RORAJ INDUSTRIES PVT. LTD.

Stronger Together

BUSINESS COMPANY PROFILE

"Stronger Together: Crafting Quality Wire Ropes for Every Industry"

RORAJ INDUSTRIES PVT. LTD.

COMPANY INTRODUCTION

Welcome to Roraj Industries, your premier destination for wire rope solutions tailored to meet the needs of diverse industries. With precision engineering and a commitment to excellence, we deliver top-quality wire rope products designed to elevate performance across every sector.

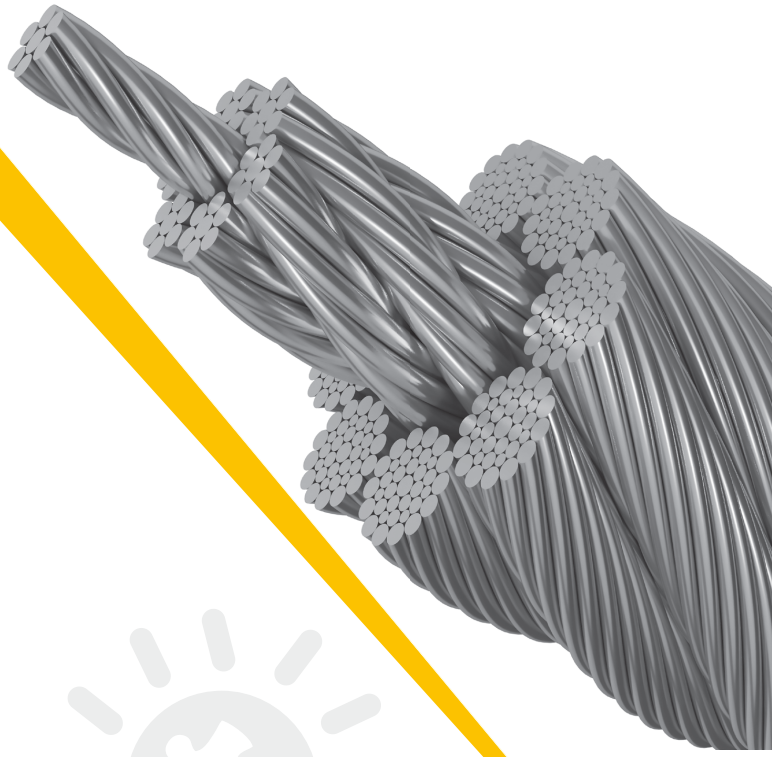
Roraj Industries is developing and fast growing manufacturer of Steel Wire rope in India and globally.

At Roraj Industries we have dedicated ourselves to perfection in the manufacture of bright wire ropes, wire strands, and wire rope slings. We believe that perfection is a continuous pursuit, and it is to that extent we have honed ourselves and our business. Our wide range of products meet the functional needs of a vast array of industrial applications.

The entirety of our product portfolio in wire ropes is focussed on stringent quality and safety criteria. We take pride in meeting these Safety and Quality requirements. All our products undergo rigorous testing at our Quality testing labs. Our wire rope products have met and passed some of the most stringent quality benchmarks in the wire ropes industry.

We have a widespread network of suppliers and distributors spanning a majority of the globe. We will ensure that your wire rope needs are met every time. You can always count on our team of specialists to provide you with all the operational assistance and support you need.

RORAJ INDUSTRIES PVT. LTD.



OUR VISION

At Roraj Industries, we envision a future where our wire ropes serve as the backbone of countless industries, enabling seamless operations and driving progress worldwide. We strive to build a cohesive community of stakeholders, empowering each other to thrive and innovate, while consistently setting the benchmark for quality and reliability in the wire rope industry. Together, we are stronger, crafting a sustainable future built on trust, integrity, and superior craftsmanship.

