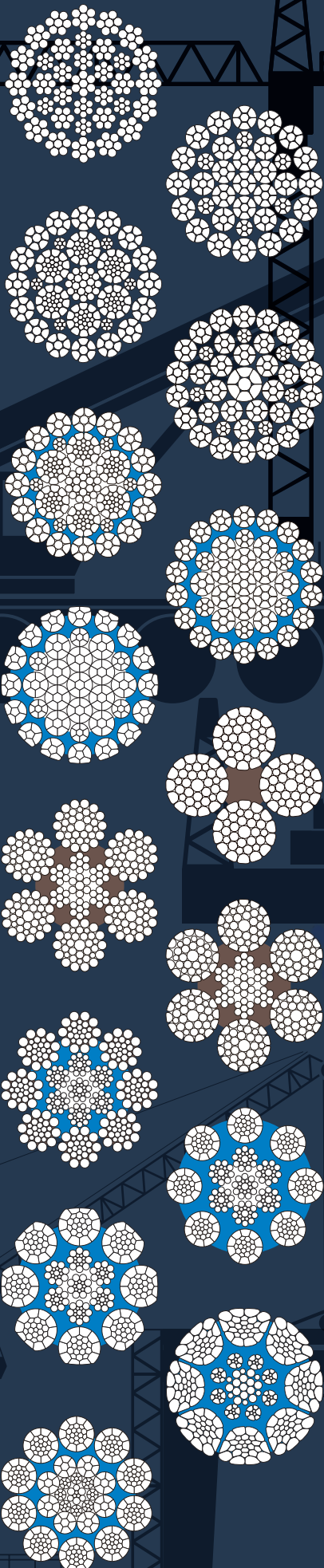
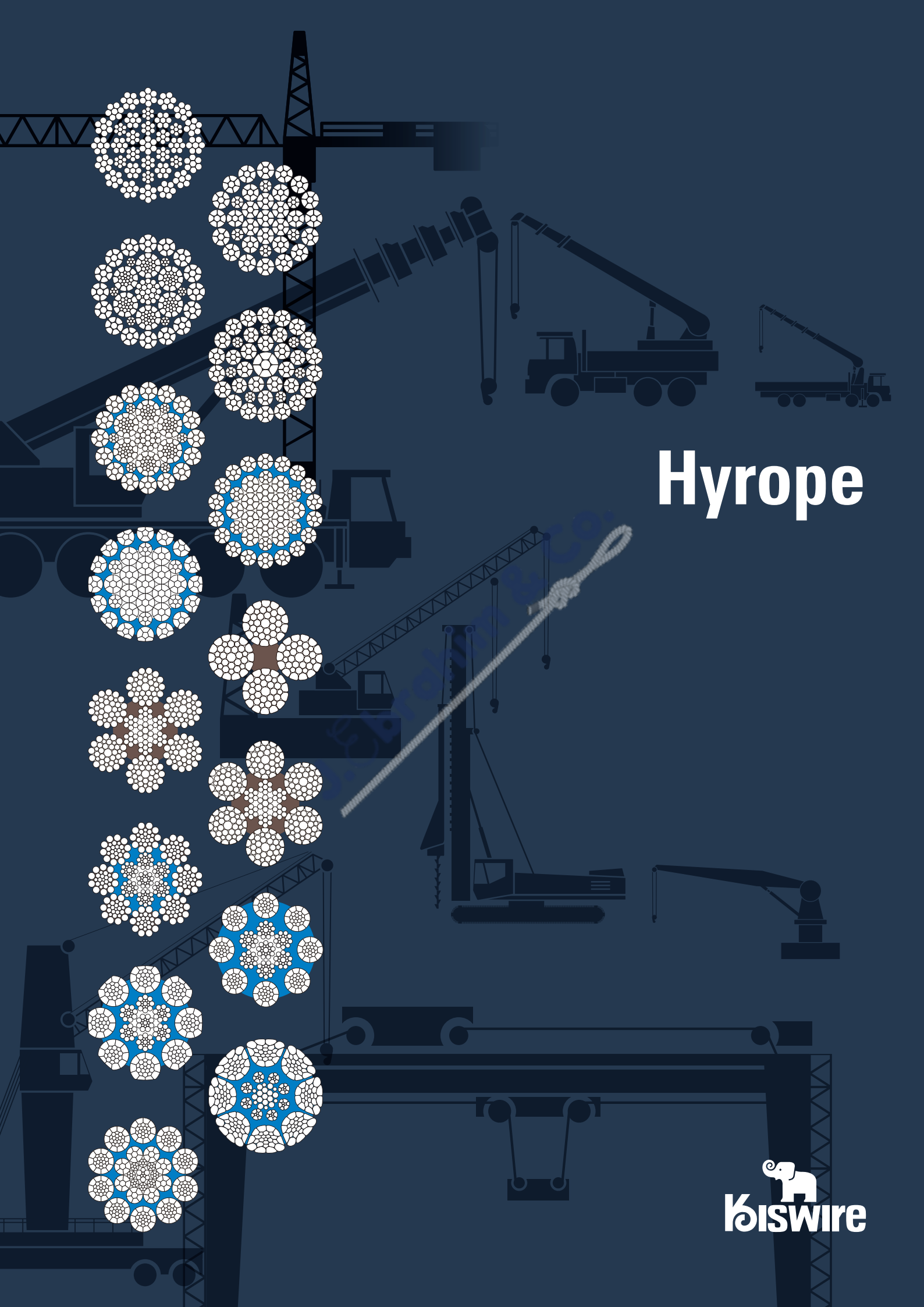




Hyrope





Hyrope



Introduction

Kiswire is the largest wire rope manufacturer in the world with over 70 years of comprehensive experience in rope making. Our continuous commitment to Research & Development, along with the technological advantages we have developed, have allowed us to produce what we consider the best quality crane ropes (SWR: Specialty Wire Rope for Crane) available in the world. We are especially proud of our **HYROPE** series of SWR.

The **HYROPE** series, is manufactured utilizing the finest raw materials available featuring excellent mechanical characteristics. These qualities create the advantage of having a rope that exceeds the present requirements of the international SWR market.

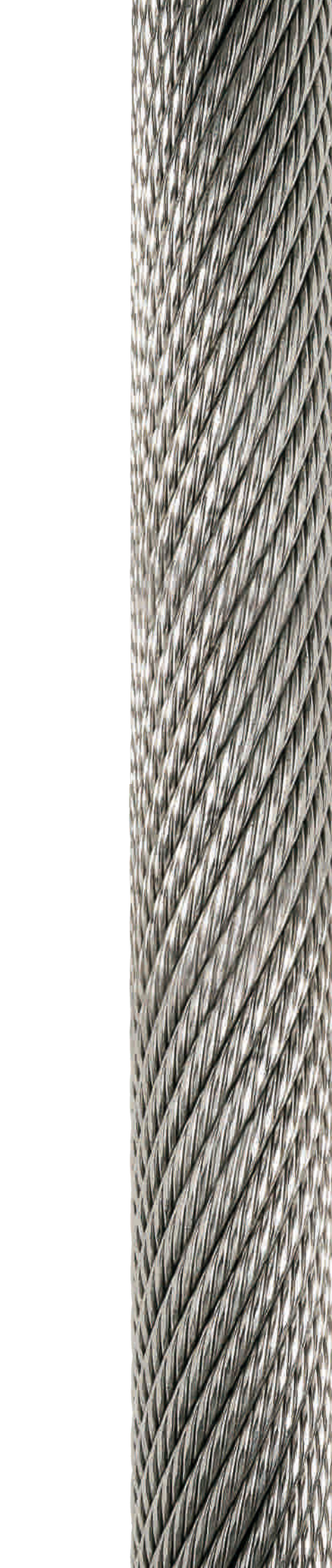
Our commitment to R&D is reflected in the expert team dedicated to **HYROPE**. This commitment will allow us to retain and improve on our market position in the SWR market and will ensure we lead the SWR market in innovation and improvement for years to come.

Our ultimate goal is to provide the market with the best SWR available anywhere with our **HYROPE** series.

Kiswire will never rest.

Advantages of Hyrope

- Excellent strength to weight ratio
- Long fatigue life
- Good abrasion and wear resistance
- High torsional strength
- Easy rope handling
- Excellent corrosion resistance
- Reliable quality assurance

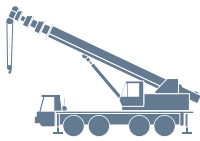
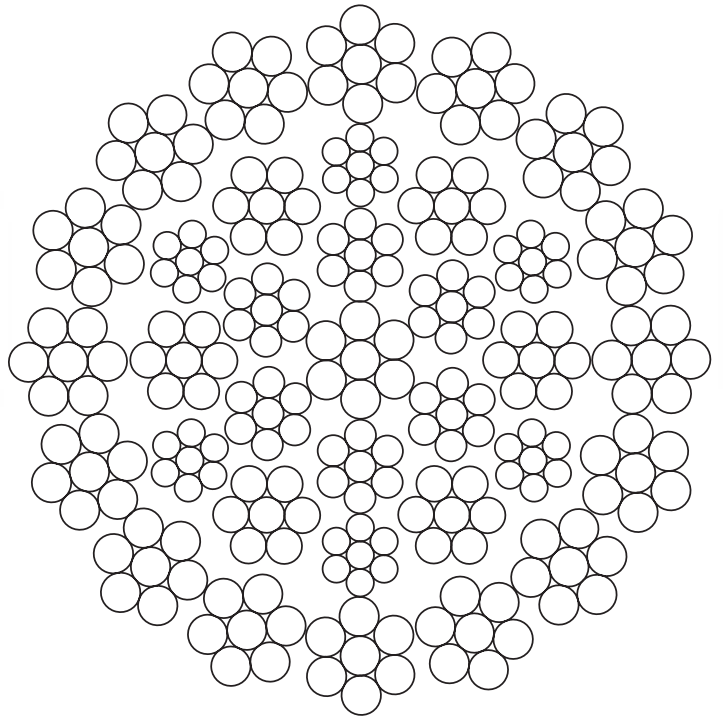


Contents

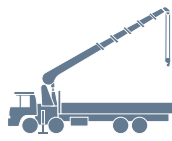
4	Hylift R16 Telescopic Crane, Truck Crane, Crawler Crane, Loader Crane, Tower Crane, Overhead Traveling Crane
6	Hylift K16 Telescopic Crane, Truck Crane, Crawler Crane, Loader Crane, Tower Crane, Piledriving Equipment, Overhead Traveling Crane, Deck Crane, Offshore Crane
8	Hylift K16S Telescopic Crane, Crawler Crane, Offshore Crane
10	Hylift K18 Telescopic Crane, Crawler Crane
12	Hyfil K16S Offshore Crane
14	Hyfil K18 Piledriving Equipment, Deck Crane
16	Hyfil K16T Deck Crane, Offshore Crane
18	Hylift K4 Deck Crane
20	Hyfil R6F Gantry Crane, RTGC / RMGC
22	Hyfil K6F Ladle Crane, Gantry Crane, RTGC / RMGC
24	Hyfil R8 Tower Crane, Overhead Traveling Crane, Ladle Crane, Gantry Crane, RTGC / RMGC, Mobile Harbour Crane, Deck Crane, Offshore Crane
26	Hyfil K8 Crawler Crane, Tower Crane, Piledriving Equipment, Overhead Traveling Crane, Ladle Crane, Gantry Crane, RTGC / RMGC, Mobile Harbour Crane, Deck Crane, Offshore Crane
28	Hyfil K8W Crawler Crane, Tower Crane, Piledriving Equipment, Overhead Traveling Crane, Ladle Crane, Gantry Crane, RTGC / RMGC, Mobile Harbour Crane, Deck Crane, Offshore Crane
30	Hyfil K8T Crawler Crane, Overhead Traveling Crane, Gantry Crane, Mobile Harbour Crane, Deck Crane, Offshore Crane
32	Hyfil K10 Offshore Crane, Dredge Vessel
34	Product Advantages - Wire Quality - Compacted and rotary Swaged Strands - Comparison of Breaking Load - Plastic Layer - Bending Fatigue - Torque Factor - Bending fatigue in dependence on the groove diameter - Modulus of elasticity - Radial stability without load - Flexibility
39	Product Selection

Hylift R16

- Rotation Resistant Rope
- Should be used with a Swivel
- Zinc Coated / Alumar Coated / Bright



TELESCOPIC CRANE



TRUCK CRANE



CRAWLER CRANE



LOADER CRANE



TOWER CRANE



OVERHEAD
TRAVELING CRANE

Technical Data

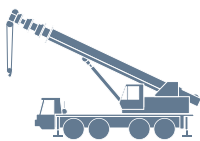
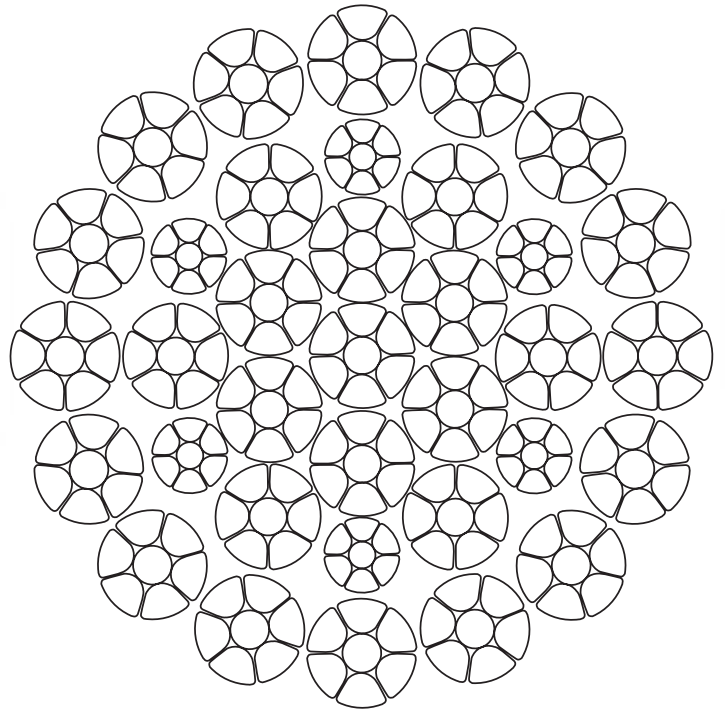
Diameter Range (mm)	Average Fill Factor	Average Spin Factor			Average Weight Factor	Lay Direction
		1770	1960	2160		
8-52	0.635	-	0.805	0.798	0.884	Regular Lay Lang's Lay

Diameter Range (mm)	Total number of load-bearing wires in the outer layer of strands	Discard criteria (Number of broken wires)			
		Single-layer drum & Steel sheaves		Multi-layer drum	
		6xd	30xd	6xd	30xd
8-52	112	3	5	5	10

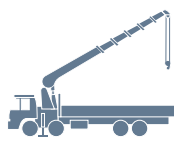
Nominal Rope Diameter	Diameter tolerance	Outer wire Diameter	Metric unit.									Imperial unit.							
			Unit weight	MBL						Unit weight	MBL								
				min.	max.	1770 Grade	1960 Grade	2160 Grade	1770 Grade		1960 Grade	2160 Grade							
mm	inches	mm	mm	mm	kg/m	kN	t(M)	kN	t(M)	kN	t(M)	lb/ft	lbf	t(S)	lbf	t(S)	lbf	t(S)	
8		8.16	8.32	0.40	0.282	45.48	4.64	50.36	5.14	55.01	5.61	0.189	10,209	5.11	11,305	5.66	12,349	6.18	
9		9.18	9.36	0.45	0.357	57.56	5.87	63.74	6.50	69.62	7.10	0.240	12,921	6.47	14,308	7.16	15,628	7.83	
10		10.20	10.40	0.50	0.441	71.06	7.25	78.69	8.02	85.95	8.76	0.296	15,952	7.99	17,664	8.85	19,294	9.66	
11		11.22	11.44	0.55	0.533	85.98	8.77	95.21	9.71	104.0	10.61	0.358	19,301	9.66	21,373	10.70	23,346	11.69	
12		12.24	12.48	0.61	0.635	102.3	10.43	113.3	11.55	123.8	12.62	0.427	22,971	11.50	25,436	12.74	27,791	13.92	
12.7	1/2	12.95	13.21	0.64	0.711	114.6	11.69	126.9	12.94	138.6	14.13	0.478	25,728	12.88	28,491	14.27	31,113	15.58	
13		13.26	13.52	0.66	0.745	120.1	12.25	133.0	13.56	145.3	14.82	0.501	26,958	13.50	29,851	14.95	32,617	16.33	
14		14.28	14.56	0.71	0.864	139.3	14.20	154.2	15.73	168.5	17.18	0.581	31,266	15.66	34,622	17.34	37,825	18.94	
14.3	9/16	14.59	14.87	0.72	0.900	145.1	14.79	160.6	16.38	175.5	17.90	0.605	32,563	16.31	36,058	18.06	39,396	19.73	
15		15.30	15.60	0.76	0.992	159.9	16.30	177.1	18.05	193.4	19.72	0.667	35,892	17.97	39,744	19.90	43,415	21.74	
15.9	5/8	16.22	16.54	0.80	1.114	179.7	18.32	198.9	20.29	217.3	22.16	0.749	40,328	20.19	44,656	22.36	48,780	24.43	
16		16.32	16.64	0.81	1.128	181.9	18.55	201.4	20.54	220.0	22.43	0.758	40,838	20.45	45,219	22.64	49,386	24.73	
17		17.34	17.68	0.86	1.274	205.4	20.94	227.4	23.19	248.4	25.33	0.856	46,102	23.08	51,049	25.56	55,761	27.92	
18		18.36	18.72	0.91	1.428	230.2	23.48	255.0	26.00	278.5	28.40	0.960	51,684	25.88	57,231	28.66	62,518	31.30	
19		19.38	19.76	0.96	1.591	256.5	26.16	284.1	28.97	310.3	31.64	1.069	57,586	28.84	63,768	31.93	69,656	34.88	
19.1	3/4	19.48	19.86	0.96	1.608	259.2	26.44	287.1	29.27	313.6	31.98	1.081	58,194	29.14	64,442	32.27	70,397	35.25	
20		20.40	20.80	1.01	1.763	284.2	28.98	314.8	32.10	343.8	35.06	1.185	63,806	31.95	70,658	35.38	77,177	38.64	
21		21.42	21.84	1.06	1.944	313.4	31.96	347.0	35.39	379.0	38.65	1.306	70,348	35.23	77,899	39.01	85,078	42.60	
22		22.44	22.88	1.11	2.133	343.9	35.07	380.9	38.84	416.0	42.42	1.433	77,208	38.66	85,496	42.81	93,384	46.76	
22.2	7/8	22.64	23.09	1.12	2.177	351.0	35.79	388.7	39.64	424.6	43.30	1.463	78,795	39.46	87,253	43.69	95,315	47.73	
23		23.46	23.92	1.16	2.332	375.9	38.33	416.3	42.45	454.7	46.37	1.567	84,885	42.25	93,445	46.79	102,071	51.11	
24		24.48	24.96	1.21	2.539	409.3	41.74	453.3	46.22	495.1	50.49	1.706	91,682	46.01	101,746	50.95	111,140	55.65	
25		25.50	26.00	1.26	2.755	444.1	45.29	491.8	50.15	537.2	54.78	1.851	99,699	49.92	110,402	55.28	120,591	60.38	
25.4	1	25.91	26.42	1.28	2.844	458.5	46.75	507.7	51.77	554.5	56.54	1.911	102,916	51.53	113,962	57.06	124,475	62.33	
26		26.52	27.04	1.31	2.980	480.4	48.98	531.9	54.24	581.0	59.25	2.002	107,834	54.00	119,410	59.79	130,423	65.31	
27		27.54	28.08	1.36	3.213	508.3	51.83	573.6	58.50	626.6	63.90	2.159	114,104	57.14	128,771	64.48	140,660	70.43	
28		28.56	29.12	1.41	3.456	548.8	55.96	616.9	62.91	673.9	68.72	2.322	123,195	61.69	138,487	69.34	151,278	75.75	
28.6	1-1/8	29.17	29.74	1.44	3.599	580.2	59.17	642.5	65.52	701.8	71.56	2.418	130,253	65.22	144,233	72.22	157,541	78.89	
29		29.58	30.16	1.46	3.707	597.6	60.94	661.8	67.48	722.8	73.71	2.491	134,154	67.18	148,557	74.39	162,255	81.25	
30		30.60	31.20	1.51	3.967	639.6	65.22	708.2	72.22	773.6	78.89	2.666	143,567	71.89	158,977	79.60	173,658	86.96	
31		31.62	32.24	1.56	4.236	682.9	69.64	756.2	77.11	826.0	84.23	2.846	153,298	76.76	169,752	85.00	185,421	92.85	
31.8	1-1/4	32.44	33.07	1.60	4.444	716.3	73.05	793.2	80.69	866.4	88.35	2.986	160,805	80.52	178,067	89.16	194,490	97.39	
32		32.64	33.28	1.61	4.514	727.7	74.20	805.8	82.17	880.1	89.75	3.033	163,348	81.79	180,882	90.57	197,566	98.93	
33		33.66	34.32	1.66	4.800	773.9	78.91	856.9	87.38	936.0	95.45	3.225	173,717	86.99	192,362	96.32	210,114	105.2	
33.5		34.17	34.84	1.69	4.947	797.5	81.32	883.1	90.05	964.6	98.36	3.324	179,019	89.64	198,237	99.26	216,534	108.4	
34		34.68	35.36	1.72	5.096	821.5	83.77	909.7	92.76	993.6	101.3	3.424	184,404	92.34	204,199	102.2	223,044	111.7	
34.9	1-3/8	35.60	36.30	1.76	5.369	865.5	88.26	958.4	97.73	1047	106.8	3.608	194,295	97.29	215,151	107.7	235,009	117.7	
35		35.70	36.40	1.77	5.400	870.5	88.77	963.9	98.29	1053	107.4	3.629	195,411	97.85	216,386	108.4	236,356	118.4	
35.5		36.21	36.92	1.79	5.555	895.6	91.32	991.7	101.1	1083	110.5	3.733	201,034	100.7	222,613	111.5	243,158	121.8	
36		36.72	37.44	1.82	5.713	906.1	92.40	1020	104.0	1114	113.6	3.839	203,402	101.8	228,928	114.6	250,049	125.2	
37		37.74	38.48	1.87	6.035	972.8	99.20	1077	109.8	1177	120.0	4.055	218,382	109.4	241,822	121.1	264,147	132.3	
37.5		38.25	39.00	1.89	6.199	999.3	101.9	1107	112.8	1209	123.3	4.166	224,324	112.3	248,404	124.4	271,330	135.9	
38		38.76	39.52	1.92	6.365	1026	104.6	1136	115.9	1241	126.6	4.277	230,344	115.3	255,071	127.7	278,603	139.5	
38.1	1-1/2	38.86	39.62	1.92	6.399	1032	105.2	1142	116.5	1248	127.2	4.300	231,559	115.9	256,416	128.4	280,085	140.2	
39		39.78	40.56	1.97	6.705	1081	110.2	1197	122.0	1307	133.3	4.506	242,628	121.5	268,672	134.5	293,464	146.9	
40		40.80	41.60	2.02	7.053	1137	115.9	1259	128.4	1375	140.2	4.739	255,230	127.8	282,628	141.5	308,706	154.6	
41		41.82	42.64	2.07	7.410	1195	121.8	1323	134.9	1445	147.3	4.979	268,151	134.3	296,934	148.7	324,330	162.4	
41.3	1-5/8	42.13	42.95	2.08	7.519	1212	123.6	1342	136.9	1466	149.5	5.053	272,089	136.2	301,296	150.9	329,111	164.8	
42		42.84	43.68	2.12	7.776	1254	127.8	1388	141.5	1516	154.6	5.225	281,391	140.9	311,597	156.0	340,358	170.4	
42.5		43.35	44.20	2.14	7.962	1284	130.9	1421	144.9	1553	158.3	5.350	288,130	144.3	319,059	159.8	348,507	174.5	
43		43.86	44.72	2.17	8.150	1314	134.0	1455	148.4	1589	162.1	5.477	294,950	147.7	326,611	163.5	356,745	178.6	
44		44.4																	

