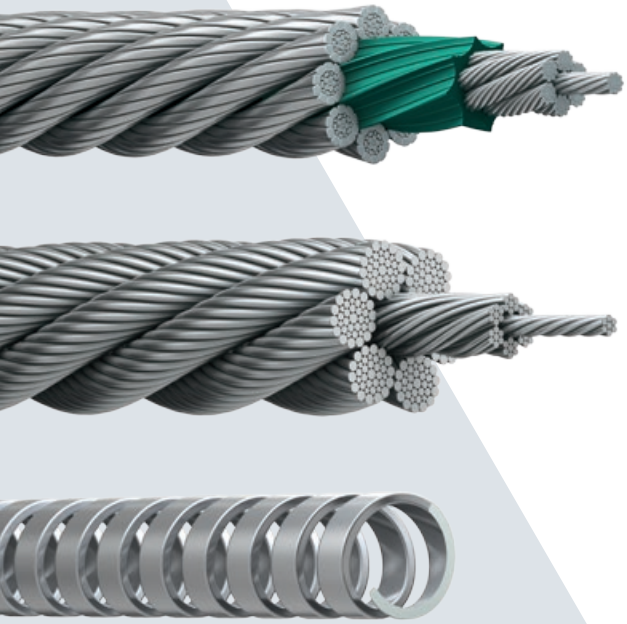
VORNBÄUMEN

SPECIAL ROPES
STANDARD ROPES
WIRES



TRADITION.
INNOVATION.
VISION.
SINCE 1889.

made in Germany

EDITION 2022/2023

VORNBÄUMEN

TABLE OF CONTENTS

COMPANY 03 – 05

SPECIAL ROPES

Explanation of Symbols 08
Application Crane Ropes 09 – 11
Crane Ropes 12 – 25
Alpine Ropes 26 – 29
Winch Ropes 30 – 31
Black Ropes 32 – 35
Fitness Steel Ropes 36 – 37
Saw Ropes 38 – 39
Stainless Steel Ropes 40 – 41
Micro Ropes 42 – 43

STANDARD ROPES

Application 44 – 45
Spiral Ropes 46
Stranded Ropes 47 – 51
Stranded Spiral Ropes 51

WIRES

Wires und Wire thicknesses 52 – 53

SPECIAL PRODUCTS

Spirals, Guide hoses, Actuating cables 54 – 55

APPLICATION

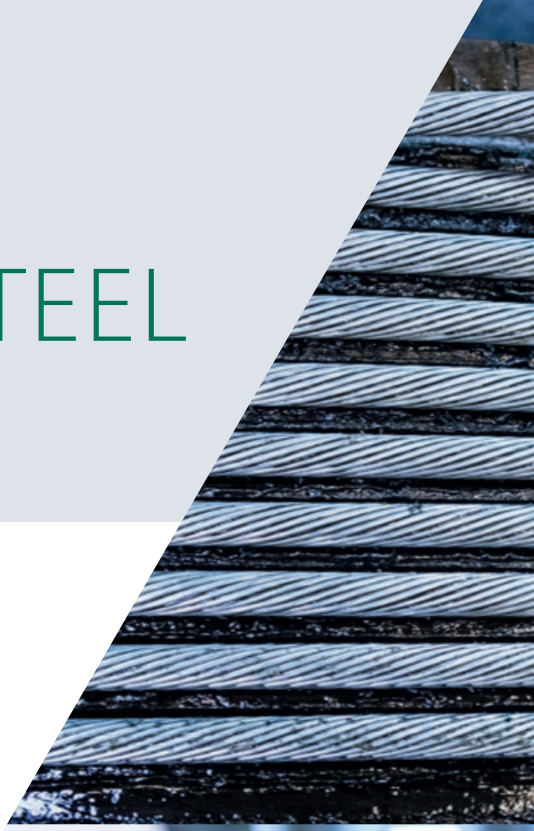
Technical Notes 56 – 61
Notes 62

CONTACT INFORMATION 63

All contents of this catalogue, in particular the texts, photographs and graphics, are protected by copyright.
Unless expressly stated otherwise, the usage rights are the property of VORNBÄUMEN Stahlseile GmbH & Co. KG.
Usage, either in whole or in part, is only authorised with the prior, express consent of VORNBÄUMEN Stahlseile GmbH & Co. KG.

Valid from 11/2022 · Subject to technical modifications

THE EXPERTS FOR STEEL WIRES AND ROPES



KNOW-HOW AND QUALITY – OUR FUTURE

We know from years of experience what we're doing – we win over customers with our know-how in all areas of production, from the drawing mill to the ropery. Continuous improvement processes in production, constant contact with our dealers, insight into the applications and continuous investments in the most modern manufacturing technologies have made us a leading manufacturer of steel rope.

Furthermore, we continuously develop new technologies and machines to produce standard and special ropes.



In development and manufacturing, we will continue in the future to rely on the independence created by having our own engineers, doing our own research, and building our own machines in order to live up to the driving principles of our founders. Especially in the area of special ropes, we are always happy to assist you with your specific requirements, not only as a supplier, but also as a development and project partner.





VORNBÄUMEN

WIRE DRAWING AND ROPERY UNDER ONE ROOF

TRADITION. INNOVATION. VISION. SINCE 1889.

Since 1889, our continuous pursuit of progress and the highest quality standards has set the benchmarks that are reflected in our products and services. Johannes and Wilhelm VORNBÄUMEN, the founders of the company, gave utmost priority to developing the company and improving production and technology right from the beginning. Thus, in 1906 they founded their own wire drawing mill



VORNBÄUMEN in Bad Iburg, circa 1905

to go with the ropery. This was the foundation stone for increased independence from the raw material suppliers, and the term “quality” was thus redefined. Still today we feel obligated to measure up to these standards and to the founders' researching and pioneering spirit.

In the meantime, 10,000 tonnes of steel per year are processed in our plants in Bad Iburg and Allstedt with the most modern production technology. In addition to our main products – wires and steel ropes - today we also produce Bowden spirals, push-pull spirals, and plastic tubing for the automotive industry and others. All products



In the wire drawing mill

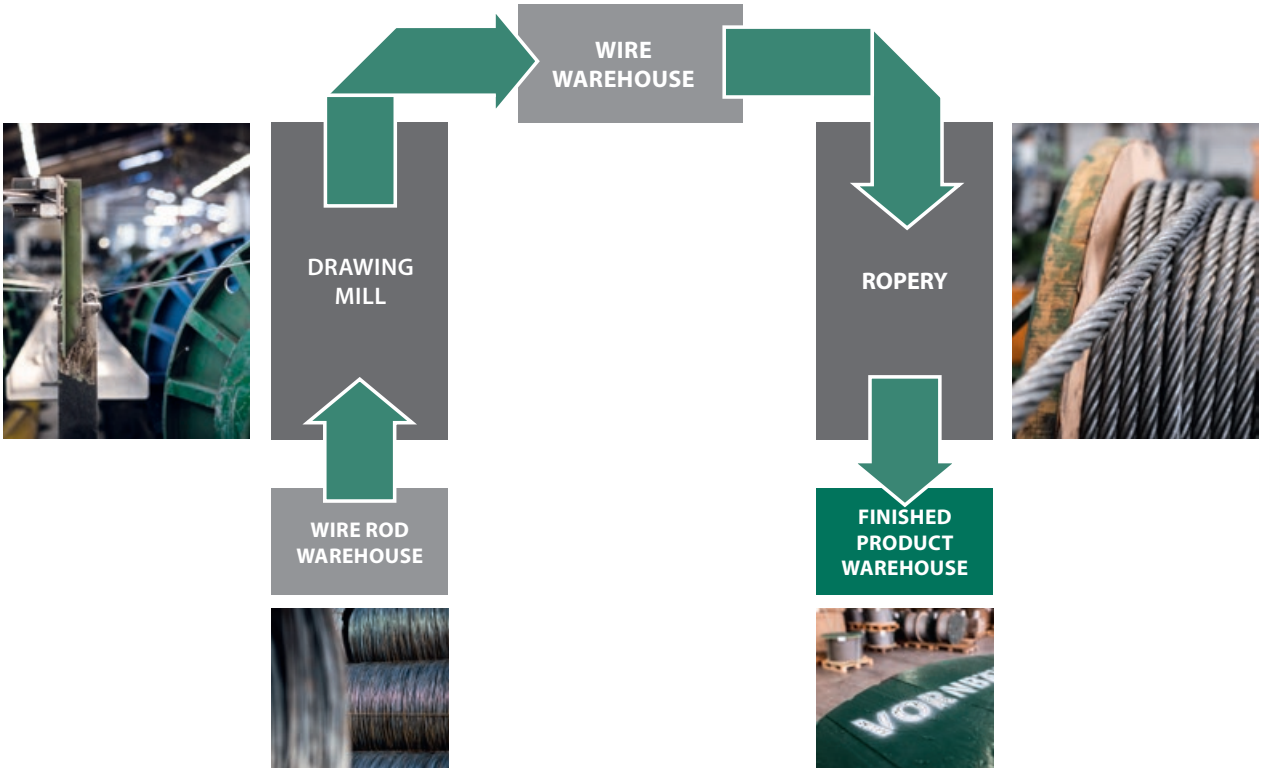
are developed and manufactured with state-of-the-art technology. Wire and steel ropes are used throughout the world. We will contribute to this now and in the future.

VORNBÄUMEN STEEL ROPES – A SUCCESS STORY

In the 1980s, a significant expansion was planned for the location in Bad Iburg, and now over 50,000 m^2 of production space are available to the company. A large hall for storage, confection and office space was completed in 2022.
In the middle of the 1990s, we expanded our portfolio with the production location in Allstedt. Today special products for the automotive and bicycle industries are produced there.
Thanks to our close cooperation with our customers and our ability to modify production, we are able to work together with you to establish the conditions for optimal market positioning. Whether through our years of experience in standard wire ropes or our will to innovate in the area of special applications. We will find a solution to your problem.



In the ropery



FROM WIRE TO ROPE

Through our know-how and control of all production steps, today we can guarantee consistent, especially high quality – from wire rod to rope. Unlike many competitors, we can begin modifying the properties of our products according to customer requirements right in our own drawing mill. Here, via drawing, heat treatment and surface conditioning, the wires are individually prepared for their tasks in the various rope constructions. Depending where the end product will later be used, we process wires in zinc-coated, phosphate-coated or bright finishes.

Quick access to various qualities and technically required diameters of pre-drawn and finished wires from our wire warehouse allows us to respond to our customers' individual requests in the shortest time possible. These requirements are then fulfilled to the smallest possible manufacturing tolerances in the modern machine park in our ropery, where the wires are stranded and the strands assembled into rope.

We are thus able to react quickly to our customers' requirements regarding, for instance, length of lay, lubrication, degree of compaction, coating or tracer threads. Challenge us.

SPECIAL WIRE ROPES

SPECIAL ROPES: TRADITION WITH THE MOST MODERN TECHNOLOGY

With the development of special ropes, individual application options are at the forefront. Our knowledge and experience are in demand in this area in particular. The complex design of these ropes and the combination of various materials lead to special product properties specific for the area of application.

INDIVIDUAL SOLUTIONS AT THE HIGHEST LEVEL

The numerous requirements and special applications always require new and further technological developments. In this process, our team of experts is always happy to provide you with support as a competent partner. It is not our product program that determines the solution to your problem; rather your individual requirement determines our individual realization to meet your requests. Contact us about the possibility of using special manufacturing to meet your needs.

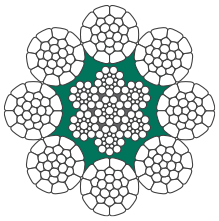






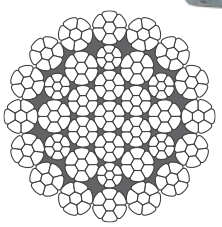




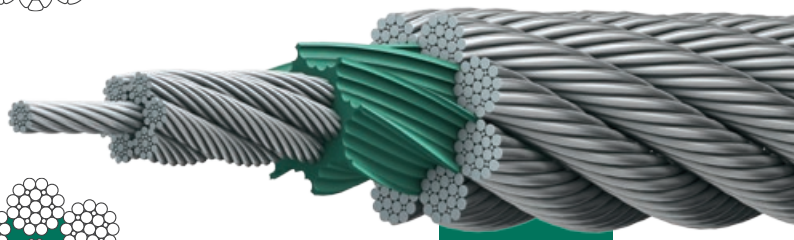


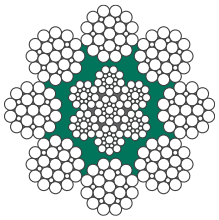
VS 8-7 CP





VS 16-5 C





VS 8-1 P

EXPLANATION OF SYMBOLS

FIELDS OF APPLICATION

- Revolving tower crane
- Grabbing crane
- Telescoping crane
- Mobile crane
- Container crane (STS)
- Gantry crane (RTG/RMG)
- Lattice boom crane
- Bridge crane
- Offshore crane
- Straddle carrier
- Excavating bucket / Scrapers
- Harbour crane
- Steel ladle crane
- Deck crane
- Forestry
- Lift
- Cable car
- Snow groomer
- Stone saw
- Stage technology
- Automotive industry
- Bicycle industry
- Medical technology
- Jewellery industry

PROPERTIES

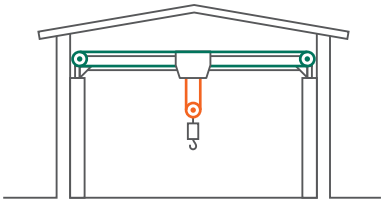
- Rotation-resistant
- With swivel
- Compacted
- Plastic padding
- Double parallel lay
- Special lubrication

SPECIAL ROPE DESIGNATIONS

VS · 16-4 · C · P

- P: Plastified
- C: Compacted
- 16-4: Type of construction (-1, -2, -3, ...)
- 16: Number of outer strands
- VS: **VORNBÄUMEN** Stahlseile

APPLICATION CRANE ROPES I



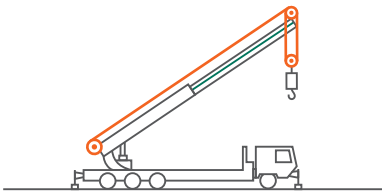
BRIDGE CRANE

Hoisting rope

VS 6-1 P
VS 6-2 CP
VS 8-1 P
VS 8-2 CP
VS 8-7 CP
VS 8-3
VS 8-4 C
VS 8-9 C

Trolley rope

VS 6-1 P
VS 8-1 P
VS 8-3
VS 8-4 C
VS 8-9 CP



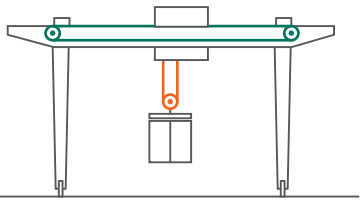
TELESCOPING CRANE

Hoisting rope

VS 15-1 C
VS 16-1
VS 16-2 C
VS 16-3 C
VS 16-4 CP
VS 16-5 C

Telescope rope

VS 6-1 P
VS 8-1 P
VS 8-3
VS 8-4 C
VS 8-9 CP



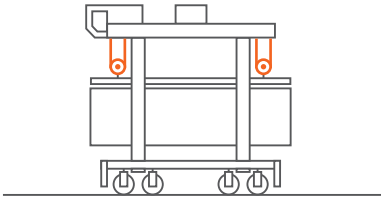
GANTRY CRANE (RTG/RMG)

Hoisting rope

VS 6-1 P
VS 6-2 CP
VS 6-11 C
VS 8-1 P
VS 8-2 CP
VS 8-7 CP
VS 8-9 CP
VS 8-3
VS 8-4 C

Trolley rope

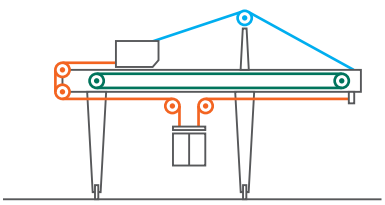
VS 8-1 P
VS 8-2 CP
VS 8-7 CP
VS 8-9 CP
VS 8-3
VS 8-4 C



STRADDLE CARRIER

Hoisting rope

VS 8-1 P
VS 8-2 CP
VS 8-7 CP



CONTAINER CRANE (STS)

Hoisting rope

VS 6-1 P
VS 6-2 CP
VS 6-11 C
VS 8-1 P
VS 8-2 CP
VS 8-7 CP
VS 8-9 CP
VS 8-3
VS 8-4 C

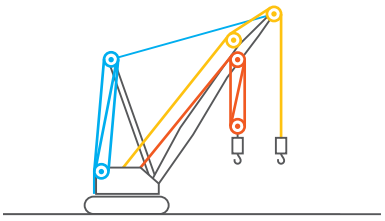
Trolley rope

VS 8-1 P
VS 8-2 CP
VS 8-7 CP
VS 8-9 CP
VS 8-3
VS 8-4 C

Boom pendant rope and adjusting rope

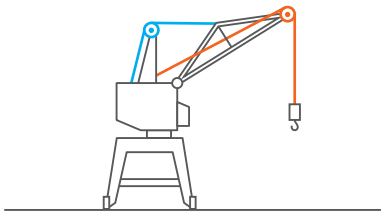
VS 6-1 P
VS 8-1 P
VS 8-2 CP
VS 8-7 CP
VS 8-9 CP
VS 8-3
VS 8-4 C