OUR MISSION

To be the leading provider of high-quality wire rope solutions tailored to meet the diverse needs of every industry. Strive for continuous innovation and improvement in our manufacturing processes to ensure the highest standards of quality and reliability. Foster strong partnerships with our clients, suppliers, and employees to create a collaborative environment where we can excel together. Maintain a commitment to sustainability and environmental responsibility in all aspects of our operations.

RORAJ INDUSTRIES PVT. LTD.

WIRE ROPE CORES

The core of a wire rope is the central member around which the main strands are laid. Its principal function is to support the strands and maintain them in their proper position when loads are applied. The four types of cores commonly used in wire ropes are independent wire ropes cores (IWRC). Wire strand cores (WSC), and fiber cores (FC) of either jute or synthetic fiber.

Independent Wire Rope Core (IWRC)

This is a separate wire rope used as a core in the main wire rope.

Wire Strand Core(WSC)

A single strand can be used as the core in a wire rope. The wire strand core may be of the same construction as the outer strands, or of different construction. A 6 strand rope with a wire strand core of a different construction from that of the main strands is called a 6 strand rope with WSC. lf the core is of the same construction, the rope is usually called a 7 strand rope for example, 7x7 or 7x19. Strand cores are limited to stranding ropes and small diameter running ropes.

Fiber Core(FC)

These cores are fiber rope normally made from synthetic but occasionally made from natural fibers.

PROPERTIES OF WIRE ROPE CORES

The type of core selected can affect the properties of a wire rope in several ways. An independent wire rope core or a wire strand core: (1) increases a ropes strength; (2) does not yield as readily to the compressive action of the outer strands of the rope as does the softer fiber core. and thus tends to preserve the circular cross section of a rope where subjected to crushing action from over winding, or a rope bent around small sheaves and drums while heavily loaded; (3) provides longer lasting support under heavy loading than a fiber core; and (4) is more resistant to heat than a fiber core. Rope with wire cores, because of their smaller amount of strength, is especially suitable for low elongation applications.

A fiber core:(1)is more flexible and thus permits a wire rope to conform more readily to small radii of curvature: and (2) is suitable for wire rope in some applications where shock loads are involved because of its resilience.

LUBRICATION

Lubrication is as necessary for a wire rope as it is for any machines. It does two important things: lt reduces internal friction in the rope, and it protects the wires from corrosion. The type of lubricant applied to the rope during fabrication the amount used and the method of application depend on the size and construction of the rope and on the general field of service for which it is intended. Relubrication during use is necessary to replenish the original lubricant as it becomes depleted.

HOW TO ORDER

When you are placing order or requesting for a quote please fill the following information:

1.Length: The length of each piece and number of pieces should be specified.
2. Diameter: Diameter should be specified.
3. Construction: Construction should be specified.
4. Finish: If no finish is specified, bright strand or rope will be furnished. If a galvanized products is request edit should be specified.
5.Grade: The grade should be stated, such as 160kg/mm2, 180kg/mm2,1770MPa or 1570N/mm2
6. Performing: When preformed Wire Rope is desired, the order should be stated, likewise, non-preformed rope should be specified if desired.
7. Lay: Both direction of lax and type of lay should be stated Right Lay will be furnished if no direction is specified. Regular lay will be furnished unless otherwise specified.
8. Core: The type of core desired must be stated.
9. Purpose: It is desirable to advise the purpose or intended end for the rope.

RORAJ INDUSTRIES PVT. LTD.

MAIN PRODUCTS

- STEEL WIRE ROPES
- AIRCRAFT CABLE
- STEEL WIRE ROPE FOR AUTOMOBILE WIRE
- STRAND FOR AUTOMOBILE(CONTROL CABLE)
- VINYL COATED CABLE
- WIRE STRAND FOR OVERHEAD CONDUCTOR
- STAINLESS CABLE
- GALVANIZED WIRE ROPE
- UNGALVANIZED WIRE ROPE
- PVC COTED WIRE ROPE

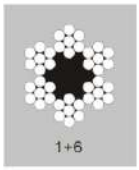
MANUFACTURING FACILITIES

ISO9001 QUALITY CONTROL SYSTEM

RORAJ INDUSTRIES PVT. LTD.