Hylift K16

- Rotation Resistant Rope
- Should be used with a Swivel
- Zinc Coated / Alumar Coated / Bright
- Compacted



TELESCOPIC CRANE



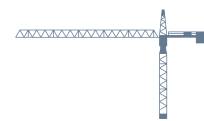
TRUCK CRANE



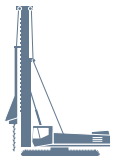
CRAWLER CRANE



LOADER CRANE



TOWER CRANE



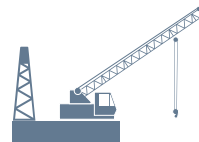
PILEDRIVING
EQUIPMENT



OVERHEAD
TRAVELING CRANE



DECK CRANE



OFFSHORE CRANE

Technical Data

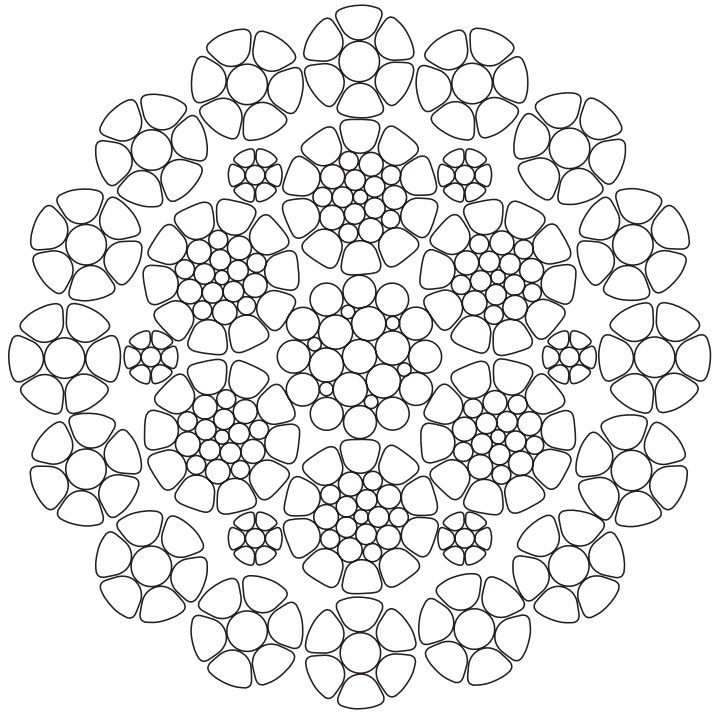
Diameter Range (mm)	Average Fill Factor	Average Spin Factor			Average Weight Factor	Lay Direction
		1770	1960	2160		
8-52	0.724	-	0.856	0.798	0.888	Regular Lay Lang's Lay

Diameter Range (mm)	Total number of load-bearing wires in the outer layer of strands	Discard criteria (Number of broken wires)			
		Single-layer drum & Steel sheaves		Multi-layer drum	
		6xd	30xd	6xd	30xd
8-52	112	3	5	5	10

Nominal Rope Diameter		Diameter tolerance		Outer wire Diameter	Metric unit.								Imperial unit.							
					Unit weight	MBL				Unit weight	MBL									
		min.	max.			weight	1770 Grade	1960 Grade	2160 Grade		weight	1770 Grade	1960 Grade	2160 Grade						
mm	inches	mm	mm	mm	kg/m	kN	t(M)	kN	t(M)	kN	t(M)	lb/ft	lbf	t(S)	lbf	t(S)	lbf	t(S)		
8		8.16	8.32	0.42	0.313	52.84	5.39	61.08	6.23	62.75	6.40	0.210	11,862	5.94	13,710	6.87	14,086	7.05		
9		9.18	9.36	0.48	0.397	66.88	6.82	77.30	7.88	79.42	8.10	0.267	15,013	7.52	17,352	8.69	17,827	8.93		
10		10.20	10.40	0.53	0.490	82.56	8.42	95.43	9.73	98.04	10.00	0.329	18,533	9.28	21,422	10.73	22,009	11.02		
11		11.22	11.44	0.58	0.593	99.9	10.19	115.5	11.77	118.6	12.10	0.398	22,426	11.23	25,921	12.98	26,631	13.33		
12		12.24	12.48	0.64	0.705	118.9	12.12	137.4	14.01	141.2	14.40	0.474	26,691	13.36	30,848	15.45	31,693	15.87		
12.7	1/2	12.95	13.21	0.67	0.790	133.2	13.58	153.9	15.70	158.1	16.13	0.531	29,901	14.97	34,552	17.30	35,498	17.77		
13		13.26	13.52	0.69	0.828	139.5	14.23	161.3	16.45	165.7	16.90	0.556	31,315	15.68	36,203	18.13	37,195	18.62		
14		14.28	14.56	0.74	0.960	161.8	16.50	187.0	19.07	192.2	19.60	0.645	36,321	18.19	41,987	21.02	43,137	21.60		
14.3	9/16	14.59	14.87	0.76	1.002	168.5	17.18	195.1	19.90	200.5	20.44	0.673	37,825	18.94	43,806	21.93	45,006	22.54		
15		15.30	15.60	0.80	1.102	185.8	18.95	214.7	21.89	220.6	22.49	0.741	41,709	20.88	48,200	24.14	49,520	24.80		
15.9	5/8	16.22	16.54	0.84	1.238	208.7	21.28	241.3	24.60	247.9	25.27	0.832	46,849	23.46	54,158	27.12	55,640	27.86		
16		16.32	16.64	0.85	1.254	211.4	21.56	244.3	24.91	251.0	25.59	0.843	47,455	23.76	54,840	27.46	56,342	28.21		
17		17.34	17.68	0.90	1.415	238.6	24.33	275.8	28.12	283.3	28.89	0.951	53,561	26.82	61,910	31.00	63,606	31.85		
18		18.36	18.72	0.96	1.587	267.5	27.28	309.2	31.53	317.7	32.39	1.066	60,049	30.07	69,407	34.75	71,309	35.71		
19		19.38	19.76	1.01	1.768	298.1	30.40	344.5	35.13	353.9	36.09	1.188	66,918	33.51	77,334	38.72	79,452	39.78		
19.1	3/4	19.48	19.86	1.01	1.787	301.2	30.71	348.1	35.50	357.7	36.47	1.201	67,614	33.86	78,151	39.13	80,290	40.20		
20		20.40	20.80	1.06	1.959	330.2	33.67	381.7	38.92	392.2	39.99	1.316	74,124	37.12	85,688	42.91	88,035	44.08		
21		21.42	21.84	1.12	2.160	364.1	37.13	420.8	42.91	432.4	44.09	1.451	81,733	40.93	94,471	47.30	97,059	48.60		
22		22.44	22.88	1.17	2.371	399.6	40.75	461.9	47.10	474.5	48.39	1.593	89,703	44.92	103,683	51.92	106,523	53.34		
22.2	7/8	22.64	23.09	1.18	2.414	407.8	41.58	470.3	47.96	483.2	49.27	1.622	91,543	45.84	105,577	52.87	108,468	54.31		
23		23.46	23.92	1.22	2.591	436.8	44.54	504.8	51.48	518.6	52.89	1.741	98,053	49.10	113,323	56.74	116,427	58.30		
24		24.48	24.96	1.27	2.821	475.6	48.50	549.7	56.05	564.7	57.59	1.896	106,763	53.46	123,391	61.79	126,771	63.48		
25		25.50	26.00	1.33	3.061	516.0	52.62	596.4	60.82	612.8	62.49	2.057	115,832	58.00	133,888	67.04	137,555	68.88		
25.4	1	25.91	26.42	1.35	3.160	532.7	54.32	615.7	62.78	632.5	64.50	2.123	119,581	59.88	138,206	69.20	141,992	71.10		
26		26.52	27.04	1.38	3.311	558.1	56.91	645.1	65.78	662.8	67.58	2.225	125,283	62.73	144,813	72.51	148,780	74.50		
27		27.54	28.08	1.43	3.571	601.9	61.38	695.7	70.94	714.7	72.88	2.400	135,115	67.66	156,167	78.20	160,444	80.34		
28		28.56	29.12	1.49	3.840	647.3	66.01	748.2	76.29	768.7	78.38	2.580	145,306	72.76	167,949	84.10	172,549	86.40		
28.6	1-1/8	29.17	29.74	1.52	4.006	674.1	68.74	780.6	79.60	802.0	81.78	2.692	151,323	75.77	175,224	87.74	180,023	90.14		
29		29.58	30.16	1.54	4.119	694.3	70.80	802.6	81.84	824.5	84.08	2.768	155,857	78.04	180,159	90.21	185,094	92.68		
30		30.60	31.20	1.59	4.408	743.1	75.78	858.9	87.58	882.4	89.98	2.962	166,812	83.53	192,798	96.54	198,079	99.18		
31		31.62	32.24	1.65	4.707	793.4	80.90	917.1	93.52	942.2	96.08	3.163	178,103	89.18	205,866	103.1	211,505	105.9		
31.8	1-1/4	32.44	33.07	1.69	4.953	832.3	84.87	965.0	98.40	991.5	101.1	3.328	186,835	93.55	216,628	108.5	222,562	111.4		
32		32.64	33.28	1.70	5.015	845.4	86.21	977.2	99.65	1004	102.4	3.370	189,776	95.03	219,362	109.8	225,370	112.8		
33		33.66	34.32	1.75	5.334	899.1	91.68	1033	106.0	1068	108.9	3.584	201,831	101.1	233,286	116.8	239,676	120.0		
33.5		34.17	34.84	1.78	5.497	927.0	94.53	1071	109.2	1100	112.2	3.694	208,094	104.2	240,409	120.4	246,994	123.7		
34		34.68	35.36	1.81	5.662	954.0	97.29	1103	112.5	1133	115.6	3.805	214,155	107.2	247,639	124.0	254,422	127.4		
34.9	1-3/8	35.60	36.30	1.85	5.966	1006	102.6	1162	118.5	1194	121.8	4.009	225,828	113.1	260,923	130.7	268,069	134.2		
35		35.70	36.40	1.86	6.000	1011	103.1	1169	119.2	1201	122.5	4.032	226,950	113.6	262,420	131.4	269,608	135.0		
35.5		36.21	36.92	1.89	6.172	1040	106.1	1203	122.6	1236	126.0	4.147	233,460	116.9	269,971	135.2	277,366	138.9		
36		36.72	37.44	1.91	6.348	1070	109.1	1237	126.1	1271	129.6	4.266	240,195	120.3	277,630	139.0	285,234	142.8		
37		37.74	38.48	1.96	6.705	1130	115.2	1306	133.2	1342	136.9	4.506	253,663	127.0	293,268	146.8	301,301	150.9		
37.5		38.25	39.00	1.99	6.888	1161	118.4	1342	136.8	1379	140.6	4.629	260,622	130.5	301,248	150.8	309,499	155.0		
38		38.76	39.52	2.02	7.072	1192	121.6	1378	140.5	1416	144.4	4.752	267,581	134.0	309,334	154.9	317,807	159.1		
38.1	1-1/2	38.86	39.62	2.02	7.110	1198	122.2	1385	141.3	1423	145.1	4.778	268,928	134.7	310,964	155.7	319,481	160.0		
39		39.78	40.56	2.07	7.450	1256	128.1	1451	148.0	1491	152.1	5.006	281,948	141.2	325,829	163.2	334,754	167.6		
40		40.80	41.60	2.12	7.837	1321	134.7	1527	155.7	1569	160.0	5.266	296,539	148.5	342,753	171.6	352,141	176.3		
41		41.82	42.64	2.18	8.233	1388	141.5	1604	163.6	1648	168.1	5.532	311,579	156.0	360,105	180.3	369,968	185.3		
41.3	1-5/8	42.13	42.95	2.19	8.354	1408	143.6	1628	166.0	1672	170.5	5.614	316,069	158.3	365,394	183.0	375,402	188.0		
42		42.84	43.68	2.23	8.640	1456	148.5	1683	171.7	1729	176.4	5.806	326,844	163.7	377,885	189.2	388,235	194.4		
42.5		43.35	44.20	2.26	8.847	1491	152.0	1724	175.8	1771	180.6	5.945	334,701	167.6	386,936	193.8	397,534	199.1		
43		43.86	44.72	2.28	9.056	1527	155.7	1764	179.9	1813	184.9	6.085	342,782	171.6	396,094	198.3	406,943	203.8		
44		44.88	45.76	2.34	9.482	1598	163.0	1848	188.4	1898	193.6	td								

Hylift K16S

- Rotation Resistant Rope
- Should be used with a Swivel
- Zinc Coated / Alumar Coated / Bright
- Compacted



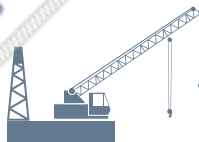
J. Ebrahim & Co.



TELESCOPIC CRANE



CRAWLER CRANE



OFFSHORE CRANE

Technical Data

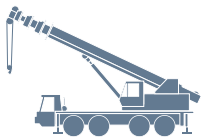
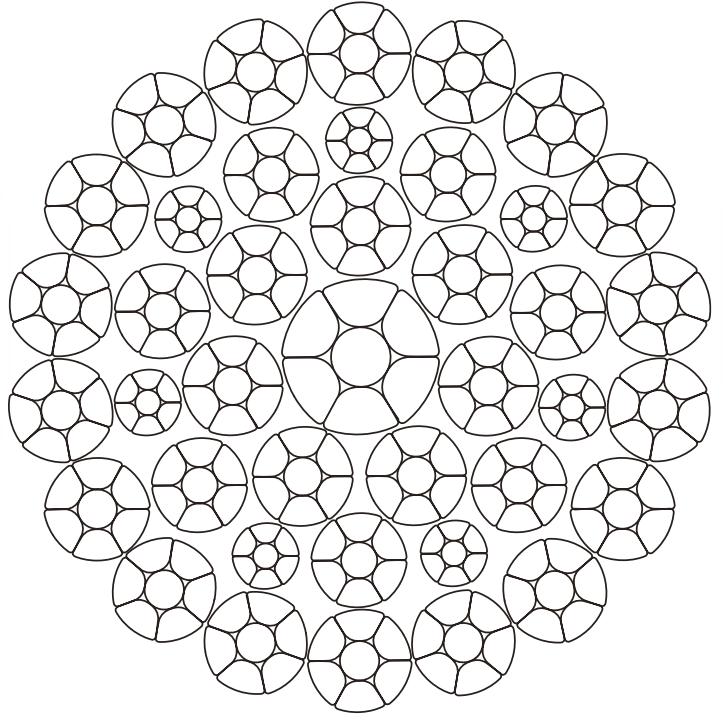
Diameter Range (mm)	Average Fill Factor	Average Spin Factor			Average Weight Factor	Lay Direction
		1770	1960	2160		
12-40	0.716	-	0.891	0.842	0.889	Regular Lay Lang's Lay

Diameter Range (mm)	Total number of load-bearing wires in the outer layer of strands	Discard criteria (Number of broken wires)			
		Single-layer drum & Steel sheaves		Multi-layer drum	
		6xd	30xd	6xd	30xd
12-40	112	3	5	5	10

Nominal Rope Diameter		Diameter tolerance		Outer wire Diameter	Metric unit.					Imperial unit.				
					Unit weight	MBL				Unit weight	MBL			
		min.	max.			1960 Grade	2160 Grade		1960 Grade		2160 Grade			
mm	inches	mm	mm	mm	kg/m	kN	t(M)	kN	t(M)	lb/ft	lbf	t(S)	lbf	t(S)
12		12.24	12.48	0.63	0.722	141.4	14.42	147.3	15.02	0.485	31,746	15.90	33,056	16.55
12.7	1/2	12.70	13.21	0.67	0.808	158.4	16.15	164.9	16.82	0.543	35,558	17.80	37,025	18.54
13		13.00	13.52	0.68	0.847	166.0	16.92	172.8	17.62	0.569	37,258	18.66	38,795	19.43
14		14.00	14.56	0.73	0.982	192.5	19.63	200.4	20.44	0.660	43,210	21.64	44,993	22.53
14.3	9/16	14.30	14.87	0.75	1.025	200.8	20.48	209.1	21.32	0.689	45,082	22.57	46,942	23.51
15		15.00	15.60	0.79	1.127	221.0	22.53	230.1	23.46	0.757	49,603	24.84	51,650	25.86
15.9	5/8	15.90	16.54	0.83	1.267	248.3	25.32	258.5	26.36	0.851	55,734	27.91	58,034	29.06
16		16.00	16.64	0.84	1.283	251.4	25.64	261.8	26.70	0.862	56,438	28.26	58,767	29.43
17		17.00	17.68	0.89	1.448	283.8	28.94	295.5	30.14	0.973	63,713	31.90	66,342	33.22
18		18.00	18.72	0.94	1.623	318.2	32.45	331.3	33.79	1.091	71,429	35.77	74,376	37.24
19		19.00	19.76	1.00	1.809	354.5	36.15	369.2	37.64	1.216	79,586	39.85	82,870	41.50
19.1	3/4	19.10	19.86	1.00	1.828	358.3	36.53	373.1	38.04	1.228	80,426	40.27	83,745	41.93
20		20.00	20.80	1.05	2.004	392.8	40.06	409.0	41.71	1.347	88,184	44.16	91,823	45.98
21		21.00	21.84	1.10	2.210	433.1	44.16	451.0	45.99	1.485	97,223	48.68	101,235	50.69
22		22.00	22.88	1.15	2.425	475.3	48.47	494.9	50.47	1.630	106,703	53.43	111,105	55.63
22.2	7/8	22.20	23.09	1.16	2.469	484.0	49.36	504.0	51.39	1.659	108,651	54.40	113,135	56.65
23		23.00	23.92	1.21	2.651	519.5	52.98	541.0	55.16	1.781	116,623	58.40	121,436	60.81
24		24.00	24.96	1.26	2.886	565.7	57.68	589.0	60.06	1.939	126,985	63.59	132,225	66.21
25		25.00	26.00	1.31	3.132	613.8	62.59	639.1	65.17	2.105	137,787	68.99	143,473	71.84
25.4	1	25.40	26.42	1.33	3.233	633.6	64.61	659.7	67.28	2.172	142,232	71.22	148,101	74.16
26		26.00	27.04	1.36	3.387	663.9	67.70	691.3	70.49	2.276	149,031	74.62	155,181	77.70
27		27.00	28.08	1.41	3.653	715.9	73.01	745.5	76.02	2.455	160,715	80.47	167,347	83.80
28		28.00	29.12	1.47	3.928	770.0	78.51	801.7	81.75	2.639	172,840	86.55	179,973	90.12
28.6	1-1/8	28.60	29.74	1.50	4.099	803.3	81.91	836.5	85.29	2.754	180,327	90.30	187,768	94.02
29		29.00	30.16	1.52	4.214	825.9	84.22	860.0	87.70	2.832	185,407	92.84	193,057	96.67
30		30.00	31.20	1.57	4.510	883.9	90.13	920.4	93.85	3.031	198,414	99.35	206,601	103.5
31		31.00	32.24	1.62	4.815	943.8	96.24	982.7	100.2	3.236	211,862	106.1	220,604	110.5
31.8	1-1/4	31.80	33.07	1.67	5.067	993.1	101.3	1034	105.4	3.405	222,938	111.6	232,137	116.2
32		32.00	33.28	1.68	5.131	1006	102.5	1047	106.8	3.448	225,751	113.0	235,066	117.7
33		33.00	34.32	1.73	5.457	1069	109.1	1114	113.6	3.667	240,081	120.2	249,988	125.2
34		34.00	35.36	1.78	5.792	1135	115.8	1182	120.5	3.892	254,851	127.6	265,368	132.9
34.9	1-3/8	34.90	36.30	1.83	6.103	1196	122.0	1246	127.0	4.101	268,522	134.5	279,603	140.0
35		35.00	36.40	1.83	6.138	1203	122.7	1253	127.7	4.125	270,063	135.2	281,207	140.8
36		36.00	37.44	1.89	6.494	1273	129.8	1325	135.1	4.364	285,716	143.1	297,506	149.0
37		37.00	38.48	1.94	6.860	1344	137.1	1400	142.8	4.610	301,809	151.1	314,264	157.4
38		38.00	39.52	1.99	7.235	1418	144.6	1477	150.6	4.862	318,344	159.4	331,480	166.0
38.1	1-1/2	38.10	39.62	2.00	7.274	1426	145.4	1484	151.4	4.888	320,021	160.2	333,227	166.9
39		39.00	40.56	2.04	7.621	1494	152.3	1555	158.6	5.121	335,319	167.9	349,156	174.8
40		40.00	41.60	2.10	8.017	1571	160.2	1636	166.8	5.387	352,735	176.6	367,291	183.9

Hylift K18

- Rotation Resistant Rope
- Should be used with a Swivel
- Zinc Coated / Alumar Coated / Bright
- Compacted



TELESCOPIC CRANE



CRAWLER CRANE

J. Ebrahim & Co.

Technical Data

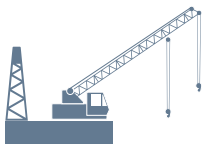
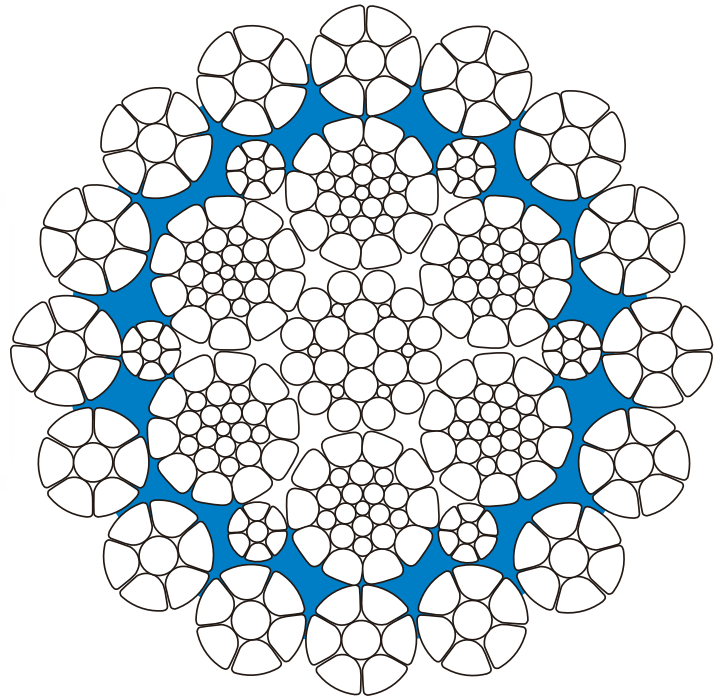
Diameter Range (mm)	Average Fill Factor	Average Spin Factor			Average Weight Factor	Lay Direction
		1770	1960	2160		
10-32	0.686	-	0.845	0.818	0.894	Regular Lay Lang's Lay