APPLICATION CRANE ROPES II



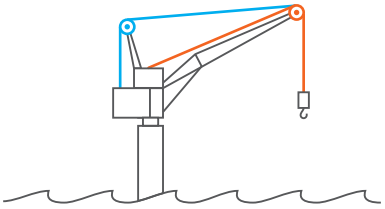
LATTICE BOOM CRANE

Main hoisting rope	Auxiliary hoisting rope	Boom pendant rope and adjusting rope
VS 16-1	VS 16-1	VS 6-1 P
VS 16-2 C	VS 16-2 C	VS 8-1 P
VS 16-3 C	VS 16-3 C	VS 8-2 CP
VS 16-4 CP	VS 16-4 CP	VS 8-7 CP
VS 16-5 C	VS 16-5 C	VS 8-3
VS 15-1 C	VS 15-1 C	VS 8-4 C



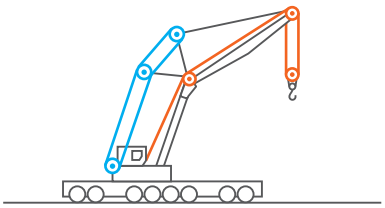
HARBOUR CRANE

Hoisting rope	Boom pendant rope and adjusting rope	
VS 16-1	VS 6-1 P	VS 8-3
VS 16-2 C	VS 8-1 P	VS 8-4 C
VS 16-3 C	VS 8-2 CP	
VS 16-5 C	VS 8-7 CP	



OFFSHORE CRANE

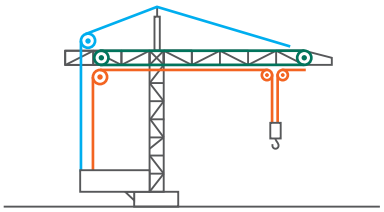
Hoisting rope	Boom pendant rope and adjusting rope	
VS 16-1	VS 6-1 P	VS 8-3
VS 16-2 C	VS 6-2 C	VS 8-4 C
VS 16-3 C	VS 6-11 C	VS 8-7 CP
VS 16-4 CP	VS 8-1 P	VS 8-9 CP
VS 16-5 C	VS 8-2 CP	



MOBILE CRANE

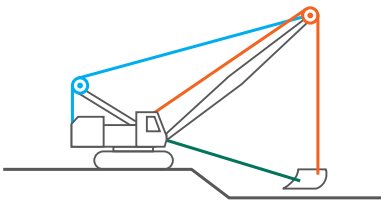
Hoisting rope	Boom pendant rope and adjusting rope	
VS 15-1 C	VS 6-1 P	VS 8-4 C
VS 16-1	VS 6-2 C	VS 8-7 CP
VS 16-2 C	VS 6-11 C	VS 8-9 CP
VS 16-3 C	VS 8-1 P	
VS 16-4 CP	VS 8-2 CP	
VS 16-5 C	VS 8-3	

APPLICATION CRANE ROPES III



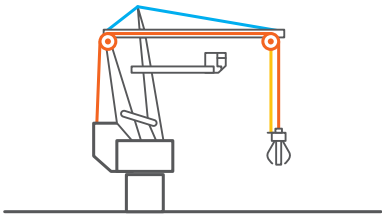
REVOLVING TOWER CRANE

Hoisting rope	Boom pendant rope and adjusting rope	Assembly rope
VS 16-1	VS 6-1 P	VS 6-1 P
VS 16-2 C	VS 8-1 P	VS 6-2 CP
VS 16-3 C	VS 8-3	VS 6-11 C
VS 16-5 C	VS 8-4 C	
	VS 8-9 CP	



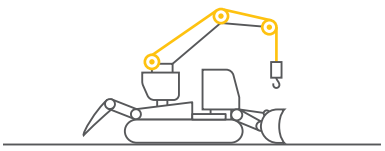
EXCAVATING BUCKET/SCRAPERS

Haulage rope	Boom pendant rope and adjusting rope	Back haul rope
VS 6-1 P	VS 6-1 P	VS 6-1 P
VS 6-2 CP	VS 6-2 CP	VS 6-2 CP
	VS 6-11 C	



GRABBING CRANE

Hoisting rope		Boom pendant rope and adjusting rope		Closing rope	
VS 8-1 P	VS 8-4 C	VS 6-1 P	VS 8-4 C	VS 8-1 P	VS 8-4 C
VS 8-2 CP	VS 8-7 CP	VS 8-1 P	VS 8-9 CP	VS 8-2 CP	VS 8-7 CP
VS 8-3	VS 8-9 CP	VS 8-3		VS 8-3	VS 8-9 CP



SNOW GROOMER

Drum-winch	Trac-winch
VS 8-4 C	VS 9-1 C

Selecting the right rope for the appropriate application requires great care. Using the wrong rope might have serious consequences, such as property damage or personal injury.

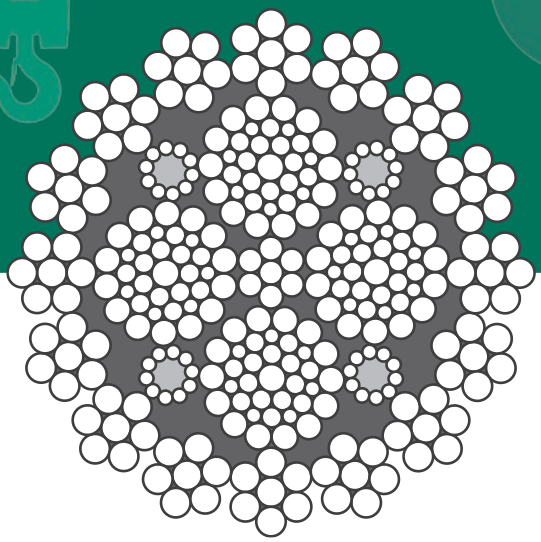
Selecting the correct rope is essential for special applications. For further information refer to our notes. The classification above and the applications listed in the following are only intended as general guidelines. Please contact us for help in selecting the right rope for your application.

SPECIAL WIRE ROPES

ROTATION-RESISTANT

VS 16-1

∅ 7 – 50 mm



- Rotation-resistant (a) EN 12385-3
- Rope category number (RCN) 23-2 according to ISO 4309
- Lang lay
- Zinc-coated class B standard
- Special lubrication
- Can be used with swivel

∅	Weight	Metallic cross section	MBF 1960	MBF 2160
mm	kg/100 m	mm²	kN	kN
7	22.1	24.8	37.4	41.3
8	28.9	32.4	48.9	53.9
9	36.5	41.0	61.9	68.2
10	45.1	50.6	76.4	84.2
11	54.6	61.3	92.5	102
12	64.9	72.9	110	121
12,5	70.5	79.1	119	132
13	76.2	85.6	129	142
14	88.4	99	150	165
15	101	114	172	189
16	115	130	196	216
16,5	123	138	208	229
17	130	146	221	243
18	146	164	248	273
19	163	183	276	304
20	180	203	306	337
21	199	223	337	371
22	218	245	370	408
23	239	268	404	445
24	260	292	440	485
25	282	316	478	526
26	305	342	517	554
28	354	397	599	643
30	406	456	688	738
32	462	518	782	829
34	521	585	883	936
36	584	656	990	1049
38	651	731	1103	1169
40	722	810	1223	1295
42	796	893	1348	1428
44	873	980	1479	1567
46	954	1071	1617	1712
48	1039	1167	1761	-
50	1128	1266	1910	-

Please read our notes on rope selection in "Application".

- Diameter tolerance: +2% / +4%
- Number of outer load bearing wires: 112
- Average fill factor: 0.65

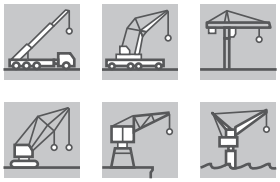
SPECIAL FEATURES

Our classic VS 16-1 – a rotation-resistant hoisting rope of class a with the tried and true 16 outer strands – has been established for years as a hoisting rope in a wide range of application areas.

PROPERTIES

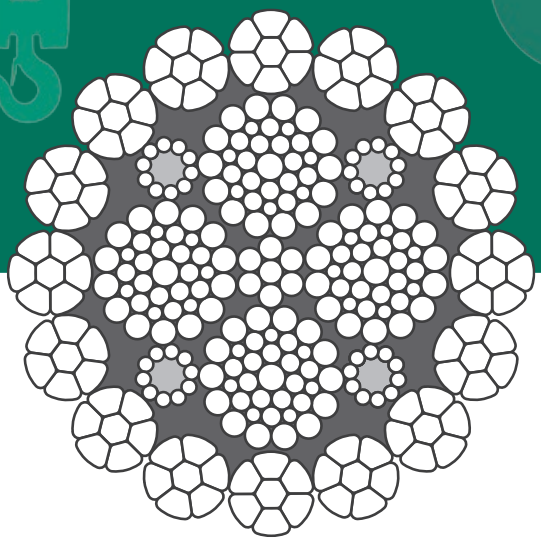


FIELDS OF APPLICATION



VS 16-2 C

∅ 7 – 50 mm



- Rotation-resistant (a) EN 12385-3
- Rope category number (RCN) 23-2 according to ISO 4309
- Lang lay
- Zinc-coated class B standard
- Special lubrication
- Outer strands compacted
- Can be used with swivel

∅	Weight	Metallic cross section	MBF 1960	MBF 2160
mm	kg/100 m	mm²	kN	kN
7	24.0	26.9	42.0	46.3
8	31.3	35.2	54.9	60.5
9	39.6	44.5	69.4	76.5
10	48.9	55.0	85.7	94.5
11	59.2	66.5	104	114
12	70.4	79.1	123	136
12,5	76.4	85.9	134	148
13	82.6	92.9	145	160
14	95.8	108	168	185
15	110	124	193	213
16	125	141	219	242
17	141	159	248	273
18	158	178	278	306
19	177	198	309	341
20	196	220	343	378
21	216	242	378	417
22	237	266	415	457
23	259	291	454	500
24	282	317	494	544
25	306	343	536	590
26	331	371	580	639
28	383	431	672	726
30	440	495	772	833
32	501	563	878	948
34	565	635	984	1070
36	634	712	1103	1200
38	706	793	1229	1320
40	782	879	1361	1462
42	863	969	1501	1612
44	947	1064	1647	-
46	1035	1163	1800	-
48	1127	1266	1960	-
50	1223	1374	2127	-

Please read our notes on rope selection in "Application".

- Diameter tolerance: +2% / +4%
- Number of outer load bearing wires: 112
- Average fill factor: 0.70

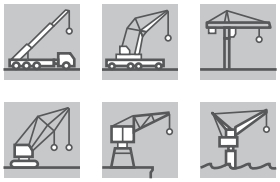
SPECIAL FEATURES

In comparison to the classic VS 16-1, the VS 16-2 C has compacted outer strands which provide better running properties.

PROPERTIES

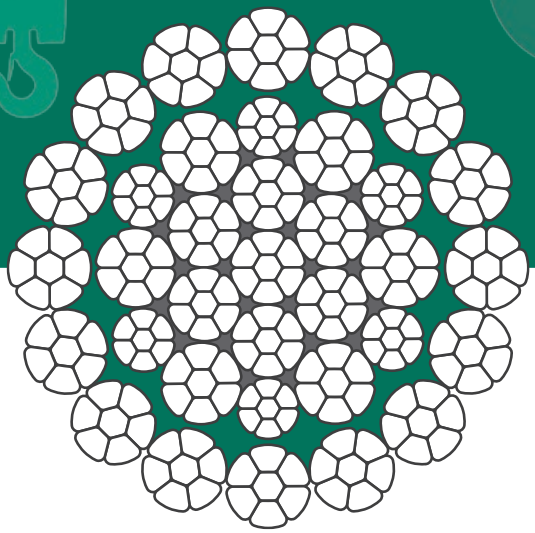


FIELDS OF APPLICATION



VS 16-4 CP

∅ 7 – 36 mm



- Rotation-resistant (a) EN 12385-3
- Rope category number (RCN) 23-2 according to ISO 4309
- Lang lay
- Zinc-coated class B standard
- Special lubrication
- All strands compacted
- Plastic padding
- Can be used with swivel

∅	Weight	Metallic cross section	MBF 1960	MBF 2160
mm	kg/100 m	mm²	kN	kN
7	23.3	27.7	43.4	47.6
8	30.4	36.2	57.8	62.1
9	38.5	45.8	73.1	78.6
10	47.5	56.5	90.3	97.1
11	57.5	68.4	109.2	117
12	68.4	81.4	130	140
12,5	74.2	88.3	141	152
13	80.3	95.5	153	164
14	93.1	110.8	177	190
15	107	127.2	203	218
16	122	144.7	231	248
16,5	129	153.9	246	264
17	137	163.3	261	280
18	154	183.1	293	314
19	171	204.0	326	350
20	190	226.1	361	388
21	209	249.3	398	428
22	230	273.6	437	470
23	251	299.0	478	513
24	274	325.6	520	559
25	297	353.3	564	607
26	321	382.1	610	656
28	372	443.1	708	761
30	428	508.7	813	874
32	486	578.8	925	994
34	549	653.4	1044	1122
36	616	732.5	1170	1258

Please read our notes on rope selection in "Application".

- Diameter tolerance: +2% / +4%
- Number of outer load bearing wires: 112
- Average fill factor: 0.72

SPECIAL FEATURES

The VS 16-4 CP represents an additional expansion of our product program in the field of crane ropes. The plastic padding of the compacted inner rope can dampen jerky loads and impacts and stabilise the rope structure.

PROPERTIES



FIELDS OF APPLICATION

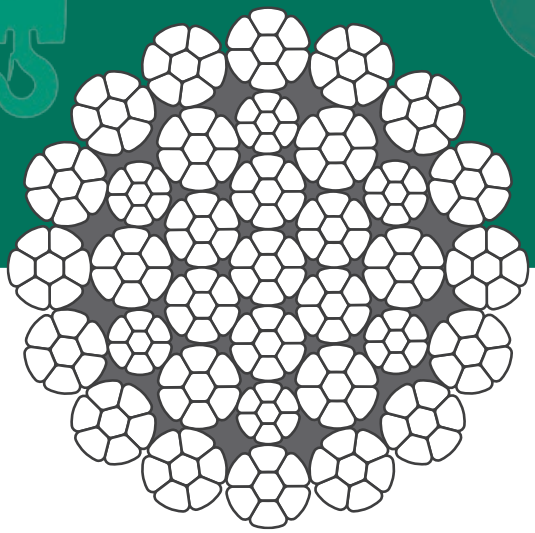


SPECIAL WIRE ROPES

ROTATION-RESISTANT

VS 16-5 C

∅ 7 – 50 mm



- Rotation-resistant (a) EN 12385-3
- Rope category number (RCN) 23-2 according to ISO 4309
- Lang lay
- Zinc-coated class B standard
- Special lubrication
- All strands compacted
- Can be used with swivel

∅	Weight	Metallic cross section	MBF 1960	MBF 2160
mm	kg/100 m	mm²	kN	kN
7	24.5	28.7	45.8	49.2
8	32.0	37.4	59.8	64.3
9	40.5	47.4	75.7	81.3
10	50.0	58.5	93.4	100.4
11	60.5	70.8	113.0	122
12	72.0	84.2	135	145
12,5	78.1	91.4	146	157
13	84.5	98.8	158	170
14	98.0	114.6	183	197
15	113	131.6	210	226
16	128	149.7	239	257
16,5	136	159.2	254	273
17	145	169.0	270	290
18	162	189.5	303	325
19	181	211.1	337	363
20	200	233.9	374	402
21	221	257.9	412	443
22	242	283.1	452	486
23	265	309.4	494	531
24	288	336.9	538	578
25	313	365.5	584	628
26	338	395.3	632	679
28	392	458.5	732	787
30	450	526.3	841	904
32	512	598.9	957	1028
34	578	676.1	1080	1161
36	648	757.9	1211	1302
38	722	844.5	1349	1450
39	761	889.5	1421	1527
40	800	935.7	1495	1607
42	882	1031.6	1648	1772
44	968	1132.2	1809	-
46	1058	1237.5	1977	-
48	1152	1347.4	2152	-
50	1250	1462.1	2335	-

Please read our notes on rope selection in "Application".

- Diameter tolerance: +2% / +4%
- Number of outer load bearing wires: 112
- Average fill factor: 0.75

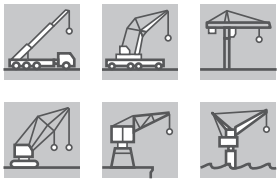
SPECIAL FEATURES

The tried and true VS 16-5 C with 35 compacted strands of 7 wires each features very high breaking forces due to the high degree of compaction.