BREAKING LOAD & MASS FOR RORAJ INDUSTRIES

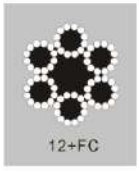
For Well Drilling and Mining Aerial Tramway, Stay, etc. (Galvanized & Bright)



6×7+FC

Diameter mm	Diameter inch	Approx Weight kg/100m	Minimum Breaking Strength in Kg 150kgf/mm²	165kgf/mm²	180kgf/mm²	195kgf/mm²
3	1/8	3.7	530	600	660	710
4	5/32	5.9	850	970	1,060	1,150
5	3/16	9.3	1,340	1,520	1,650	1,790
6	1/4	13.4	1,920	2,190	2,380	2,580
7	9/32	18.2	2,610	2,970	3,240	3,510
8	5/16	23.7	3,420	3,880	4,230	4,580
9	3/8	30.0	4,330	4,910	5,360	5,800
10	—	37.1	5,340	6,060	6,610	7,160
11	7/16	46.5	6,700	7,600	8,290	8,980
12	—	53.4	7,690	8,730	9,520	10,300
12.5	1/2	57.5	8,340	9,470	10,300	11,200
14	9/16	72.7	10,500	11,900	13,000	14,000
16	5/8	90.0	13,700	15,500	16,900	18,300
18	11/16	109.0	17,300	19,600	21,400	23,200
19	3/4	134	19,400	22,000	24,000	26,000
20	13/16	148	21,400	24,200	26,400	28,600
22	7/8	180	26,000	29,400	33,200	35,900
24	15/16	214	30,600	34,600	38,100	41,300
25	1	232	33,400	37,900	41,300	44,800

For Running Rigging, Lift Line, Mooring Lines,Towing Hawsers and General Engineering Marine Purposes (Galvanized & Bright)



6×12+7FC

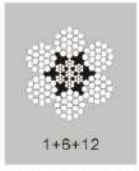
Diameter mm	Diameter inch	Approx Weight kg/100m	Minimum Breaking Strength in Kg 150kgf/mm²	165kgf/mm²
4	5/32	4.4	530	580
5	3/16	6.8	850	910
6	1/4	9.6	1,200	1,320
7	9/32	13.4	1,630	1,790
8	5/16	18	2,130	2,340
9	3/8	22.1	2,700	2,970
10	—	27.3	3,330	3,660
11	7/16	34.3	4,160	4,000
12	—	39.3	4,800	5,280
12.5	1/2	42.7	5,200	5,720
14	9/16	53.5	6,520	7,160
16	5/8	68.9	8,520	9,370
18	11/16	80.5	10,600	11,900
19	3/4	98.6	12,000	13,200
20	13/16	109	13,300	14,600
22	7/8	137	16,700	18,400
24	15/16	157	19,200	21,100
25	1	171	20,800	22,900
26	1 1/8	214	26,100	28,700

For Oil Well Drilling, Crane &Hoist, Marine Purpose , Mine Service and General Engineering Lashing Purposes (Galvanized & Bright)