Diameter Range (mm)	Total number of load-bearing wires in the outer layer of strands	Discard criteria (Number of broken wires)			
		Single-layer drum & Steel sheaves		Multi-layer drum	
		6xd	30xd	6xd	30xd
10-32	126	3	5	6	11

Nominal Rope Diameter		Diameter tolerance		Outer wire Diameter	Metric unit.					Imperial unit.				
					Unit weight	MBL				Unit weight	MBL			
		min.	max.			1960 Grade	2160 Grade		1960 Grade		2160 Grade			
mm	inches	mm	mm	mm	kg/m	kN	t(M)	kN	t(M)	lb/ft	lbf	t(S)	lbf	t(S)
10		10.20	10.40	0.48	0.481	89.22	9.10	95.17	9.70	0.323	20,028	10.03	21,364	10.70
11		11.22	11.44	0.53	0.583	108.0	11.01	115.2	11.75	0.392	24,244	12.14	25,860	12.95
12		12.24	12.48	0.57	0.693	128.5	13.10	137.0	13.97	0.466	28,846	14.44	30,754	15.40
12.7	1/2	12.95	13.21	0.61	0.777	143.9	14.67	153.5	15.65	0.522	32,303	16.17	34,458	17.25
13		13.26	13.52	0.62	0.814	150.8	15.38	160.8	16.40	0.547	33,852	16.95	36,097	18.07
14		14.28	14.56	0.67	0.944	174.9	17.83	186.5	19.02	0.634	39,262	19.66	41,866	20.96
14.3	9/16	14.59	14.87	0.68	0.983	182.1	18.57	194.3	19.81	0.661	40,878	20.47	43,617	21.84
15		15.30	15.60	0.72	1.083	200.7	20.47	214.1	21.83	0.728	45,053	22.56	48,061	24.07
15.9	5/8	16.22	16.54	0.76	1.217	225.6	23.00	240.6	24.53	0.818	50,643	25.36	54,010	27.04
16		16.32	16.64	0.76	1.233	228.4	23.29	243.6	24.84	0.829	51,271	25.67	54,684	27.38
17		17.34	17.68	0.81	1.391	257.8	26.29	275.0	28.04	0.935	57,871	28.98	61,732	30.91
18		18.36	18.72	0.86	1.560	289.1	29.48	308.4	31.45	1.048	64,897	32.50	69,230	34.67
19		19.38	19.76	0.91	1.738	322.1	32.85	343.6	35.04	1.168	72,305	36.21	77,132	38.62
19.1	3/4	19.48	19.86	0.92	1.756	325.5	33.19	347.2	35.40	1.180	73,069	36.59	77,940	39.03
20		20.40	20.80	0.96	1.926	356.9	36.39	380.7	38.82	1.294	80,117	40.12	85,460	42.79
21		21.42	21.84	1.00	2.123	393.5	40.13	419.7	42.80	1.427	88,333	44.23	94,215	47.18
22		22.44	22.88	1.05	2.330	431.8	44.03	460.6	46.97	1.566	96,931	48.54	103,396	51.77
22.2	7/8	22.64	23.09	1.06	2.378	440.7	44.94	470.1	47.94	1.598	98,929	49.54	105,528	52.84
23		23.46	23.92	1.10	2.547	472.0	48.13	503.5	51.34	1.712	105,955	53.05	113,026	56.60
24		24.48	24.96	1.15	2.773	513.9	52.40	548.2	55.90	1.863	115,361	57.76	123,060	61.62
25		25.50	26.00	1.19	3.009	557.6	56.86	594.8	60.65	2.022	125,171	62.68	133,521	66.86
25.4	1	25.91	26.42	1.21	3.106	575.6	58.69	614.0	62.61	2.097	129,211	64.70	137,831	69.02
26		26.52	27.04	1.24	3.255	603.1	61.50	643.4	65.61	2.187	135,384	67.79	144,431	72.32
27		27.54	28.08	1.29	3.510	650.4	66.32	693.8	70.75	2.359	146,002	73.11	155,745	77.99
28		28.56	29.12	1.34	3.775	699.5	71.33	746.1	76.08	2.537	157,024	78.63	167,485	83.86
28.6	1-1/8	29.17	29.74	1.37	3.931	728.5	74.29	777.1	79.24	2.642	163,534	81.89	174,444	87.35
29		29.58	30.16	1.39	4.049	750.3	76.51	800.4	81.62	2.721	168,428	84.34	179,675	89.97
30		30.60	31.20	1.43	4.333	803.0	81.88	856.5	87.34	2.912	180,258	90.26	192,268	96.27
31		31.62	32.24	1.48	4.627	857.4	87.43	914.6	93.26	3.109	192,470	96.38	205,310	102.8
31.8	1-1/4	32.44	33.07	1.52	4.854	899.4	91.71	959.4	97.83	3.262	201,898	101.1	215,367	107.8
32		32.64	33.28	1.53	4.930	913.6	93.16	974.5	99.37	3.313	205,086	102.7	218,757	109.5

Hyfil K16S

- Rotation Resistant Rope
- Should be used with a Swivel
- Zinc Coated / Alumar Coated / Bright
- Compacted
- Steel Plastic Combination



OFFSHORE CRANE

J. Ebrahim & Co.

Technical Data

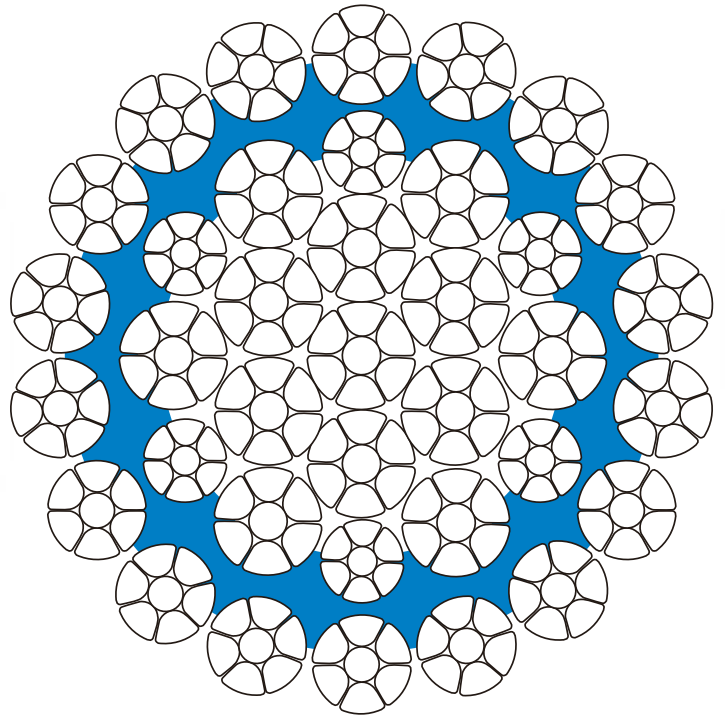
Diameter Range (mm)	Average Fill Factor	Average Spin Factor			Average Weight Factor	Lay Direction
		1770	1960	2160		
13-40	0.733	-	0.829	0.803	0.898	Regular Lay Lang's Lay

Diameter Range (mm)	Total number of load-bearing wires in the outer layer of strands	Discard criteria (Number of broken wires)			
		Single-layer drum & Steel sheaves		Multi-layer drum	
		6xd	30xd	6xd	30xd
13-40	112	3	5	5	10

Nominal Rope Diameter		Diameter tolerance		Outer wire Diameter	Metric unit.						Imperial unit.			
					Unit weight	MBL				Unit weight	MBL			
		min.	max.			1960 Grade	2160 Grade		1960 Grade		2160 Grade			
mm	inches	mm	mm	mm	kg/m	kN	t(M)	kN	t(M)	lb/ft	lbf	t(S)	lbf	t(S)
12		12.24	12.48	0.65	0.743	134.7	13.74	143.8	14.66	0.499	30,238	15.14	32,280	16.16
12.7	1/2	12.95	13.21	0.68	0.832	150.9	15.39	161.1	16.43	0.559	33,874	16.96	36,164	18.11
13		13.26	13.52	0.70	0.872	158.1	16.12	168.8	17.21	0.586	35,490	17.77	37,892	18.97
14		14.28	14.56	0.75	1.011	183.4	18.70	195.8	19.97	0.679	41,170	20.61	43,953	22.01
14.3	9/16	14.59	14.87	0.77	1.053	191.0	19.48	203.9	20.79	0.708	42,876	21.47	45,772	22.92
15		15.30	15.60	0.81	1.161	210.5	21.47	224.7	22.91	0.780	47,253	23.66	50,441	25.26
15.9	5/8	16.22	16.54	0.86	1.304	236.5	24.12	252.5	25.75	0.876	53,090	26.58	56,681	28.38
16		16.32	16.64	0.86	1.321	239.5	24.42	255.7	26.07	0.888	53,763	26.92	57,400	28.74
17		17.34	17.68	0.91	1.491	270.4	27.57	288.7	29.44	1.002	60,700	30.39	64,808	32.45
18		18.36	18.72	0.97	1.672	303.2	30.92	323.6	33.00	1.124	68,063	34.08	72,642	36.37
19		19.38	19.76	1.02	1.863	337.8	34.45	360.6	36.77	1.252	75,830	37.97	80,948	40.53
19.1	3/4	19.48	19.86	1.03	1.882	341.3	34.80	364.4	37.16	1.265	76,615	38.36	81,801	40.96
20		20.40	20.80	1.08	2.064	374.3	38.17	399.5	40.74	1.387	84,023	42.07	89,680	44.91
21		21.42	21.84	1.13	2.275	412.6	42.07	440.5	44.92	1.529	92,621	46.38	98,884	49.51
22		22.44	22.88	1.18	2.497	452.9	46.18	483.4	49.29	1.678	101,667	50.91	108,514	54.34
22.2	7/8	22.64	23.09	1.20	2.549	462.2	47.13	493.4	50.31	1.713	103,755	51.95	110,759	55.46
23		23.46	23.92	1.24	2.729	495.0	50.48	528.4	53.88	1.834	111,118	55.64	118,616	59.39
24		24.48	24.96	1.29	2.972	538.9	54.95	575.3	58.66	1.997	120,973	60.57	129,144	64.67
25		25.50	26.00	1.35	3.225	584.8	59.63	624.2	63.65	2.167	131,276	65.73	140,121	70.16
25.4	1	25.91	26.42	1.37	3.329	603.6	61.55	644.4	65.71	2.237	135,497	67.85	144,655	72.43
26		26.52	27.04	1.40	3.488	632.5	64.50	675.2	68.85	2.344	141,984	71.10	151,570	75.90
27		27.54	28.08	1.45	3.761	682.1	69.55	728.1	74.25	2.527	153,118	76.67	163,445	81.84
28		28.56	29.12	1.51	4.045	733.6	74.81	783.1	79.85	2.718	164,679	82.46	175,791	88.02
28.6	1-1/8	29.17	29.74	1.54	4.213	764.0	77.91	815.5	83.16	2.831	171,503	85.88	183,064	91.67
29		29.58	30.16	1.56	4.339	786.9	80.24	840.0	85.66	2.916	176,644	88.45	188,564	94.42
30		30.60	31.20	1.61	4.644	842.1	85.87	898.9	91.66	3.121	189,035	94.66	201,786	101.0
31		31.62	32.24	1.67	4.958	899.2	91.69	959.8	97.87	3.332	201,853	101.1	215,457	107.9
31.8	1-1/4	32.44	33.07	1.71	5.201	943.2	96.18	1007	102.7	3.495	211,730	106.0	226,052	113.2
32		32.64	33.28	1.72	5.283	958.1	97.70	1023	104.3	3.550	215,075	107.7	229,644	115.0
33		33.66	34.32	1.78	5.619	1019	103.9	1088	110.9	3.776	228,746	114.5	244,235	122.3
34		34.68	35.36	1.83	5.964	1082	110.3	1155	117.8	4.008	242,888	121.6	259,275	129.8
34.9	1-3/8	35.60	36.30	1.88	6.284	1140	116.2	1217	124.1	4.223	255,908	128.1	273,193	136.8
35		35.70	36.40	1.88	6.320	1146	116.9	1224	124.8	4.247	257,255	128.8	274,765	137.6
36		36.72	37.44	1.94	6.687	1213	123.7	1294	132.0	4.493	272,295	136.3	290,478	145.5
38		38.76	39.52	2.04	7.450	1351	137.8	1442	147.0	5.006	303,274	151.9	323,701	162.1
38.1	1-1/2	38.86	39.62	2.05	7.490	1358	138.5	1450	147.9	5.033	304,845	152.6	325,497	163.0
40		40.80	41.60	2.15	8.255	1497	152.7	1598	163.0	5.547	336,048	168.3	358,720	179.6

Hyfil K18

- Rotation Resistant Rope
- Should be used with a Swivel
- Zinc Coated / Alumar Coated / Bright
- Compacted
- Steel Plastic Combination



J. Ebrahim & Co.

Technical Data

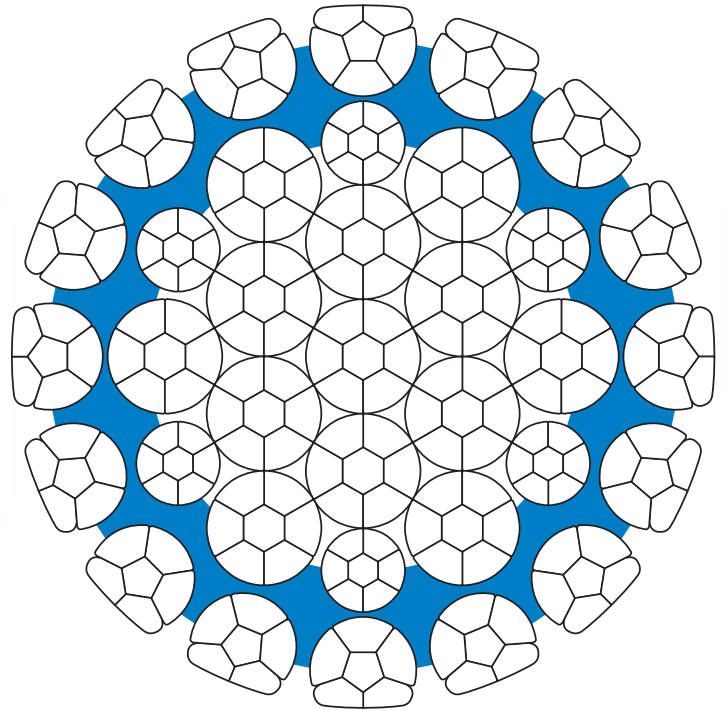
Diameter Range (mm)	Average Fill Factor	Average Spin Factor			Average Weight Factor	Lay Direction
		1770	1960	2160		
12-52	0.716	-	0.856	0.816	0.887	Regular Lay Lang's Lay

Diameter Range (mm)	Total number of load-bearing wires in the outer layer of strands	Discard criteria (Number of broken wires)			
		Single-layer drum & Steel sheaves		Multi-layer drum	
		6xd	30xd	6xd	30xd
12-52	126	3	5	6	11

Nominal Rope Diameter		Diameter tolerance		Outer wire Diameter	Metric unit.					Imperial unit.				
					Unit weight	MBL				Unit weight	MBL			
		min.	max.			1960 Grade	2160 Grade		1960 Grade		2160 Grade			
mm	inches	mm	mm	mm	kg/m	kN	t(M)	kN	t(M)	lb/ft	lbf	t(S)	lbf	t(S)
12		12.24	12.48	0.59	0.702	135.9	13.86	142.1	14.49	0.472	30,513	15.28	31,908	15.98
12.7	1/2	12.95	13.21	0.63	0.786	152.2	15.53	159.2	16.23	0.528	34,177	17.11	35,739	17.90
13		13.26	13.52	0.64	0.824	159.5	16.27	166.8	17.01	0.554	35,811	17.93	37,447	18.75
14		14.28	14.56	0.69	0.955	185.0	18.87	193.5	19.73	0.642	41,532	20.80	43,430	21.75
14.3	9/16	14.59	14.87	0.70	1.097	193.0	19.68	201.8	20.58	0.737	43,331	21.70	45,311	22.69
15		15.30	15.60	0.74	1.232	212.4	21.66	222.1	22.65	0.828	47,677	23.87	49,856	24.96
15.9	5/8	16.22	16.54	0.78	1.248	238.6	24.33	249.5	25.45	0.839	53,570	26.82	56,018	28.05
16		16.32	16.64	0.79	1.408	241.7	24.65	252.7	25.77	0.946	54,257	27.17	56,726	28.40
17		17.34	17.68	0.84	1.579	272.8	27.82	285.3	29.09	1.061	61,238	30.66	64,044	32.07
18		18.36	18.72	0.89	1.759	305.8	31.18	319.8	32.61	1.182	68,646	34.37	71,789	35.95
19		19.38	19.76	0.94	1.778	340.8	34.75	356.3	36.33	1.195	76,503	38.31	79,983	40.05
19.1	3/4	19.48	19.86	0.94	1.949	344.4	35.12	360.1	36.72	1.310	77,311	38.71	80,836	40.48
20		20.40	20.80	0.98	2.149	377.6	38.50	394.8	40.26	1.444	84,764	42.44	88,625	44.38
21		21.42	21.84	1.03	2.359	416.3	42.45	435.3	44.39	1.585	93,451	46.79	97,717	48.93
22		22.44	22.88	1.08	2.402	456.9	46.59	477.7	48.71	1.614	102,565	51.36	107,235	53.70
22.2	7/8	22.64	23.09	1.09	2.578	473.6	48.29	495.3	50.51	1.732	106,314	53.23	111,185	55.67
23		23.46	23.92	1.13	2.807	499.3	50.91	522.2	53.25	1.886	112,083	56.12	117,224	58.70
24		24.48	24.96	1.18	3.046	543.7	55.44	568.6	57.98	2.047	122,050	61.11	127,640	63.91
25		25.50	26.00	1.23	3.144	590.0	60.16	616.9	62.91	2.113	132,444	66.32	138,482	69.34
25.4	1	25.91	26.42	1.25	3.294	609.0	62.10	636.8	64.94	2.213	136,709	68.45	142,949	71.58
26		26.52	27.04	1.28	3.553	638.1	65.07	667.3	68.05	2.388	143,241	71.73	149,796	75.01
27		27.54	28.08	1.33	3.821	688.1	70.17	719.6	73.38	2.568	154,465	77.35	161,536	80.89
28		28.56	29.12	1.38	3.986	740.1	75.47	773.9	78.92	2.678	166,138	83.19	173,726	86.99
28.6	1-1/8	29.17	29.74	1.41	4.099	772.1	78.73	807.4	82.33	2.754	173,322	86.79	181,246	90.76
29		29.58	30.16	1.43	4.386	793.9	80.96	830.1	84.65	2.947	178,215	89.24	186,342	93.31
30		30.60	31.20	1.48	4.683	849.6	86.64	888.4	90.59	3.147	190,719	95.50	199,429	99.86
31		31.62	32.24	1.53	4.928	907.1	92.50	948.6	96.73	3.311	203,627	102.0	212,943	106.6
31.8	1-1/4	32.44	33.07	1.57	4.990	954.6	97.34	998.2	101.8	3.353	214,289	107.3	224,077	112.2
32		32.64	33.28	1.57	5.307	966.6	98.57	1011	103.1	3.566	216,983	108.7	226,950	113.6
33		33.66	34.32	1.62	5.634	1028	104.8	1075	109.6	3.786	230,766	115.6	241,317	120.8
34		34.68	35.36	1.67	5.936	1091	111.3	1141	116.3	3.989	244,909	122.6	256,133	128.3
34.9	1-3/8	35.60	36.30	1.72	5.970	1150	117.3	1202	122.6	4.012	258,153	129.3	269,826	135.1
35		35.70	36.40	1.72	6.316	1156	117.9	1209	123.3	4.244	259,500	129.9	271,397	135.9
36		36.72	37.44	1.77	7.037	1223	124.7	1279	130.4	4.729	274,540	137.5	287,111	143.8
38		38.76	39.52	1.87	7.074	1363	139.0	1425	145.3	4.754	305,967	153.2	319,885	160.2
38.1	1-1/2	38.86	39.62	1.88	7.797	1370	139.7	1433	146.1	5.239	307,539	154.0	321,681	161.1
40		40.80	41.60	1.97	8.313	1510	154.0	1579	161.0	5.586	338,966	169.7	354,455	177.5
41.3	1-5/8	42.13	42.95	2.03	8.597	1610	164.2	1684	171.7	5.777	361,414	181.0	378,026	189.3
42		42.84	43.68	2.07	9.011	1665	169.8	1741	177.5	6.055	373,761	187.2	390,821	195.7
43		43.86	44.72	2.12	9.435	1745	177.9	1825	186.1	6.340	391,719	196.1	409,678	205.1
44		44.88	45.76	2.17	9.651	1827	186.3	1911	194.9	6.485	410,127	205.4	428,983	214.8
44.5	1-3/4	45.39	46.28	2.19	9.869	1869	190.6	1955	199.4	6.632	419,555	210.1	438,860	219.8
45		45.90	46.80	2.21	10.31	1911	194.9	1999	203.8	6.929	428,983	214.8	448,737	224.7
46		46.92	47.84	2.26	11.04	1997	203.6	2089	213.0	7.420	448,288	224.5	468,941	234.8
47.6	1-7/8	48.55	49.50	2.34	11.23	2139	218.1	2236	228.0	7.545	480,165	240.4	501,939	251.3
48		48.96	49.92	2.36	12.18	2175	221.8	2274	231.9	8.187	488,246	244.5	510,470	255.6
50		51.00	52.00	2.46	13.18	2360	240.7	2468	251.7	8.855	529,775	265.3	554,019	277.4
52		53.04	54.08	2.56	13.49	2552	260.3	2669	272.2	9.065	572,973	286.9	599,154	300.0

Hyfil K16T

- Rotation Resistant Rope
- Should be used with a Swivel
- Zinc Coated / Alumar Coated / Bright
- Compacted
- Rotary Swaged
- Steel Plastic Combination