PROPERTIES



FIELDS OF APPLICATION

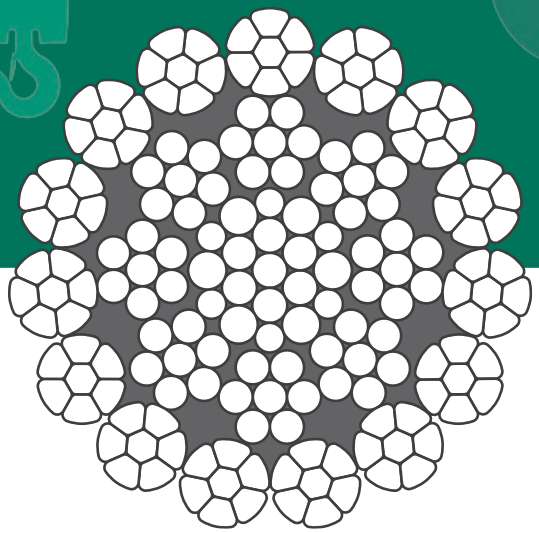


SPECIAL WIRE ROPES

ROTATION-RESISTANT

VS 15-1 C

∅ 8 – 28 mm



- Rotation-resistant (a) EN 12385-3
- Rope category number (RCN) 23-2 according to ISO 4309
- Lang lay
- Bright standard
- Special lubrication
- Outer strands compacted
- High degree of efficiency
- Can be used with swivel

∅	Weight	Metallic cross section	MBF 1960	MBF 2160
mm	kg/100 m	mm²	kN	kN
8	29.8	33.7	52.8	56.7
9	37.7	42.6	66.8	71.8
10	46.5	52.6	82.5	88.6
11	56.3	63.6	99.8	107
12	67.0	75.7	119	128
13	78.6	88.9	139	150
14	91.1	103	162	174
15	105	118	186	199
16	119	135	211	227
18	151	170	267	287
20	186	210	330	354
22	225	255	399	418
24	268	303	475	497
26	314	356	557	584
28	365	412	647	-

Additional diameters and special designs upon request.
Please read our notes on rope selection in "Application".

- Diameter tolerance: +2% / +4%
- Number of outer load bearing wires: 105
- Average fill factor: 0.67

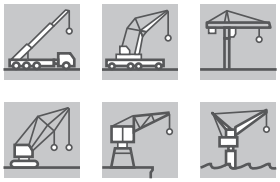
SPECIAL FEATURES

The VS 15-1 C is a hoisting rope with 15 compacted outer strands. It primarily comes into use when a high degree of efficiency must be achieved due to high hoisting heights and multiple reeving.

PROPERTIES



FIELDS OF APPLICATION



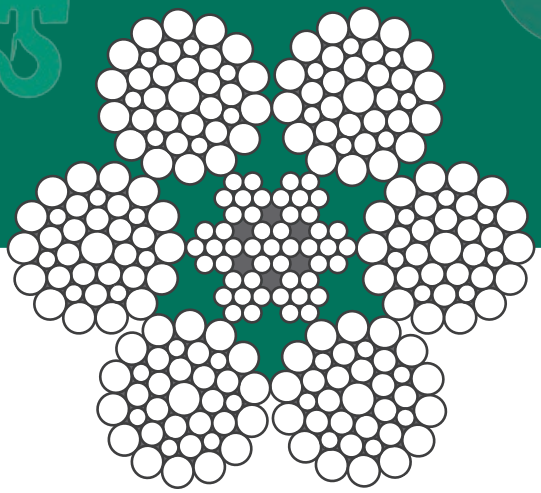
VORNBÄUMEN

SPECIAL WIRE ROPES

NOT ROTATION-RESISTANT

VS 6-1 P

∅ 8 – 52 mm



- Rope category number (RCN) 09 according to ISO 4309
- Ordinary lay
- Zinc-coated class B standard
- Special lubrication
- Plastic padding
- Should not be used with a swivel

∅	Weight	Metallic cross section	MBF 1770	MBF 1960	MBF 2160
mm	kg/100 m	mm²	kN	kN	kN
8	26.5	29.9	43.4	48.0	51.7
9	33.5	37.8	54.9	60.8	65.4
10	41.3	46.7	67.8	75.1	80.7
11	50.0	56.5	82.0	90.8	97.7
12	59.5	67.3	97.6	108	116
13	69.9	78.9	115	127	136
14	81.0	91.5	133	147	158
15	93.0	105	153	169	182
16	106	120	174	192	207
18	134	151	220	243	262
20	165	187	271	300	323
22	200	226	328	363	391
24	238	269	390	432	465
26	279	316	458	507	546
28	324	366	531	589	633
30	372	420	610	676	726
32	423	478	694	769	826
34	478	540	784	868	933
36	536	605	879	973	1046
38	597	674	979	1084	1165
40	661	747	1085	1201	1291
42	729	824	1196	1324	1424
44	800	904	1312	1453	-
46	875	988	1434	1588	-
48	952	1076	1562	1730	-
50	1033	1168	1695	1877	-
52	1118	1263	1833	2030	-

Additional diameters and special designs upon request.
Please read our notes on rope selection in "Application".

- Diameter tolerance: +2% / +4%
- Number of outer load bearing wires: 216
- Average fill factor: 0.595

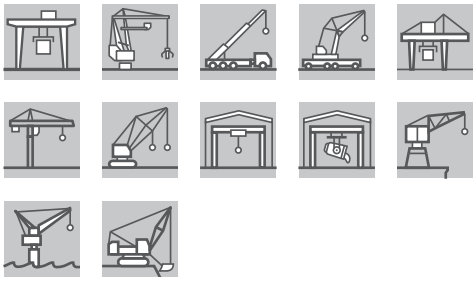
SPECIAL FEATURES

The VS 6-1 P is a non-rotation-resistant hoisting rope with 6 outer strands and additional plastic padding.

PROPERTIES



FIELDS OF APPLICATION



VORNBÄUMEN

SPECIAL WIRE ROPES

NOT ROTATION-RESISTANT

VS 6-2 CP

∅ 8 – 42 mm



- Rope category number (RCN) 09 according to ISO 4309
- Ordinary lay
- Zinc-coated class B standard
- Special lubrication
- Plastic padding
- Outer strands compacted
- Should not be used with a swivel

∅	Weight	Metallic cross section	MBF 1770	MBF 1960	MBF 2160
mm	kg/100 m	mm²	kN	kN	kN
8	28.9	32.7	47.4	52.5	56.4
9	36.6	41.3	60.0	66.4	71.4
10	45.2	51.0	74.1	82.0	88.2
11	54.6	61.7	89.6	99.2	107
12	65.0	73.5	107	118	127
13	76.3	86.2	125	139	149
14	88.5	100	145	161	173
15	102	115	167	185	198
16	116	131	190	210	226
18	146	165	240	266	286
20	181	204	296	328	353
22	219	247	358	397	427
24	260	294	427	472	508
26	305	345	501	554	596
28	354	400	581	643	691
30	406	459	667	738	794
32	462	522	758	840	903
34	522	590	856	948	1019
36	585	661	960	1063	1143
38	652	737	1069	1184	1273
40	723	816	1185	1312	1411
42	797	900	1306	1447	-

Additional diameters and special designs upon request.
Please read our notes on rope selection in "Application".

- Diameter tolerance: +2% / +4%
- Number of outer load bearing wires: 216
- Average fill factor: 0.65

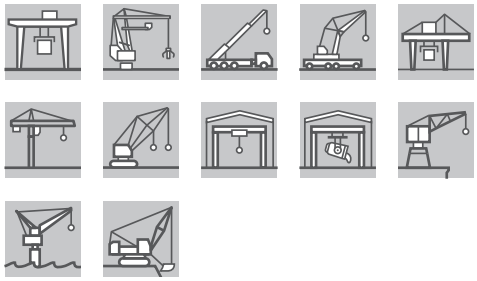
SPECIAL FEATURES

The VS 6-2 CP is a non-rotation-resistant hoisting rope with 6 compacted outer strands and additional plastic padding. This rope features high breaking forces.

PROPERTIES



FIELDS OF APPLICATION



VORNBÄUMEN

SPECIAL WIRE ROPES

NOT ROTATION-RESISTANT

VS 6-11 C

∅ 8 – 42 mm



- Rope category number (RCN) 09 according to ISO 4309
- Ordinary lay
- Zinc-coated class B standard
- Special lubrication
- All strands compacted
- Should not be used with a swivel

∅	Weight	Metallic cross section	MBF 1770	MBF 1960	MBF 2160
mm	kg/100 m	mm²	kN	kN	kN
8	29.6	33.7	48.9	54.1	58.2
9	37.5	42.6	61.8	68.5	73.6
10	46.3	52.6	76.3	84.5	90.9
11	56.0	63.6	92.4	102	110
12	66.6	75.7	110	122	131
13	78.2	88.9	129	143	154
14	90.7	103	150	166	178
15	104	118	172	190	204
16	118	135	195	216	233
18	150	170	247	274	294
20	185	210	305	338	364
22	224	255	369	409	440
24	267	303	440	487	523
26	313	356	516	571	614
28	363	412	598	663	713
30	417	473	687	761	818
32	474	539	782	866	931
34	535	608	882	977	1051
36	600	682	989	1096	1178
38	668	759	1102	1221	1312
40	741	842	1221	1352	1454
42	816	928	1347	1491	-

Additional diameters and special designs upon request.
Please read our notes on rope selection in "Application".

- Diameter tolerance: +2% / +4%
- Number of outer load bearing wires: 216
- Average fill factor: 0.67

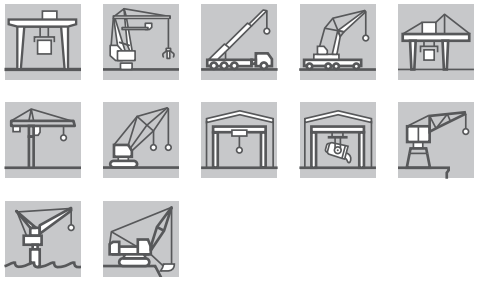
SPECIAL FEATURES

The VS 6-11 C is a non-rotation-resistant hoisting rope with complete strand compacting. This rope features high breaking forces.

PROPERTIES



FIELDS OF APPLICATION



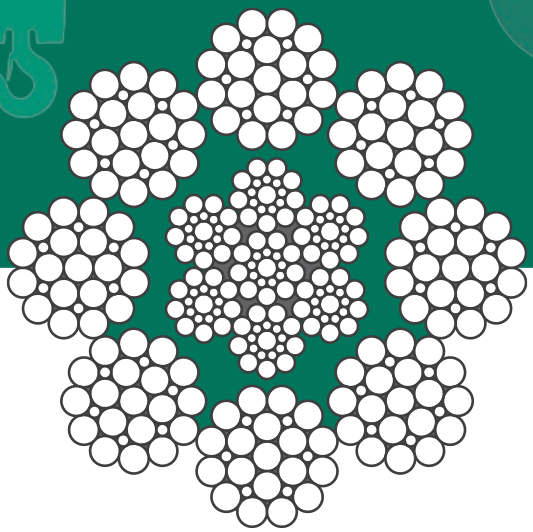
VORNBÄUMEN

SPECIAL WIRE ROPES

NOT ROTATION-RESISTANT

VS 8-1 P

∅ 10 – 52 mm



- Rope category number (RCN) 06 according to ISO 4309
- Ordinary lay
- Zinc-coated class B standard
- Special lubrication
- Plastic padding
- Should not be used with a swivel

∅	Weight	Metallic cross section	MBF 1770	MBF 1960
mm	kg/100 m	mm²	kN	kN
8	26.3	29.7	46.5	51.5
9	33.3	37.6	58.8	65.1
10	42.6	47.9	74.8	82.9
11	51.6	57.9	90.5	100
12	61.4	69.0	108	119
13	72.0	80.9	126	140
14	83.5	93.9	147	162
15	95.9	108	168	186
16	109	123	192	212
18	138	155	242	268
20	170	192	299	331
22	206	232	362	401
24	245	276	431	477
26	288	324	506	560
28	334	375	587	650
30	384	431	673	746
32	436	490	766	848
34	493	554	865	958
36	552	621	970	1074
38	612	688	1075	1191
40	679	762	1191	1319
42	748	841	1313	1454
44	821	922	1441	1596
46	894	1005	1570	1739
48	974	1094	1710	1893
50	1057	1187	1855	-
52	1143	1284	2006	-

Additional diameters and special designs upon request.
Please read our notes on rope selection in "Application".

- Diameter tolerance: +2% / +4%
- Number of outer load bearing wires: 152
- Average fill factor: 0.605 - 0.61

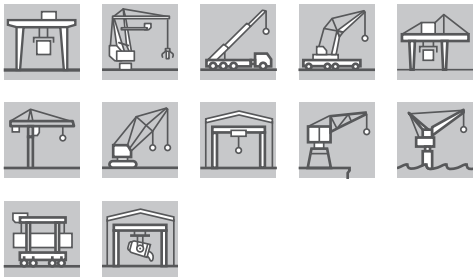
SPECIAL FEATURES

Our VS 8-1 P is a non-rotation-resistant hoisting rope with plastic padding and 8 strands in the outer layer.

PROPERTIES



FIELDS OF APPLICATION

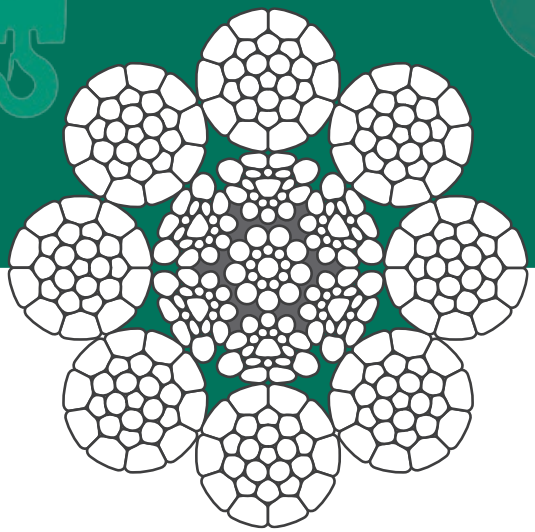


SPECIAL WIRE ROPES

NOT ROTATION-RESISTANT

VS 8-2 CP

∅ 10 – 48 mm



- Rope category number (RCN) 09[1] (up to ø 38 mm), 11[2] (up to ø 44 mm), 13[3] (up to ø 48 mm) according to ISO 4309
- Ordinary lay
- Zinc-coated class B standard
- Special lubrication
- Plastic padding
- Outer strands compacted
- Inner rope swaged
- Should not be used with a swivel

∅	Weight	Metallic cross section	MBF 1960	MBF 2160
mm	kg/100 m	mm²	kN	kN
10	48.8	54.6	92.0	97.8
11	59.1	66.0	111	118
12	70.3	78.6	132	141
13	82.5	92.2	155	165
14	95.7	107	180	192
15	110	123	207	220
16	125	140	235	250
18	158	177	298	317
20	195	218	368	391
22	236	264	445	473
24	281	314	530	563
26	330	369	622	661
28	383	428	721	767
30	439	491	828	880
32	500	559	942	1002
34	563	629	1060	1127
36	631	705	1181	1264
38	703	786	1316	-
40	779	870	1459	-
42	859	960	1608	-
44	937	1047	1755	-
46	1024	1144	1918	-
48	1115	1246	2088	-

Additional diameters and special designs upon request.
Please read our notes on rope selection in "Application".

- Diameter tolerance: +2% / +4%
- Number of outer load bearing wires: [1]208 / [2]248 / [3]288
- Average fill factor: 0.689-0.695

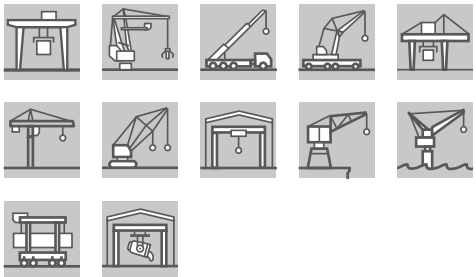
SPECIAL FEATURES

The VS 8-2 CP is a hoisting rope with 8 compacted outer strands and a swaged inner rope. It also features a plastic padding and high breaking forces.

PROPERTIES



FIELDS OF APPLICATION

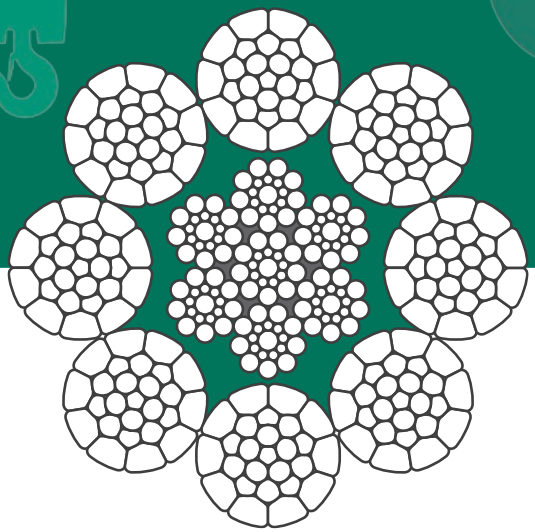


SPECIAL WIRE ROPES

NOT ROTATION-RESISTANT

VS 8-7 CP

⌀ 10 – 48 mm



- Rope category number (RCN) 09[1] (up to ø 38 mm), 11[2] (up to ø 44 mm), 13[3] (up to ø 48 mm) according to ISO 4309
- Ordinary lay
- Zinc-coated class B standard
- Special lubrication
- Plastic padding
- Outer strands compacted
- Should not be used with a swivel

⌀	Weight	Metallic cross section	MBF 1770	MBF 1960	MBF 2160
mm	kg/100 m	mm²	kN	kN	kN
10	47.1	52.9	80.5	89.2	94.9
11	57.0	64.0	97	108	115
12	67.8	76.2	116	128	137
13	79.6	89.4	136	151	160
14	92.3	104	158	175	186
15	106	119	181	201	213
16	121	135	206	228	243
17	136	153	233	258	274
18	153	171	261	289	307
19	170	191	291	322	342
20	188	212	322	357	379
22	228	256	390	432	459
24	271	305	464	514	546
25	294	331	503	557	593
26	318	358	544	603	641
27	343	386	587	650	691
28	369	415	631	699	744
30	424	476	725	803	854
32	482	542	825	913	971
34	544	612	931	1031	1097
36	610	686	1038	1149	1229
38	680	764	1156	1280	1370
40	753	847	1281	1419	1518
42	831	933	1412	1564	-
44	912	1024	1550	1717	-
46	996	1120	1694	1876	-
48	1085	1219	1845	2043	-

Additional diameters and special designs upon request.
Please read our notes on rope selection in "Application".