6×19+FC

Diameter mm	Diameter inch	Approx Weight kg/100m	Minimum Breaking Strength in Kg 150kgf/mm²	165kgf/mm²	180kgf/mm²	195kgf/mm²
3	1/8	3.26	456	495	526	563
4	5/32	5.80	810	890	940	1,040
5	3/16	9.10	1,270	1,390	1,480	1,600
6	1/4	13.1	1,820	1,950	2,110	2,340
7	9/32	17.8	2,480	2,700	2,870	3,190
8	5/16	23.3	3,240	3,520	3,750	4,160
9	3/8	29.5	4,110	4,480	4,740	5,270
10	—	36.4	5,070	5,500	5,880	6,500
11	7/16	45.7	6,360	6,900	7,360	8,150
12	—	52.4	7,300	7,920	8,430	9,350
12.5	1/2	56.9	7,920	8,590	9,150	10,200
14	9/16	71.3	9,930	10,800	11,500	12,800
16	5/8	93.2	13,000	14,100	15,000	16,700
18	11/16	118	16,400	17,800	19,000	21,000
19	3/4	131	18,300	19,800	21,200	23,400
20	13/16	148	20,800	22,000	23,400	26,000
22	7/8	180	25,400	27,600	29,400	32,600
24	15/16	210	29,200	31,700	33,700	37,500
25	1	226	31,700	34,400	36,600	40,700
26		254	34,200	39,200	43,500	43,800
28	1 1/8	286	39,700	43,100	45,900	50,900
30	1 3/16	328	45,800	49,500	52,700	58,500
32	1 1/4	373	51,000	56,300	60,000	66,600
50	2	875	—	1205, 000	—	—

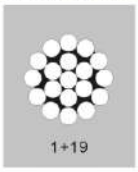
For Oil Well Drilling, Crane &Hoist, Marine Purpose , Mine Service and General Engineering Lashing Purposes (Galvanized & Bright)



6×19+IWRC

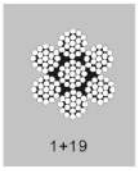
Diameter mm	Diameter inch	Approx Weight kg/100m	Minimum Breaking Strength in Kg 150kgf/mm²	165kgf/mm²	180kgf/mm²	195kgf/mm²
5	3/16	10.1	1,390	1,540	1,680	1,790
6	1/4	14.5	2,000	2,220	2,390	2,580
7	9/32	19.7	2,720	3,020	3,250	3,510
8	5/16	25.8	3,550	3,950	4,260	4,670
9	3/8	32.8	4,500	4,950	5,300	5,940
10	—	40.4	5,550	6,100	6,650	7,180
11	7/16	50.8	6,970	7,950	8,350	9,020
12	—	58.6	8,000	8,700	9,580	10,400
12.5	1/2	63.0	8,700	9,530	10,400	11,200
14	9/16	79.3	10,900	12,000	13,200	14,200
16	5/8	104	14,200	15,600	17,100	18,400
18	11/16	131	18,000	19,800	21,500	23,200
19	3/4	141	20,300	22,300	24,300	26,200
20	13/16	162	22,200	24,400	26,600	28,700
22	7/8	209	27,900	30,600	33,400	36,000
24	15/16	233	32,000	35,200	38,300	41,000
25	1	253	34,800	38,100	41,500	44,800
26		267	38,200	47,600	50,500	51,500
28	1 1/8	316	43,500	47,600	52,100	56,300
30	1 3/16	366	50,000	55,000	60,000	64,800
32	1 1/4	415	62,500	62,500	68,000	73,700