DECK CRANE



OFFSHORE CRANE

J. Ebrahim & Co.

Technical Data

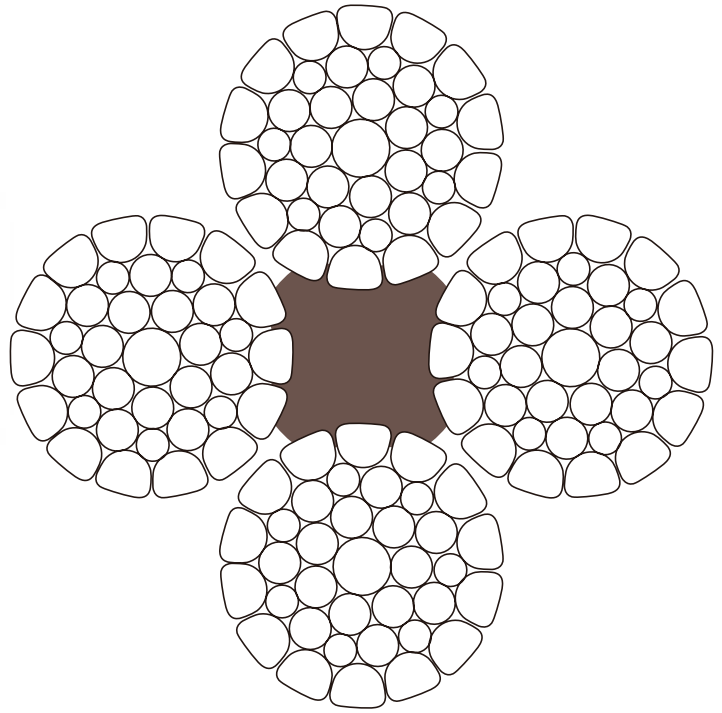
Diameter Range (mm)	Average Fill Factor	Average Spin Factor			Average Weight Factor	Lay Direction
		1770	1960	2160		
12-48	0.745	-	0.850	0.840	0.881	Regular Lay Lang's Lay

Diameter Range (mm)	Total number of load-bearing wires in the outer layer of strands	Discard criteria (Number of broken wires)			
		Single-layer drum & Steel sheaves		Multi-layer drum	
		6xd	30xd	6xd	30xd
12-48	96	2	4	4	8

Nominal Rope Diameter		Diameter tolerance		Outer wire Diameter	Metric unit.						Imperial unit.			
					Unit weight	MBL				Unit weight	MBL			
		min.	max.			1960 Grade	2160 Grade		1960 Grade		2160 Grade			
mm	inches	mm	mm	mm	kg/m	kN	t(M)	kN	t(M)	lb/ft	lbf	t(S)	lbf	t(S)
12		12.24	12.48	0.74	0.720	140.4	14.31	152.9	15.59	0.484	31,511	15.78	34,318	17.18
12.7	1/2	12.95	13.21	0.78	0.807	157.2	16.03	171.2	17.46	0.542	35,295	17.67	38,439	19.25
13		13.26	13.52	0.80	0.845	164.7	16.80	179.4	18.30	0.568	36,982	18.52	40,276	20.17
14		14.28	14.56	0.87	0.981	191.1	19.48	208.1	21.22	0.659	42,890	21.48	46,710	23.39
14.3	9/16	14.59	14.87	0.88	1.023	199.3	20.33	217.1	22.14	0.687	44,748	22.41	48,734	24.40
15		15.30	15.60	0.93	1.126	219.3	22.37	238.9	24.36	0.757	49,236	24.65	53,622	26.85
15.9	5/8	16.22	16.54	0.98	1.265	246.4	25.13	268.4	27.37	0.850	55,322	27.70	60,249	30.17
16		16.32	16.64	0.99	1.281	249.6	25.45	271.8	27.71	0.861	56,020	28.05	61,010	30.55
17		17.34	17.68	1.05	1.446	281.7	28.73	306.8	31.29	0.972	63,241	31.67	68,874	34.49
18		18.36	18.72	1.11	1.621	315.8	32.21	344.0	35.08	1.089	70,900	35.50	77,215	38.66
19		19.38	19.76	1.17	1.806	351.9	35.88	383.3	39.08	1.214	78,996	39.56	86,033	43.08
19.1	3/4	19.48	19.86	1.18	1.825	355.6	36.26	387.3	39.49	1.226	79,830	39.97	86,941	43.53
20		20.40	20.80	1.24	2.001	389.9	39.76	424.7	43.30	1.345	87,531	43.83	95,328	47.73
21		21.42	21.84	1.30	2.206	429.9	43.84	468.2	47.74	1.482	96,503	48.32	105,099	52.63
22		22.44	22.88	1.36	2.421	471.8	48.11	513.8	52.40	1.627	105,912	53.03	115,346	57.76
22.2	7/8	22.64	23.09	1.37	2.466	480.4	48.99	523.2	53.35	1.657	107,847	54.00	117,453	58.81
23		23.46	23.92	1.42	2.646	515.7	52.58	561.6	57.27	1.778	115,759	57.96	126,071	63.13
24		24.48	24.96	1.48	2.882	561.5	57.26	611.5	62.36	1.937	126,044	63.11	137,272	68.74
25		25.50	26.00	1.55	3.127	609.3	62.13	663.5	67.66	2.101	136,767	68.48	148,949	74.58
25.4	1	25.91	26.42	1.57	3.228	628.9	64.13	684.9	69.84	2.169	141,178	70.69	153,754	76.99
26		26.52	27.04	1.61	3.382	659.0	67.20	717.7	73.18	2.273	147,927	74.07	161,104	80.67
27		27.54	28.08	1.67	3.647	710.6	72.46	773.9	78.92	2.451	159,525	79.88	173,735	86.99
28		28.56	29.12	1.73	3.922	764.3	77.93	832.3	84.87	2.635	171,560	85.91	186,842	93.56
28.6	1-1/8	29.17	29.74	1.77	4.092	797.4	81.31	868.4	88.55	2.750	178,992	89.63	194,935	97.61
29		29.58	30.16	1.79	4.207	819.8	83.60	892.8	91.04	2.827	184,033	92.15	200,426	100.4
30		30.60	31.20	1.85	4.503	877.3	89.46	955.5	97.43	3.026	196,944	98.62	214,487	107.4
31		31.62	32.24	1.92	4.808	936.8	95.53	1020	104.0	3.231	210,293	105.3	229,025	114.7
31.8	1-1/4	32.44	33.07	1.97	5.059	985.8	100.5	1074	109.5	3.399	221,287	110.8	240,998	120.7
32		32.64	33.28	1.98	5.123	998.2	101.8	1087	110.9	3.443	224,079	112.2	244,039	122.2
33		33.66	34.32	2.04	5.448	1062	108.3	1156	117.9	3.661	238,302	119.3	259,529	130.0
34		34.68	35.36	2.10	5.783	1127	114.9	1227	125.1	3.886	252,964	126.7	275,497	137.9
34.9	1-3/8	35.60	36.30	2.16	6.093	1187	121.1	1293	131.9	4.094	266,533	133.5	290,275	145.3
35		35.70	36.40	2.16	6.128	1194	121.8	1301	132.6	4.118	268,063	134.2	291,941	146.2
36		36.72	37.44	2.22	6.484	1263	128.8	1376	140.3	4.357	283,600	142.0	308,861	154.7
38		38.76	39.52	2.35	7.224	1408	143.5	1533	156.3	4.854	315,986	158.2	344,133	172.3
38.1	1-1/2	38.86	39.62	2.35	7.262	1415	144.3	1541	157.1	4.880	317,651	159.1	345,946	173.2
40		40.80	41.60	2.47	8.004	1560	159.0	1699	173.2	5.378	350,123	175.3	381,310	190.9
41.3	1-5/8	42.13	42.95	2.55	8.533	1663	169.6	1811	184.7	5.734	373,251	186.9	406,498	203.5
42		42.84	43.68	2.60	8.825	1720	175.3	1873	191.0	5.930	386,010	193.3	420,395	210.5
43		43.86	44.72	2.66	9.250	1802	183.8	1963	200.2	6.216	404,611	202.6	440,652	220.6
44		44.88	45.76	2.72	9.685	1887	192.4	2055	209.6	6.508	423,649	212.1	461,385	231.0
44.5	1-3/4	45.39	46.28	2.75	9.907	1930	196.8	2102	214.4	6.657	433,332	217.0	471,931	236.3
45		45.90	46.80	2.78	10.13	1974	201.3	2150	219.2	6.808	443,124	221.9	482,596	241.7
46		46.92	47.84	2.84	10.59	2063	210.3	2246	229.1	7.113	463,038	231.9	504,283	252.5
47.6	1-7/8	48.55	49.50	2.94	11.34	2209	225.2	2405	245.3	7.617	495,809	248.3	539,974	270.4
48		48.96	49.92	2.97	11.53	2246	229.0	2446	249.4	7.745	504,177	252.5	549,087	274.9

Hylift K4

- Rotation Resistant Rope
- Should be used with a Swivel
- Zinc Coated / Alumar Coated / Bright
- Compacted



DECK CRANE

J. Ebrahim & Co.

Technical Data

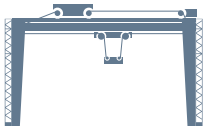
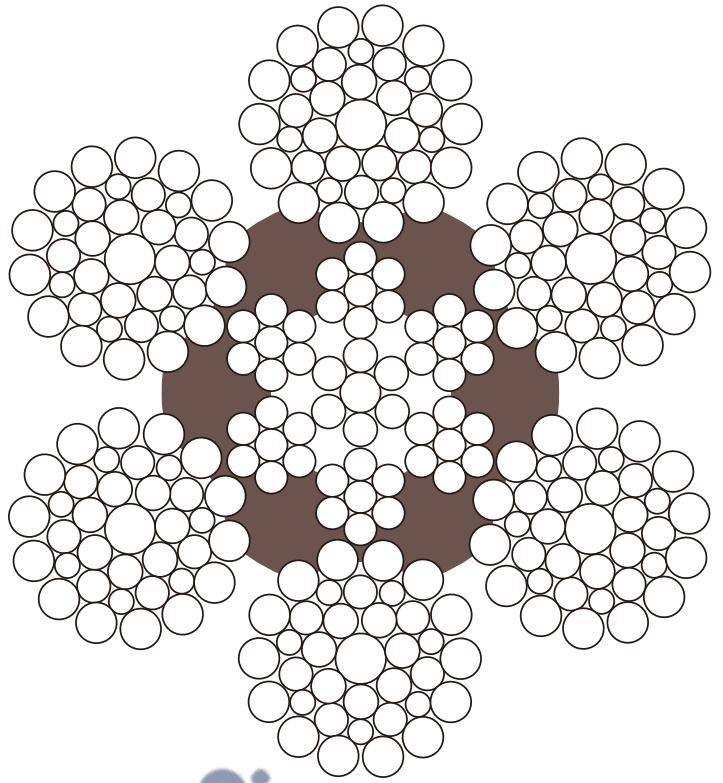
Diameter Range (mm)	Average Fill Factor	Average Spin Factor			Average Weight Factor	Lay Direction
		1770	1960	2160		
8-36	0.631	-	0.900	0.871	0.848	Regular Lay

Diameter Range (mm)	Total number of load-bearing wires in the outer layer of strands	Discard criteria (Number of broken wires)			
		Single-layer drum & Steel sheaves		Multi-layer drum	
		6xd	30xd	6xd	30xd
8-36	144	2	4	4	8

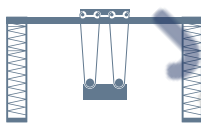
Nominal Rope Diameter		Diameter tolerance		Outer wire Diameter	Metric unit.						Imperial unit.			
					Unit weight	MBL				Unit weight	MBL			
		min.	max.			1960 Grade	2160 Grade		1960 Grade		2160 Grade			
mm	inches	mm	mm	mm	kg/m	kN	t(M)	kN	t(M)	lb/ft	lbf	t(S)	lbf	t(S)
8		8.16	8.32	0.59	0.270	55.90	5.70	59.70	6.09	0.181	12,548	6.28	13,402	6.71
9		9.18	9.36	0.67	0.341	70.80	7.22	75.50	7.70	0.229	15,893	7.96	16,948	8.49
10		10.20	10.40	0.74	0.421	87.40	8.91	93.20	9.50	0.283	19,620	9.82	20,922	10.48
11		11.22	11.44	0.82	0.510	105.8	10.79	112.8	11.50	0.343	23,750	11.89	25,321	12.68
12		12.24	12.48	0.89	0.607	125.9	12.84	134.3	13.69	0.408	28,262	14.15	30,148	15.10
12.7	1/2	12.95	13.21	0.94	0.679	141.0	14.38	150.4	15.34	0.456	31,652	15.85	33,762	16.91
13		13.26	13.52	0.97	0.712	147.7	15.06	157.6	16.07	0.478	33,156	16.60	35,378	17.71
14		14.28	14.56	1.04	0.826	171.3	17.47	182.7	18.63	0.555	38,454	19.25	41,013	20.54
14.3	9/16	14.59	14.87	1.06	0.861	178.8	18.23	190.7	19.45	0.579	40,137	20.10	42,809	21.44
15		15.30	15.60	1.12	0.948	196.7	20.06	209.8	21.39	0.637	44,155	22.11	47,096	23.58
15.9	5/8	16.22	16.54	1.18	1.065	221.0	22.54	235.7	24.03	0.716	49,610	24.84	52,910	26.49
16		16.32	16.64	1.19	1.078	223.8	22.82	238.7	24.34	0.724	50,239	25.16	53,584	26.83
17		17.34	17.68	1.26	1.217	252.6	25.76	269.5	27.48	0.818	56,704	28.39	60,498	30.29
18		18.36	18.72	1.34	1.365	283.2	28.88	302.1	30.81	0.917	63,573	31.83	67,816	33.96
19.1	3/4	19.48	19.86	1.42	1.537	318.9	32.52	340.1	34.68	1.033	71,587	35.85	76,346	38.23
20		20.40	20.80	1.49	1.685	349.7	35.66	373.0	38.04	1.132	78,501	39.31	83,731	41.93
21		21.42	21.84	1.56	1.858	385.5	39.31	411.2	41.93	1.249	86,537	43.33	92,307	46.22
22		22.44	22.88	1.64	2.039	423.1	43.14	451.3	46.02	1.370	94,978	47.56	101,308	50.73
22.2	7/8	22.64	23.09	1.65	2.076	430.8	43.93	459.5	46.86	1.395	96,706	48.42	103,149	51.65
23		23.46	23.92	1.71	2.228	462.5	47.16	493.2	50.29	1.497	103,822	51.99	110,714	55.44
24		24.48	24.96	1.78	2.426	503.5	51.34	537.0	54.76	1.630	113,026	56.60	120,546	60.36
25		25.50	26.00	1.86	2.633	546.4	55.72	582.7	59.42	1.769	122,656	61.42	130,805	65.50
25.4	1	25.91	26.42	1.89	2.718	564.0	57.51	601.5	61.34	1.826	126,607	63.40	135,025	67.61
26		26.52	27.04	1.93	2.848	591.0	60.27	630.3	64.27	1.914	132,668	66.43	141,490	70.85
27		27.54	28.08	2.01	3.071	637.3	64.99	679.7	69.31	2.064	143,062	71.64	152,580	76.40
28		28.56	29.12	2.08	3.303	685.4	69.89	731.0	74.54	2.220	153,859	77.04	164,096	82.17
28.6	1-1/8	29.17	29.74	2.13	3.446	715.1	72.92	762.6	77.76	2.316	160,526	80.38	171,189	85.72
29		29.58	30.16	2.16	3.543	735.2	74.97	784.1	79.96	2.381	165,038	82.64	176,015	88.14
30		30.60	31.20	2.23	3.791	786.8	80.23	839.1	85.56	2.547	176,622	88.44	188,362	94.32
31		31.62	32.24	2.31	4.048	840.1	85.67	896.0	91.37	2.720	188,586	94.43	201,135	100.7
31.8	1-1/4	32.44	33.07	2.36	4.260	884.0	90.14	942.9	96.15	2.863	198,441	99.37	211,663	106.0
32		32.64	33.28	2.38	4.314	895.2	91.28	954.8	97.36	2.899	200,955	100.6	214,334	107.3
33		33.66	34.32	2.45	4.587	962.0	97.08	1015	103.5	3.082	213,706	107.0	227,848	114.1
33.5		34.17	34.84	2.49	4.727	981.1	100.0	1046	106.7	3.176	220,238	110.3	234,807	117.6
34		34.68	35.36	2.53	4.870	1011	103.1	1078	109.9	3.272	226,950	113.6	241,990	121.2
34.9	1-3/8	35.60	36.30	2.60	5.131	1065	108.6	1136	115.8	3.448	239,072	119.7	255,010	127.7
35		35.70	36.40	2.60	5.160	1071	109.2	1142	116.5	3.467	240,419	120.4	256,357	128.4
36		36.72	37.44	2.68	5.459	1133	115.5	1208	123.2	3.668	254,337	127.4	271,173	135.8

Hyfil R6F

- Non-Rotation Resistant Rope
- Should not be used with a Swivel
- Zinc Coated / Alumar Coated / Bright
- Synthetic fiber inserted



GANTRY CRANE



RTGC / RMGC

Technical Data

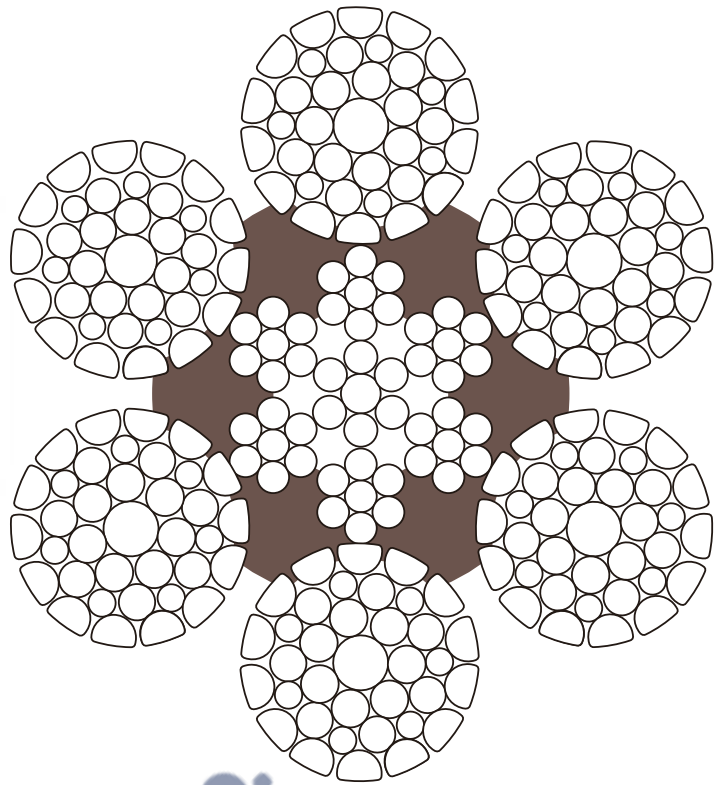
Diameter Range (mm)	Average Fill Factor	Average Spin Factor			Average Weight Factor	Lay Direction
		1770	1960	2160		
8-64	0.622	0.784	0.743	-	0.901	Regular Lay Lang's Lay

Diameter range (mm)	Total number of load-bearing wires in the outer layer of strands	Discard criteria (Number of broken wires)					
		Single layer drum & Steel sheaves				Multi-layer drum	
		Classes M1 to M4				All classes	
		Ordinary Lay		Lang's Lay		Ordinary & Lang's Lay	
		6xd	30xd	6xd	30xd	6xd	30xd
8-36	156	6	13	3	6	12	26
37-39	186	8	16	4	8	16	32
40-64	216	9	18	4	9	18	36

