

VESTO ROPES



PRODUCT CATALOGUE

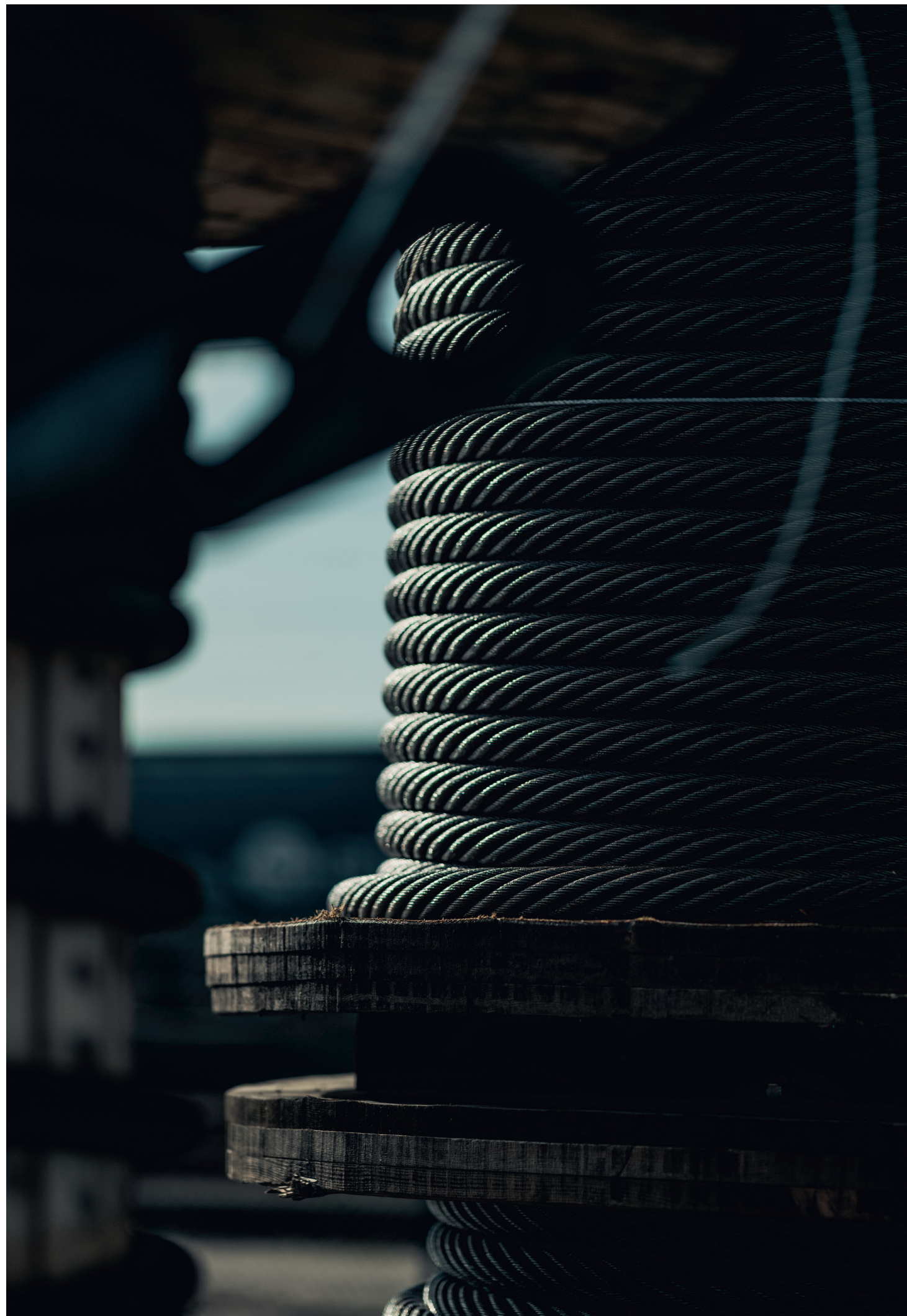




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VESTO ROPES

For almost two centuries all mankind are using steel wire ropes for different kind of purposes. Especially in the last century the manufacturing of steel wire ropes evolved. For example, the minimum breaking load of wire ropes doubled over and over again. VESTO Ropes really wants to shake up the business and introduce a new steel wire rope concept with specific designs. The ropes are designed to decrease wire rope breaks and to increase the lifetime of the wire ropes.

CENTER OF EXCELLENCE

Because of the close connection with Vermeulen Europoort and Bernard Guenot, VESTO Ropes can build on a strong fundament of technical knowledge, skills and overall know how. VESTO Ropes states humbly that it's the center of excellence due to their outstanding technical innovation department. All aspects of a high-performance rope brand are done 'in house'. VESTO Ropes has access to the best socketing methods in the world, the DX11 Smart Termination. The patented DX11 socketing method invented by Tom Vermeulen sr. has proven itself to be the best and left it's mark at terminals globally.

The skills and know-how of Bernard Guenot are unexceeded and respected market wide. Bernard spent his career helping and developing steel wire ropes factories at each and every continent. The team of VESTO Ropes has the ability to advise and engineer a wire rope according to your needs.

MARKETS WE SERVE

VESTO Ropes operates in several segments within the global market. VESTO Ropes promises to make the best possible products in all the high end segments. From mobile harbor cranes to overhead cranes and heavy lifting deck cranes, VESTO Ropes will deliver the best product at any time.

PERFORMANCE IS KEY

The VESTO ropes brand will differentiate itself with outstanding quality, especially in mobile harbour cranes. Already VESTO Ropes is outperforming the best brands within the market with their new wire rope, the VESTO FLATTEN® 8 DT as magnum opus.

Tom Vermeulen Jr.

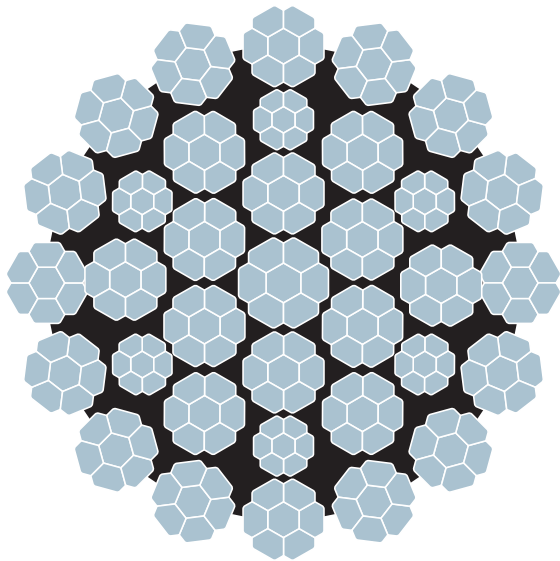
Bernard Guenot

Design & Application Expert

VESTO 35C

PRODUCT DETAILS

- Full non rotating rope
- Excellent life time
- High breaking load
- Excellent Wear-resistant
- Protect internal wires by plastic impregnating
- Resistance of crushing damage
- Extended life of winch drum and sheave
- Protected internal wires by plastic impregnation (Optional)



APPLICATIONS

- Tower Crane
- Deck Crane
- Crawler Crane
- Level Luffing Crane
- Hydro Crane
- Ocean Industry