- Diameter tolerance: +2% / +4%
- Number of outer load bearing wires: [1]208 / [2]248 / [3]288
- Average fill factor: 0.674

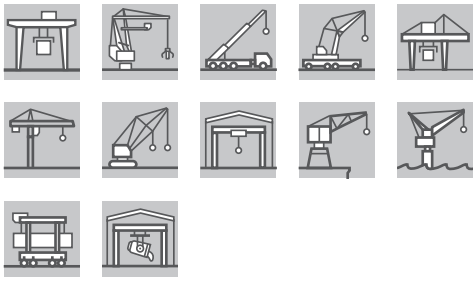
SPECIAL FEATURES

The VS 8-7 CP is a rope with 8 compacted outer strands and a plastic padding. This combination provides high breaking forces and high stability, coupled with enhanced protection from inner rope damages and enviorenmental influences.

PROPERTIES



FIELDS OF APPLICATION



SPECIAL WIRE ROPES

NOT ROTATION-RESISTANT



VS 8-9 CP

∅ 8 – 28 mm

- Rope category number (RCN) 09 according to ISO 4309
- Ordinary lay
- Zinc-coated class B standard
- Special lubrication
- Double parallel stranded
- Plastic padding
- Outer strands compacted
- Inner rope compacted
- Should not be used with a swivel

∅	Weight	Metallic cross section	MBF 1960	MBF 2160
mm	kg/100 m	mm²	kN	kN
8	32.0	36.4	60.0	66.1
9	40.5	46.1	75.9	83.6
10	50.0	56.9	93.7	103
11	60.5	68.9	113	125
12	72.0	82.0	135	149
13	84.5	96.2	158	175
14	98.0	112	184	202
15	113	128	211	232
16	128	146	240	264
17	145	164	271	298
18	162	184	304	335
19	181	205	338	373
20	200	228	375	413
22	242	277	456	500
24	288	330	543	595
25	313	358	589	645
26	338	387	637	698
28	393	449	739	809

Additional diameters and special designs upon request.
Please read our notes on rope selection in "Application".

- Diameter tolerance: +2% / +4%
- Number of outer load bearing wires: 208
- Average fill factor: 0.725

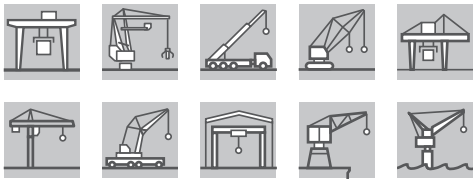
SPECIAL FEATURES

This rope is a double parallel stranded construction with 8 compacted outer strands and a plastic padding. The rope has a high minimum breaking load and is highly resistant against fatigue. It is especially suitable as hoist rope for electrical hoists and where multiple reeving systems are involved. It shows very good spooling behaviour on multilayer drums.

PROPERTIES



FIELDS OF APPLICATION



VORNBÄUMEN

SPECIAL WIRE ROPES

NOT ROTATION-RESISTANT



VS 8-3

∅ 8 – 20 mm

- Rope category number (RCN) 04 according to ISO 4309
- Ordinary lay
- Zinc-coated class B standard
- Special lubrication
- Double parallel stranded
- Should not be used with a swivel

∅	Weight	Metallic cross section	MBF 1960	MBF 2160
mm	kg/100 m	mm²	kN	kN
8	30.1	34.9	52.6	58.0
9	38.1	44.1	66.6	73.4
10	47.0	54.5	82.3	90.6
11	56.9	65.9	99.5	110
12	67.7	78.5	118	131
13	79.4	92.1	139	153
14	92.1	107	161	178
15	106	123	185	204
16	120	140	211	232
18	152	177	266	294
20	188	218	329	363

Additional diameters and special designs upon request.
Please read our notes on rope selection in "Application".

- Diameter tolerance: +2% / +4%
- Number of outer load bearing wires: 152
- Average fill factor: 0.695

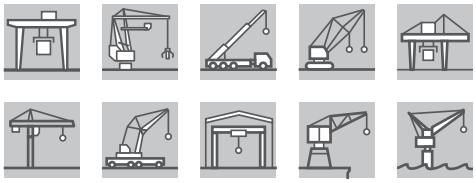
SPECIAL FEATURES

The VS 8-3 is a double parallel stranded construction with 8 outer strands.

PROPERTIES



FIELDS OF APPLICATION



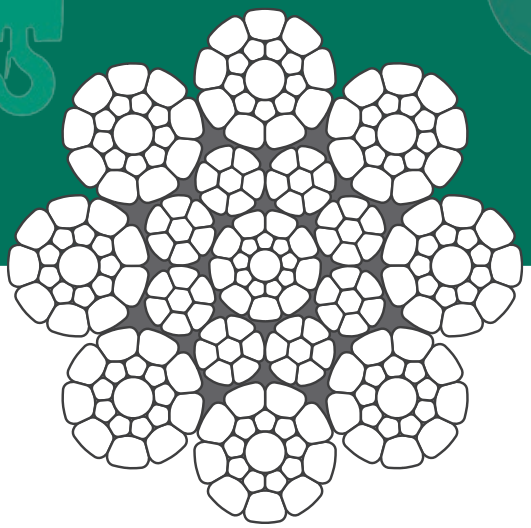
VORNBÄUMEN

SPECIAL WIRE ROPES

NOT ROTATION-RESISTANT

VS 8-4 C

∅ 8 – 20 mm



- Rope category number (RCN) 04 according to ISO 4309
- Ordinary lay
- Zinc-coated class B standard
- Special lubrication
- Double parallel stranded
- All strands compacted
- Should not be used with a swivel

∅	Weight	Metallic cross section	MBF 1960	MBF 2160
mm	kg/100 m	mm²	kN	kN
8	32.0	37.1	61.2	67.5
9	40.5	47.0	77.5	85.4
10	50.0	58.0	95.7	105
11	60.5	70.2	116	128
12	72.0	83.5	135	149
13	84.5	98.0	159	175
14	98.0	114	184	203
15	113	131	212	233
16	128	148	241	265
18	162	188	305	336
20	200	232	376	415

Additional diameters and special designs upon request.
Please read our notes on rope selection in "Application".

- Diameter tolerance: +2% / +4%
- Number of outer load bearing wires: 152
- Average fill factor: 0.735

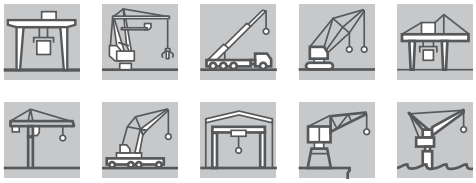
SPECIAL FEATURES

The VS 8-4 C is a double parallel stranded construction with 8 compacted outer strands.

PROPERTIES



FIELDS OF APPLICATION



VORNBÄUMEN

SPECIAL ROPES

ALPINE ROPES

UPHILL, DOWNHILL – SAFELY

Strong support at steep slopes: our ropes for snow groomers withstand great stresses and strains. In addition to smooth riding comfort, safety is of course of utmost importance for cable car ropes. Special requirements are placed on cable car ropes by European standard 12385-8. Special criteria apply, in particular with regard to construction, the strength of the wires and the special lubrication of steel ropes.

TECHNOLOGY AND HIGHEST QUALITY

Our know-how and the developments of our in-house machine building department guarantee a quality that meets the stringent requirements for cable car ropes with respect to technology and safety.

You can of course obtain additional diameters, constructions and special designs upon request. Please feel free to contact us!


EU - PRÜFBESCHEINIGUNG
EU - Examination Certificate

Certifikate:
EU-Examination


Certificate of Approval

This is to certify that the Management System of:

Vornbäumen Stahlseile GmbH & Co. KG

has been approved by Lloyd's Register to the following standards:

ISO 9001:2015

Certifikate:
ISO 9001







VORNBÄUMEN:
Towing ropes for the glacier cable car at Mount Zugspitze



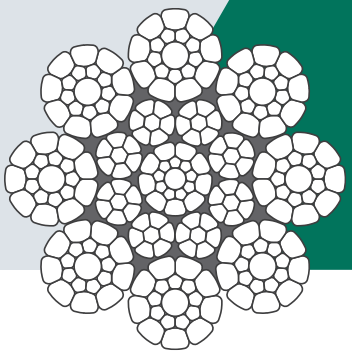
6x31WS 1 SFC



6x25F 1 SFC

⌀ 10 – 11 mm

VS 8-8 C



- Zinc-coated class B standard
- Special lubrication
- Cross lay right
- Strand-compacted
- Double parallel

⌀	Weight	Metallic cross section	MBF 2160
mm	kg/100 m	mm²	kN
10	50.0	58.0	105
11	60.5	70.2	128

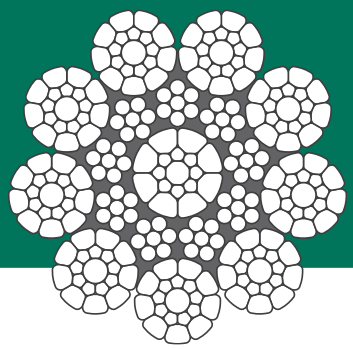
PROPERTIES

FIELDS OF APPLICATION

Used for drum winches, e. g. Prinoth, Leitner

⌀ 11 mm

VS 9-1 C



- Zinc-coated class B standard
- Special lubrication
- Cross lay right
- Strand-compacted
- Double parallel

⌀	Weight	Metallic cross section	MBF 1960
mm	kg/100 m	mm²	kN
11	60.5	69.9	109

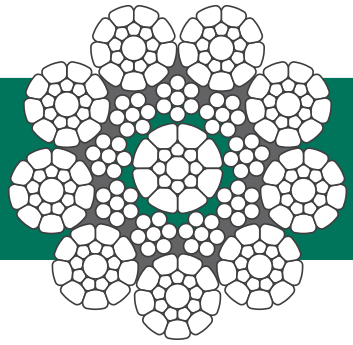
PROPERTIES

FIELDS OF APPLICATION

Used for pull winches, e. g. Kässbohrer

⌀ 11 mm

VS 9-1 CP



- Zinc-coated class B standard
- Special lubrication
- Cross lay right
- Strand-compacted
- Double parallel
- Plastic padding

⌀	Weight	Metallic cross section	MBF 1960
mm	kg/100 m	mm²	kN
11	55.4	65.6	106

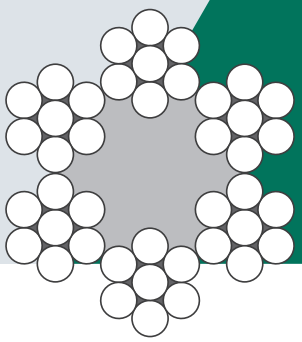
PROPERTIES

FIELDS OF APPLICATION

Used for pull winches, e. g. Kässbohrer

⌀ 8 – 26 mm

6 x 7-FC



- EN 12385-8
- Rope type 6 x 7
- Lang lay
- Zinc-coated class B standard
- Special lubrication

⌀	Weight	MBF 1770	MBF 1960
mm	kg/100 m	kN	kN
8	21.3	37.9	42.0
9	26.9	48.0	53.2
10	33.2	59.3	65.7
11	40.2	71.7	79.4
12	47.9	85.4	94.5
13	56.2	100	111
14	65.2	118	129
15	74.8	133	148
16	85.1	152	168
17	96.1	171	190
18	108	192	213
19	120	214	237
20	133	237	263
22	161	287	318
24	192	342	-
26	225	401	-

PROPERTIES

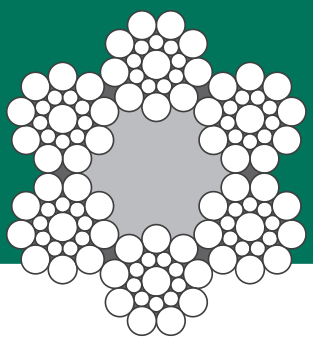


FIELDS OF APPLICATION



⌀ 16 – 38 mm

6 x 19S-FC



- EN 12385-8
- Rope type 6 x 7
- Lang lay
- Zinc-coated class B standard
- Special lubrication

⌀	Weight	MBF 1770	MBF 1960
mm	kg/100 m	kN	kN
16	90.1	159	176
17	102	179	198
18	114	201	222
19	127	224	248
20	141	248	274
22	170	300	332
24	203	357	395
26	238	419	464
28	275	488	538
30	317	558	617
32	360	634	-
34	407	718	-
36	456	803	–
38	508	895	–

PROPERTIES



FIELDS OF APPLICATION



VORNBÄUMEN



SPECIAL ROPES

WINCH ROPES

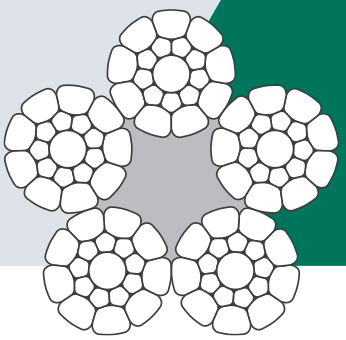
RESISTANT TO WIND AND WEATHER

Whether at sea, on land or in skyscraper canyons – our winch ropes we are equipped for use at stormy heights. In the wind industry onshore and offshore, in building cleaning and maintenance, our winch ropes meet the requirements for robustness and safety for the safe use of people and materials. Work platforms and service platforms



can be equipped with a wide variety of our ropes. You can rely on, even in tough conditions

5xK19S-SFC



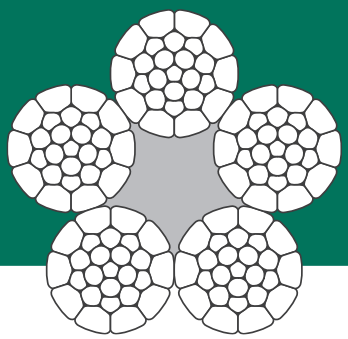
- Zinc-coated class B standard
- Cross lay right
- Strand-compacted

∅	Weight	MBF 1960
mm	kg/100 m	kN
6,5	16.2	28.4
8,4	27.0	55.0

PROPERTIES



5xK26WS-SFC



- Zinc-coated class B standard
- Cross lay right
- Strand-compacted

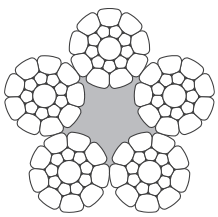
∅	Weight	MBF 2160
mm	kg/100 m	kN
10,2	40.0	86.0

PROPERTIES





5XK19S-SFC



Additional diameters and special designs upon request.
Please read our notes on rope selection in "Application".

VORNBÄUMEN

SPECIAL ROPES

BLACK ROPES

BLACK STAR® – THE INVISIBLE STAR OF THE THEATRE

Black ropes have been part of our special rope program since 2002 and have been sold successfully worldwide under the brand name BLACK STAR®.



For special rope applications, in particular in stage technology and the architecture industry, our engineers have developed a globally unique rope blackening system. Our sophisticated chemical process for colouring the ropes, as well as the special preservation of the rope surfaces, ensures the durability and long service life of our products.



BLACK STAR® is a brand name of VORNBÄUMEN Stahlseile.

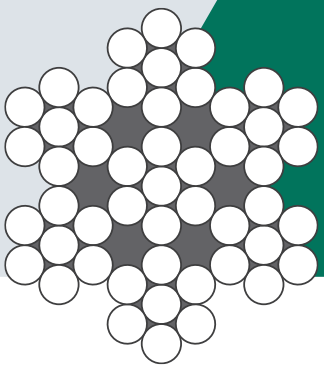


BLACK STAR
6 x 7-WSC

SPECIAL ROPES BLACK STAR®

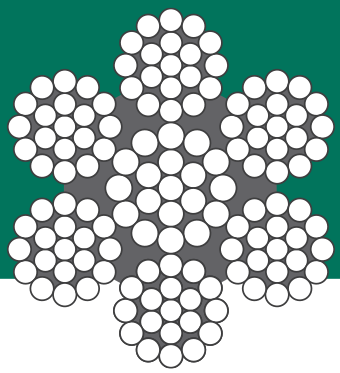
Our BLACK STAR® ropes are available in various constructions and diameters. You can of course obtain special designs upon request.
Please feel free to contact us!