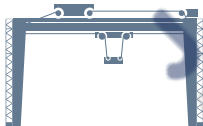
Nominal Rope Diameter		Diameter tolerance		Outer wire Diameter	Metric unit.						Imperial unit.							
					Unit weight	MBL				Unit weight	MBL							
						1770 Grade	1960 Grade	2160 Grade			1770 Grade	1960 Grade	2160 Grade					
mm	inches	mm	mm	mm	kg/m	kN	t(M)	kN	t(M)	kN	t(M)	lb/ft	lbf	t(S)	lbf	t(S)	lbf	t(S)
8		8.16	8.32	0.45	0.269	43.34	4.42	48.20	4.92	53.00	5.40	0.181	9,729	4.87	10,820	5.42	11,897	5.96
9		9.18	9.36	0.50	0.341	54.85	5.59	60.90	6.21	67.00	6.83	0.229	12,313	6.17	13,671	6.85	15,040	7.53
10		10.20	10.40	0.56	0.421	67.72	6.91	75.20	7.67	82.70	8.43	0.283	15,202	7.61	16,881	8.45	18,565	9.30
11		11.22	11.44	0.61	0.509	81.94	8.36	90.99	9.28	100.1	10.20	0.342	18,394	9.21	20,426	10.23	22,463	11.25
12		12.24	12.48	0.64	0.557	89.60	9.14	108.9	11.10	117.7	12.00	0.374	20,113	10.07	24,446	12.24	26,421	13.23
12.7	1/2	12.95	13.21	0.71	0.679	109.2	11.14	121.5	12.39	131.6	13.42	0.456	24,513	12.27	27,274	13.66	29,545	14.79
13		13.26	13.52	0.73	0.711	114.4	11.67	127.3	12.98	137.9	14.06	0.478	25,681	12.86	28,577	14.31	30,957	15.50
14		14.28	14.56	0.78	0.825	132.7	13.53	147.1	15.00	158.9	16.20	0.554	29,789	14.92	33,021	16.53	35,670	17.86
14.3	9/16	14.59	14.87	0.80	0.859	138.2	14.09	153.5	15.65	165.8	16.91	0.577	31,023	15.53	34,451	17.25	37,215	18.63
15		15.30	15.60	0.84	0.947	152.4	15.54	168.9	17.22	182.4	18.60	0.636	34,211	17.13	37,907	18.98	40,948	20.50
15.9	5/8	16.22	16.54	0.89	1.064	171.2	17.46	189.8	19.35	205.3	20.94	0.715	38,431	19.24	42,608	21.33	46,088	23.08
16		16.32	16.64	0.89	1.077	173.4	17.68	192.2	19.60	207.9	21.20	0.724	38,925	19.49	43,145	21.60	46,670	23.37
17		17.34	17.68	0.95	1.216	195.7	19.96	217.0	22.13	234.7	23.93	0.817	43,931	22.00	48,707	24.39	52,686	26.38
18		18.36	18.72	1.00	1.363	219.4	22.37	243.2	24.80	263.8	26.90	0.916	49,251	24.66	54,594	27.34	59,218	29.65
19		19.38	19.76	1.06	1.519	244.5	24.93	273.6	27.90	296.2	30.20	1.021	54,886	27.48	61,418	30.75	66,491	33.29
19.1	3/4	19.48	19.86	1.07	1.535	247.0	25.19	276.5	28.19	299.3	30.52	1.031	55,447	27.76	62,066	31.08	67,193	33.65
20		20.40	20.80	1.12	1.683	270.9	27.62	300.1	30.60	325.6	33.20	1.131	60,812	30.45	67,367	33.73	73,091	36.60
21		21.42	21.84	1.17	1.856	298.6	30.45	330.9	33.74	359.0	36.61	1.247	67,030	33.56	74,272	37.19	80,583	40.35
22		22.44	22.88	1.23	2.037	327.7	33.42	363.1	37.03	394.0	40.17	1.369	73,562	36.83	81,514	40.82	88,440	44.28
22.2	7/8	22.64	23.09	1.24	2.079	334.5	34.11	369.8	37.70	401.2	40.91	1.397	75,089	37.60	83,003	41.56	90,055	45.09
23		23.46	23.92	1.28	2.226	358.2	36.53	397.0	40.49	430.1	43.86	1.496	80,409	40.26	89,129	44.63	96,560	48.35
24		24.48	24.96	1.34	2.424	390.0	39.77	432.5	44.10	468.8	47.80	1.629	87,548	43.84	97,088	48.61	105,237	52.70
25		25.50	26.00	1.39	2.630	423.2	43.15	469.7	47.90	509.9	52.00	1.767	95,000	47.57	105,439	52.80	114,463	57.31
25.4	1	25.91	26.42	1.42	2.715	436.9	44.55	484.9	49.44	526.3	53.67	1.824	98,076	49.11	108,840	54.50	118,155	59.16
26		26.52	27.04	1.45	2.845	457.8	46.68	508.0	51.80	551.1	56.20	1.912	102,767	51.46	114,036	57.10	123,711	61.95
27		27.54	28.08	1.51	3.068	493.6	50.33	547.8	55.86	594.3	60.60	2.062	110,804	55.48	122,977	61.58	133,411	66.80
28		28.56	29.12	1.56	3.299	530.9	54.14	589.4	60.10	639.4	65.20	2.217	119,177	59.68	132,309	66.25	143,533	71.87
28.6	1-1/8	29.17	29.74	1.59	3.436	552.9	56.38	614.9	62.71	667.1	68.02	2.309	124,115	62.15	138,040	69.12	149,750	74.98
29		29.58	30.16	1.62	3.539	569.5	58.07	632.3	64.47	685.9	69.94	2.378	127,842	64.01	141,928	71.07	153,969	77.10
30		30.60	31.20	1.67	3.787	609.4	62.14	676.7	69.00	744.3	75.90	2.545	136,799	68.50	151,906	76.06	167,081	83.66
31		31.62	32.24	1.73	4.044	650.7	66.35	722.6	73.68	794.7	81.04	2.717	146,070	73.14	162,202	81.22	178,406	89.33
31.8	1-1/4	32.44	33.07	1.77	4.242	682.6	69.61	760.6	77.56	847.3	86.40	2.850	153,231	76.73	170,736	85.49	190,203	95.24
32		32.64	33.28	1.79	4.309	693.4	70.71	770.2	78.54	858.0	87.49	2.896	155,655	77.94	172,891	86.57	192,603	96.44
33		33.66	34.32	1.84	4.583	737.4	75.19	819.1	83.52	928.7	94.70	3.080	165,532	82.89	183,865	92.07	208,475	104.4
34		34.68	35.36	1.90	4.865	782.8	79.82	869.8	88.69	931.6	95.00	3.269	175,724	87.99	195,252	97.77	209,126	104.7
34.9	1-3/8	35.60	36.30	1.95	5.126	824.8	84.11	916.5	93.45	981.6	100.1	3.445	185,152	92.71	205,726	103.0	220,344	110.3
35		35.70	36.40	1.95	5.155	829.5	84.59	921.7	93.99	987.2	100.7	3.464	186,207	93.24	206,906	103.6	221,609	111.0
36		36.72	37.44	2.01	5.454	877.6	89.49	951.2	97.00	1072	109.3	3.665	197,004	98.65	213,526	106.9	240,637	120.5
38		38.76	39.52	2.12	6.077	978.0	99.73	1082	110.3	1194	121.8	4.084	219,542	109.9	242,821	121.6	268,117	134.3
38.1	1-1/2	38.86	39.62	2.13	6.109	983.0	100.2	1087	110.9	1201	122.4	4.105	220,665	110.5	244,101	122.2	269,530	135.0
40		40.80	41.60	2.23	6.733	1080	110.1	1198	122.2	1323	135.0	4.524	242,439	121.4	269,018	134.7	297,083	148.8
41.3	1-5/8	42.13	42.95	2.30	7.178	1155	117.8	1278	130.3	1411	143.9	4.823	259,275	129.8	286,788	143.6	316,707	158.6
42		42.84	43.68	2.34	7.423	1195	121.9	1285	131.0	1459	148.8	4.988	268,255	134.3	288,391	144.4	327,533	164.0
44		44.88	45.76	2.45	8.147	1311	133.7	1458	148.7	1601	163.3	5.475	294,294	147.4	327,338	163.9	359,470	180.0
44.5	1-3/4	45.39	46.28	2.48	8.333	1341	136.7	1492	152.1	1638	167.0	5.600	301,029	150.7	334,820	167.7	367,686	184.1
45		45.90	46.80	2.51	8.522	1370	139.7	1530	156.0	1675	170.8	5.727	307,539	154.0	343,411	172.0	375,995	188.3
46		46.92	47.84	2.57	8.905	1433	146.1	1599	163.0	1750	178.5	5.984	321,681	161.1	358,833	179.7	392,892	196.7
47.6	1-7/8	48.55	49.50	2.66	9.535	1534	156.4	1707	174.1	1874	191.1	6.407	344,354	172.4	383,187	191.9	420,699	210.7
48		48.96	49.92	2.68	9.696	1560	159.1	1736	177.0	1906	194.3	6.515	350,190	175.4	389,654	195.1	427,799	214.2
50		51.00	52.00	2.79	10.52	1693	172.6	1883	192.0	2068	210.9	7.069	380,046	190.3	422,675	211.6	464,191	232.4
50.8	2	51.82	52.83	2.83	10.86	1747	178.1	1944	198.2	2135	217.7	7.298	392,168	196.4	436,309	218.5	479,164	239.9
52		53.04	54.08	2.90	11.38	1831	186.7	2030	207.0	2237	228.1	7.646	411,025	205.8	455,696	228.2	502,069	251.4
54	2-1/8	55.08	56.16	3.01	12.27	1975	201.4	2158	220.0	2412	245.9	8.246	443,350	222.0	484,318	242.5	541,433	271.1
56		57.12	58.24	3.12	13.20	2120	216.2	2363	241.0	2594	264.5	8.868	475,900	238.3	530,538	265.7		

Hyfil K6F

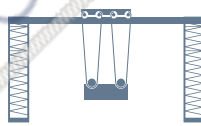
- Non-Rotation Resistant Rope
- Should not be used with a Swivel
- Zinc Coated / Alumar Coated / Bright
- Compacted
- Synthetic fiber inserted



LADLE CRANE



GANTRY CRANE



RTGC / RMGC

Technical Data

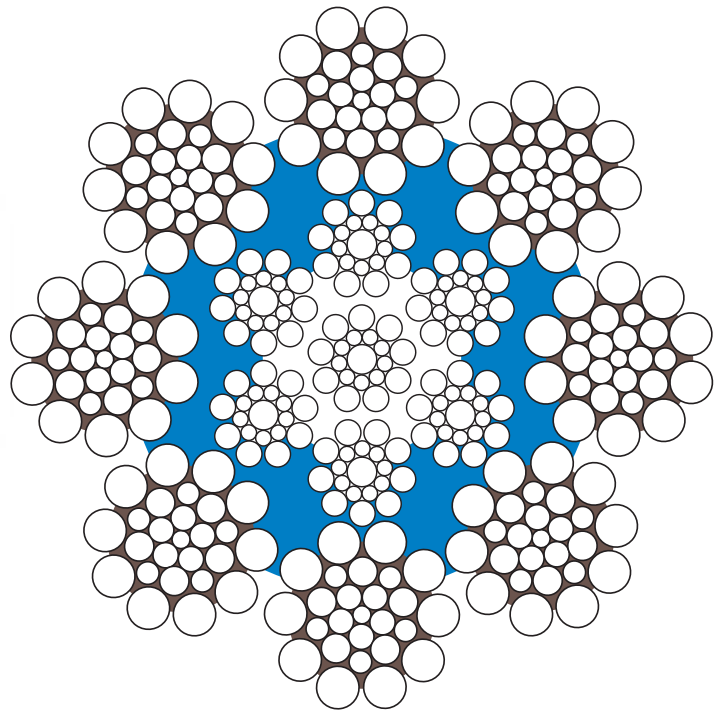
Diameter Range (mm)	Average Fill Factor	Average Spin Factor			Average Weight Factor	Lay Direction
		1770	1960	2160		
8-50	0.663	0.840	0.821	-	0.884	Regular Lay Lang's Lay

Diameter range (mm)	Total number of load-bearing wires in the outer layer of strands	Discard criteria (Number of broken wires)					
		Single layer drum & Steel sheaves				Multi-layer drum	
		Classes M1 to M4				All classes	
		Ordinary Lay		Lang's Lay		Ordinary & Lang's Lay	
		6xd	30xd	6xd	30xd	6xd	30xd
8-35	156	6	13	3	6	12	26
36-39	186	8	16	4	8	16	32
40-50	216	9	18	4	9	18	36

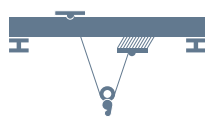
Nominal Rope Diameter		Diameter tolerance		Outer wire Diameter	Metric unit.								Imperial unit.							
					Unit weight	MBL						Unit weight	MBL							
						1770 Grade		1960 Grade		2160 Grade			1770 Grade		1960 Grade		2160 Grade			
mm	inches	mm	mm	mm	kg/m	kN	t(M)	kN	t(M)	kN	t(M)	lb/ft	lbf	t(S)	lbf	t(S)	lbf	t(S)		
8		8.16	8.32	0.47	0.294	49.52	5.05	53.63	5.47	57.40	5.85	0.198	11,116	5.57	12,039	6.03	12,885	6.45		
9		9.18	9.36	0.52	0.373	62.67	6.39	67.87	6.92	72.60	7.40	0.251	14,068	7.04	15,236	7.63	16,297	8.16		
10		10.20	10.40	0.58	0.460	77.37	7.89	83.80	8.55	89.60	9.14	0.309	17,368	8.70	18,811	9.42	20,113	10.07		
11		11.22	11.44	0.64	0.557	93.62	9.55	101.4	10.34	105.1	10.72	0.374	21,016	10.52	22,762	11.40	23,589	11.81		
12		12.24	12.48	0.70	0.662	111.4	11.36	120.7	12.31	126.0	12.85	0.445	25,007	12.52	27,095	13.57	28,285	14.16		
12.7	1/2	12.95	13.21	0.74	0.742	124.8	12.73	135.2	13.79	140.0	14.28	0.499	28,015	14.03	30,350	15.20	31,427	15.74		
13		13.26	13.52	0.76	0.777	130.8	13.34	141.6	14.44	147.0	14.99	0.522	29,362	14.70	31,786	15.92	32,999	16.52		
14		14.28	14.56	0.81	0.901	151.6	15.46	164.2	16.74	171.6	17.50	0.605	34,031	17.04	36,860	18.46	38,514	19.29		
14.3	9/16	14.59	14.87	0.83	0.939	157.9	16.10	171.1	17.45	179.0	18.25	0.631	35,446	17.75	38,409	19.23	40,182	20.12		
15		15.30	15.60	0.87	1.035	174.1	17.75	188.5	19.22	197.0	20.08	0.695	39,082	19.57	42,315	21.19	44,212	22.14		
15.9	5/8	16.22	16.54	0.92	1.163	195.6	19.95	211.8	21.60	221.2	22.56	0.782	43,908	21.99	47,545	23.81	49,657	24.86		
16		16.32	16.64	0.93	1.177	198.1	20.20	214.5	21.87	224.0	22.84	0.791	44,470	22.27	48,151	24.11	50,284	25.18		
17		17.34	17.68	0.99	1.329	223.6	22.80	242.2	24.70	252.9	25.79	0.893	50,194	25.13	54,369	27.22	56,766	28.42		
18		18.36	18.72	1.05	1.490	250.7	25.56	271.5	27.69	283.0	28.86	1.001	56,277	28.18	60,947	30.52	63,528	31.81		
19		19.38	19.76	1.11	1.660	279.3	28.48	302.5	30.85	315.7	32.19	1.115	62,698	31.39	67,905	34.00	70,862	35.48		
19.1	3/4	19.48	19.86	1.11	1.678	282.2	28.78	305.7	31.17	319.0	32.53	1.128	63,349	31.72	68,624	34.36	71,609	35.86		
20		20.40	20.80	1.16	1.840	309.5	31.56	335.2	34.18	349.0	35.59	1.236	69,477	34.79	75,246	37.68	78,344	39.23		
21		21.42	21.84	1.22	2.028	341.2	34.79	369.5	37.68	384.8	39.24	1.363	76,593	38.35	82,946	41.53	86,374	43.25		
22		22.44	22.88	1.28	2.226	374.5	38.19	405.6	41.36	424.0	43.24	1.496	84,068	42.10	91,049	45.59	95,180	47.66		
22.2	7/8	22.64	23.09	1.29	2.272	382.2	38.97	413.9	42.21	436.0	44.46	1.527	85,797	42.96	92,913	46.52	97,874	49.01		
23		23.46	23.92	1.34	2.433	409.3	41.74	443.3	45.20	468.0	47.72	1.635	91,880	46.01	99,512	49.83	105,055	52.60		
24		24.48	24.96	1.40	2.649	445.6	45.44	482.7	49.22	504.0	51.39	1.780	100,029	50.09	108,357	54.26	113,138	56.65		
25		25.50	26.00	1.45	2.875	483.6	49.31	523.7	53.40	547.0	55.78	1.932	108,559	54.36	117,561	58.87	122,791	61.49		
25.4	1	25.91	26.42	1.48	2.967	499.1	50.89	540.6	55.13	565.0	57.61	1.994	112,038	56.10	121,354	60.77	126,832	63.51		
26		26.52	27.04	1.51	3.109	523.0	53.33	566.5	57.77	592.0	60.37	2.089	117,404	58.79	127,168	63.68	132,893	66.54		
27		27.54	28.08	1.57	3.353	564.0	57.51	610.9	62.29	638.4	65.10	2.253	126,607	63.40	137,135	68.67	143,312	71.76		
28		28.56	29.12	1.63	3.606	606.6	61.86	657.0	67.00	686.0	69.95	2.423	136,170	68.18	147,484	73.85	153,994	77.11		
28.6	1-1/8	29.17	29.74	1.66	3.756	631.7	64.42	684.2	69.77	717.0	73.11	2.524	141,805	71.01	153,590	76.91	160,953	80.59		
29		29.58	30.16	1.69	3.868	650.7	66.35	704.7	71.86	737.2	75.17	2.599	146,070	73.14	158,192	79.21	165,486	82.86		
30		30.60	31.20	1.74	4.139	696.3	71.00	754.2	76.91	788.0	80.35	2.781	156,306	78.27	169,303	84.78	176,891	88.57		
31		31.62	32.24	1.80	4.420	743.5	75.82	805.3	82.12	842.9	85.96	2.970	166,902	83.57	180,774	90.52	189,222	94.75		
31.8	1-1/4	32.44	33.07	1.85	4.636	779.9	79.53	844.7	86.14	887.0	90.45	3.115	175,073	87.66	189,619	94.95	199,115	99.70		
32		32.64	33.28	1.86	4.710	792.2	80.78	858.1	87.50	897.0	91.47	3.165	177,834	89.05	192,627	96.45	201,359	100.8		
33		33.66	34.32	1.92	5.009	842.5	85.91	912.5	93.05	953.9	97.27	3.366	189,125	94.70	204,839	102.6	214,141	107.2		
34		34.68	35.36	1.98	5.317	894.4	91.20	968.7	98.78	1010	103.0	3.573	200,776	100.5	217,455	108.9	226,726	113.5		
34.9	1-3/8	35.60	36.30	2.03	5.602	942.4	96.10	1021	104.1	1064	108.5	3.764	211,551	105.9	229,105	114.7	238,888	119.6		
35		35.70	36.40	2.04	5.634	947.8	96.65	1027	104.7	1070	109.1	3.786	212,763	106.5	230,542	115.4	240,259	120.3		
36		36.72	37.44	2.09	5.961	1000	102.0	1090	111.1	1132	115.5	4.006	224,481	112.4	244,684	122.5	254,184	127.3		
38		38.76	39.52	2.21	6.641	1120	114.2	1210	123.4	1262	128.7	4.463	251,419	125.9	271,622	136.0	283,211	141.8		
38.1	1-1/2	38.86	39.62	2.22	6.676	1126	114.8	1216	124.0	1268	129.3	4.486	252,765	126.6	272,969	136.7	284,704	142.6		
40		40.80	41.60	2.33	7.359	1240	126.4	1340	136.6	1398	142.5	4.945	278,356	139.4	300,804	150.6	313,807	157.1		
41.3	1-5/8	42.13	42.95	2.40	7.845	1320	134.6	1429	145.7	1490	152.0	5.272	296,315	148.4	320,783	160.6	334,536	167.5		
42		42.84	43.68	2.44	8.113	1365	139.2	1478	150.7	1541	157.2	5.452	306,416	153.4	331,783	166.1	345,972	173.2		
44		44.88	45.76	2.56	8.904	1500	153.0	1620	165.2	1691	172.5	5.983	336,721	168.6	363,659	182.1	379,707	190.1		
44.5	1-3/4	45.39	46.28	2.59	9.108	1532	156.2	1659	169.2	1730	176.4	6.120	343,905	172.2	372,414	186.5	388,385	194.5		
45		45.90	46.80	2.62	9.314	1570	160.1	1700	173.4	1769	180.4	6.259	352,435	176.5	381,618	191.1	397,162	198.9		
46		46.92	47.84	2.68	9.732	1640	167.2	1770	180.5	1849	188.5	6.540	368,149	184.3	397,331	199.0	415,010	207.8		
47.6	1-7/8	48.55	49.50	2.77	10.42	1753	178.8	1899	193.6	1980	201.9	7.003	393,515	197.0	426,289	213.5	444,382	222.5		
48		48.96	49.92	2.79	10.60	1780	181.5	1930	196.8	2013	205.3	7.121	399,576	200.1	433,248	216.9	451,882	226.3		
50		51.00	52.00	2.91	11.50	1930	196.8	2090	213.1	2184	222.7	7.726	433,248	216.9	469,165	234.9	490,324	245.5		

Hyfil R8

- Non-Rotation Resistant Rope
- Should not be used with a Swivel
- Zinc Coated / Alumar Coated / Bright
- Steel Plastic Combination



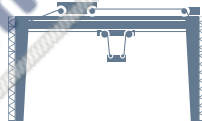
TOWER CRANE



OVERHEAD
TRAVELING CRANE



LADLE CRANE



GANTRY CRANE



RTGC / RMGC



MOBILE
HARBOUR CRANE



DECK CRANE



OFFSHORE CRANE

Technical Data

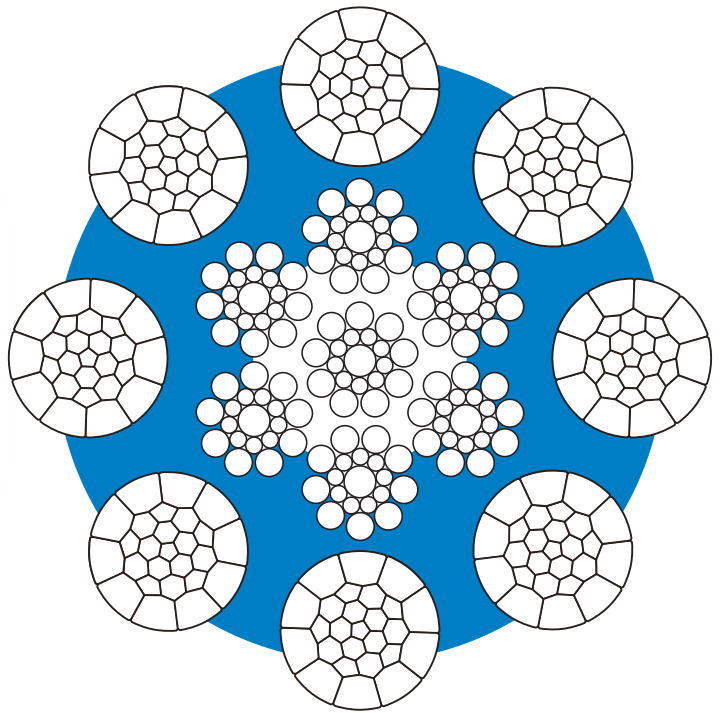
Diameter Range (mm)	Average Fill Factor	Average Spin Factor			Average Weight Factor	Lay Direction
		1770	1960	2160		
8-60	0.605	0.889	0.889	0.856	0.916	Regular Lay Lang's Lay

Diameter range (mm)	Total number of load-bearing wires in the outer layer of strands	Discard criteria (Number of broken wires)					
		Single layer drum & Steel sheaves				Multi-layer drum	
		Classes M1 to M4				All classes	
		Ordinary Lay		Lang's Lay		Ordinary & Lang's Lay	
		6xd	30xd	6xd	30xd	6xd	30xd
8-42	208	9	18	4	9	18	36
43-48	248	10	21	5	10	20	42
49-60	288	12	24	6	12	24	48