OVERVIEW

Type	Type 35W x K7 / 35W x K19S
Size	8mm ~ 64mm
Number of total wires	245 / 665
Number of outer load bearing wires	112 / 304
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.723
Spin loss factors	1960 N/mm ² : 0.83 / 2160 N/mm ² : 0.81
Torque factor / Elastic modulus	0.020 / 116,000N/mm ² + or- 5,000N/mm ²

• Available Right and Left hand — Standard Lang lay (Regular lay on request)

Wire Rope discard : ISO 4309 RCN 23-2 / n >300

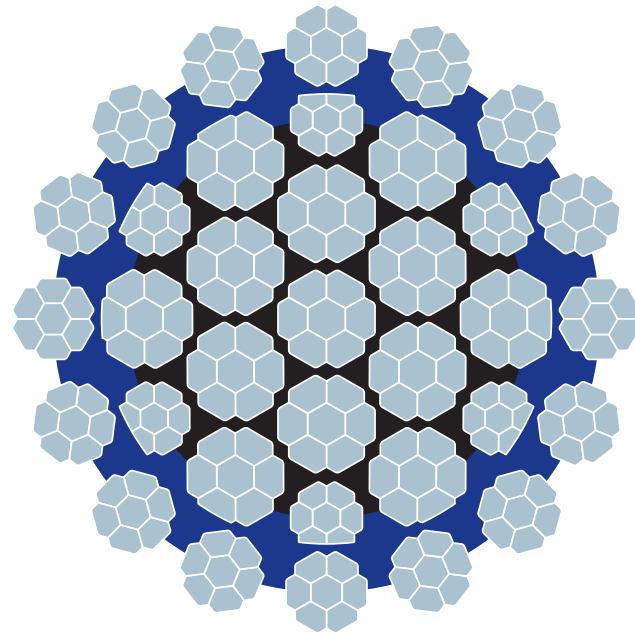
NOMINAL DIA			Minimum Breaking Load (kN)		Approx Weight
mm	inch	mm ²	1960 N/mm ²	2160 N/mm ²	kg/m
8	5/16	36.3	58.6	62.7	0.33
9		46.0	74.1	79.4	0.41
10		56.8	91.5	98.0	0.51
11		68.7	110.7	118.6	0.62
12		81.8	131.8	141.1	0.73
13	7/16	96.0	154.6	165.6	0.86
14		111.3	179.3	192.1	1.00
14,3	9/16	116.1	187.1	200.4	1.04
15		127.8	205.9	220.5	1.15
16	5/8	145.4	234.2	250.9	1.31
17,5	11/16	173.9	280.2	300.1	1.56
18		184.0	296.5	317.5	1.65
19		205.0	330.3	353.8	1.84
20		227.1	366.0	392.0	2.04
21	13/6	250.4	403.5	432.2	2.25
22		274.8	442.9	474.3	2.47
22,2	7/8	279.9	450.9	483.0	2.51
23		300.4	484.0	518.4	2.70
24	15/16	327.1	527.0	564.5	2.94
25		354.9	571.9	612.5	3.19
25,4	1	366.4	590.3	632.3	3.29
26		383.9	618.5	662.5	3.45
28		445.2	717.4	768.3	4.00
28,6	1-1/8	464.5	748.4	801.6	4.17
30	1-3/16	511.1	823.5	882.0	4.59
31,8	1-1/4	574.2	925.3	991.0	5.16
32		581.5	937.0	1003.5	5.22
34		656.4	1057.7	1132.9	5.89
36		735.9	1185.8	1270.1	6.61
38	1-1/2	820.0	1321.3	1415.1	7.36
40		908.6	1464.0	1568.0	8.16
42		1001.7	1645.0	1737.0	8.99
44		1099.3	1805.4	1906.4	9.87
46		1201.6	1973.3	2083.6	10.79
48		1308.3	2148.6	2268.7	11.75
50		1419.6	2331.3	2461.6	12.75
52		1535.5	2521.5	2662.4	13.79
54	2-1/8	1655.8	2719.2	2871.2	14.87
56		1780.8	2924.4	3087.8	15.99
58		1910.2	3137.0	3312.3	17.15
60		2044.2	3313.5	3520.9	18.36
62		2182.8	3538.1	3759.5	19.60
64		2325.9	3770.0	4006.0	20.89

Construction	Single Layer Drum	Multi Layer Drum	*d = nominal diameter of rope	
35 x K7	3 Broken wires in (6d*)	5 Broken wires in (30d*)	5 Broken wires in (6d*)	10 Broken wires in (30d*)
35 x K19S	6 Broken wires in (6d*)	12 Broken wires in (30d*)	12 Broken wires in (6d*)	24 Broken wires in (30d*)

VESTO FLATTEN® 35

PRODUCT DETAILS

- Full non rotating rope
- Excellent life time
- Very high breaking load
- Excellent Wear-resistant
- Protect internal wires by plastic impregnating
- Resistance of crushing damage
- Extended life of winch drum and sheave
- Very high MBL
- Protected internal wires by plastic impregnation (Optional)



APPLICATIONS

- Tower Crane
- Crawler Crane
- Level Luffing Crane
- Hydro Crane
- Deck Crane
- Offshore Crane
- Ocean Industry

OVERVIEW

Type	35W x K7 / 35W x K19S
Size	8mm ~ 64mm
Number of total wires	245 / 665
Number of outer load bearing wires	112 / 304
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.738
Spin loss factors	1960 N/mm ² : 0.83 / 2160 N/mm ² : 0.81
Torque factor / Elastic modulus	0.007(@20% MBL) / 119,000N/mm ² + or- 5,000N/mm ²

• Available Right and Left hand — Standard Lang lay (Regular lay on request)