Ø 1,5 – 5 mm



Ø 3 – 10 mm

6 x 19M-WSC

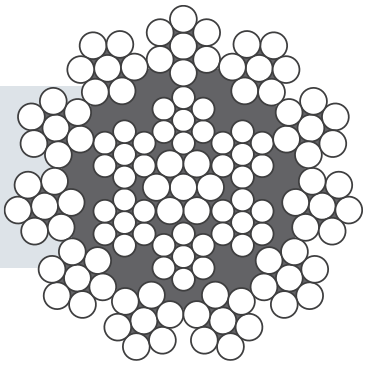


Ø	Weight	MBF 1960
mm	kg/100 m	kN
1,5	0.86	1.58
2	1.54	2.81
2,5	2.40	4.40
3	3.46	6.33
4	6.14	11.3
5	9.60	17.6

Ø	Weight	MBF 1960
mm	kg/100 m	kN
3	3.43	6.39
4	6.10	11.4
5	9.53	17.7
6	13.7	25.5
7	18.7	34.8
8	24.4	45.4
10	38.1	71.0

Ø 4 – 10 mm

17 x 7-WSC



Ø	Weight	MBF 1960
mm	kg/100 m	kN
4	6.42	10.3
5	10.0	16.1
6	14.4	23.1
7	19.6	31.5
8	25.7	41.1
10	40.1	64.3

FIELDS OF APPLICATION



Weitere Durchmesser und Sonderausführungen möglich.
Bitte beachten Sie auch unsere Hinweise zur Seilauswahl unter „Technische Anmerkungen".



VORNBÄUMEN





SPECIAL ROPES

FITNESS STEEL ROPES

THE HIGH-PERFORMANCE STEEL ROPE

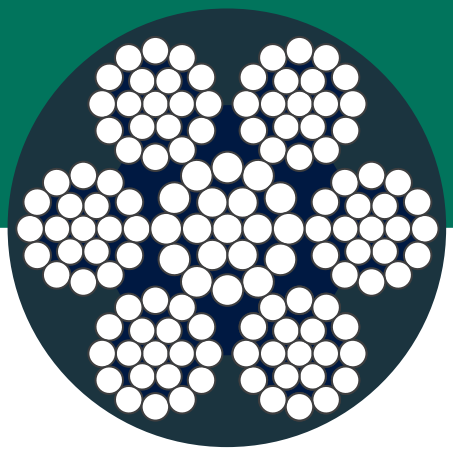
The VoProX© (**Vo**rnbäumen **Pro**fessional e**X**ercise) is a plastic-coated steel rope that was specially developed for use in sports equipment. It is particularly impressive for training on machines thanks to the high level of safety and low wear.

The rope has been continuously tested and improved in various development stages in order to achieve outstanding practical suitability. The result is a special rope with a long service life including continuous flexibility and operational strength.

The VoProX©'s plastic coat is characterised by a smooth, supple surface. It supports undisturbed movement sequences. Your customers can enjoy a high degree of comfort during training.

VoProX© is a brand name of VORNBÄUMEN.

VoProX©



- Rope type 6 x 19
- Ordinary lay
- Zinc-coated class B standard
- Special lubrication
- Special coating

∅ interior	∅ exterior	Weight	MBF 2160
mm	mm	kg/100 m	kN
2,4	4,0	3.03	4.50
3,2	4,8	4.95	8.01
4,0	5,6	7.35	12.5
4,8	6,4	10.20	18.0
5,4	7,5	13.30	22.8
6,5	9,5	20.00	33.0

SPECIALLY FOR FITNESS APPLICATIONS

The VoProX© is available as standard in black and in five different diameters. It can therefore be installed or retrofitted in almost all common fitness equipment. However, other diameters and colours are available upon request.



All VoProX© ropes benefit from our high production standards. The breaking force of each of our products is individually tested before shipping. This way you can be sure to receive a high-quality product "made in Germany".

The VoProX© gives your training equipment the performance and security you deserve. We are happy to help you.



VOPROX©
6 x 19

VORNBÄUMEN





SPECIAL ROPES

SAW ROPES

WIRE ROPES AS TOOL CARRIERS: STONE SAWS WITH VORNBÄUMEN ROPES

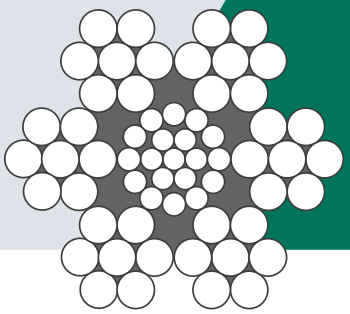
Wire ropes are also used for stone saws in quarries or for cutting tasks in the construction industry. For many years, we have produced center ropes that are used for cutting cables in stone saws. Such saws are primarily used to cut massive work pieces or natural stone. In this process, the wire rope functions as the carrier for the various cutting pearls or diamond beads in the open or closed stone saws, which are custom-made for specific applications.

INDIVIDUAL ROPE PROPERTIES ENSURE CLEAN AND PRECISE WORK

The rope achieves high running speeds during use. The individual properties of VORNBÄUMEN wire ropes ensure that as few vibrations as possible are created during the cutting process, thus allowing work to be done cleanly and precisely.

∅ 3 – 5 mm

VS 6-7



- Center rope for closed type saw cables
- Ordinary lay
- Zinc-coated class B standard
- Dry or with special lubrication

∅	Weight	Metallic cross section	MBF 1770	MBF 1960
mm	kg/100 m	mm²	kN	kN
3	3.46	3.89	6.18	6.84
3,5	4.70	5.29	8.41	9.32
4	6.14	6.91	11.0	12.2
4,5	7.78	8.75	13.9	15.4
4,6	8.13	9.14	15.4	16.1
4,8	8.85	9.95	15.8	17.5
4,9	9.22	10.4	16.5	18.3
5	9.60	10.8	17.2	19.0

PROPERTIES

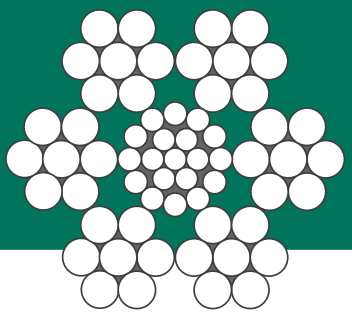


FIELDS OF APPLICATION



∅ 3 – 5 mm

VS 6-8 P



- Center rope for closed type saw cables
- Ordinary lay
- Zinc-coated class B standard
- Dry or with special lubrication
- Plastic padding

∅	Weight	Metallic cross section	MBF 1770	MBF 1960
mm	kg/100 m	mm²	kN	kN
3	3.43	3.76	5.77	6.39
3,5	4.67	5.12	7.85	8.69
4	6.10	6.69	10.3	11.4
4,5	7.72	8.46	13.0	14.4
4,6	8.06	8.84	13.6	15.0
4,8	8.78	9.63	14.8	16.4
4,9	9.15	10.0	15.4	17.0
5	9.53	10.5	16.0	17.7

PROPERTIES



FIELDS OF APPLICATION



Additional diameters and special designs upon request.
Please read our notes on rope selection in "Application".

VORNBÄUMEN



STAINLESS STEEL ROPES

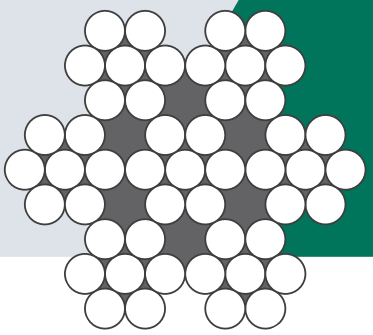
RUST-FREE AND WEATHER-RESISTANT: STAINLESS STEEL ROPES PROVE THEIR WORTH OUTDOORS

It makes sense to use non-rusting stainless steel material in a variety of applications. With stainless steel, a long service can be guaranteed even in extreme areas of application. Stainless steel ropes are used primarily outdoors or near chemicals or water.

Stainless steel ropes also enjoy great popularity indoors due to their appealing surface.

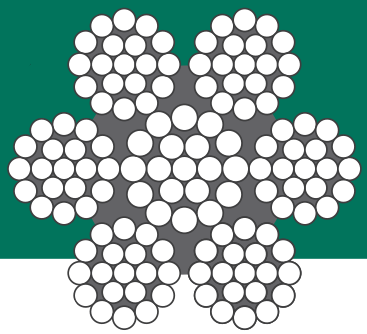
Ø 1 – 10 mm

6 x 7-WSC



Ø 3 – 10 mm

6 x 19M-WSC

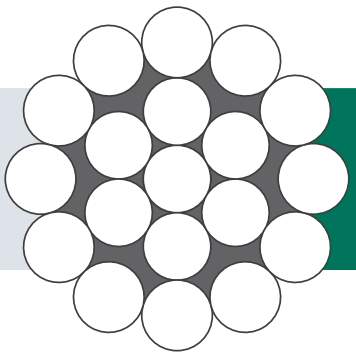


Ø	Weight	MBF 1570	MBF 1770
mm	kg/100 m	kN	kN
1	0.38	0.56	0.64
2	1.54	2.25	2.54
3	3.46	5.07	5.72
4	6.14	9.02	10.2
5	9.60	14.1	15.9
6	13.8	20.3	22.9
7	18.8	27.6	31.1
8	24.6	36.1	40.7
9	31.1	45.7	51.5
10	38.4	56.4	63.5

Ø	Weight	MBF 1570	MBF 1770
mm	kg/100 m	kN	kN
3	3.43	5.12	5.77
4	6.10	9.09	10.3
5	9.53	14.2	16.0
6	13.7	20.5	23.1
7	18.7	27.8	31.4
8	24.4	36.4	41.0
9	30.9	46.0	51.9
10	38.1	56.8	64.1

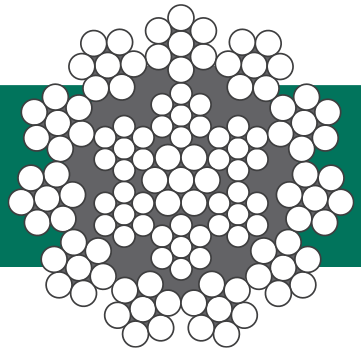
Ø 1 – 10 mm

1 x 19



Ø 3 – 10 mm

17 x 7-WSC



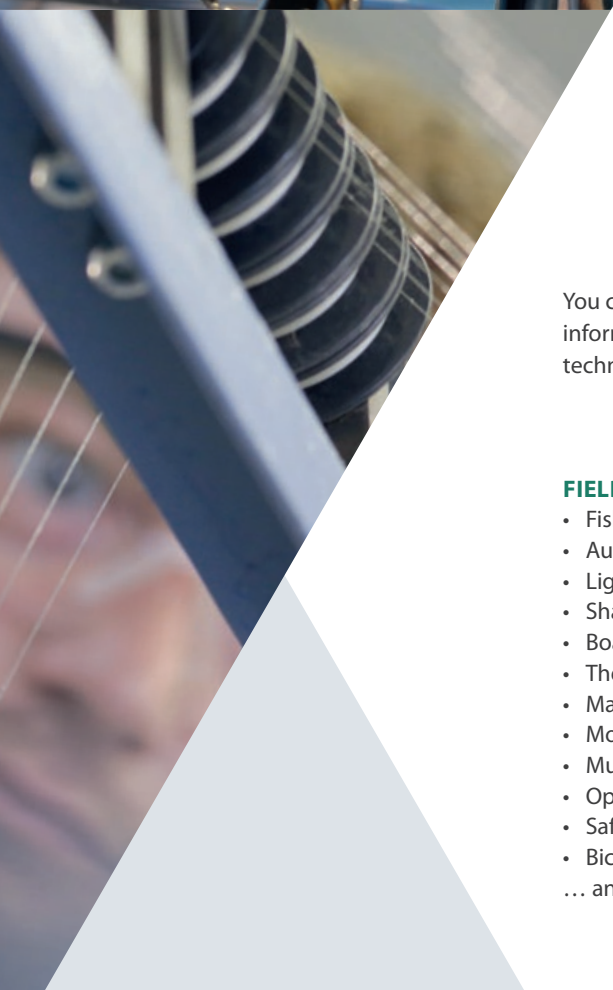
Ø	Weight	MBF 1570	MBF 1770
mm	kg/100 m	kN	kN
1	0.49	0.83	0.93
2	1.94	3.30	3.72
3	4.37	7.43	8.38
4	7.76	13.2	14.9
5	12.1	20.6	23.3
6	17.5	29.7	33.5
7	23.8	40.5	45.6
8	31.0	52.8	59.6
9	39.3	66.9	75.4
10	48.5	82.6	93.1

Ø	Weight	MBF 1570	MBF 1770
mm	kg/100 m	kN	kN
3	3.61	4.63	5.23
4	6.42	8.24	9.29
5	10.0	12.9	14.5
6	14.4	18.5	20.9
7	19.6	25.2	28.4
8	25.7	33.0	37.2
9	32.5	41.7	47.0
10	40.1	51.5	58.1

Additional diameters and special designs upon request.
Please read our notes on rope selection in "Application".

VORNBÄUMEN





MICRO ROPES

MICROPE® – A QUALITY BRAND FROM VORNBÄUMEN

Our MICROPE® brand micro ropes are suitable for use in almost all areas of technology and they are used for a wide variety of applications.
The preferred material is tried and true stainless steel due its extremely long service life and versatile nature. For micro ropes, we process wire thicknesses in the range of 0.02 mm to 0.14 mm. And of course we process our micro ropes to the highest quality standards as well.

PLASTIC COATING

We coat our MICROPE-brand micro ropes with, among other materials, PVC, LDPE, HDPE, PP, PA 6, PA 6.12, PA 11, PA 12, PUR TPU and POM.

You can find further information in our technical notes.

FIELDS OF APPLICATION:

- Fishing
- Automotive
- Lighting
- Shading systems
- Boat construction
- Theft protection
- Machine construction
- Model construction
- Musical instruments
- Optical devices
- Safety ropes
- Bicycles

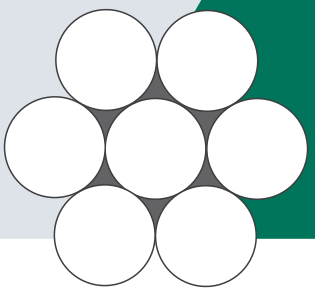
… and much much more

Konstruktion	∅	∅
	mm von	mm bis
1 x 3	0,06	0,30
1 x 7	0,06	0,42
1 x 19	0,15	0,70
3 + 9	0,12	0,56
3 x 3	0,12	0,56
3 x 7	0,19	0,85
5 x 7 + 1 x 3	0,16	1,10
6 x 7-WSC	0,27	1,25
6 x 19-FC/-WSC	0,60	*
7 x 7 x 7	0,81	3,75

Additional constructions upon request.

∅ 0,06 – 0,42 mm

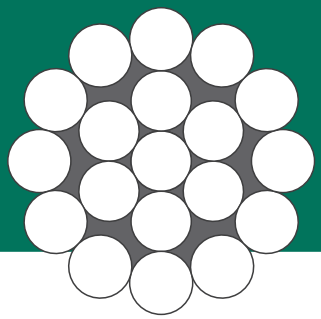
1 x 7



∅	Weight	MBF 1770
mm	kg/100 m	kN
0,06	0.002	0.003
0,09	0.004	0.008
0,12	0.007	0.014
0,15	0.011	0.021
0,18	0.016	0.030
0,21	0.022	0.041
0,24	0.028	0.054
0,27	0.036	0.068
0,30*	0.044	0.084
0,33*	0.053	0.102
0,36*	0.063	0.122
0,39*	0.074	0.143
0,42*	0.086	0.166

∅ 0,10 – 0,70 mm

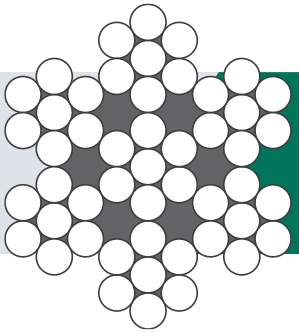
1 x 19



∅	Weight	MBF 1770
mm	kg/100 m	kN
0,10	0.005	0.009
0,15	0.011	0.021
0,20	0.019	0.037
0,25	0.030	0.058
0,30	0.044	0.084
0,35	0.059	0.114
0,40	0.078	0.149
0,45	0.098	0.188
0,50*	0.121	0.233
0,55*	0.147	0.282
0,60*	0.175	0.335
0,65*	0.205	0.393
0,70*	0.238	0.456

∅ 0,18 – 1,25 mm

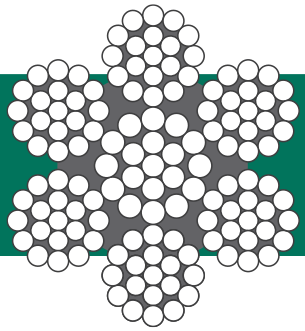
6 x 7 WSC



∅	Weight	MBF 1770
mm	kg/100 m	kN
0,18	0.012	0.021
0,27	0.028	0.046
0,36	0.050	0.082
0,45	0.078	0.129
0,54	0.112	0.185
0,63	0.152	0.252
0,72	0.199	0.329
0,81	0.252	0.417
0,90*	0.311	0.515
1,00*	0.384	0.635
1,20*	0.553	0.915
1,25*	0.600	0.993

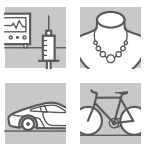
∅ 0,30 – 2,00 mm

6 x 19M



∅	Weight	MBF 1770
mm	kg/100 m	kN
0,30	0.034	0.058
0,45	0.077	0.130
0,60	0.137	0.231
0,75	0.214	0.360
0,90	0.309	0.519
1,05	0.420	0.706
1,20	0.549	0.923
1,35	0.694	1.168
1,50*	0.857	1.442
1,65*	1.037	1.744
1,80*	1.234	2.076
2,00*	1.524	2.563

FIELDS OF APPLICATION



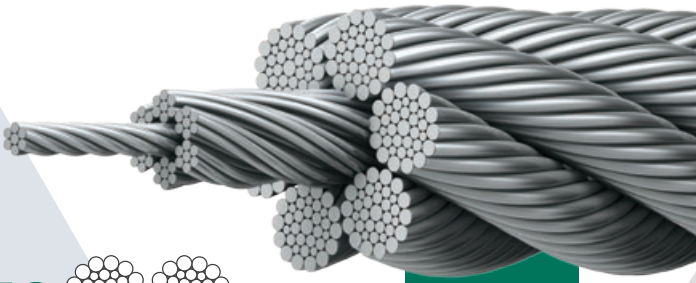
* Diameters are also available zinc-coated!