Nominal Rope Diameter		Diameter tolerance		Outer wire Diameter	Metric unit.					Imperial unit.				
					Unit weight	MBL		Unit weight	MBL					
		min.	max.			1770 Grade	1960 Grade		1770 Grade	1960 Grade				
mm	inches	mm	mm	mm	kg/m	kN	t(M)	kN	t(M)	lb/ft	lbf	t(S)	lbf	t(S)
8		8.16	8.32	0.48	0.276	47.87	4.88	53.01	5.41	0.185	10,745	5.38	11,899	5.96
9		9.18	9.36	0.54	0.349	60.58	6.18	67.09	6.84	0.235	13,600	6.81	15,060	7.54
10		10.20	10.40	0.60	0.431	74.79	7.63	82.82	8.45	0.290	16,790	8.41	18,592	9.31
11		11.22	11.44	0.66	0.522	90.50	9.23	100.2	10.22	0.351	20,316	10.17	22,496	11.26
12		12.24	12.48	0.71	0.621	107.7	10.98	119.3	12.16	0.417	24,177	12.11	26,772	13.41
12.7	1/2	12.95	13.21	0.76	0.695	120.6	12.30	133.6	13.62	0.467	27,080	13.56	29,987	15.02
13		13.26	13.52	0.77	0.729	126.4	12.89	140.0	14.27	0.490	28,374	14.21	31,420	15.73
14		14.28	14.56	0.83	0.845	146.6	14.95	162.3	16.55	0.568	32,908	16.48	36,440	18.25
14.3	9/16	14.59	14.87	0.85	0.882	152.9	15.60	169.4	17.27	0.593	34,333	17.19	38,019	19.04
15		15.30	15.60	0.89	0.970	168.3	17.16	186.3	19.00	0.652	37,777	18.92	41,832	20.95
15.9	5/8	16.22	16.54	0.95	1.090	189.1	19.28	209.4	21.35	0.732	42,446	21.25	47,002	23.54
16		16.32	16.64	0.95	1.104	191.5	19.52	212.0	21.62	0.742	42,981	21.52	47,595	23.83
17		17.34	17.68	1.01	1.246	216.2	22.04	239.4	24.41	0.837	48,522	24.30	53,731	26.90
18		18.36	18.72	1.07	1.397	242.3	24.71	268.3	27.36	0.939	54,398	27.24	60,238	30.16
19		19.38	19.76	1.13	1.557	270.0	27.53	299.0	30.49	1.046	60,611	30.35	67,117	33.61
19.1	3/4	19.48	19.86	1.14	1.573	272.9	27.82	302.1	30.81	1.057	61,250	30.67	67,825	33.96
20		20.40	20.80	1.19	1.725	299.2	30.51	331.3	33.78	1.159	67,158	33.63	74,368	37.24
21		21.42	21.84	1.25	1.902	329.8	33.63	365.2	37.24	1.278	74,042	37.08	81,990	41.06
22		22.44	22.88	1.31	2.087	362.0	36.91	400.9	40.88	1.402	81,262	40.69	89,985	45.06
22.2	7/8	22.64	23.09	1.32	2.125	368.6	37.59	408.2	41.62	1.428	82,746	41.43	91,628	45.88
23		23.46	23.92	1.37	2.281	395.7	40.35	438.1	44.68	1.533	88,817	44.47	98,351	49.25
24		24.48	24.96	1.43	2.484	430.8	43.93	477.1	48.65	1.669	96,708	48.42	107,089	53.62
25		25.50	26.00	1.49	2.695	467.5	47.67	517.6	52.78	1.811	104,935	52.54	116,199	58.18
25.4	1	25.91	26.42	1.51	2.782	482.5	49.20	534.3	54.49	1.869	108,320	54.24	119,948	60.06
26		26.52	27.04	1.55	2.915	505.6	51.56	559.9	57.09	1.959	113,498	56.83	125,681	62.93
27		27.54	28.08	1.61	3.143	545.2	55.60	603.8	61.57	2.112	122,396	61.29	135,535	67.87
28		28.56	29.12	1.67	3.380	586.4	59.79	649.3	66.21	2.271	131,631	65.91	145,760	72.99
28.6	1-1/8	29.17	29.74	1.70	3.527	611.8	62.38	677.4	69.08	2.370	137,332	68.77	152,074	76.15
29		29.58	30.16	1.73	3.626	629.0	64.14	696.5	71.03	2.437	141,201	70.70	156,358	78.29
30		30.60	31.20	1.79	3.881	673.1	68.64	745.4	76.01	2.608	151,107	75.66	167,327	83.79
31		31.62	32.24	1.85	4.144	718.8	73.29	795.9	81.16	2.785	161,348	80.79	178,668	89.46
31.8	1-1/4	32.44	33.07	1.89	4.360	756.3	77.13	837.5	85.40	2.930	169,783	85.02	188,009	94.14
32		32.64	33.28	1.91	4.415	765.9	78.10	848.1	86.48	2.967	171,926	86.09	190,381	95.33
33		33.66	34.32	1.97	4.696	814.5	83.06	901.9	91.97	3.156	182,839	91.55	202,466	101.4
34		34.68	35.36	2.03	4.984	864.6	88.17	957.4	97.63	3.349	194,088	97.19	214,922	107.6
34.9	1-3/8	35.60	36.30	2.08	5.252	911.0	92.89	1009	102.9	3.529	204,499	102.4	226,451	113.4
35		35.70	36.40	2.08	5.282	916.2	93.43	1015	103.5	3.549	205,673	103.0	227,751	114.0
36		36.72	37.44	2.14	5.588	969.3	98.84	1073	109.5	3.755	217,594	109.0	240,951	120.7
38		38.76	39.52	2.26	6.226	1080	110.1	1196	122.0	4.184	242,442	121.4	268,467	134.4
38.1	1-1/2	38.86	39.62	2.27	6.259	1086	110.7	1202	122.6	4.206	243,720	122.0	269,882	135.1
40		40.80	41.60	2.38	6.899	1197	122.0	1325	135.1	4.636	268,634	134.5	297,470	149.0
41.3	1-5/8	42.13	42.95	2.46	7.355	1276	130.1	1413	144.1	4.942	286,379	143.4	317,120	158.8
42		42.84	43.68	2.50	7.606	1319	134.5	1461	149.0	5.111	296,169	148.3	327,961	164.2
44		44.88	45.76	2.27	8.348	1448	147.7	1603	163.5	5.610	325,047	162.8	359,939	180.2
44.5	1-3/4	45.39	46.28	2.30	8.539	1481	151.0	1640	167.2	5.738	332,476	166.5	368,166	184.4
45		45.90	46.80	2.33	8.731	1515	154.4	1677	171.0	5.867	339,990	170.2	376,486	188.5
46		46.92	47.84	2.38	9.124	1583	161.4	1753	178.7	6.131	355,268	177.9	393,405	197.0
47.6	1-7/8	48.55	49.50	2.46	9.770	1695	172.8	1877	191.4	6.565	380,413	190.5	421,248	210.9
48		48.96	49.92	2.48	9.934	1723	175.7	1908	194.6	6.675	386,833	193.7	428,357	214.5
50		51.00	52.00	2.28	10.78	1870	190.7	2071	211.1	7.244	419,741	210.2	464,798	232.7
50.8	2	51.82	52.83	2.32	11.13	1930	196.8	2137	217.9	7.477	433,280	217.0	479,790	240.2
52		53.04	54.08	2.37	11.66	2022	206.2	2240	228.4	7.834	453,992	227.3	502,725	251.7
54	2-1/8	55.08	56.16	2.46	12.57	2181	222.4	2415	246.3	8.449	489,585	245.2	542,140	271.5
56		57.12	58.24	2.55	13.52	2346	239.2	2597	264.8	9.086	526,523	263.6	583,042	291.9
57.2	2-1/4	58.34	59.49	2.61	14.11	2447	249.5	2710	276.3	9.480	549,330	275.1	608,297	304.6
58		59.16	60.32	2.64	14.51	2516	256.6	2786	284.1	9.747	564,803	282.8	625,431	313.2
60		61.20	62.40	2.73	15.52	2693	274.6	2982	304.0	10.43	604,426	302.7	669,308	335.1

Hyfil K8

- Non-Rotation Resistant Rope
- Should not be used with a Swivel
- Zinc Coated / Alumar Coated / Bright
- Compacted
- Steel Plastic Combination



CRAWLER CRANE



TOWER CRANE



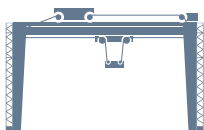
PILEDRIVING EQUIPMENT



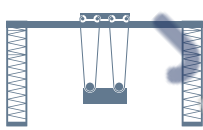
OVERHEAD TRAVELING CRANE



LADLE CRANE



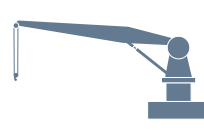
GANTRY CRANE



RTGC / RMGC



MOBILE HARBOUR CRANE



DECK CRANE



OFFSHORE CRANE

Technical Data

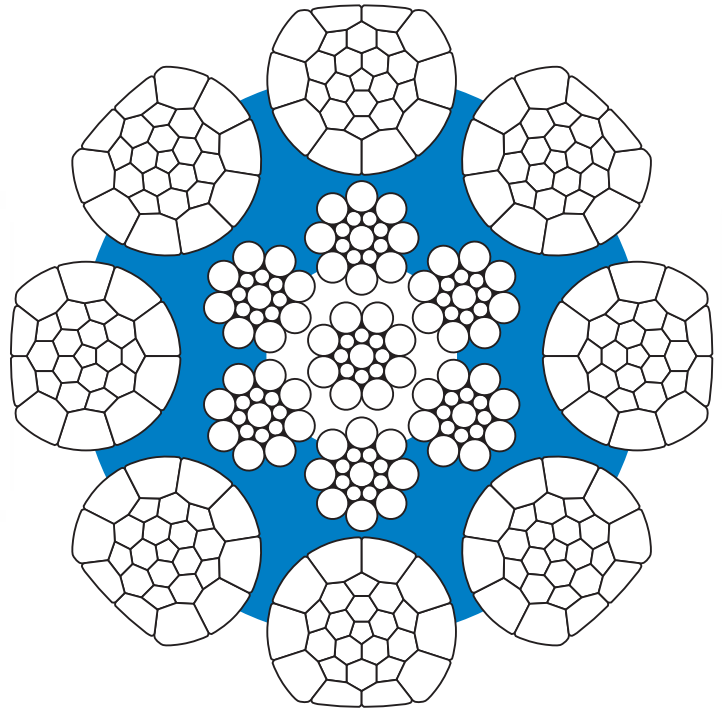
Diameter Range (mm)	Average Fill Factor	Average Spin Factor			Average Weight Factor	Lay Direction
		1770	1960	2160		
8-60	0.659	0.889	0.888	0.847	0.886	Regular Lay Lang's Lay

Diameter range (mm)	Total number of load-bearing wires in the outer layer of strands	Discard criteria (Number of broken wires)					
		Single layer drum & Steel sheaves				Multi-layer drum	
		Classes M1 to M4				All classes	
		Ordinary Lay		Lang's Lay		Ordinary & Lang's Lay	
		6xd	30xd	6xd	30xd	6xd	30xd
8-42	208	9	18	4	9	18	36
43-48	248	10	21	5	10	20	42
49-60	288	12	24	6	12	24	48

Nominal Rope Diameter		Diameter tolerance		Outer wire Diameter	Metric unit.								Imperial unit.							
					Unit weight	MBL						Unit weight	MBL							
						1770 Grade		1960 Grade		2160 Grade			1770 Grade		1960 Grade		2160 Grade			
mm	inches	mm	mm	mm	kg/m	kN	t(M)	kN	t(M)	kN	t(M)	lb/ft	lbf	t(S)	lbf	t(S)	lbf	t(S)		
8		8.16	8.32	0.50	0.288	52.10	5.31	57.70	5.88	60.6	6.18	0.194	11,695	5.86	12,953	6.49	13,604	6.81		
9		9.18	9.36	0.57	0.364	66.00	6.73	73.00	7.44	76.7	7.82	0.245	14,816	7.42	16,387	8.21	17,218	8.62		
10		10.20	10.40	0.63	0.450	81.50	8.31	90.10	9.19	94.7	9.66	0.302	18,295	9.16	20,226	10.13	21,258	10.64		
11		11.22	11.44	0.69	0.544	98.60	10.05	109.1	11.13	114.6	11.69	0.366	22,134	11.08	24,491	12.26	25,726	12.88		
12		12.24	12.48	0.75	0.648	117.3	11.96	129.8	13.24	136.3	13.90	0.435	26,332	13.19	29,138	14.59	30,597	15.32		
12.7	1/2	12.95	13.21	0.80	0.726	131.4	13.40	145.4	14.83	152.7	15.57	0.488	29,497	14.77	32,640	16.34	34,278	17.16		
13		13.26	13.52	0.82	0.760	137.7	14.04	152.3	15.53	160.0	16.32	0.511	30,911	15.48	34,188	17.12	35,917	17.98		
14		14.28	14.56	0.88	0.882	159.7	16.28	176.7	18.02	185.6	18.93	0.593	35,850	17.95	39,666	19.86	41,664	20.86		
14.3	9/16	14.59	14.87	0.90	0.920	166.6	16.99	184.3	18.79	193.6	19.74	0.618	37,399	18.73	41,372	20.72	43,460	21.76		
15		15.30	15.60	0.94	1.012	183.3	18.69	202.8	20.68	213.0	21.72	0.680	41,147	20.60	45,525	22.80	47,814	23.94		
15.9	5/8	16.22	16.54	1.00	1.137	206.0	21.01	227.9	23.24	239.4	24.41	0.764	46,243	23.16	51,159	25.62	53,741	26.91		
16		16.32	16.64	1.01	1.152	208.6	21.27	230.7	23.52	242.4	24.72	0.774	46,827	23.45	51,788	25.93	54,414	27.25		
17		17.34	17.68	1.07	1.300	235.5	24.01	260.5	26.56	273.6	27.90	0.874	52,865	26.47	58,477	29.28	61,418	30.75		
18		18.36	18.72	1.13	1.457	264.0	26.92	292.0	29.78	306.8	31.28	0.979	59,263	29.67	65,548	32.82	68,871	34.49		
19		19.38	19.76	1.19	1.624	294.2	30.00	325.4	33.18	341.8	34.85	1.091	66,042	33.07	73,046	36.58	76,728	38.42		
19.1	3/4	19.48	19.86	1.20	1.641	297.3	30.32	328.8	33.53	345.4	35.22	1.103	66,738	33.42	73,809	36.96	77,536	38.82		
20		20.40	20.80	1.26	1.799	325.9	33.23	360.5	36.76	378.7	38.62	1.209	73,158	36.63	80,925	40.52	85,011	42.57		
21		21.42	21.84	1.32	1.984	359.3	36.64	397.5	40.53	417.5	42.57	1.333	80,656	40.39	89,231	44.68	93,721	46.93		
22		22.44	22.88	1.38	2.177	394.4	40.22	436.2	44.48	458.3	46.73	1.463	88,535	44.33	97,919	49.03	102,880	51.51		
22.2	7/8	22.64	23.09	1.40	2.217	401.6	40.95	444.2	45.30	466.6	47.58	1.490	90,152	45.14	99,714	49.93	104,743	52.45		
23		23.46	23.92	1.45	2.380	431.0	43.95	476.8	48.62	500.9	51.08	1.599	98,751	48.45	107,032	53.59	112,442	56.30		
24		24.48	24.96	1.51	2.591	469.3	47.86	519.1	52.93	545.4	55.62	1.741	105,349	52.75	116,528	58.35	122,432	61.31		
25		25.50	26.00	1.57	2.812	509.3	51.93	563.3	57.44	591.8	60.35	1.890	114,328	57.25	126,450	63.32	132,848	66.52		
25.4	1	25.91	26.42	1.60	2.902	525.7	53.61	581.5	59.30	610.8	62.28	1.950	118,010	59.09	130,536	65.36	137,113	68.66		
26		26.52	27.04	1.63	3.041	550.8	56.17	609.3	62.13	640.0	65.26	2.043	123,644	61.91	136,776	68.49	143,668	71.94		
27		27.54	28.08	1.70	3.279	594.0	60.57	657.0	67.00	690.2	70.38	2.203	133,342	66.77	147,484	73.85	154,937	77.58		
28		28.56	29.12	1.76	3.527	638.8	65.14	706.6	72.05	742.3	75.69	2.370	143,398	71.80	158,618	79.42	166,632	83.44		
28.6	1-1/8	29.17	29.74	1.80	3.680	666.5	67.96	737.2	75.17	774.5	78.98	2.473	149,617	74.92	165,487	82.86	173,860	87.06		
29		29.58	30.16	1.82	3.783	685.3	69.88	758.0	77.29	796.3	81.20	2.542	153,837	77.03	170,157	85.20	178,754	89.51		
30		30.60	31.20	1.89	4.049	733.4	74.79	811.1	82.71	852.1	86.89	2.721	164,634	82.44	182,076	91.17	191,280	95.78		
31		31.62	32.24	1.95	4.323	783.1	79.85	866.1	88.32	909.9	92.78	2.905	175,791	88.02	194,423	97.35	204,255	102.3		
31.8	1-1/4	32.44	33.07	2.00	4.549	824.0	84.02	911.4	92.94	957.5	97.64	3.057	184,972	92.62	204,592	102.4	214,940	107.6		
32		32.64	33.28	2.01	4.606	834.4	85.09	922.9	94.11	969.5	98.86	3.095	187,307	93.79	207,173	103.7	217,634	109.0		
33		33.66	34.32	2.07	4.899	887.4	90.49	981.5	100.1	1031	105.1	3.292	199,204	99.75	220,328	110.3	231,440	115.9		
34		34.68	35.36	2.14	5.200	941.9	96.05	1042	106.3	1095	111.7	3.494	211,439	105.9	233,909	117.1	245,807	123.1		
34.9	1-3/8	35.60	36.30	2.19	5.479	992.5	101.2	1098	112.0	1153	117.6	3.682	222,797	111.6	246,480	123.4	258,826	129.6		
35		35.70	36.40	2.20	5.511	998.2	101.8	1104	112.6	1160	118.3	3.703	224,077	112.2	247,827	124.1	260,398	130.4		
36		36.72	37.44	2.26	5.830	1056	107.7	1168	119.1	1227	125.1	3.918	237,052	118.7	262,194	131.3	275,438	137.9		
38		38.76	39.52	2.39	6.496	1177	120.0	1301	132.7	1367	139.4	4.365	264,214	132.3	292,050	146.2	306,865	153.7		
38.1	1-1/2	38.86	39.62	2.39	6.530	1183	120.6	1308	133.4	1374	140.1	4.388	265,561	133.0	293,621	147.0	308,437	154.4		
40		40.80	41.60	2.51	7.198	1304	133.0	1442	147.0	1515	154.5	4.837	292,723	146.6	323,701	162.1	340,089	170.3		
41.3	1-5/8	42.13	42.95	2.60	7.673	1390	141.7	1537	156.7	1615	164.7	5.156	312,028	156.2	345,027	172.8	362,537	181.5		
42		42.84	43.68	2.64	7.935	1437	146.5	1590	162.1	1670	170.3	5.332	322,579	161.5	356,925	178.7	374,883	187.7		
44		44.88	45.76	2.38	8.709	1578	160.9	1745	177.9	1833	186.9	5.852	354,231	177.4	391,719	196.1	411,473	206.0		
44.5	1-3/4	45.39	46.28	2.40	8.908	1614	164.6	1785	182.0	1875	191.2	5.986	362,312	181.4	400,698	200.6	420,902	210.8		
45		45.90	46.80	2.43	9.109	1650	168.3	1825	186.1	1917	195.5	6.121	370,393	185.5	409,678	205.1	430,330	215.5		
46		46.92	47.84	2.48	9.519	1724	175.8	1907	194.5	2003	204.2	6.396	387,005	193.8	428,085	214.4	449,635	225.1		
47.6	1-7/8	48.55	49.50	2.57	10.19	1846	188.2	2042	208.2	2145	218.7	6.849	414,392	207.5	458,390	229.5	481,512	241.1		
48		48.96	49.92	2.59	10.36	1877	191.4	2077	211.8	2181	222.4	6.964	421,351	211.0	466,247	233.5	489,593	245.2		
50		51.00	52.00	2.35	11.25	2037	207.7	2253	229.7	2367	241.4	7.557	457,268	229.0	505,755	253.2	531,346	266.1		
50.8	2	51.82	52.83	2.39	11.61	2103	214.4	2326	237.2	2443	249.1	7.801	472,083	236.4	522,143	261.5	548,407	274.6		
52		53.04	54.08	2.45	12.16	2203	224.6	2437	248.5	2560	261.0	8.174	494,531	247.6	547,060	273.9	574,671	287.8		
54	2-1/8	55.08	56.16	2.54	13.12	2376	242.3	2628	268.0	2761	281.5	8.814	533,367	267.1	589,936	295.4	619,792	310.3		
56		57.12	58.24	2.64	14.11	2555	260.5	2826	288.2			9.479	573,549	287.2	634,383	317.7				
57.2	2-1/4	58.34	59.49	2.69	14.72	2666	271.9	2949	300.7			9.890	598,466	299.7	661,994	331.5				
58		59.16	60.32	2.73	15.13	2741	279.5	3032	309.2			10.17	615,302	308.1	680,626	340.8				
60		61.20	62.40	2.82	16.19	2933	299.1	3245	330.9			10.88	658,402	329.7	728,441	364.8				

Hyfil K8W

- Non-Rotation Resistant Rope
- Should not be used with a Swivel
- Zinc Coated / Alumar Coated / Bright
- Compacted
- Rotary Swaged
- Steel Plastic Combination



CRAWLER CRANE



TOWER CRANE



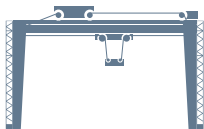
PILEDIVING EQUIPMENT



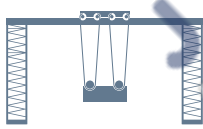
OVERHEAD TRAVELING CRANE



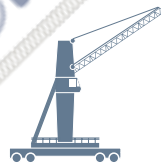
LADLE CRANE



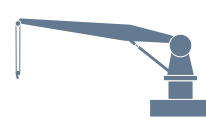
GANTRY CRANE



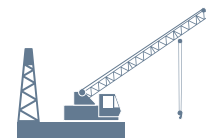
RTGC / RMGC



MOBILE HARBOUR CRANE



DECK CRANE



OFFSHORE CRANE

Technical Data

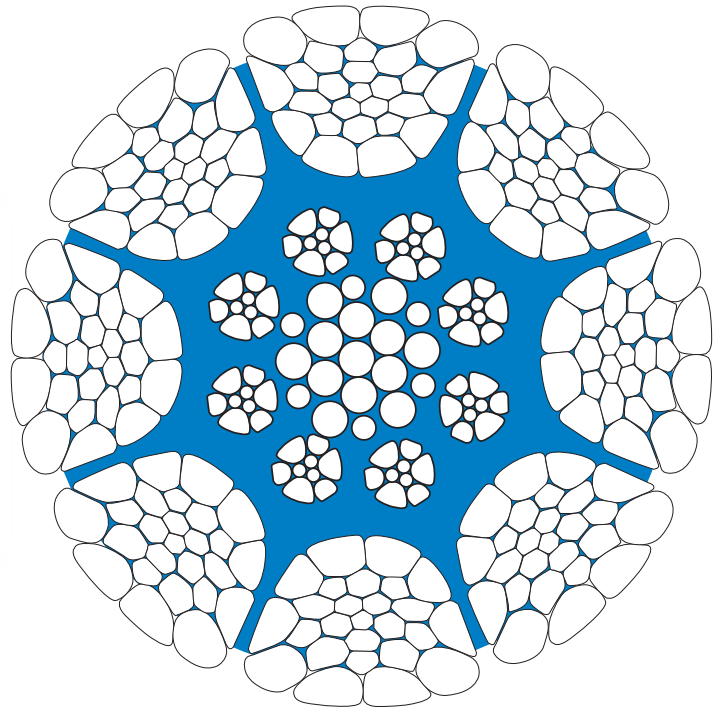
Diameter Range (mm)	Average Fill Factor	Average Spin Factor			Average Weight Factor	Lay Direction
		1770	1960	2160		
12~48	0.685	-	0.885	0.865	0.882	Regular Lay

Diameter range (mm)	Total number of load-bearing wires in the outer layer of strands	Discard criteria (Number of broken wires)					
		Single layer drum & Steel sheaves				Multi-layer drum	
		Classes M1 to M4				All classes	
		Ordinary Lay		Lang's Lay		Ordinary & Lang's Lay	
		6xd	30xd	6xd	30xd	6xd	30xd
12~40	208	9	18	-	-	18	36
41~46	248	10	21	-	-	20	42
47~48	288	12	24	-	-	24	48