Wire Rope discard : ISO 4309 RCN 23-2 / n >300

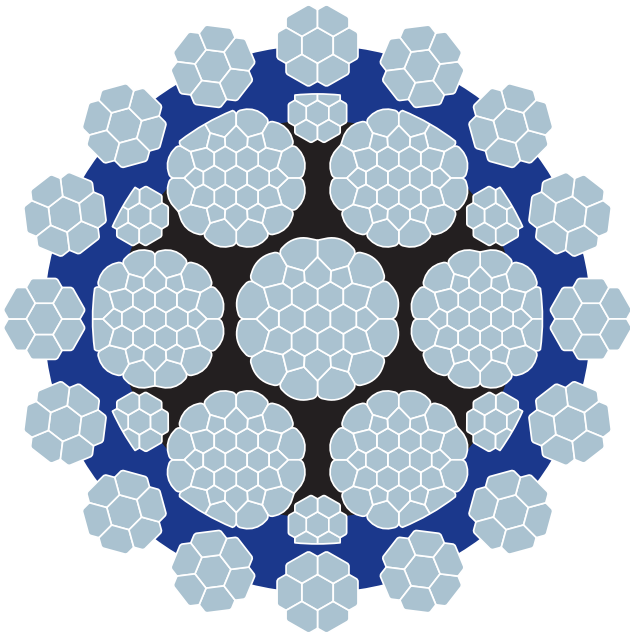
NOMINAL DIA			Minimum Breaking Load (kN)		Approx Weight
mm	inch	mm ²	1960 N/mm ²	2160 N/mm ²	kg/m
8		37.1	61.1	66.9	0.32
9		47.0	77.3	84.7	0.40
9.53	3/8	52.6	86.7	94.9	0.45
10		58.0	95.4	104.5	0.50
11.2	7/16	72.7	119.7	131.1	0.62
12		83.5	137.4	150.5	0.72
12.7	1/2	93.5	153.9	168.6	0.80
13	7/16	98.0	161.3	176.6	0.84
14		113.6	187.1	204.9	0.98
14.3	9/16	118.5	195.2	213.7	1.02
15		130.4	214.7	235.2	1.12
16	5/8	148.4	244.3	267.6	1.28
17.5	11/16	177.5	292.3	320.1	1.53
18		187.8	309.2	338.7	1.61
19		209.3	344.5	377.3	1.80
29		231.9	381.7	418.1	1.99
21	13/16	255.6	420.9	461.0	2.20
22		280.6	461.9	505.9	2.41
22.2	7/8	285.7	470.3	515.1	2.46
23		306.6	504.9	552.9	2.64
24	15/16	333.9	549.7	602.1	2.87
25		362.3	596.5	653.3	3.11
25.4	1	374.0	615.7	674.4	3.21
26		391.9	645.1	706.6	3.37
28		454.5	748.2	819.5	3.91
28.6	1-1/8	474.1	780.6	855.0	4.08
30	1-3/16	521.7	858.9	940.7	4.48
31.8	1-1/4	586.2	965.1	1057.0	5.04
32		593.6	977.3	1070.3	5.10
34		670.1	1103.2	1208.3	5.76
36		751.2	1236.8	1354.6	6.46
38	1-1/2	837.0	1378.1	1509.3	7.19
40		927.5	1527.0	1672.4	7.97
42		1022.5	1683.5	1843.8	8.98
44		1122.2	1847.6	2023.6	9.85
46		1250.6	2019.4	2255.1	10.77
48		1361.7	2198.8	2455.5	11.73
50		1477.6	2385.9	2664.3	12.73
50.8	2	1525.2	2462.9	2750.3	13.14
52		1598.1	2580.6	2881.8	13.76
54		1723.4	2782.9	3107.7	14.84
56		1853.5	2992.9	3196.8	15.96
57.2	2-1/4	1933.7	3122.5	3335.3	16.65
58		1988.2	3210.5	3429.3	17.12
60		2127.7	3435.7	3669.8	18.32
62		2271.9	3668.6	3918.6	19.57
63.5	2-1/2	2383.2	3848.2	4110.5	20.52
64		2420.8	3909.0	4175.5	20.85

Construction	Single Layer Drum	Multi Layer Drum	*d = nominal diameter of rope	
35 x K7	3 Broken wires in (6d*)	5 Broken wires in (30d*)	5 Broken wires in (6d*)	10 Broken wires in (30d*)
35 x K19S	6 Broken wires in (6d*)	12 Broken wires in (30d*)	12 Broken wires in (6d*)	24 Broken wires in (30d*)

VESTO FLATTEN® 29I

PRODUCT DETAILS

- Rotating resistant rope
- Excellent life time
- Very High breaking load
- Excellent Wear-resistant
- High flexibility
- Resistance of crushing damage
- Extended life of winch drum and sheave
- Extremely high MBL
- Core without plastic impregnation (Optional)



APPLICATIONS

- Tower Crane
- Deck Crane
- Offshore Crane
- Level Luffing Crane
- Hydro Crane
- Crawler Crane
- Ocean Industry

OVERVIEW

Type	16 x K7 + [31WS+6xK31WS+6xK7]
Size	8mm ~ 44mm
Number of total wires	371
Number of outer load bearing wires	112
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.752
Spin loss factors	1960 N/mm²: 0.84 / 2160 N/mm²: 0.82
Torque factor / Elastic modulus	0.007(@20% MBL) / 120,000N/mm² + or- 5,000N/mm²

• Available Right and Left hand — Standard Lang lay (Regular lay on request)

Wire Rope discard : ISO 4309 RCN 23-2

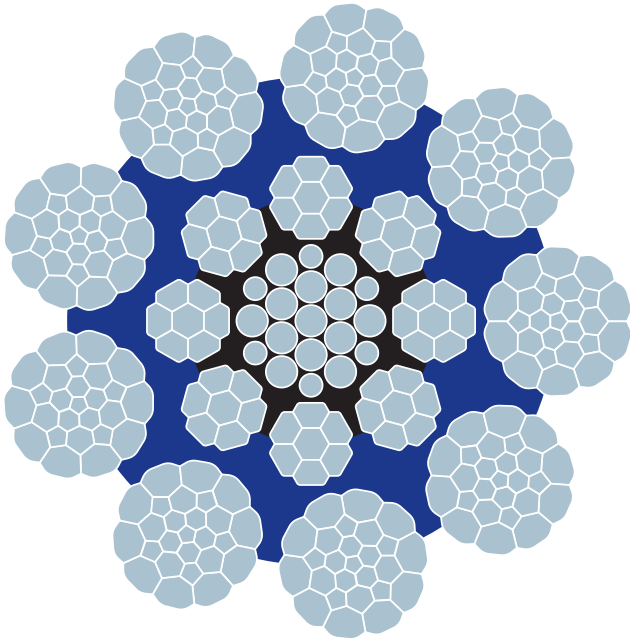
NOMINAL DIA			Minimum Breaking Load (kN)		Approx Weight
mm	inch	mm²	1960 N/mm²	2160 N/mm²	kg/m
8	7/16	37.8	62.2	68.2	0.33
9		47.8	78.8	86.3	0.42
10		59.1	97.3	106.5	0.51
11		71.5	117.7	128.9	0.62
12		85.1	140.0	153.4	0.74
13	7/16	99.8	164.4	180.0	0.87
14		115.8	190.6	208.8	1.00
14.3	9/16	120.8	198.9	217.8	1.05
15		132.9	218.8	239.7	1.15
16	5/8	151.2	249.0	272.7	1.31
17.5	11/16	180.9	297.8	326.2	1.57
18		191.4	315.1	345.1	1.66
19		213.2	351.1	384.5	1.85
20		236.3	389.0	426.1	2.05
21	13/16	260.5	428.9	469.7	2.26
22		285.9	470.7	515.5	2.48
22.2	7/8	291.1	479.3	525.0	2.53
23		312.5	514.5	563.5	2.71
24	15/16	340.2	560.2	613.5	2.95
25		369.2	607.8	665.7	3.20
25.4	1	381.1	627.4	687.2	3.31
26		399.3	657.4	720.0	3.46
28		463.1	762.5	835.1	4.02
28.6	1-1/8	483.2	795.5	871.3	4.19
30	1-3/16	531.6	875.3	958.6	4.61
31.8	1-1/4	597.3	983.5	1077.1	5.18
32		604.9	995.9	1090.7	5.25
34		682.9	1124.3	1231.3	5.92
36		765.6	1260.4	1380.4	6.64
38	1-1/2	853.0	1404.3	1538.1	7.40
40		945.1	1556.1	1704.3	8.20
42		1042.0	1715.6	1878.9	9.04
44		1143.6	1882.8	2062.1	9.92