Additional diameters and special designs upon request.
Please read our notes on rope selection in "Application".

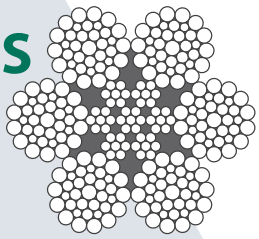
VORNBÄUMEN

STANDARD ROPES

SPIRAL ROPES
STRANDED ROPES
STRANDED SPIRAL ROPES



6x36 WS IWRC



WE ARE ON OUR MOST FAMILIAR GROUND HERE!

For many decades we have produced various standard wire ropes of steel, stainless steel, brass and iron. With our standard ropes, you profit from our years of experience and high level of quality just like you do with our individual developments. And here too we strive to continuously improve and to develop new manufacturing technologies.

STANDARD WIRE ROPES ACCORDING TO EN SPECIFICATIONS FOR YOUR APPLICATION

In our ropery, we produce ropes in a variety of designs, not just special ropes for individual applications. Standard ropes of standardised rope types according to EN specifications are also part of our portfolio. The normalised constructions of the standard wire ropes are used in various areas of application.





FOR EXAMPLE:

- in various crane applications
- in rope winches and rope pulling devices
- in architecture
- as lifting slings for hoisting applications
- in mining and machine construction
- in shipping
- in the medical field

… and in many other areas

The ropes are optionally manufactured with steel cores or with fibre cores (natural fibres or synthetic).

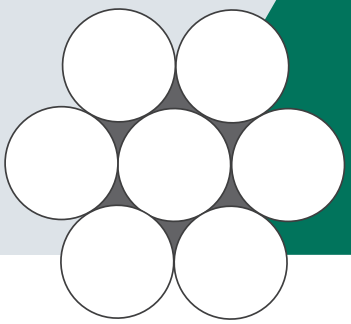
We offer all ropes dry, lightly lubricated or heavily lubricated to meet the needs of your application. We will gladly advise you on our oils and greases to help you to select the right lubricant.

NOTES

Diameter tolerances and limiting deviation can be found in the current part of the DIN EN 12385.

⌀ 0,6 – 6 mm

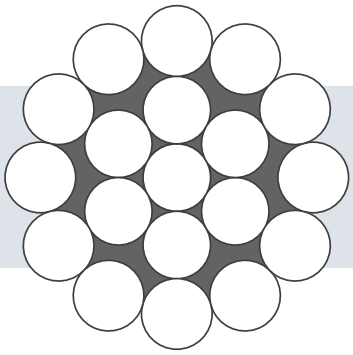
1 x 7



- EN 12385-10
  (Up to 2 mm according to Norm)

⌀ 1 – 10 mm

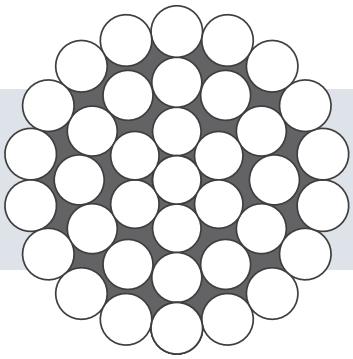
1 x 19



- EN 12385-10
  (Up to 4 mm according to Norm)

⌀ 3 – 14 mm

1 x 37

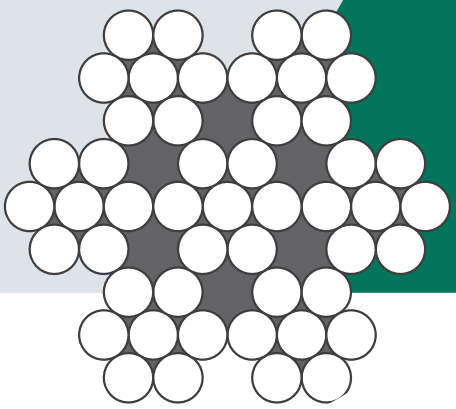


- EN 12385-10
  (Up to 5 mm according to Norm)