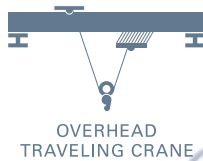
Nominal Rope Diameter		Diameter tolerance		Outer wire Diameter	Metric unit.						Imperial unit.			
					Unit weight	MBL				Unit weight	MBL			
		min.	max.			1960 Grade	2160 Grade		1960 Grade		2160 Grade			
mm	inches	mm	mm	mm	kg/m	kN	t(M)	kN	t(M)	lb/ft	lbf	t(S)	lbf	t(S)
12		12.24	12.48	0.76	0.666	134.4	13.70	144.7	14.76	0.448	30,166	15.11	32,489	16.27
12.7	1/2	12.95	13.21	0.81	0.746	150.5	15.35	162.1	16.53	0.501	33,788	16.92	36,390	18.22
13		13.26	13.52	0.83	0.782	157.7	16.08	169.9	17.32	0.525	35,404	17.73	38,130	19.09
14		14.28	14.56	0.89	0.907	182.9	18.65	197.0	20.09	0.609	41,060	20.56	44,222	22.14
14.3	9/16	14.59	14.87	0.91	0.946	190.8	19.46	205.5	20.96	0.636	42,838	21.45	46,137	23.10
15		15.30	15.60	0.96	1.041	210.0	21.41	226.1	23.06	0.700	47,135	23.60	50,765	25.42
15.9	5/8	16.22	16.54	1.01	1.170	235.9	24.06	254.1	25.91	0.786	52,961	26.52	57,039	28.56
16		16.32	16.64	1.02	1.184	238.9	24.36	257.3	26.24	0.796	53,629	26.85	57,759	28.92
17		17.34	17.68	1.08	1.337	269.7	27.50	290.5	29.62	0.898	60,542	30.32	65,205	32.65
18		18.36	18.72	1.15	1.499	302.4	30.83	325.6	33.21	1.007	67,874	33.99	73,101	36.60
19.1	3/4	19.48	19.86	1.22	1.688	340.4	34.72	366.7	37.39	1.134	76,423	38.27	82,309	41.21
20		20.40	20.80	1.27	1.851	373.3	38.06	402.0	41.00	1.244	83,795	41.96	90,249	45.19
22		22.44	22.88	1.40	2.239	451.7	46.06	486.5	49.60	1.505	101,392	50.77	109,201	54.68
22.2	7/8	22.64	23.09	1.41	2.280	459.9	46.90	495.3	50.51	1.532	103,244	51.70	111,195	55.68
24		24.48	24.96	1.53	2.665	537.5	54.81	578.9	59.03	1.791	120,665	60.42	129,958	65.07
25.4	1	25.91	26.42	1.62	2.985	602.1	61.39	648.4	66.12	2.006	135,153	67.68	145,562	72.89
26		26.52	27.04	1.66	3.128	630.9	64.33	679.4	69.28	2.102	141,614	70.91	152,520	76.37
28		28.56	29.12	1.78	3.627	731.6	74.61	788.0	80.35	2.437	164,239	82.24	176,887	88.57
28.6	1-1/8	29.17	29.74	1.82	3.785	763.3	77.84	822.1	83.83	2.543	171,353	85.80	184,549	92.41
30		30.60	31.20	1.91	4.164	839.9	85.64	904.6	92.24	2.798	188,539	94.41	203,059	101.7
31.8	1-1/4	32.44	33.07	2.03	4.679	943.7	96.23	1016	103.6	3.144	211,843	106.1	228,157	114.2
32		32.64	33.28	2.04	4.738	955.6	97.44	1029	104.9	3.184	214,516	107.4	231,036	115.7
34		34.68	35.36	2.17	5.349	1079	110.0	1162	118.5	3.594	242,168	121.3	260,818	130.6
34.9	1-3/8	35.60	36.30	2.22	5.635	1137	115.9	1224	124.8	3.787	255,158	127.8	274,809	137.6
36		36.72	37.44	2.29	5.996	1209	123.3	1303	132.6	4.029	271,496	135.9	292,405	146.4
38		38.76	39.52	2.42	6.681	1348	137.4	1451	148.0	4.489	302,501	151.5	325,797	163.1
38.1	1-1/2	38.86	39.62	2.43	6.716	1355	138.1	1459	148.8	4.513	304,095	152.3	327,514	164.0
40		40.80	41.60	2.55	7.403	1493	152.3	1608	164.0	4.975	335,181	167.8	360,994	180.8
41.3	1-5/8	42.13	42.95	2.63	7.892	1592	162.3	1714	174.8	5.303	357,322	178.9	384,840	192.7
42		42.84	43.68	2.68	8.162	1646	167.9	1773	180.8	5.485	369,537	185.0	397,995	199.3
44		44.88	45.76	2.80	8.957	1807	184.2	1946	198.4	6.019	405,569	203.1	436,802	218.7
44.5	1-3/4	45.39	46.28	2.84	9.162	1848	188.4	1990	203.0	6.157	414,839	207.7	446,786	223.7
46		46.92	47.84	2.93	9.790	1975	201.4	2127	216.9	6.579	443,277	222.0	477,414	239.1
47.6	1-7/8	48.55	49.50	3.03	10.44	2114	215.6	2277	232.2	7.015	474,650	237.7	511,203	256.0
48		48.96	49.92	3.06	10.66	2150	219.3	2316	236.1	7.163	482,660	241.7	519,831	260.3

Hyfil K8T

- Non-Rotation Resistant Rope
- Should not be used with a Swivel
- Zinc Coated / Alumar Coated / Bright
- Compacted
- Rotary Swaged
- Steel Plastic Combination
- Double Parallel Core



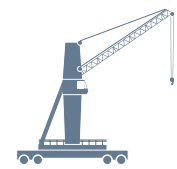
CRAWLER CRANE



OVERHEAD TRAVELING CRANE



GANTRY CRANE



MOBILE HARBOUR CRANE



DECK CRANE



OFFSHORE CRANE

Technical Data

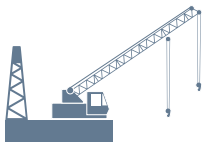
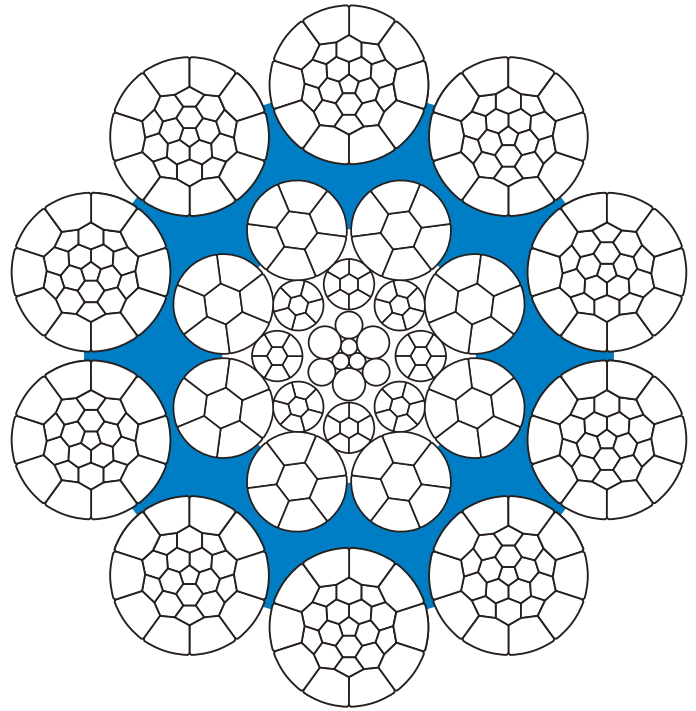
Diameter Range (mm)	Average Fill Factor	Average Spin Factor			Average Weight Factor	Lay Direction
		1770	1960	2160		
12~48	0.743	-	0.895	0.875	0.856	Regular Lay

Diameter range (mm)	Total number of load-bearing wires in the outer layer of strands	Discard criteria (Number of broken wires)					
		Single layer drum & Steel sheaves				Multi-layer drum	
		Classes M1 to M4				All classes	
		Ordinary Lay		Lang's Lay		Ordinary & Lang's Lay	
		6xd	30xd	6xd	30xd	6xd	30xd
12~40	208	9	18	-	-	18	36
41~46	248	10	21	-	-	20	42
47~48	288	12	24	-	-	24	48

Nominal Rope Diameter		Diameter tolerance		Outer wire Diameter	Metric unit.						Imperial unit.			
					Unit weight	MBL				Unit weight	MBL			
		min.	max.			1960 Grade	2160 Grade		1960 Grade		2160 Grade			
mm	inches	mm	mm	mm	kg/m	kN	t(M)	kN	t(M)	lb/ft	lbf	t(S)	lbf	t(S)
12		12.24	12.48	0.78	0.717	147.4	15.03	158.8	16.19	0.482	33,082	16.57	35,651	17.85
12.7	1/2	12.95	13.21	0.82	0.803	165.1	16.83	177.9	18.14	0.540	37,055	18.55	39,932	20.00
13		13.26	13.52	0.84	0.842	173.0	17.64	186.4	19.01	0.566	38,826	19.44	41,841	20.95
14		14.28	14.56	0.91	0.976	200.6	20.45	216.2	22.04	0.656	45,029	22.55	48,525	24.30
14.3	9/16	14.59	14.87	0.93	1.019	209.3	21.34	225.5	23.00	0.685	46,979	23.52	50,627	25.35
15		15.30	15.60	0.97	1.121	230.3	23.48	248.2	25.30	0.753	51,691	25.88	55,705	27.89
15.9	5/8	16.22	16.54	1.03	1.259	258.7	26.38	278.8	28.43	0.846	58,080	29.08	62,590	31.34
16		16.32	16.64	1.04	1.275	262.0	26.72	282.3	28.79	0.857	58,813	29.45	63,380	31.74
17		17.34	17.68	1.10	1.440	295.8	30.16	318.7	32.50	0.968	66,395	33.25	71,550	35.83
18		18.36	18.72	1.17	1.614	331.6	33.81	357.3	36.44	1.085	74,436	37.27	80,215	40.17
19		19.38	19.76	1.23	1.798	369.5	37.67	398.1	40.60	1.208	82,936	41.53	89,376	44.75
19.1	3/4	19.48	19.86	1.24	1.817	373.4	38.07	402.3	41.03	1.221	83,811	41.97	90,319	45.23
20		20.40	20.80	1.30	1.992	409.4	41.74	441.2	44.99	1.339	91,896	46.02	99,031	49.59
21		21.42	21.84	1.36	2.197	451.3	46.02	486.4	49.60	1.476	101,315	50.73	109,182	54.67
22		22.44	22.88	1.43	2.411	495.3	50.51	533.8	54.43	1.620	111,194	55.68	119,828	60.00
22.2	7/8	22.64	23.09	1.44	2.455	504.4	51.43	543.6	55.43	1.650	113,225	56.70	122,017	61.10
23		23.46	23.92	1.49	2.635	541.4	55.21	583.4	59.49	1.771	121,532	60.85	130,969	65.58
24		24.48	24.96	1.56	2.869	589.5	60.11	635.3	64.78	1.928	132,330	66.26	142,605	71.41
25		25.50	26.00	1.62	3.113	639.6	65.23	689.3	70.29	2.092	143,587	71.90	154,736	77.48
25.4	1	25.91	26.42	1.65	3.214	660.3	67.33	711.5	72.56	2.160	148,219	74.22	159,728	79.98
26		26.52	27.04	1.69	3.367	691.8	70.55	745.6	76.03	2.263	155,304	77.77	167,363	83.80
27		27.54	28.08	1.75	3.631	746.1	76.08	804.0	81.99	2.440	167,480	83.86	180,485	90.37
28		28.56	29.12	1.82	3.905	802.4	81.82	864.7	88.17	2.624	180,116	90.19	194,101	97.19
28.6	1-1/8	29.17	29.74	1.85	4.074	837.1	85.36	902.1	91.99	2.738	187,918	94.10	202,509	101.4
29		29.58	30.16	1.88	4.189	860.7	87.77	927.5	94.58	2.815	193,211	96.75	208,213	104.3
30		30.60	31.20	1.94	4.483	921.1	93.92	992.6	101.2	3.012	206,766	103.5	222,820	111.6
31		31.62	32.24	2.01	4.787	983.5	100.3	1060	108.1	3.217	220,780	110.6	237,923	119.1
31.8	1-1/4	32.44	33.07	2.06	5.037	1035	105.5	1115	113.7	3.385	232,322	116.3	250,361	125.4
32		32.64	33.28	2.07	5.101	1048	106.9	1129	115.2	3.428	235,254	117.8	253,520	126.9
33		33.66	34.32	2.14	5.424	1115	113.6	1201	122.5	3.645	250,186	125.3	269,613	135.0
34		34.68	35.36	2.20	5.758	1183	120.6	1275	130.0	3.869	265,579	133.0	286,201	143.3
34.9	1-3/8	35.60	36.30	2.26	6.067	1247	127.1	1343	137.0	4.077	279,825	140.1	301,553	151.0
35		35.70	36.40	2.27	6.102	1254	127.8	1351	137.8	4.100	281,431	140.9	303,283	151.9
36		36.72	37.44	2.33	6.455	1326	135.3	1429	145.8	4.338	297,742	149.1	320,862	160.7
38		38.76	39.52	2.46	7.193	1478	150.7	1593	162.4	4.833	331,744	166.1	357,503	179.0
38.1	1-1/2	38.86	39.62	2.47	7.230	1486	151.5	1601	163.3	4.858	333,492	167.0	359,387	180.0
40		40.80	41.60	2.59	7.970	1637	167.0	1765	179.9	5.356	367,583	184.1	396,125	198.4
41.3	1-5/8	42.13	42.95	2.33	8.496	1746	178.0	1881	191.8	5.709	391,865	196.2	422,292	211.5
42		42.84	43.68	2.37	8.787	1805	184.1	1946	198.4	5.905	405,261	202.9	436,728	218.7
44		44.88	45.76	2.49	9.643	1981	202.0	2135	217.7	6.480	444,776	222.7	479,312	240.0
44.5	1-3/4	45.39	46.28	2.51	9.864	2027	206.7	2184	222.7	6.628	454,942	227.8	490,267	245.5
45		45.90	46.80	2.54	10.09	2072	211.3	2233	227.7	6.780	465,223	233.0	501,346	251.0
46		46.92	47.84	2.60	10.54	2166	220.8	2334	238.0	7.083	486,129	243.4	523,876	262.3
47.6	1-7/8	48.55	49.50	2.37	11.29	2309	235.5	2488	253.7	7.587	518,350	259.6	558,598	279.7
48		48.96	49.92	2.39	11.48	2358	240.4	2541	259.1	7.714	529,320	265.0	570,421	285.6

Hyfil K10

- Non-Rotation Resistant Rope
- Should not be used with a Swivel
- Zinc Coated / Alumar Coated / Bright
- Compacted
- Steel Plastic Combination



OFFSHORE CRANE



DREDGE VESSEL

J. E. Ibrahim & Co.

Technical Data

Diameter Range (mm)	Average Fill Factor	Average Spin Factor			Average Weight Factor	Lay Direction
		1770	1960	2160		
30~70	0.683	-	0.875	0.855	30~49mm : 0.882 50~70mm : 0.891	Regular Lay Lang's Lay

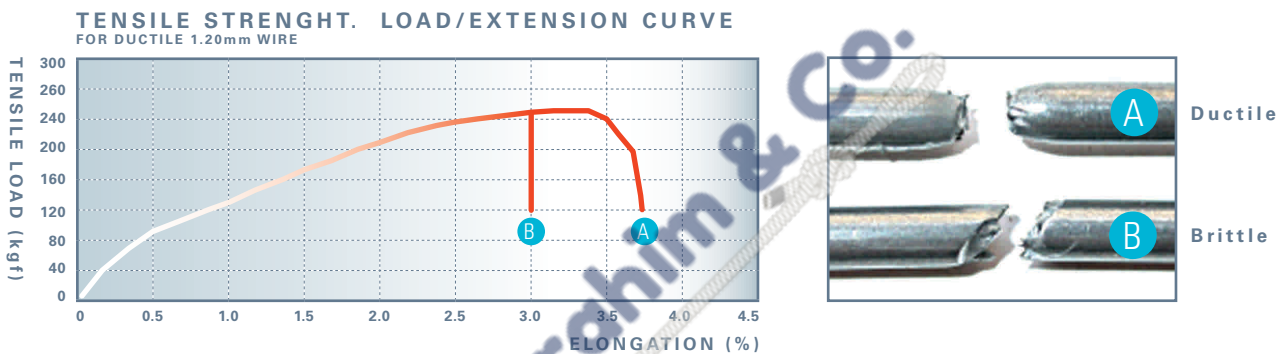
Diameter range (mm)	Total number of load-bearing wires in the outer layer of strands	Discard criteria (Number of broken wires)					
		Single layer drum & Steel sheaves				Multi-layer drum	
		Classes M1 to M4				All classes	
		Ordinary Lay		Lang's Lay		Ordinary & Lang's Lay	
		6×d	30×d	6×d	30×d	6×d	30×d
30-49	260	10	21	5	10	20	42
50-56	310	12	25	6	12	25	50
57-70	360	14	29	7	14	29	58

Nominal Rope Diameter		Diameter tolerance		Outer wire Diameter	Metric unit.					Imperial unit.				
					Unit weight	MBL				Unit weight	MBL			
		min.	max.			1960 Grade	2160 Grade	1960 Grade	2160 Grade		1960 Grade	2160 Grade	1960 Grade	2160 Grade
mm	inches	mm	mm	mm	kg/m	kN	t(M)	kN	t(M)	lb/ft	lbf	t(S)	lbf	t(S)
30		30.60	31.20	1.62	4.152	828.0	84.43	891.6	90.92	2.790	185,865	93.07	200,149	100.2
31.8	1-1/4	32.44	33.07	1.72	4.665	930.3	94.87	1002	102.2	3.135	208,837	104.6	224,887	112.6
32		32.64	33.28	1.73	4.724	942.1	96.06	1014	103.4	3.174	211,473	105.9	227,724	114.0
34		34.68	35.36	1.84	5.333	1063	108.4	1145	116.8	3.584	238,733	119.5	257,080	128.7
34.9	1-3/8	35.60	36.30	1.89	5.619	1121	114.3	1207	123.0	3.776	251,539	126.0	270,870	135.6
36		36.72	37.44	1.95	5.979	1192	121.6	1284	130.9	4.018	267,645	134.0	288,214	144.3
38		38.76	39.52	2.06	6.662	1328	135.5	1431	145.9	4.477	298,209	149.3	321,127	160.8
38.1	1-1/2	38.86	39.62	2.06	6.697	1335	136.2	1438	146.6	4.500	299,781	150.1	322,819	161.6
40		40.80	41.60	2.17	7.381	1472	150.1	1585	161.6	4.960	330,426	165.5	355,820	178.2
41.3	1-5/8	42.13	42.95	2.24	7.869	1569	160.0	1690	172.3	5.288	352,253	176.4	379,324	189.9
42		42.84	43.68	2.27	8.138	1623	165.5	1748	178.2	5.468	364,295	182.4	392,291	196.4
44		44.88	45.76	2.38	8.931	1781	181.6	1918	195.6	6.001	399,815	200.2	430,542	215.6
44.5	1-3/4	45.39	46.28	2.41	9.135	1822	185.8	1962	200.0	6.138	408,954	204.8	440,382	220.5
46		46.92	47.84	2.49	9.762	1947	198.5	2096	213.8	6.560	436,988	218.8	470,571	235.6
47.6	1-7/8	48.55	49.50	2.58	10.45	2084	212.6	2245	228.9	7.024	467,916	234.3	503,876	252.3
48		48.96	49.92	2.60	10.63	2120	216.1	2283	232.8	7.142	475,813	238.3	512,380	256.6
50		51.00	52.00	2.30	11.53	2300	234.5	2477	252.6	7.750	516,291	258.5	555,968	278.4
50.8	2	51.82	52.83	2.34	11.91	2374	242.1	2557	260.7	8.000	532,944	266.9	573,901	287.4
52		53.04	54.08	2.40	12.47	2488	253.7	2679	273.2	8.382	558,420	279.6	601,335	301.1
54	2-1/8	55.08	56.16	2.49	13.45	2683	273.6	2889	294.6	9.039	602,201	301.5	648,481	324.7
56		57.12	58.24	2.58	14.47	2885	294.2	3107	316.8	9.721	647,635	324.3	697,406	349.2
57.2	2-1/4	58.34	59.49	2.64	15.09	3010	306.9	3241	330.5	10.14	675,688	338.3	727,615	364.3
58		59.16	60.32	2.67	15.52	3095	315.6	3333	339.8	10.43	694,721	347.9	748,111	374.6
60		61.20	62.40	2.77	16.61	3312	337.7	3566	363.7	11.16	743,458	372.3	800,594	400.9
62		63.24	64.48	2.86	17.73	3536	360.6	3808	388.3	11.92	793,848	397.5	854,856	428.1
64		65.28	66.56	2.95	18.90	3768	384.3	4058	413.8	12.70	845,890	423.6	910,898	456.1
66		67.32	68.64	3.04	20.10	4007	408.6	4315	440.0	13.50	899,585	450.4	968,719	485.1
68		69.36	70.72	3.13	21.33	4254	433.8	4581	467.1	14.33	954,931	478.2	1,028,318	514.9
70		71.40	72.80	3.23	22.61	4508	459.7	4854	495.0	15.19	1,011,929	506.7	1,089,697	545.6

PRODUCT ADVANTAGES

Wire Quality

- The quality and performance of Hyrope is fundamentally determined by the quality of component wires. It is absolutely impossible to achieve high performance when the rope is produced with inferior quality wires.
- The process of controlling the quality of wire begins with selection of high quality steel wire rods that can be manufactured by handful of world-class steel mills. Any defect or inconsistent microstructure of the rod is difficult to remove during wire production process, and could affect the quality of the final rope product.
- The wires are produced on modern, well cooled wire drawing machines, enabling the wires to retain the highest possible level of ductility. This is essential in order to deliver the maximum possible translation of wire strength into rope breaking load. Ductility of component wires is also a key factor in prolonged service life of rope.

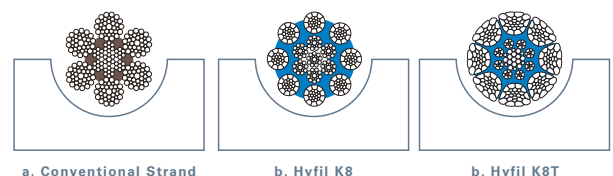


Compacted and Rotary Swaged Strands

Most Hyrope products are made out of compacted strands. The strands are properly Breaking Load of Hyrope roller-compacted during the production process to improve the contact conditions between both the strands and the individual wires.

Benefits of Hyrope compacted strands

- Smooth Surface
- Linear contact between individual wires
- Much higher breaking load with higher metallic area
- Better contact between the rope surface and the sheaves
- Far more resistant to abrasion and corrosion
- Good constructional stability for the multi-layer spooling system

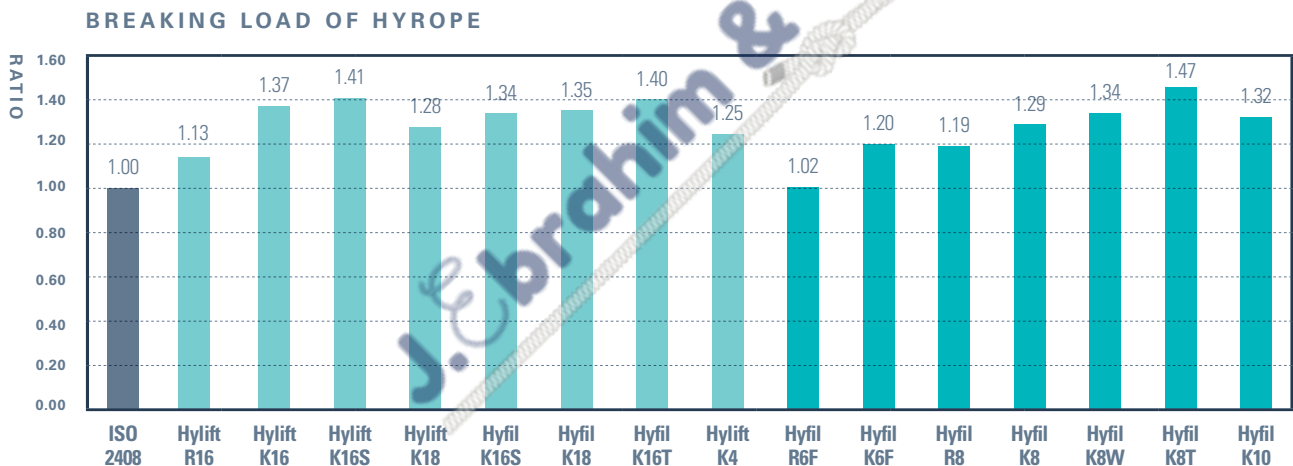


Comparison of Breaking Load

Hyrope products are designed not only to achieve greater tensile strength of the individual wires but also a combination of relative factors with high technology.