Construction	Single Layer Drum	Multi Layer Drum	*d = nominal diameter of rope	
VESTO 29Si	3 Broken wires in (6d*)	5 Broken wires in (30d*)	5 Broken wires in (6d*)	10 Broken wires in (30d*)

VESTO 9C

PRODUCT DETAILS

- Excellent life time
- High breaking load
- Good Flexibility
- Excellent resistance of abrasion
- Protect internal wires by plastic impregnating
- Extended life of winch drum and sheave
- Application for cranes where rotation resistant ropes are not required



APPLICATIONS

- Container Crane
- Offshore Crane
- Over Head Crane
- Boom Hoist
- Mobile Harbor Crane

OVERVIEW

Type	9 x K26WS + EPIWRC
Size	8mm ~ 45mm
Number of total wires	309
Number of outer load bearing wires	234
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.685
Spin loss factors	1960 N/mm²: 0.83 / 2160 N/mm²: 0.81
Torque factor / Elastic modulus	105,000N/mm² + or- 5,000N/mm²

• Available Right and Left hand — Standard Lang lay (Regular lay on request)

Wire Rope discard : ISO 4309 RCN 23-2 / n >300

NOMINAL DIA

Minimum Breaking Load (kN)

Approx Weight

mm	inch	mm²	1960 N/mm²	2160 N/mm²	kg/m
6		18.7	30.5	32.6	0.16
6.35	1/4	21.0	34.1	36.5	0.18
6.5		22.0	35.7	38.3	0.19
7		25.5	41.4	44.4	0.22
7.5		29.3	47.6	51.0	0.26
8	5/16	33.3	54.1	58.0	0.29
9		43.8	71.2	76.3	0.38
9.5	3/8	48.8	79.4	85.0	0.43
10		54.1	87.9	94.2	0.47
11		65.4	106	114	0.57
12		77.9	127	136	0.68
12.7	1/2	87.2	142	152	0.76
13		91.4	149	159	0.80
14	9/16	106	172	185	0.93
15		122	198	212	1.07
16	5/8	138	225	241	1.21
17		156	254	272	1.37
18		175	285	305	1.54
19	3/4	195	317	340	1.71
20		215	350	375	1.89
22	7/8	260	423	453	2.28
24		310	504	540	2.72
25		336	546	585	2.95
25.4	1	347	564	604	3.04
26		364	591	633	3.19
28		422	685	734	3.70
28.6	1-1/8	440	715	766	3.86
30		484	787	843	4.25
32	1-1/4	542	881	944	4.76
34		628	1022	1080	5.52
35	1-3/8	663	1078	1140	5.82
36		704	1145	1211	6.18
38	1-1/2	789	1283	1356	6.93
40		870	1414	1495	7.64
42	1-5/8	959	1559	1648	8.42
44	1-3/4	1074	1746	1846	9.43
45		1101	1790	1892	9.66
48		1252	2036	2152	10.99

Single Layer Drum Ordinary lay

10 Broken wires in (6d*)
19 Broken wires in (30d*)

Lang lay

5 Broken wires in (6d*)
10 Broken wires in (30d*)

Multi Layer Drum Ordinary lay & Lang lay

20 Broken wires in (6d*)

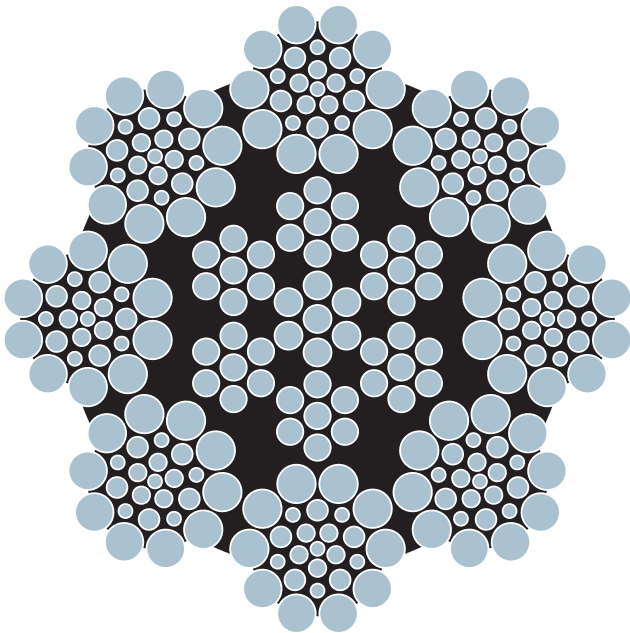
*d = nominal diameter of rope

38 Broken wires in (30d*)

VESTO 8

PRODUCT DETAILS

- Excellent life time
- Very high breaking load
- Excellent resistance of abrasion
- Protect internal wires by plastic impregnating
- Excellent resistance of crushing damage
- Extended life of winch drum and sheave
- Application for cranes where rotation resistant ropes are not required
- Also available with compacted strands till 76mm



APPLICATIONS

- Container Crane
- Offshore Crane
- Over Head Crane
- Boom Hoist
- Mobile Harbor Crane

OVERVIEW

Type	8 Strand 19S or (26/31/36)WS + IWRC
Size	8mm ~ 58mm
Number of total wires	257
Number of outer load bearing wires	208
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.628
Spin loss factors	1960 N/mm²: 0.84 / 2160 N/mm²: 0.82
Elastic modulus	97,000N/mm² + or- 5,000N/mm²

• Available Right and Left hand — Standard Lang lay (Regular lay on request)

Wire Rope discard : ISO 4309 RCN 09

NOMINAL DIA

Minimum Breaking Load (kN)

Approx Weight

mm	inch	mm²	1960 N/mm²	2160 N/mm²	kg/m
8	5/16	31.6	48.0	51.9	0.28
9		40.0	60.7	65.7	0.35
10		49.3	75.0	81.1	0.43
11		59.7	90.7	98.2	0.53
12		71.1	108.0	116.8	0.63
13		83.4	126.7	137.1	0.74
14		96.7	147.0	159.0	0.85
14.3	9/16	100.9	153.3	165.9	0.89
15		111.0	168.7	182.5	0.98
16	5/8	126.3	191.9	207.7	1.11
17.5	11/16	151.1	229.6	248.4	1.33
18		159.9	242.9	262.8	1.41
19	3/4	178.1	270.7	292.9	1.57
20		197.4	299.9	324.5	1.74
22		238.8	362.9	392.6	2.11
24		284.2	431.9	467.3	2.51
25		308.4	468.6	507.0	2.72
26		333.6	506.8	548.4	2.94
28		386.9	587.8	636.0	3.41
28.6	1-1/8	403.6	613.3	663.5	3.56
30	1-3/16	444.1	674.8	730.1	3.91
32		505.3	767.7	830.7	4.45
34		570.5	866.7	937.8	5.03
35		604.5	918.4	993.8	5.33
36		639.5	971.7	1051.3	5.64
38		712.6	1082.6	1171.4	6.28
38.1	1-1/2	716.3	1088.3	1177.6	6.31
40		789.6	1199.6	1298.0	6.96
42		870.5	1322.6	1431.0	7.67
44		955.4	1451.5	1570.5	8.42
45		999.3	1518.2	1642.7	8.81
46		1044.2	1586.5	1716.6	9.20
48		1137.0	1727.4	1869.1	10.0
50		1233.7	1874.4	2028.1	10.9
50.8	2	1273.5	1934.8	2093.5	11.2
52		1334.4	2027.3	2193.6	11.8
54		1439.0	2186.3	2365.5	12.7
56		1547.5	2351.2	2544.0	13.6
58		1660.1	2522.1	2729.0	14.6
60.3	2-3/8	1794.3	2743.2	2880.33	15.8
63.5	2-1/2	1989.8	3042.0	3194.15	17.5
66.7	2-5/8	2195.4	3356.4	3524.19	19.4
70	2-3/4	2418.0	3696.7	3881.54	21.3
71		2487.6	3803.1	3993.23	21.9
73	2-7/8	2629.7	4020.4	4221.37	23.2
74		2702.3	4131.3	4337.81	23.8
76.2	3	2865.3	4380.5	4599.57	25.3