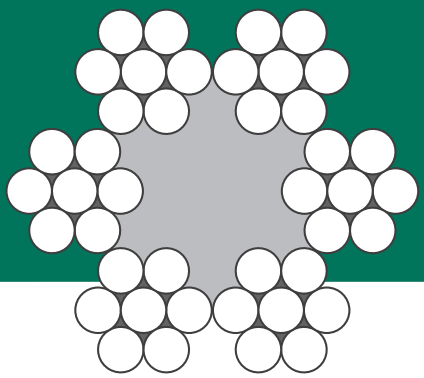
Ø 1,5 – 8 mm

6 x 7

- EN 12385-4
- Rope type 6 x 7



6 x 7-WSC

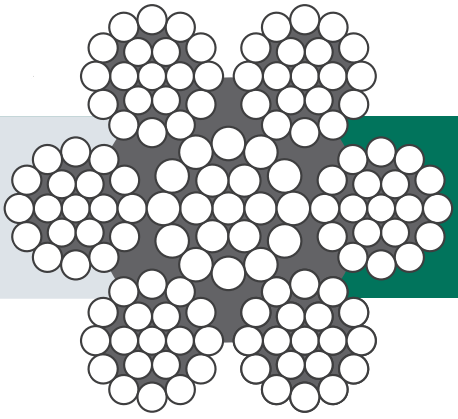


6 x 7-FC

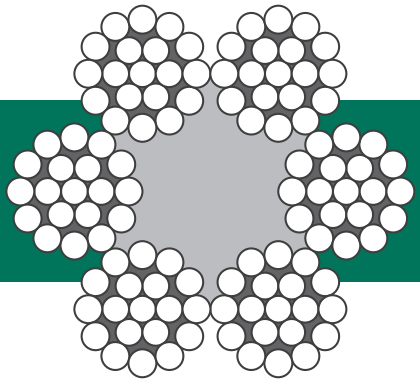
Ø 2,5 – 10 mm

6 x 19M

- EN 12385-4
- Rope type 6 x 19M



6 x 19M-WSC

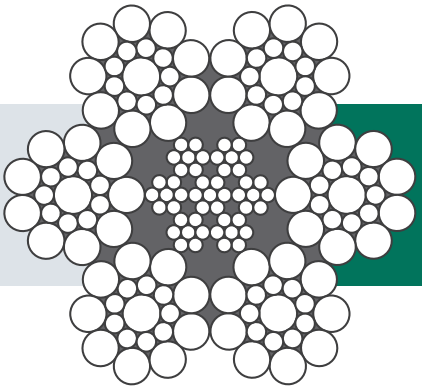


6 x 19M-FC

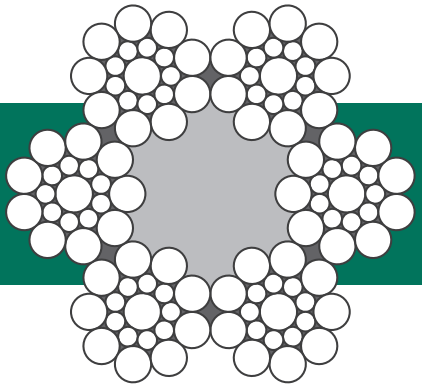
Ø 5 – 32 mm

6 x 19S

- EN 12385-4
- Rope type 6 x 19



6 x 19S-IWRC

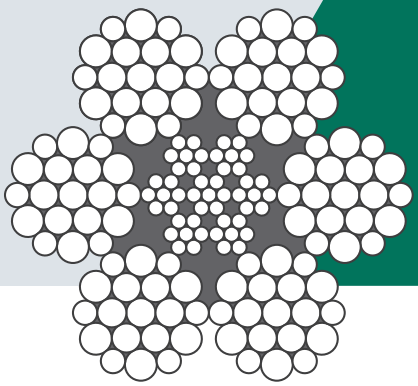


6 x 19S-FC

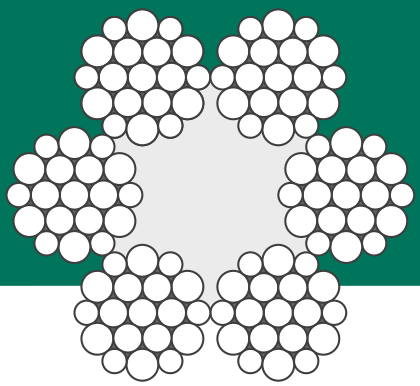
Ø 5 – 36 mm

6 x 19W

- EN 12385-4
- Rope type 6 x 19



6 x 19W-IWRC

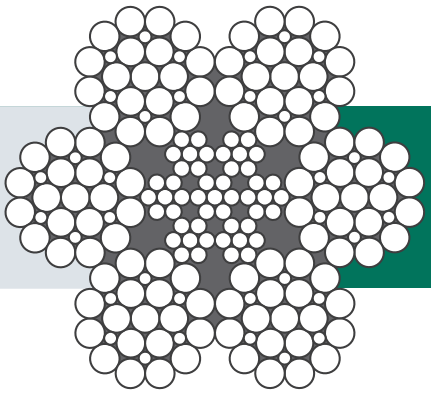


6 x 19W-FC

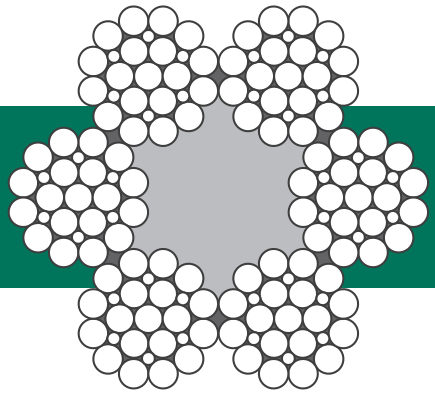
Ø 6 – 42 mm

6 x 25F

- EN 12385-4
- Rope type 6 x 19



6 x 25F-IWRC

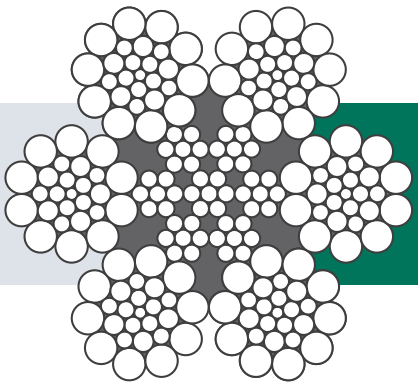


6 x 25F-FC

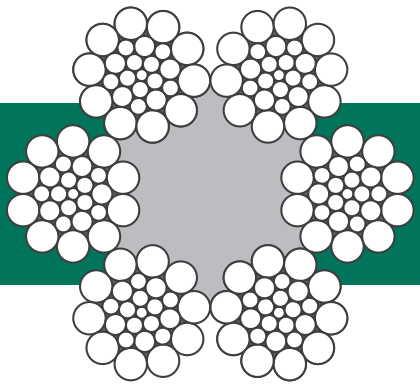
Ø 8 – 36 mm

6 x 26WS

- EN 12385-4
- Rope type 6 x 19



6 x 26WS-IWRC

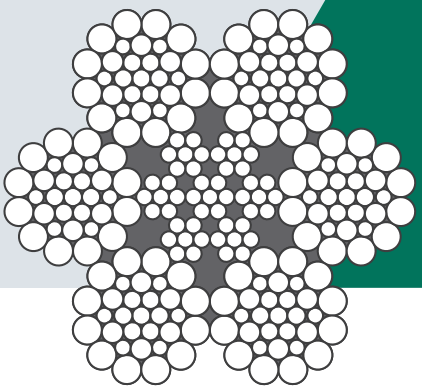


6 x 26WS-FC

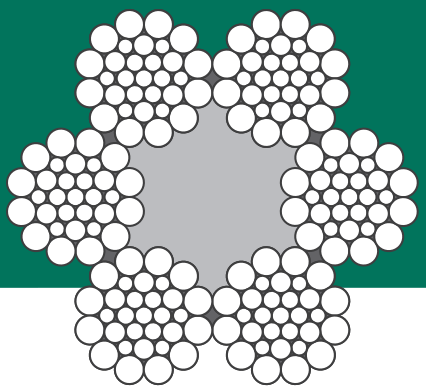
Ø 7 – 42 mm

6 x 31WS

- EN 12385-4
- Rope type 6 x 36



6 x 31WS-IWRC

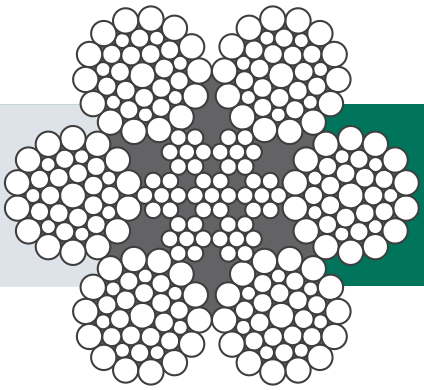


6 x 31WS-FC

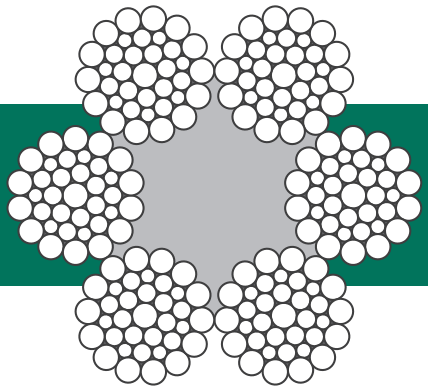
Ø 8 – 54 mm

6 x 36WS

- EN 12385-4
- Rope type 6 x 36



6 x 36WS-IWRC

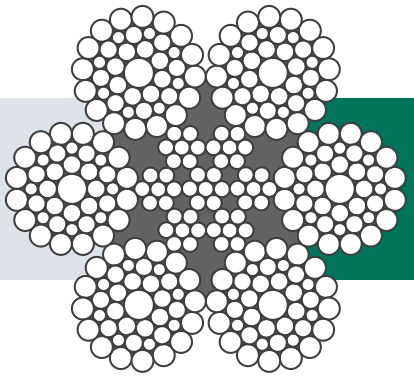


6 x 36WS-FC

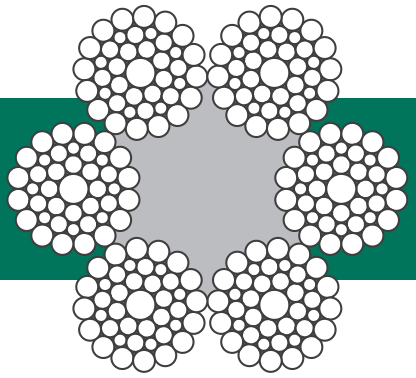
Ø 14 – 54 mm

6 x 41WS

- EN 12385-4
- Rope type 6 x36



6 x 41WS-IWRC

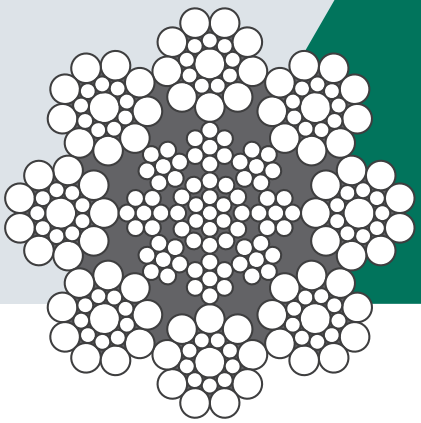


6 x 41WS-FC

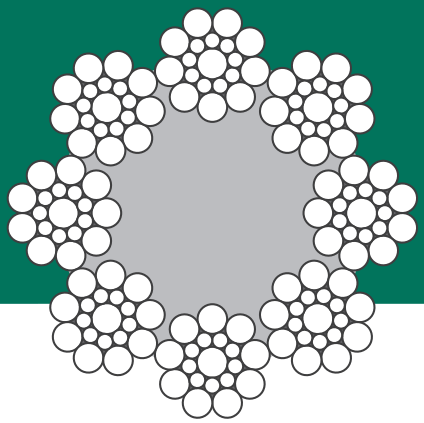
Ø 6 – 40 mm

8 x 19S

- EN 12385-4
- Rope type 8 x 19



8 x 19S-IWRC

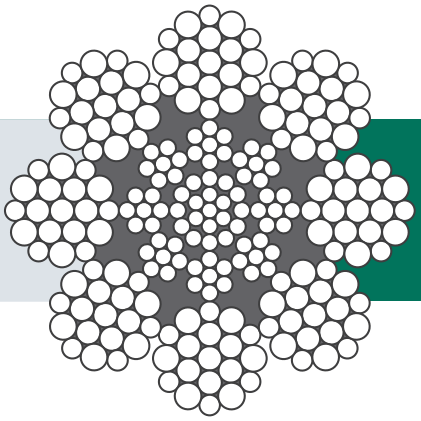


8 x 19S-FC

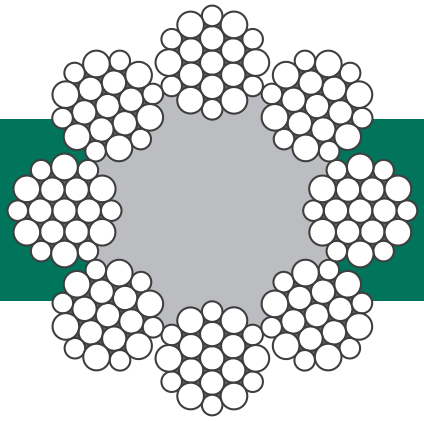
Ø 6 – 44 mm

8 x 19W

- EN 12385-4
- Rope type 8 x 19



8 x 19W-IWRC

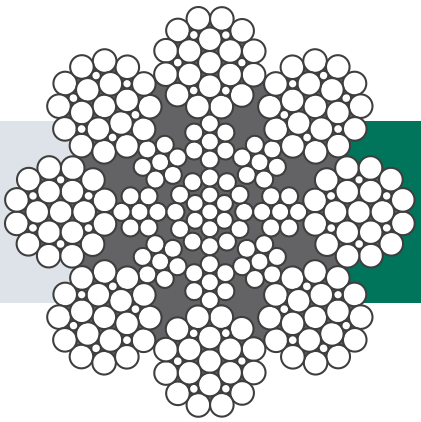


8 x 19W-FC

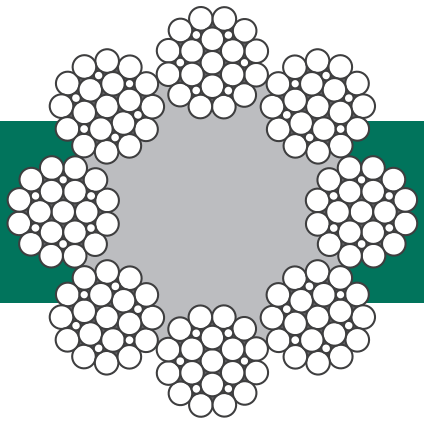
Ø 10 – 48 mm

8 x 25F

- EN 12385-4
- Rope type 8 x 19



8 x 25F-IWRC



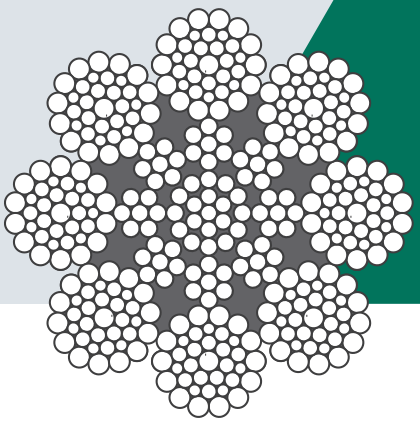
8 x 25F-FC

STRANDED ROPES

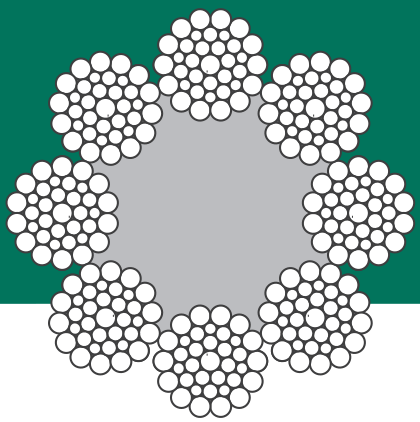
Ø 13 – 52 mm

8 x 36WS

- EN 12385-4
- Rope type 8 x 36



8 x 36WS-IWRC



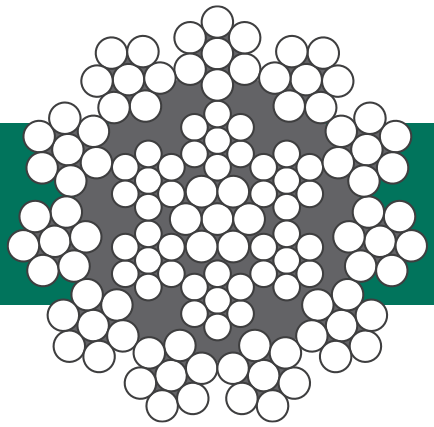
8 x 36WS-FC

STRANDED SPIRAL ROPES

Ø 3 – 22 mm

17 x 7-WSC

- EN 12385-4
- Rope type 18 x 7
- rotation-resistant (b) EN 12385-3



17 x 7-WSC

VORNBÄUMEN

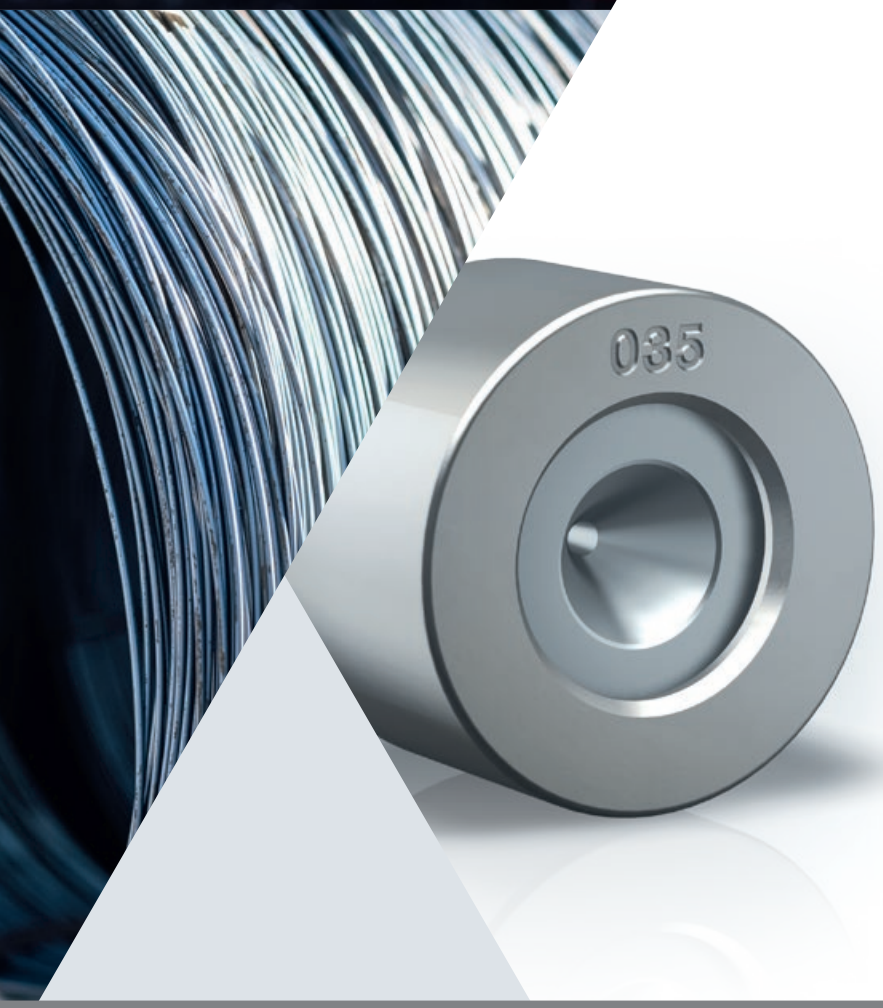


WIRES

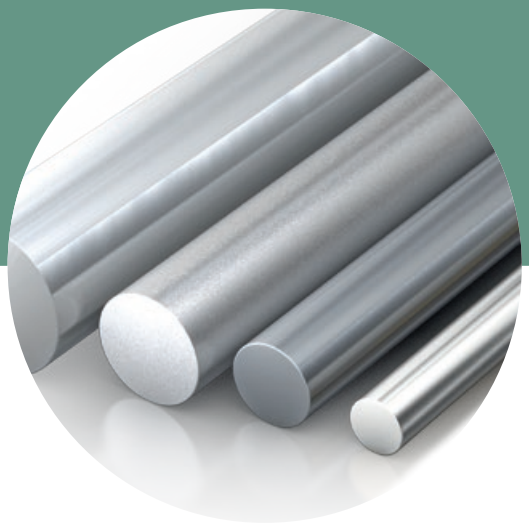
WIRES FROM OUR OWN DRAWING MILL: TRADITION SINCE 1906

We produced our first wires 1906 in our own drawing mill in the plant in Bad Iburg. A lot has happened since. Today, thanks to the experience we have gathered in the field for over 100 years, we are competent partners and we produce steel and stainless steel wires with state-of-the-art machines.

That's because reliability, quality and the quick availability of the wires used are decisive in the area of technology in particular. The wires from VORNBÄUMEN make the fine difference here!



Wires
Wire standard EN 10264



- Manufactured according to wire standard EN 10264

Zinc-coated class B

Strength N/mm²	MBF 1370	MBF 1570	MBF 1770	MBF 1960	MBF 2160
min. Ø	0.30	0.20	0.20	0.11	0.11
max. Ø	5.00	4.20	3.50	3.00	2.30

Zinc-alloy 5% class B

Strength N/mm²	MBF 1370	MBF 1570	MBF 1770	MBF 1960	MBF 2160
min. Ø	0.40	0.40	0.40	0.40	0.40
max. Ø	5.00	4.20	3.50	3.00	2.30

Phosphate-coated

Strength N/mm²	MBF 1370	MBF 1570	MBF 1770	MBF 1960	MBF 2160
min. Ø	0.25	0.20	0.20	0.20	0.20
max. Ø	5.00	4.20	3.50	3.00	2.30



Breaking test in our material laboratory

WIRES FOR EVERY APPLICATION IN THE HIGHEST QUALITY

We are able guarantee the highest quality in the production of our wires because we have continuously improved our production processes over many decades. Today our experienced, long-term employees work with a process-controlled manufacturing procedure. With our individual production possibilities, we are able to offer you our wires in completely different variants, adjusted to your specific application.

Our offering includes various wire thicknesses, surfaces, tensile strengths and spool sizes.
We offer all common wire thicknesses with phosphate, zinc and zinc-alloy finish. In addition, in our manufacturing process, we pay very close attention to consistent quality and repeatedly check all wires for strength, torsion, bending and, if applicable, zinc coating.

If requested, we can issue a certificate for every wire.

NOTE

Zinc-coated class A as well as additional diameter and special products upon request.

SPECIAL PRODUCTS

SPIRALS, GUIDE HOSES, ACTUATING CABLES

SPECIAL APPLICATIONS WITH VORNBÄUMEN WIRE ROPES

For special applications we work together with our customers to develop specific and individual rope solutions for a wide variety of industries. We produce our ropes ourselves from start to finish. As we have our own wire drawing mill, ropery and a large, comprehensive warehouse, we are also able to process rush orders quickly and flexibly.

AUTOMOTIVE INDUSTRY

Cable pulls are used in the automotive industry in various assemblies: as actuating pulls on window lifts, mirror and handbrake systems or body parts. The rope and roller systems in seats and seat belt tensioners are also important for safety. In the automotive industry, VORNBÄUMEN works as a partner for systems suppliers who profit from our company's know-how and many years of experience.



BICYCLE INDUSTRY

Actuating pulls have long been used in bicycle technology in various types of construction. In particular rope casings of flat or round wires guarantee the direct and precise transmission of force to the brakes or shifting systems.

SPORT AND FITNESS DEVICES

Fitness devices usually have diverse adjustment and modification options. The weights are often moved with plastic-coated wire ropes. Here the ropes and cable casings inside the device provide for friction-free and noiseless operation.



GREENING SYSTEMS

Wire ropes are perfectly suited for durable and flexible greening systems. By using corrosion-resistant materials in combination with UV-resistant plastic coatings, light constructions are created that offer vines and tendrils optimal growing conditions.



ARCHITECTURE AND CONSTRUCTION

Ropes and wires are not only found in engineering construction. Wire ropes are also very popular as decorative and functional elements in stair construction and in the construction of sun protection equipment. In interior architecture, ropes are also used as fastening solutions for textiles, lights and orientation systems.

FISHING

VORNBÄUMEN expertise in the production micro ropes (MICROPE®) allow high-load fishing lines and leaders to be produced for the fishing industry. In comparison to synthetic rope material, micro ropes made of stainless steel are extremely resistant to saltwater and UV radiation. In addition, extremely thin plastic coatings reduce friction and wear.



ROBOTICS, WELDING AND AUTOMATION TECHNOLOGY

Wire ropes allocate their qualities to industrial robots, welding and automation systems as actuating, moving and safety pulls. In subareas of automation, ropes and computer-controlled winches represent a convenient and maintenance-friendly alternative to complex gearboxes and step motors.

ADDITIONAL AREAS OF APPLICATION FOR WIRE ROPES

- Agricultural technology
- Drive technology
- Jewellery industry
- Snow groomers

VORNBÄUMEN is your reliable partner for all individual questions regarding wire rope, rope casing and rope coating. We look forward to your project.



LONG-LIFE FUNCTIONALITY THANKS TO INDIVIDUALLY ADJUSTED COMPONENTS

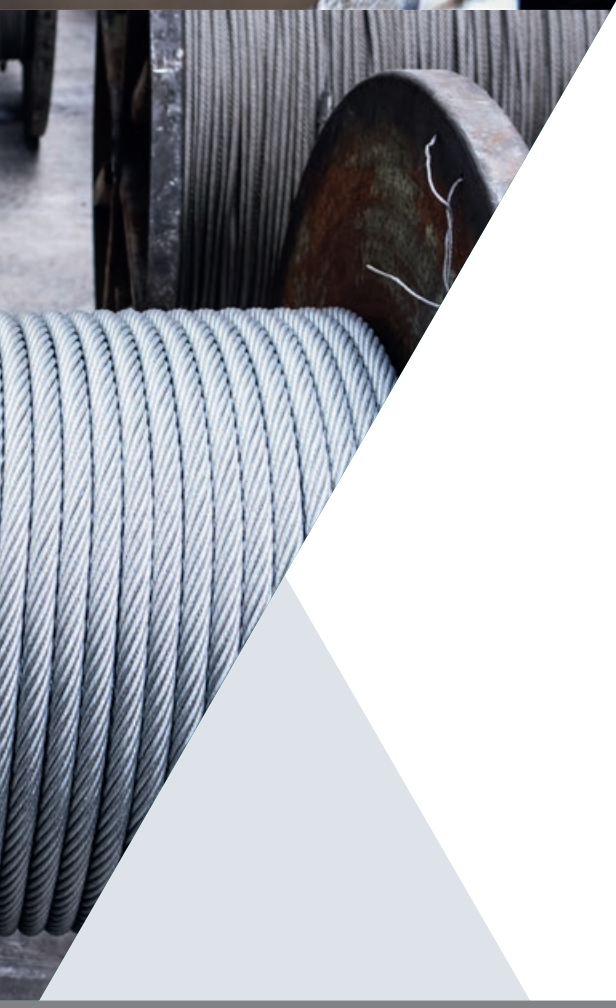
Our production program includes, among other things, flat and round wire spirals of various materials (e.g., zinc-coated, stainless steel, etc.) with and without lining and optionally with a plastic coating and tubes of POM and PE.

Furthermore, we manufacture PUSH-PULL spirals and wire guide hoses. In particular for the bicycle industry, we manufacture rope pulls with cable heads (die cast zinc) for brake and shifting systems. We process all common types of plastic (PVC, LDPE, HDPE, PP, PA 6, PA 6 12, PA 12, PUR TPU, POM) on our modern extrusion equipment.

We will find the right coating for your spirals.

VORNBÄUMEN





APPLICATION

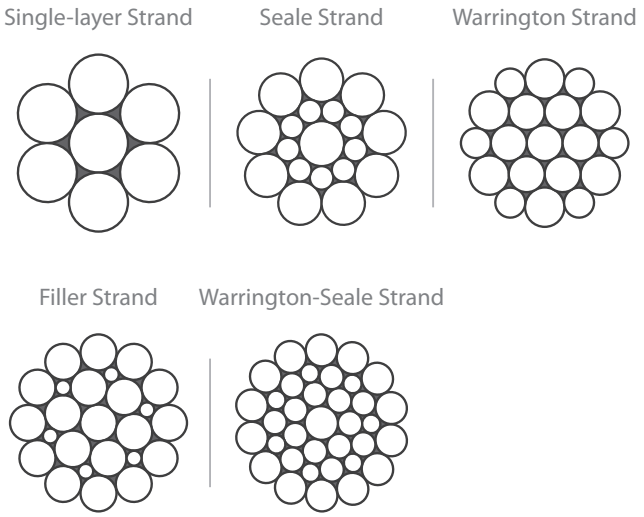
TECHNICAL NOTES
EXPLANATION OF SYMBOLS
SPECIAL WIRE ROPES / CRANE ROPES

TECHNICAL NOTES I

ROPE COMPONENTS

WIRE
The smallest component of a rope.