- Used only high quality wires that are produced in Kiswire's own drawing factory.
- Increased fill factor/metallic area of the rope through optimal compacting of the strands.
- Parallel lay with a plastic layer that substantially reduces the internal stresses of the rope. Standard breaking strength of Hyrope is around 20~40% higher than a conventional rope to international standards of the same tensile grade and construction categories.

Items	ISO 2408	Hylift R16	Hylift K16	Hylift K16S	Hylift K18	Hyfil K16S	Hyfil K18	Hyfil K16T	Hylift K4	Hyfil R6F	Hyfil K6F	Hyfil R8	Hyfil K8	Hyfil K8W	Hyfil K8T	Hyfil K10
Ratio	1.00	1.13	1.37	1.41	1.28	1.34	1.35	1.40	1.25	1.02	1.20	1.19	1.29	1.34	1.47	1.32



Plastic Layer

Steel-Plastic combination Long fatigue life

The plastic layer of Hyrope acts as a cushion between the layers.

This plastic layer has many advantages ;

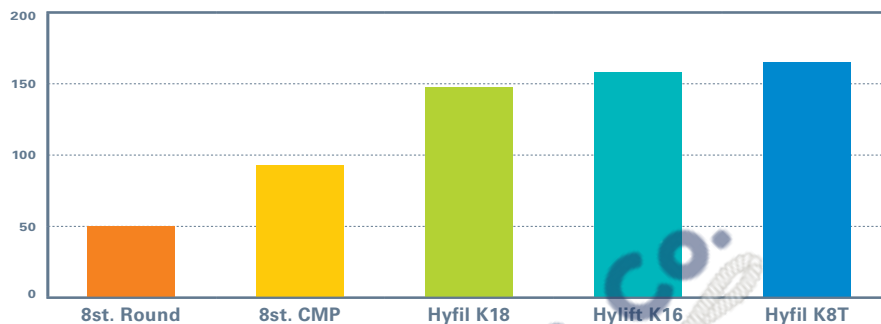
- Prevents direct metal-to-metal contact
- Stabilizes the rope construction during installation and actual service
- Keeps out water and harmful elements
- Seals in rope lubricant
- Removes the incidence of birdcaging
- Prevents internal wire breaks
- Absorbs dynamic energy
- Extremely reduces internal stress

Bending Fatigue

FATIGUE TEST RESULT OF HYROPE (IN-HOUSE TEST)

D/d=20, 20% of MBL x 1000 Cycles

8st. Round	8st. CMP	Hyfil K18	Hyfil K16	Hyfil K8T
50	95	149	153	162



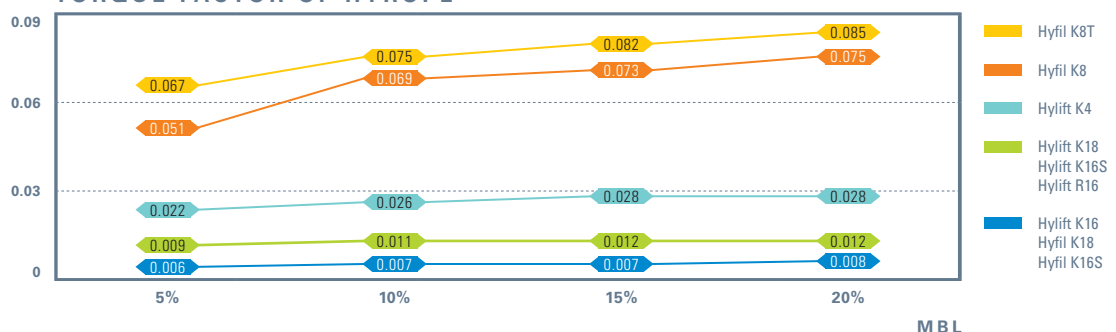
Relationship between service life of the wire rope and the grooves is shown in the figure. Experience has clearly demonstrated that the service life of the wire rope will be materially increased by strict adherence to these standards.

Torque Factor

- Hyfil K16, Hyfil K18 and Hyfil K18 are rotation-resistant ropes with a steel core closed in the opposite direction to the outer strands.
- When a load is applied, the core has the tendency to twist in one direction while the outer strands tend to rotate in the opposite direction.
- The created moments in the core versus the created moments in the outer strands add to zero over a wide load spectrum.

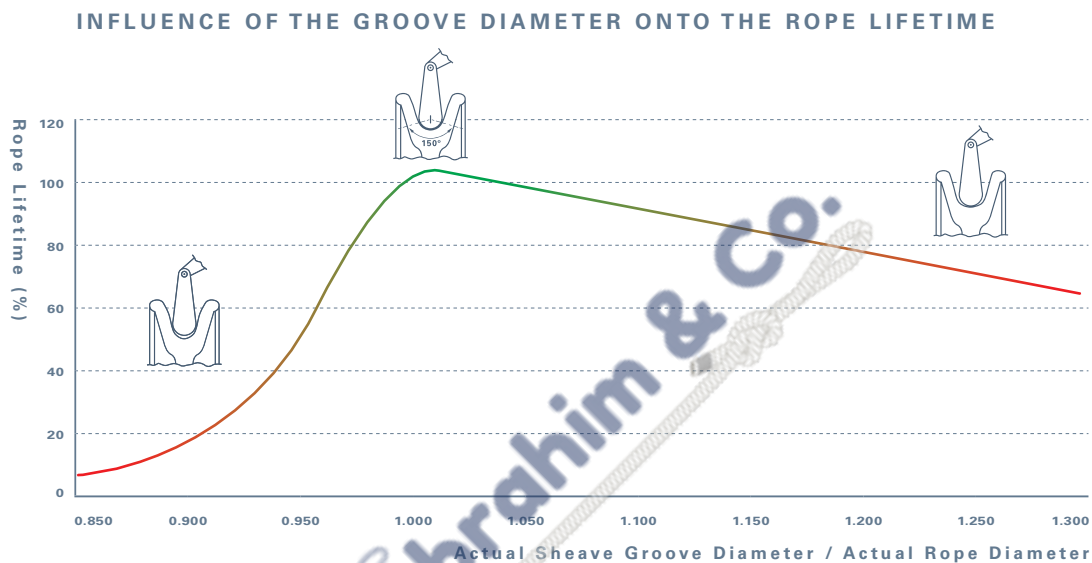
of MBL	Hyfil K16 Hyfil K18 Hyfil K16S	Hyfil K18 Hyfil K16S Hyfil R16	Hyfil K4	Hyfil K8	Hyfil K8T
5%	0.006	0.009	0.022	0.051	0.067
10%	0.007	0.011	0.026	0.069	0.075
15%	0.007	0.012	0.028	0.073	0.082
20%	0.008	0.012	0.028	0.075	0.085

TORQUE FACTOR OF HYROPE



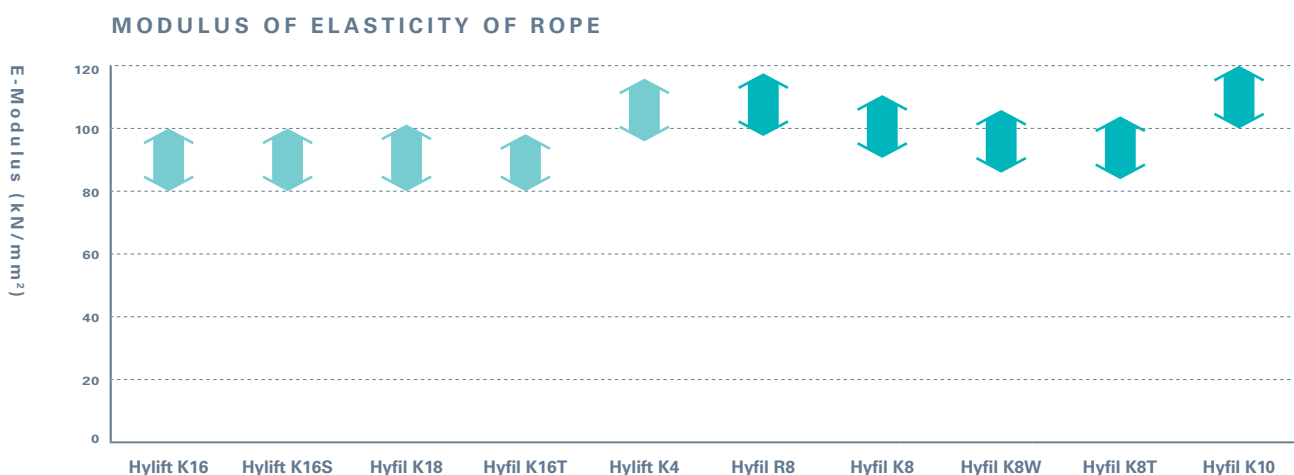
Bending fatigue in dependence on the groove diameter

According to ISO 4309 the groove of a sheave should have a diameter, that is 5% to 10% bigger than the rope diameter. During the operating time, the rope diameter will decrease. With this decreased diameter the rope will dig itself in the sheave groove and will reduce the groove diameter. Therefore, with the installation of the rope it should be considered, that the groove diameter of the sheave is at least 1% bigger than the measured rope diameter. If the groove diameter is too big, the support of the rope is not very good anymore and the surface pressure increases. Consequently the lifetime of the rope decreases steadily with an increasing groove diameter. If the groove diameter is too small, the rope will be squeezed and the lifetime of steel sheaves drops extremely.



Modulus of elasticity

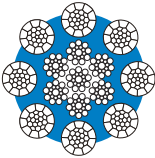
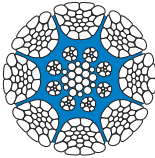
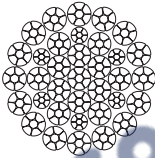
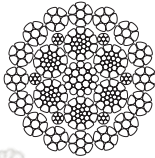
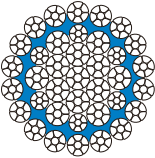
Within a rope construction the modulus of elasticity varies slightly in dependence of the rope diameter, the lay type (lang's lay or regular lay) and of the tensile strength of the wire. As a rule, the modulus of elasticity of wire ropes increases over the lifetime of the rope.



Radial stability without load

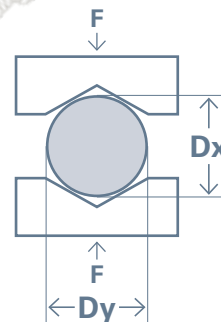
In multi-layer spooling wire ropes are additionally to tensile and bending loads exposed to enormous transverse loads. In order to be able to withstand these loads and to avoid spooling problems, a high degree of radial stability is necessary. The radial stability of the rope also influences the deforming behavior of the drum. That's why it is important for the designer of the drum to know the radial stability in the form of the transverse modulus of elasticity of the ropes. Radial stability is defined as the resistance of a wire rope against transverse (radial) deformation (Ovalization). KISWIRE measures the radial stability of its products and without load (below test facility).

MEASUREMENT WITHOUT LOAD

	Hyfil K8	Hyfil K8T	Hyfil K16	Hyfil K16S	Hyfil K18
					
Ovalization under 7,5 kN	1,5%	1,6%	1,7%	1,7%	1,1%
Ovalization under 120 kN	14%	11,9%	11,3%	12,4%	9,1%

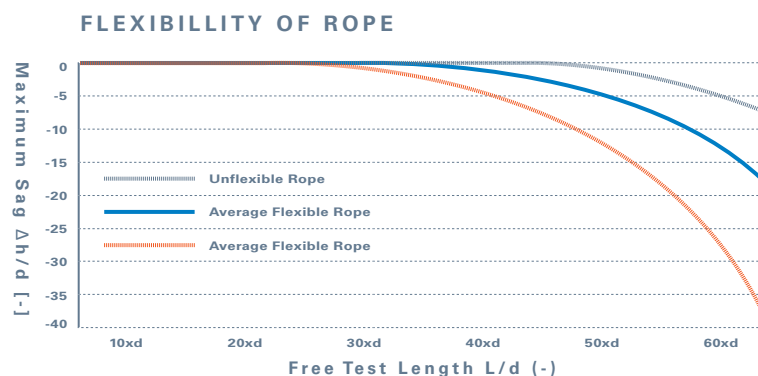


Testing Device

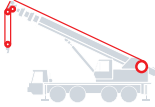
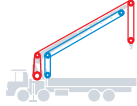
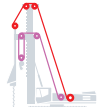
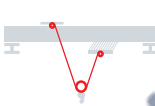
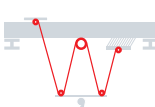
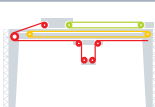
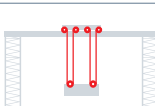
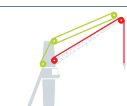
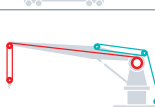
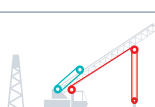


Flexibility

The flexibility of a rope is a measure of how easily a rope allows itself to bend around a given diameter. The flexibility of a rope is among other things dependent on the line pull. The flexibility of an unloaded rope can be measured by the sag of a rope under its own weight. The figure bellowed shows the maximum sag of the rope for different free rope lengths (expressed as a multiple of the rope diameter). The flexibility of ropes under load is measured as the efficiency factor of the rope while running over a sheave.



PRODUCT SELECTION

Crane	Crane Picture	Main Hoist Rope	Trolley Rope	Boom Hoist Rope	Boom Extension Rope	Luffing Rope	Pipe Handling Rope
Telescopic Crane		Hylift K16 Hylift R16 Hylift K18 Hylift K16S					
Truck Crane		Hylift K16 Hylift R16			Hyfil K8 Hyfil R8 Hyfil K8T Hyfil K8W		
Crawler Crane		Hylift K16 Hylift R16 Hylift K18 Hylift K16S				Hyfil K8 Hyfil R8 Hyfil K8T Hyfil K8W	
Loader Crane		Hylift K16 Hylift R16					
Tower Crane		Hylift K16 Hylift R16	Hyfil K8 Hyfil R8				
Piledriving Equipment		Hylift K16 Hylift K18					Hyfil K8 Hyfil K8W
Overhead Traveling Crane		Hylift K16 Hylift R16 Hyfil K8 Hyfil R8					
Ladle Crane		Hyfil K8 Hyfil R8 Hyfil R6F					
Gantry Crane		Hyfil K8 Hyfil R8 Hyfil K6F Hyfil R6F	Hyfil K8 Hyfil R8 Hyfil K6F Hyfil R6F	Hyfil K8 Hyfil R8 Hyfil K8T Hyfil K8W Hyfil K6F Hyfil R6F			
RTGC / RMGC		Hyfil K8 Hyfil R8 Hyfil K8W Hyfil K6F Hyfil R6F					
Mobile Harbour Crane		Hyfil K8 Hyfil R8 Hyfil K8T Hyfil K8W		Hyfil K8 Hyfil R8 Hyfil K8T Hyfil K8W			
Deck Crane		Hylift K16 Hylift K18 Hyfil K16T Hylift K4				Hyfil K8 Hyfil R8 Hyfil K8T Hyfil K8W	
Offshore Crane		Hylift K16 Hylift K16S Hyfil K16S Hyfil K16T		Hyfil K8 Hyfil R8 Hyfil K8T Hyfil K8W			

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Fax. 60-7-332-8930

KISWIRE SDN. BHD.

Plo 475, Jalan, Keluli 2,
81700 Pasir Gudang, Johor, Malaysia
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Fax. 60-7-251-0870

KISWIRE CORD SDN. BHD.

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Kawasan Perindustrian Tanjung Langsat,
81700 Pasir Gudang, Johor, Malaysia
Tel. 60-7-255-1475
Fax. 60-7-255-2475

KISWIRE NEPTUNE SDN. BHD.

Plo 475C, Jalan Ipil 4,
Tanjung Langsat Port,
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Fax. 60-7-255-2019

OVERSEAS

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Fax. 1-201-461-8021

KISWIRE EUROPE B.V.

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Fax. 31-183-665021

KISWIRE JAPAN CO. (TOKYO)

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Nihonbashi Chuo-Ku, Tokyo, Japan
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Fax. 81-3-3808-2835

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Fax. 81-6-6636-7751

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Fax. 86-21-5208-2878

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Fax. 656-227-2297

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12150, Indonesia
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KISWIRE LOTUS CO., LTD.

140 One Pacific Place Bldg. 18/F Unit 1805
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Bangkok 10110, Thailand
Tel. 66-2-653-2820~1
Fax. 66-2-653-2822

KISWIRE INTERNATIONAL S. A.

Krakelshaff, L-3235 Bettembourg
Grand Duchy of Luxembourg
Tel. 352-28-10-24
Fax. 352-51-91-63

SERVICE CENTER

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Rt.003 Rw.003 Kel. Balaraja Kec. Balaraja
Kab. Tangerang Banten
15610, Indonesia
Tel. 62-21-5945-1241~43
Fax. 62-21-5945-1240

KISWIRE LOTUS CO., LTD.

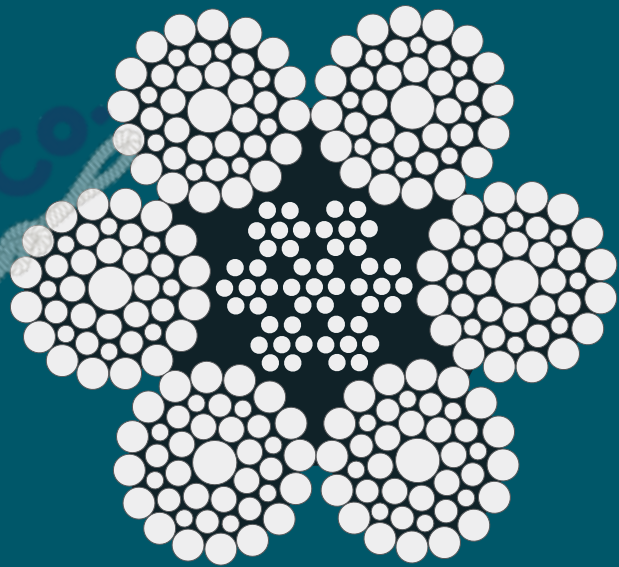
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6 x 36 CLASS



- VERSATILE APPLICATIONS
- MAXIMUM SERVICE LIFE
- COMPATIBLE TO WORLD STANDARDS
- EXCELLENT MECHANICAL PROPERTIES
- OUTSTANDING QUALITY



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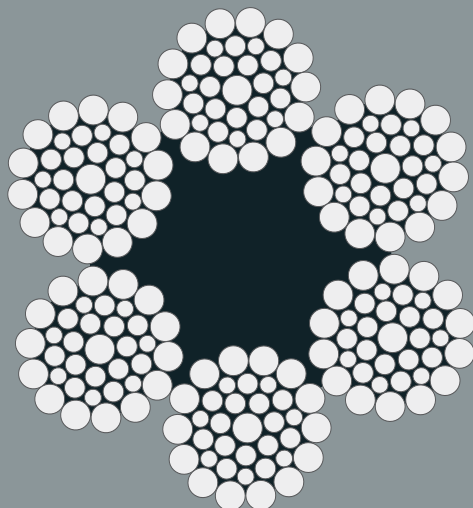
Engineering Ropes

6 x 36 CLASS

Kiswire® Engineering Ropes are made by Kiswire in accordance with several International Standards. The data shown in this leaflet complies with the EN 12385-4 Standard, which is equivalent to the ISO 2408 and the API Standard. This 6x36 Class category includes the rope types 6x31/36/41/49/46WS.

All Kiswire® Engineering Ropes are of outstanding quality, guaranteeing a maximum service life. The pre-forming quality also makes these ropes very suitable for sling production. They are available in bright, galvanized and aluminised versions.

Kiswire® Engineering Ropes are used in countless applications.



Kiswire® is the largest wire rope producer in the world. Annually about 100,000 tons of wire rope is delivered, worldwide. Since 1946, Kiswire® has specialized in the development and production of wire rope. Meanwhile, the company has acquired a reputable and leading position in a great variety of markets, in literally all corners of the world.

The next product ranges are available: **Standard**® non-rotating crane rope - **Custom**® non-rotating compacted crane rope - **Monotrack**® multi-strand crane rope - **Matrix**® compacted engineering ropes - **Hyrise**® elevator ropes - **Alumar**® fishing ropes - **Alufil**® fishing ropes with plastic in-fill - **Kiswire**® engineering ropes 6x19 class - **Kiswire**® engineering ropes 6x36 class - **Neptune**® offshore ropes - **Reliance**® automotive ropes - **Hyfil**® crane ropes with plastic in-fill.

diameter	6x36 Class + IWRC				6x36 Class + Fiber Core		
	Weight	1770	1960	2160	Weight	1770	1960
mm	100m/Kg	MBL kN	MBL kN	MBL kN	100m/Kg	MBL kN	MBL kN
8	26.2	40.3	44.7	49.2	23.5	37.4	41.4
10	40.9	63.0	69.8	76.9	36.7	58.4	64.7
12	58.9	90.7	100.0	111.0	52.8	84.1	93.1
13	69.1	106.0	118.0	130.0	62.0	98.7	109.0
14	80.2	124.0	137.0	151.0	71.9	114.0	127.0
16	105.0	161.0	179.0	197.0	94.0	150.0	166.0
18	133.0	204.0	226.0	249.0	119.0	189.0	210.0
19	149.0	228.0	253.0	279.0	133.0	212.0	235.0
20	164.0	252.0	279.0	308.0	147.0	234.0	259.0
22	198.0	305.0	338.0	372.0	178.0	283.0	313.0
24	236.0	363.0	402.0	443.0	211.0	336.0	373.0
26	276.0	426.0	472.0	520.0	248.0	395.0	437.0
28	321.0	494.0	547.0	603.0	288.0	458.0	507.0
30	370.0	570.0	631.0	695.0	332.0	528.0	585.0
32	419.0	645.0	715.0	787.0	376.0	598.0	662.0
34	474.5	731.0	810.0	892.0	426.0	678.0	750.0
36	530.0	817.0	904.0	997.0	476.0	757.0	838.0
38	592.0	914.0	1012.0	1114.0	532.0	846.0	939.0
40	654.0	1010.0	1120.0	1230.0	587.0	935.0	1040.0
42	723.0	1115.0	1235.0	1360.0	649.0	1033.0	1145.0
44	792.0	1220.0	1350.0	1490.0	711.0	1130.0	1250.0
46	867.0	1335.0	1480.0	1630.0	778.5	1240.0	1370.0
48	942.0	1450.0	1610.0	1770.0	846.0	1350.0	1490.0

According to (1) EN 12385-4 Standard (2) ISO 2408 Standard (3) API Standard