Single Layer Drum Ordinary lay

9 Broken wires in (6d*)
18 Broken wires in (30d*)

Lang lay

4 Broken wires in (6d*)
9 Broken wires in (30d*)

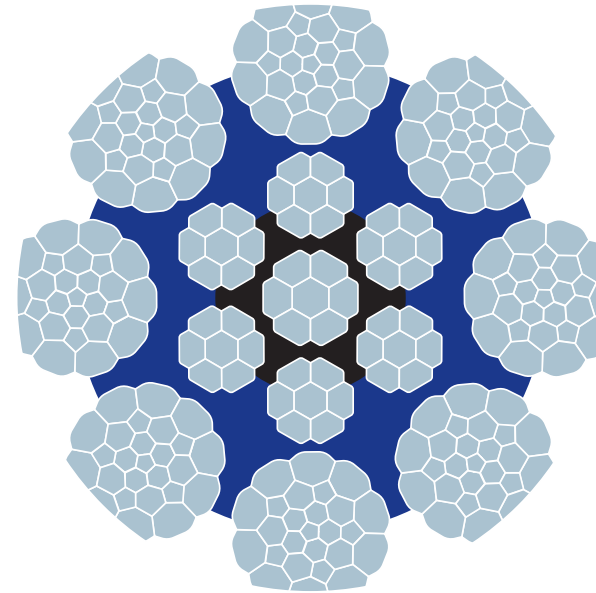
Multi Layer Drum Ordinary lay & Lang lay

18 Broken wires in (6d*)

*d = nominal diameter of rope

36 Broken wires in (30d*)

VESTO FLATTEN® 8



PRODUCT DETAILS

- Excellent life time
- Very high breaking load
- Excellent resistance of abrasion
- Protect internal wires by plastic impregnating
- Excellent resistance of crushing damage
- Extended life of winch drum and sheave
- No print and groove wearing
- Application for cranes where rotation resistant ropes are not required

APPLICATIONS

- Container Crane
- Over Head Crane
- Mobile Harbor Crane
- Boom Hoist
- Offshore Crane

SHEAVE GROOVE DIAMTER

Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended. Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

*Elastic modulus: 115,000N/mm² + or- 5,000N/mm²

OVERVIEW

Type	8 x K26WS + EPIWRC
Size	8mm ~ 52mm
Number of total wires	257
Number of outer load bearing wires	208
Outer wire diameter factor	0.0642
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.708

• Available Right and Left hand — Standard Lang lay (Regular lay on request)

Wire Rope discard : ISO 4309 RCN. 09

NOMINAL DIA

Minimum Breaking Load (kN)

Approx Weight

mm	inch	mm ²	1960 N/mm ²	2160 N/mm ²	kg/m
8	5/16	0.58	59.4	65.5	0.31
9		0.65	74.8	80.0	0.38
10		0.72	92.5	98.5	0.48
11	7/16	0.79	111	119	0.58
12		0.86	129	141	0.69
13	1/2	0.93	156	166	0.82
14		1.01	180	192	0.95
15		0.96	210	224	1.08
16	5/8	1.03	238	259	1.23
18		1.16	302	329	1.26
19	3/4	1.22	337	359	1.75
20		1.28	373	398	1.93
22		1.41	451	482	2.33
24		1.54	532	569	2.74
25		1.61	588	616	3.02
25.4		1.63	596	635	3.10
26		1.67	625	667	3.24
28		1.80	724	774	3.74
28.6	1-1/8	1.84	756	808	3.90
30		1.93	832	882	4.30
32	1-1/4	2.05	947	1012	4.88
34		2.18	1069	1140	5.52
35	1-3/8	2.25	1132	1210	5.85
36		2.31	1200	1280	6.18
38	1-1/2	2.44	1335	1425	6.96
40		2.24	1480	1580	7.62
42	1-5/8	2.35	1632	1742	8.45
44		2.47	1772	1894	9.24
44.5	1-3/4	2.49	1855	1980	9.40
46		2.58	1938	2070	10.02
48	1-7/8	2.69	2110	2250	10.95
50.8	2	2.53	2290	/	12.30
52		2.59	2470	/	13.10

Single Layer Drum Ordinary lay

9 Broken wires in (6d*)
18 Broken wires in (30d*)

Lang lay

4 Broken wires in (6d*)
9 Broken wires in (30d*)

Multi Layer Drum Ordinary lay & Lang lay

18 Broken wires in (6d*)

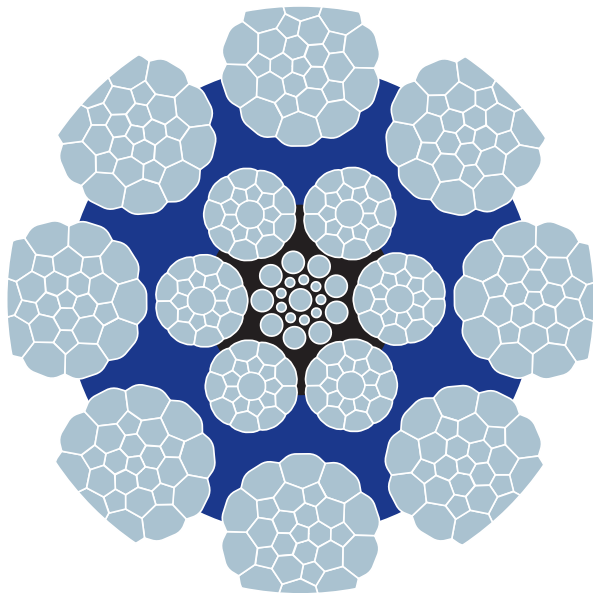
*d = nominal diameter of rope

36 Broken wires in (30d*)

VESTO FLATTEN® 8DT

PRODUCT DETAILS

- Excellent life time & very high breaking load
- Excellent resistance of abrasion
- Protect internal wires by plastic impregnating
- Excellent resistance of crushing damage
- Extended life of winch drum and sheave
- Application for cranes where rotation resistant ropes are not required
- Increasing the service life
- VESTO FLATTEN® 8 DT with higher MBL (on special request)



APPLICATIONS

- Container Crane
- Offshore Crane
- Over Head Crane
- Boom Hoist
- Mobile Harbor Crane

OVERVIEW

Type	8 Strand K19S or K(26/31/36)WS + EPIWRC
Size	6mm ~ 52mm
Number of total wires	257
Number of outer load bearing wires	152 / 208 / 248 / 288
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.715
Spin loss factors	1960 N/mm²: 0.84 / 2160 N/mm²: 0.82
Torque factor / Elastic modulus	115,000N/mm² + or- 5,000N/mm²