STRAND
The element of a rope that is composed of a construction of wires which are helically stranded in the same direction in one or more layers around a core.

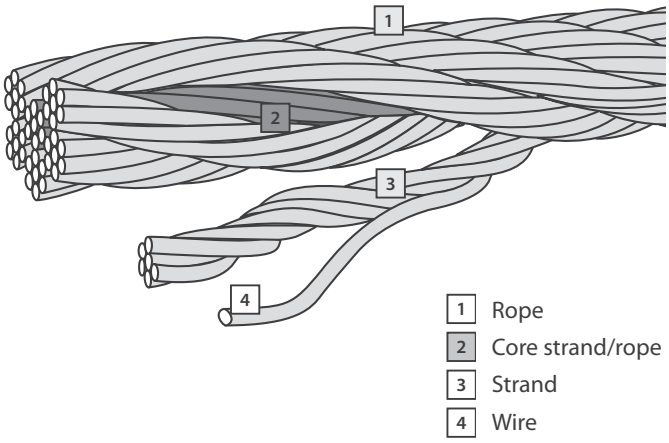


CORE
The element in the middle of a round rope, around which the strands of a stranded rope or the ropes of a cable laid rope are helically stranded.

Fibre core FC
- Natural fibre core NFC
- Synthetic fibre core SFC

Steel core WC
- Wire strand core WSC
- Independent wire rope core IWRC

ROPE
Combination of core and strands.



CLASSIFICATION OF ROPES ACCORDING TO THEIR INTENDED USE

RUNNING ROPES
Ropes that run over rollers, sheaves or reels and thus assume their bend.
Examples: hoisting ropes, crane ropes, lift ropes, scraper ropes and haulage ropes for cable cars.

STATIONARY ROPES
Ropes which are for the most part firmly clamped and not moved over rollers.
Examples: anchoring ropes for masts and booms and guide cables for lifts.

CARRYING ROPES
Ropes on which rolls of conveying devices run.
Examples: carrying ropes for cable cars, cable cranes and gravity return scrapers.

LIFTING SLINGS
Ropes which are used to suspend loads.

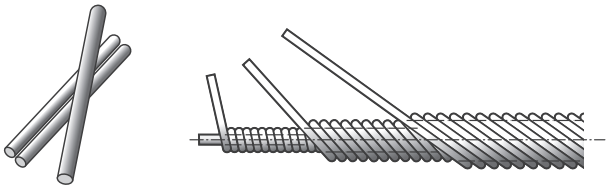
See EN 12385-2

TECHNICAL NOTES II

STRANDING TYPES

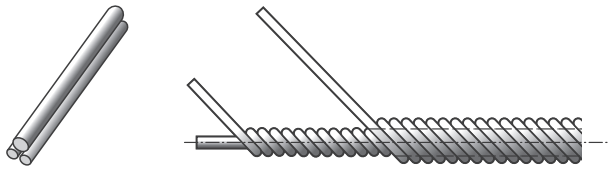
CROSS-LAY

Cross-laid strands consist of at least two layers of wire that are stranded in the same direction, and the wires of two superimposed layers cross and touch at specific points.



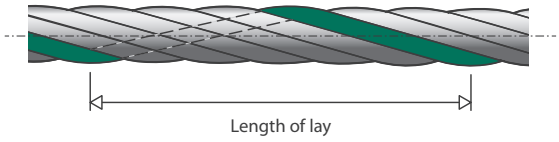
PARALLEL LAY

Parallel-laid strands consists of at least two wire layers that are all laid in one operation in the same direction. The lengths of lay of all wire layers are the same, and the wires from two superimposed layers are parallel, resulting in linear contact. Parallel lay ropes thus consist of at least two strand layers that are all laid helically around a rope core in a single operation.



LENGTH OF LAY

The length of lay of a strand is the lead of an external wire measured parallel to the strand's longitudinal axis as it makes a complete spiral around the axis of the strand.



TYPE OF LAY AND DIRECTION OF LAY

LANG LAY

The wires in the strands have the same direction of lay as the strands in the rope.

Lang lay
Right-hand zZ



Lang lay
Left-hand sS



ORDINARY LAY

The wires in the strands have the opposite direction of lay as the strands in the rope.

Ordinary lay
Right-hand sZ



Ordinary lay
Left-hand zS



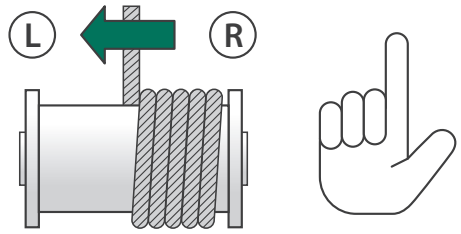
See EN 12385-2

TECHNICAL NOTES III

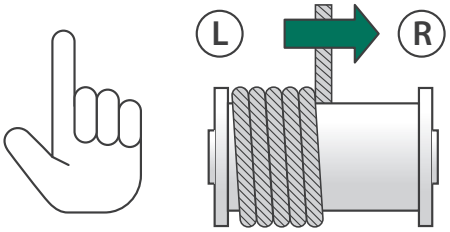
SELECTING THE DIRECTION OF LAY

WINDING FROM BELOW

Right-hand lay rope

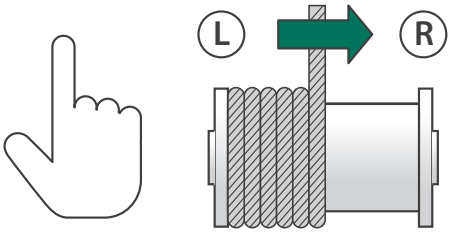


Left-hand lay rope

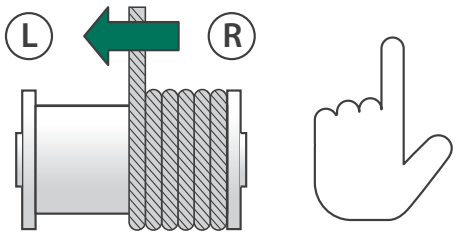


WINDING FROM ABOVE

Right-hand lay rope



Left-hand lay rope



See EN 12385-3

CALCULATION VARIABLES

FILLING FACTOR (f)

The relationship between the sum of the metallic nominal cross sections of all wires in the rope (A) and the area (Au) of the circle circumscribed by the rope with nominal diameter (d).

$$f = \frac{A}{Au}$$

METALLIC CROSS SECTION (A)

The product of the factor for the metallic nominal cross section (C) and the square of the rope's nominal diameter.

$$A = C \cdot d^2$$

MINIMUM BREAKING FORCE (F_{min})

A defined value in kN which must not be undershot by the measured breaking force (Fm) in a prescribed breaking force test. It is usually calculated as the product of the square of the nominal diameter (d), the rope grade (Rr) and the break force factor (K).

$$F_{min} = \frac{d^2 \cdot Rr \cdot K}{1.000}$$

CALCULATED BREAKING FORCE ($F_{e.min}$)

A defined value in kN which must not be undershot by the breaking force determined in a test. It is usually calculated as the product of the square of the rope diameter (d), the factor for the metallic cross section (C) and the rope grade (Rr).

$$F_{e.min} = \frac{d^2 \cdot C \cdot Rr}{1.000}$$

ACTUAL BREAKING FORCE (F_m)

The breaking force determined in a test according to a prescribed procedure.

CALCULATED LENGTH MASS (M)

A value which is calculated as the product of the factor for the calculated length mass (W) and the square of the rope's nominal diameter.

$$M = W \cdot d^2$$

See EN 12385-2

TECHNICAL NOTES IV

TABLE OF CALCULATION FACTORS

	FC			IWRC			WSC		
	W1	C1	K1	W2	C2	K2	W3	C3	K3
6 x 7	0.345	0.369	0.332	0.384	0.432	0.359	0.384	0.432	0.388
6 x 19	0.359	0.384	0.330	0.400	0.449	0.356	-	-	-
6 x 19M	0.346	0.357	0.307	-	-	0.332	0.381	0.418	0.362
6 x 36	0.367	0.393	0.330	0.409	0.460	0.356	-	-	-
6 x 37M	0.346	0.357	0.295	0.381	0.418	0.319	0.381	0.418	0.346
8 x 36	0.348	0.357	0.293	0.417	0.468	0.356	-	-	-
18 x 7	0.382	-	0.328	-	-	-	0.401	0.433	0.328

See EN 12385-4

K = minimum breaking force factor
C = factor for the metallic nominal cross section
W = factor for the calculated length mass

LIFTING CAPACITY

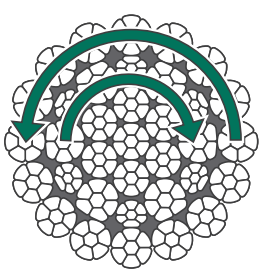
The lifting capacity of a rope is calculated from the minimum breaking force. This is divided by the prescribed safety factor for the respective application.

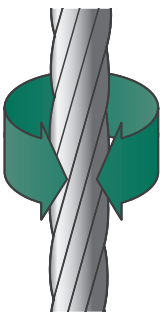
Example:

$$\text{safety factor 5} = \frac{\text{minimum breaking force}}{5}$$

ROTATIONAL PROPERTIES

Rotation-resistant ropes are ropes that are designed such that they create a reduced torque and a reduced rotation under load. In general, they are composed of a construction of at least two strand layers that are helically stranded around a core. The outer strand layers in this construction are stranded opposite to the strand layer below.





ROTATION-RESISTANT A

The rotational property is less than or equal to 1 rotation/1,000 d, when a load corresponding to 20% of the minimum breaking force is lifted; a swivel may be used.

ROTATION-RESISTANT B

The rotational property is greater than 1 rotation but less than 4 rotations/1,000 d, when a load corresponding to 20% of the minimum breaking force is lifted; a swivel may be used in accordance with the recommendations of the rope manufacturer and/or with the approval of a competent person.

NOT ROTATION-RESISTANT

The rotational property is greater than 4 rotations/1,000 d under a load corresponding to 20% of the minimum breaking force; a swivel should not be used.

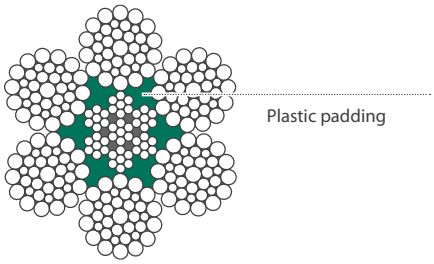
1 rotation = 360°
d = rope diameter
F_{min} = minimum breaking force of the rope

See EN 12385-3

TECHNICAL NOTES V

PLASTIC PADDING

The plastic padding supports the strands and stabilises the rope structure. The plastic encases the lubricated steel core and thus provides double protection. On the one hand, it encloses the lubricant on the inside and, on the other hand, it simultaneously keeps humidity and dirt particles away from the core. Furthermore, the plastic padding prevents direct friction between the strands in the rope and thus also helps to prevent premature wear. In addition, the rope structure is stabilised by the layer of plastic.



ADVANTAGES

Counteracts interior wire breaks
Preserves the lubrication on the steel core
Protects the core from humidity and dirt particles
Minimises friction losses
Improves shape stability
Absorbs vibrations

PLASTIC COATING

As an additional added value, we can coat our ropes with various common types of plastic on modern extrusion equipment. The following materials, among others, are processed: PVC, LDPE, HDPE, PP, PA 6, PA 6.12, PA 11, PA 12, PUR TPU and POM. These plastics can be laid around the rope in various processes, depending on the customer requirement and further use of the product.

Hose process: Simple coating, e.g., when the end fittings are later applied to the rope.
Pressure process: Very smooth, high-quality surface on the final coated product; very good connection between the coating and the rope.
Semi-process: Smoother surface than with the hose process but, depending on the rope construction, easier to strip than a coating in the pressure process.

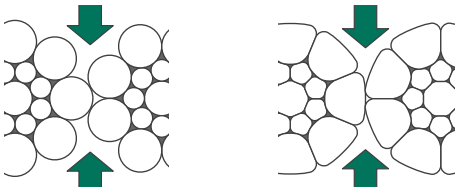
By adding colour granules, almost any colour setting is possible. Furthermore, the technical properties of the coating, e.g., friction values, can also be positively influenced with the appropriate additives. Here too we will gladly place our know-how at your disposal.

COMPACTION

To increase the breaking force of our products without increasing the diameter of the rope, we compact the strands, the rope or both in combination. In addition to higher metal cross section and the resulting higher breaking force, compacted ropes also have smoother strand and rope surfaces.
Compacted strands provide the rope with greater flexibility and minimise both friction and corrosion in the rope. In addition, they reduce the risk of negative imprints in the grooves of the rollers and improve the service life of the rope in the case of multi-layer winding.
Furthermore, the rope compaction increases the pressure stability and, due to a lower tendency to indent and optimised pressure distribution, again improves the properties of the rope for winding in multiple layers.

ADVANTAGES

- Increases the metallic cross section and the breaking forces
- Increases the surface contact between individual wires
- Achieves a smoother rope surface
- Improves the contact ratio between the rope and the rope groove
- Reduces the indenting of adjacent rope strands
- Improves the structure stability in the case of multi-layer windings



NOTES

ATTENTION



Selecting the right rope for the appropriate application requires great care. Using the wrong rope might have serious consequences, such as property damage or personal injury. The users must always be familiar with the correct procedures and pertinent safety regulations. If a product is used improperly or is overloaded, dangerous situations can arise. Selecting the correct rope is essential for special applications. Our experts will gladly advise you on selecting the right rope.

IMPORTANT

The maintenance, monitoring and discard criteria of wire ropes are described in detail in currently valid standards, such as DIN ISO 4309 and the guideline VDI 2358. In addition, please follow all regulations set by public authorities and by employer's liability insurance associations and follow the regulations of the respective device manufacturer as well.

The nominal tensile strengths of the wires listed in the product tables are specified in N/mm2.

You can find additional notes in our printed operating instructions for wire ropes or in the electronic version on our website.

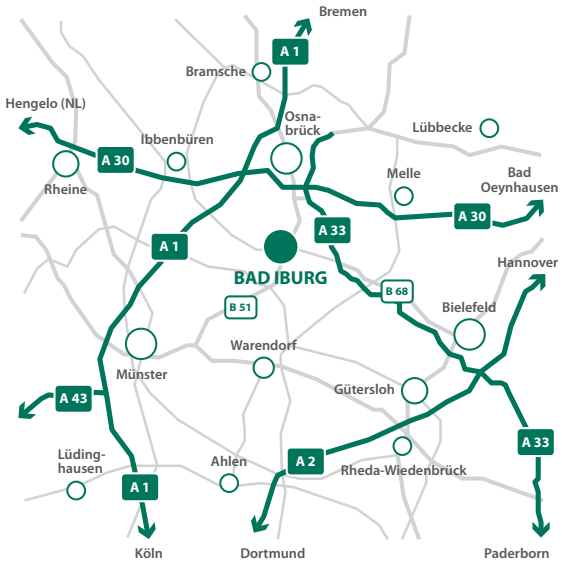
We reserve the right to make technical changes and we accept no liability for typographical and printing errors.

VORNBÄUMEN

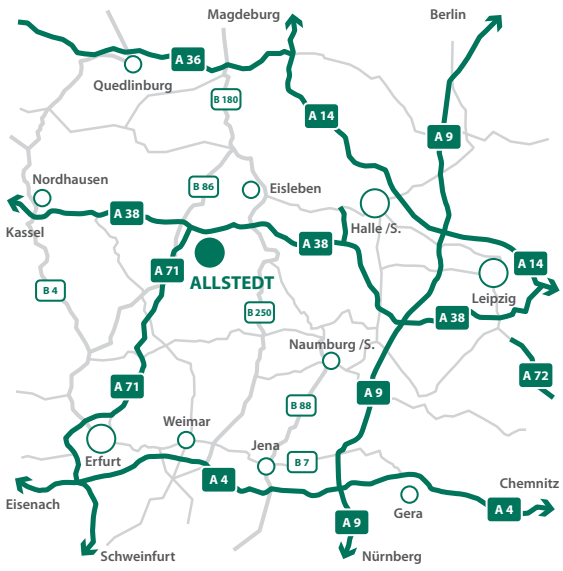
CONTACT INFORMATION

MANUFACTURING SITE FOR

WIRE ROPES, WIRE DRAWING MILL AND SALES OFFICE



ACTUATING PULLS





VORNBÄUMEN
Stahlseile GmbH & Co. KG

Münsterstraße 41
49186 Bad Iburg
GERMANY

Fon: +49 5403 4009 - 0
Fax: +49 5403 4009 - 99

www.vornbaeumen.de
sales@vornbaeumen.de

Google Maps

VORNBÄUMEN
Stahlseile GmbH & Co. KG

Fabrikstraße 5
06542 Allstedt
GERMANY

Fon: +49 34652 6709 - 0
Fax: +49 34652 6709 - 59

www.vornbaeumen.de
sales@vornbaeumen.de

Google Maps

Valid from 11/2022
Subject to technical modifications



VORNBÄUMEN

VORNBÄUMEN
Stahlseile GmbH & Co. KG

Münsterstraße 41
49186 Bad Iburg
GERMANY

Fon: +49 5403 4009 - 0
Fax: +49 5403 4009 - 99

www.vornbaeumen.de
sales@vornbaeumen.de

www.vornbaeumen.de

Valid from 11/2022
Subject to technical modifications