• Available Right and Left hand — Standard Lang lay (Regular lay on request)

Wire Rope discard : ISO 4309 RCN 09

NOMINAL DIA

Minimum Breaking Load (Metric Ton)
DUAL T/S

Approx Weight

mm	inch	mm²	1770 / 1960 kg/m	kg/m
6		20.5	32.2	0.181
6.4	1/4	23.4	36.7	0.206
7		27.9	43.9	0.246
8		36.5	57.4	0.322
9		46.2	72.6	0.407
9.5	3/8	51.5	80.9	0.454
10		57.0	89.6	0.503
11	7/16	69.0	108.5	0.608
12		82.1	129.1	0.724
13		96.4	151.5	0.850
14		112	175.7	0.99
14.3	9/16	117	183.3	1.03
15		128	201.7	1.13
16	5/8	146	229.5	1.29
18		185	290.4	1.63
19		207	323.6	1.81
20		228	358.5	2.01
22		276	433.8	2.43
24		328	516.3	2.90
25		356	560.2	3.14
25.4		368	578.3	3.24
26		385	605.9	3.40
28		447	702.7	3.94
28.6		466	733.2	4.11
30		513	806.7	4.52
32		584	917.9	5.15
34		659	1036.2	5.81
35		698	1098.0	6.16
36		739	1161.7	6.51
38		823	1294.3	7.26
39		867	1363.3	7.65
40		912	1434.2	8.04
42		1006	1581.2	8.87
44		1104	1735.3	9.73
44.5		1129	1775.0	9.95
46		1207	1896.7	10.64
48		1314	2065.2	11.58
50.8		1471	2313.2	12.97
52		1542	2423.7	13.59

Single Layer Drum
Ordinary lay

9 Broken wires in (6d*)
18 Broken wires in (30d*)

Lang lay

4 Broken wires in (6d*)
9 Broken wires in (30d*)

Multi Layer Drum
Ordinary lay & Lang lay

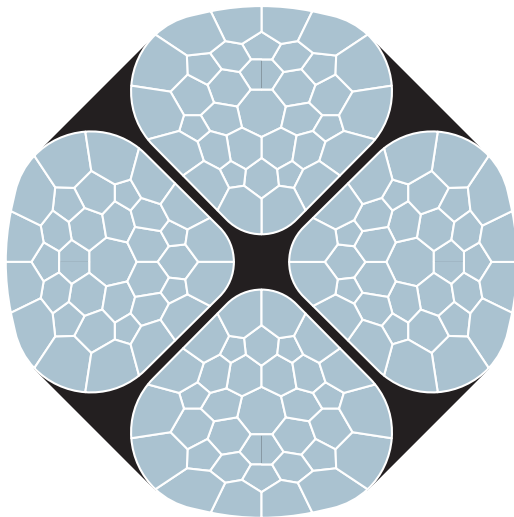
18 Broken wires in (6d*)

*d = nominal diameter of rope

36 Broken wires in (30d*)



VESTO FLATTEN® 4



PRODUCT DETAILS

- Rotation resistant rope
- Strong against abrasion
- Excellent resistance to deformation
- High structural stability
- Excellent life time
- High MBL

APPLICATIONS

- Mobile Crane
- Deck Crane

SHEAVE GROOVE DIAMTER

Minimum 5% up to 10% larger than nominal diameter of wire rope. 6% is recommended. Ideally, at least 1% bigger than the actual diameter of new rope. 2% is recommended.

OVERVIEW

Type	4 × K36WS + FC
Size	8mm ~ 46mm
Number of total wires	144
Number of outer load bearing wires	144
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.712
Spin loss factors	0.82
Elastic modulus	0.03 / 112,500N/mm ² + or- 5,000N/mm ²

• Available Right and Left hand — Standard Lang lay (Regular lay on request)

Wire Rope discard : ISO 4309 RCN. 09

NOMINAL DIA		Minimum Breaking Load (kN)		Approx Weight	
mm	inch	mm ²	1960 N/mm ²	2160 N/mm ²	kg/m
8	5/16	35.8	55.1	58.9	0.30
9		45.3	69.8	74.6	0.38
10		55.9	86.1	92.1	0.47
11		67.7	104.2	111.4	0.57
12		80.5	124.0	132.6	0.68
13		94.5	145.6	155.6	0.79
14		109.6	168.8	180.5	0.92
14.3	9/16	114.4	176.1	188.3	0.96
15		125.8	193.8	207.2	1.06
16	5/8	143.2	220.5	235.8	1.20
17.5	11/16	171.3	263.8	282.0	1.44
18		181.2	279.1	298.4	1.52
19		201.9	310.9	332.5	1.69
20		223.7	344.5	368.4	1.88
21	13/16	246.6	379.8	406.2	2.07
22		270.7	416.9	445.8	2.27
22.2	7/8	275.6	424.5	453.9	2.31
23		295.8	455.6	487.2	2.48
24	15/16	322.1	496.1	530.5	2.70
25		349.5	538.3	575.6	2.93
25.4	1	360.8	555.7	594.2	3.03
26		378.0	582.2	622.6	3.17
28		438.4	675.3	722.0	3.68
28.6	1-1/8	457.4	704.5	753.3	3.84
30	1-3/16	503.3	775.2	828.9	4.22
31.8	1-1/4	565.5	871.0	931.3	4.75
32		572.6	882.0	943.1	4.81
34		646.4	995.7	1064.6	5.43
36		724.7	1116.3	1193.6	6.08
38	1-1/2	807.5	1243.7	1329.9	6.78
40		894.7	1378.1	1473.6	7.51
42		986.4	1519.4	1624.6	8.28
44		1082.6	1667.5	1783.0	9.09
46		1183.3	1822.5	1948.8	9.93

Single Layer Drum
Sections of rope working in steel sheaves

2 Broken wires in (6d*)

4 Broken wires in (30d*)

Multi Layer Drum

4 Broken wires in (6d*)

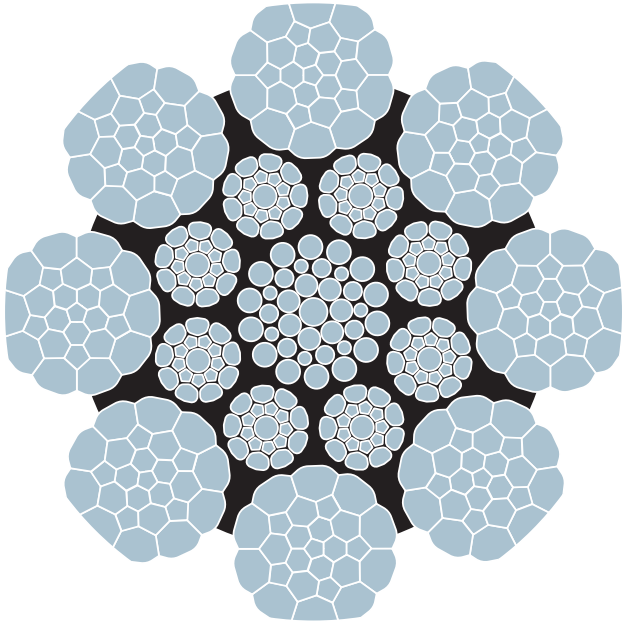
*d = nominal diameter of rope

8 Broken wires in (30d*)

VESTO FLATTEN® 17DP

PRODUCT DETAILS

- Excellent life time
- Very High breaking load
- Excellent structural stability
- Excellent resistance of abrasion
- Resistance of crushing damage
- Extended life of winch drum and sheave
- Rotation resistant Rope



APPLICATIONS

- Mobile Crane
- Deck Crane

OVERVIEW

Type	8 x K26WS + IWRC
Size	8mm ~ 46mm
Number of total wires	257
Number of outer load bearing wires	208
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.787
Spin loss factors	1960 N/mm²: 0.85 / 2160 N/mm²: 0.82
Elastic modulus	125,000N/mm² + or- 5,000N/mm²

• Available Right and Left hand — Standard Lang lay (Regular lay on request)

Wire Rope discard : ISO 4309 RCN. 09

NOMINAL DIA

Minimum Breaking Load (kN)

Approx Weight

mm	inch	mm²	1960 N/mm²	2160 N/mm²	kg/m
8		39.6	67.5	72.2	0.34
9		50.1	85.5	91.4	0.43
9.5	3/8	55.8	95.2	101.9	0.48
10		61.8	105.5	112.9	0.53
11.2	7/16	77.5	132.3	141.6	0.66
12		89.0	151.9	162.5	0.76
12.7	1/2	99.7	170.2	182.0	0.85
14		121.2	206.8	221.2	1.03
16	5/8	158.3	270.1	288.9	1.35
18		195.5	333.7	357.0	1.67
19	3/4	217.9	371.8	397.8	1.86
20		241.4	412.0	440.8	2.06
22	7/8	292.1	498.5	533.3	2.49
24		347.6	593.3	634.7	2.96
25.4	1	389.4	664.5	710.9	3.32
26		408.0	696.3	744.9	3.48
28		473.2	807.5	863.9	4.03
28.6	1-1/8	493.7	842.5	901.3	4.21
30		543.2	949.5	971.6	4.63
32	1-1/4	618.0	1080.4	1105.5	5.26
34		697.7	1219.6	1248.0	5.94
36		782.2	1367.3	1399.1	6.66
38		871.5	1523.5	1558.9	7.42
40		985.1	1681.2	1720.3	8.40
42		1086.1	1853.6	1896.7	9.26
44		1192.0	2034.3	2081.6	10.16
46		1302.8	2223.4	2275.1	11.11

Single Layer Drum Ordinary lay

9 Broken wires in (6d*)
18 Broken wires in (30d*)

Lang lay

4 Broken wires in (6d*)
9 Broken wires in (30d*)

Multi Layer Drum Ordinary lay & Lang lay

18 Broken wires in (6d*)

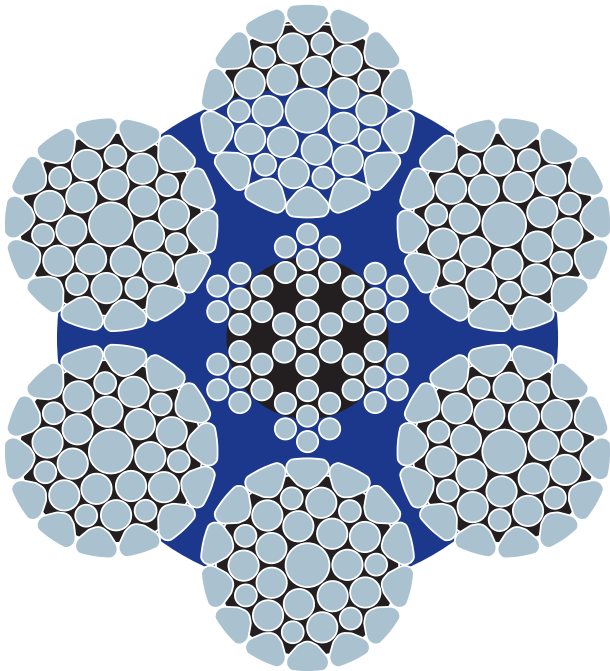
*d = nominal diameter of rope

36 Broken wires in (30d*)

VESTO 6C

PRODUCT DETAILS

- Excellent life time
- High breaking load
- Good resistance of abrasion
- Protect internal wires by plastic impregnating
- Resistance of crushing damage
- Extended life of winch drum and sheave



APPLICATIONS

- Container Crane
- Offshore Crane
- Over Head Crane
- Boom Hoist
- Mobile Harbor Crane

OVERVIEW

Type	6 Strand K(26/31/36)WS + EPIWRC
Size	10mm ~ 52mm
Number of total wires	205 / 235 / 265
Number of outer load bearing wires	156 / 186 / 216
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.679
Spin loss factors	1960 N/mm ² : 0.84 / 2160 N/mm ² : 0.82
Elastic modulus	107,000N/mm ² + or- 5,000N/mm ²

• Available Right and Left hand — Standard Lang lay (Regular lay on request)

Wire Rope discard : ISO 4309 RCN. 09

NOMINAL DIA

Minimum Breaking Load (kN)

Approx Weight

mm	inch	mm ²	1960 N/mm ²	2160 N/mm ²	kg/m
10		53.2	83.6	87.4	0.46
11	7/16	64.4	101.2	105.7	0.55
12		76.7	120.4	125.8	0.66
12.7	1/2	85.9	134.9	140.9	0.74
13		90.0	141.3	147.7	0.77
14		104.3	163.9	171.3	0.90
16	5/8	136.3	214.1	223.7	1.17
18		172.5	270.9	283.1	1.48
19	3/4	192.2	301.9	315.4	1.65
20		212.9	334.5	349.5	1.83
22		257.6	404.7	422.9	2.22
24	15/16	306.6	481.7	503.3	2.64
25		332.7	522.7	546.1	2.86
25.4	1	343.4	539.5	563.7	2.95
26		359.9	565.3	590.7	3.10
28		417.3	655.6	685.0	3.59
28.6	1-1/8	435.4	684.0	714.7	3.75
30	1-3/16	479.1	752.6	786.4	4.12
32		545.1	856.3	894.7	4.69
34		615.4	966.7	1010.1	5.29
35	1-3/8	652.1	1024.4	1070.3	5.61
36		689.9	1083.8	1132.4	5.93
38	1-1/2	768.7	1207.5	1261.7	6.61
40		851.7	1338.0	1398.0	7.33
42	1-5/8	939.0	1475.1	1541.3	8.08
44		1030.6	1619.0	1691.6	8.87
44.5	1-3/4	1054.1	1656.0	1730.2	9.07
46		1126.4	1769.5	1848.9	9.69
48	1-7/8	1226.5	1926.7	2013.1	10.55
50.8	2	1373.8	2158.1	2254.8	11.82
52		1439.4	2261.2	2362.6	12.38
54	2-1/8	1552.3	2438.5	2547.9	13.35
56		1669.4	2622.5	2740.1	14.36
57.2	2-1/4	1741.7	2736.1	2858.8	14.98
58		1790.8	2813.1	2939.3	15.40
60.3	2-3/8	1935.6	3040.7	3177.0	16.65
63.5	2-1/2	2146.5	3372.0	3523.2	18.46
64		2180.4	3425.3	3578.9	18.76

Single Layer Drum Ordinary lay

9 Broken wires in (6d*)
18 Broken wires in (30d*)

Lang lay

4 Broken wires in (6d*)
9 Broken wires in (30d*)

Multi Layer Drum Ordinary lay & Lang lay

18 Broken wires in (6d*)

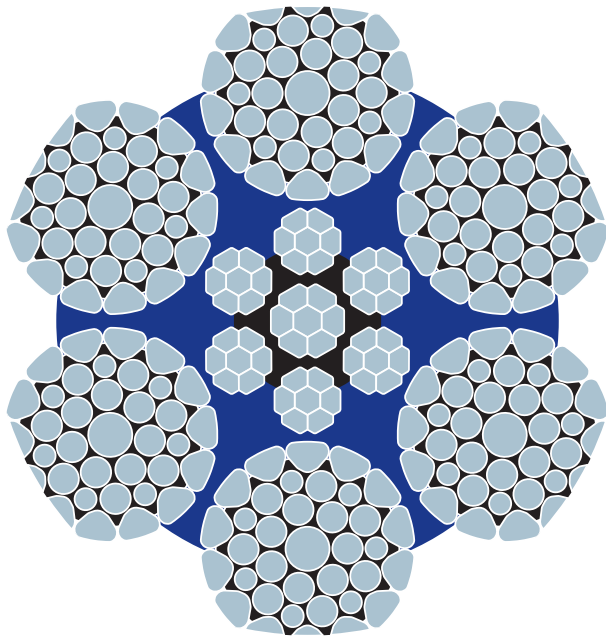
*d = nominal diameter of rope

36 Broken wires in (30d*)

VESTO FLATTEN® 6

PRODUCT DETAILS

- Excellent life time
- Very high breaking load
- Excellent resistance of abrasion
- Protect internal wires by plastic impregnating
- Excellent resistance of crushing damage
- Extended life of winch drum and sheave
- No print and groove wearing
- Application for cranes where rotation resistant ropes are not required



APPLICATIONS

- Container Crane
- Over Head Crane
- Mobile Harbor Crane
- Drilling Operations
- Boom Hoist
- Offshore Crane
- Riser Tensioners

OVERVIEW

Type	6 Strand K(26/31/36)WS + EPIWRC
Size	10mm ~ 52mm
Number of total wires	205 / 235 / 265
Number of outer load bearing wires	156 / 186 / 216
Rope diameter tolerance	+2.0% - +4.0%
Fill factor	0.724
Spin loss factors	1960 N/mm²: 0.84 / 2160 N/mm²: 0.82
Elastic modulus	115,000N/mm² + or- 5,000N/mm²

• Available Right and Left hand — Standard Lang lay (Regular lay on request)

Wire Rope discard : ISO 4309 RCN. 09

NOMINAL DIA

Minimum Breaking Load (kN)

Approx Weight

mm	inch	mm²	1960 N/mm²	2160 N/mm²	kg/m
10		56.2	89.1	95.6	0.49
11	7/16	67.9	107.8	115.7	0.59
12		80.9	128.3	137.7	0.71
12.7	1/2	90.6	144	154	0.79
13		94.9	151	162	0.83
14	9/16	110.1	175	187	0.96
16	5/8	143.8	228	245	1.26
18		181.9	289	310	1.59
19	3/4	202.7	322	345	1.77
20		224.6	356	383	1.96
22		271.8	431	463	2.38
24	15/16	323.4	513	551	2.83
25		355.5	564	605	3.11
25.4	1	366.9	582	625	3.21
26		384.5	610	655	3.37
28		445.9	708	759	3.90
28.6	1-1/8	465.2	738	792	4.07
30	1-3/16	511.9	812	872	4.48
32	1-1/4	582.4	924	992	5.10
34		657.5	1043	1120	5.76
35	1-3/8	696.7	1106	1187	6.10
36		737.1	1170	1255	6.45
38	1-1/2	821.3	1303	1399	7.19
40		910.0	1444	1550	7.97
42	1-5/8	1003.3	1592	1709	8.78
44		1101.4	1748	1876	9.65
44.5	1-3/4	1126.5	1788	1919	9.87
46		1203.7	1910	2050	10.54
48	1-7/8	1310.7	2080	2232	11.48
50.8	2	1468.1	2330	2500	12.86
52		1538.2	2441	2620	13.47

Single Layer Drum Ordinary lay

9 Broken wires in (6d*)
18 Broken wires in (30d*)

Lang lay

4 Broken wires in (6d*)
9 Broken wires in (30d*)

Multi Layer Drum Ordinary lay & Lang lay

18 Broken wires in (6d*)

*d = nominal diameter of rope

36 Broken wires in (30d*)

PRODUCTION OF THE VESTO ROPES

PARALLEL ROPES

By producing the ropes in a parallel lay high stress concentrations at crossover points are avoided.

With the parallel wires ropes the individual wires are placed in a parallel lay to reduce internal friction and increase the service life of the rope.

FLATTEN® TECHNOLOGY

Together with Mr. Bernard Guenot we developed our own FLATTEN® wire rope. This technology ensures our customers with the best and most sophisticated wire rope on the market. In short the FLATTEN® way of producing wire ropes is increasing the surface coverage in the grooves or sheeves.

The FLATTEN® technology ensures:

- High breaking strength
- Reduction or possible elimination of imprints on the sheeves
- Smooth surface for less indentions or pressure

COMPACTING THE WIRE ROPE

Compacting concerns the individual strands of the wire rope. Each strand goes through a set of rolls which acts as a laminating system to decrease the diameter of the rope and increase the cross section.

ROTATION-RESISTANT ROPES

We have several rotation-resistant ropes in our product range. The VESTO FLATTEN® 35 is one of the ropes with the lowest torque factor available, worldwide. The core of the rotation-resistant ropes is independent and rotates in the opposite direction of the outer strands. In this way the wire rope becomes rotation resistant. Because the inner core and outer strand are closed in opposite directions, you create a rotate resistant wire rope.

SWIVEL USE

Our VESTO rotation resistant ropes can be used with a swivel. All other ropes can not be used with a swivel.

END CONNECTIONS

The VESTO Ropes can be delivered with all standard type end connections such as:

- Flemish eye
- Spliced loops
- Pressed thimble
- Socket

DX11

The DX11 socketing method is a special socketing method available on the VESTO Ropes. The DX11 sockets limit breaking of the wire rope in the neck of the socket.

In heavy duty operations, the DX11 socketing method is highly recommended to extend the wire rope lifetime.

PLASTIC IMPREGNATION

On some of the ropes in the VESTO range, plastic impregnation is applied. This results in a number of positive lifetime extending features. As the outer and inner wires have less to no friction, the wire rope becomes more resistant to fatigue. By applying the plastic impregnation the wire rope will remain structural stability throughout the lifetime of the product. This plastic impregnation also helps trapping the grease inside the wire, which makes it easier to maintain.

A GLOBAL REACH

VESTO Ropes has various establishment and stockpoints on different continents to ensure the quickest and best service around the world. You can find a dealer nearest to you, on our website.





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