AVAILABLE CONSTRUCTIONS & SIZES



1×19

7×7



7×19

Const	Dia inch	Dia mm	Tolerance on diameter (Plus only) inch	Allowance (increase in diameter at unwound end) (max) inch	Nominal Breaking Load (min) kg	Approx Weight kg/100m
1x19	1/32	0.79	0.005	0.006	57	0.31
	3/64	1.19	0.005	0.008	131	0.71
	1/16	1.59	0.006	0.009	265	1.26
	5/64	1.98	0.006	0.009	363	2.08
	3/32	2.38	0.008	0.010	544	2.98
	7/64	2.78	0.011	0.010	726	4.02
	1/8	3.18	0.013	0.011	953	5.21
	5/32	3.97	0.016	0.016	1,497	8.19
	3/16	4.76	0.016	0.019	2,132	11.46
	7/32	5.56	0.016	0.020	2,858	15.18
	1/4	6.35	0.016	0.021	3,719	20.09
	9/32	7.14	0.016	0.023	4,593	25.40
	5/16	7.94	0.020	0.024	5,670	31.25
	3/8	9.52	0.023	0.027	8,765	45.16
	7/16	11.1	0.026	0.030	11,113	61.39
	1/2	12.5	0.026	0.033	14,516	77.85
7x7	3/64	1.19	0.030	0.008	122	0.63
	1/16	1.59	0.005	0.009	216	1.12
	5/64	1.98	0.010	0.009	336	1.74
	3/32	2.38	0.010	0.010	417	2.38
	7/64	2.78	0.012	0.010	573	3.44
	1/8	3.18	0.012	0.011	798	4.56
	5/32	3.97	0.014	0.017	1,180	7.01
	3/16	4.76	0.018	0.019	1,676	10.08
	7/32	5.56	0.018	0.020	2,280	13.75
	1/4	6.35	0.018	0.021	2,904	17.94
	9/32	7.14	0.018	0.023	3,629	22.68
	5/16	7.94	0.020	0.024	4,490	28.05
	3/8	9.52	0.022	0.027	6,468	40.32
7x19	1/16	1.59	0.026	0.009	216	1.12
	3/32	2.38	0.026	0.010	417	2.38
	1/8	3.18	0.012	0.011	756	4.32
	5/16	4.76	0.014	0.019	1,676	9.67
	1/4	6.35	0.018	0.021	2,903	16.37
	5/16	7.94	0.022	0.024	4,082	25.75
	3/8	9.52	0.026	0.027	5,443	36.18
	1/2	12.5	0.030	0.033	9,676	62.34
	5/8	16	0.037	0.039	15,120	120.14
	7/8	22	0.052	0.048	29,936	193.11
	1	25	0.060	0.050	38,710	249.38

Stainless Steel Wire Rope

7×19(6×19+SE)

AISI304 AISI316

Nominal Diameter D(mm)	Tolerance %	Weight per Unit of Length kg/m	Minimum Breaking Force kn When Tensile Strength= 1570N/mm²	1770N/mm²
3	+8 0	0.0342	--	5.29
4	+7	0.0609	--	9.40
5	0	0.0952	--	14.7
6	+6	0.138	--	21.2
7	0	0.187	--	28.8
8		0.243	33.3	37.6
9		0.308	42.2	47.6
10		0.381	52.1	58.8
11	+5	0.461	63.1	71.1
12	0	0.548	75.0	84.6
13		0.645	88.1	99.3
14		0.746	102	115
16		0.974	133	150

Stainless Steel Wire Rope

6×19

AISI304 AISI316

Nominal Diameter D(mm)	Tolerance %	Weight per Unit of Length kg/m	Minimum Breaking Force kn When Tensile Strength= 1570N/mm²	1570N/mm²
3	+8 0	0.0311	--	4.99
4	+7	0.0544	--	8.70
5	0	0.0865	--	13.6
6	+6	0.125	--	19.6
7	0	0.170	--	26.7
8		0.221	30.9	34.8
9		0.280	39.1	44.1
10		0.346	48.2	54.4
11	+5	0.419	58.4	65.8
12	0	0.498	69.5	78.3
13		0.585	81.5	91.9
14		0.678	94.6	107
16		0.886	124	139

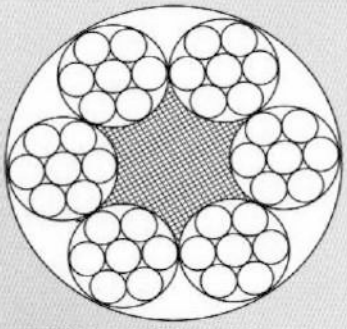
Stainless Steel Wire Rope

1×19

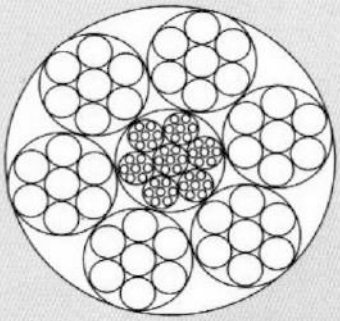
AISI304 AISI316

Nominal Diameter D(mm)	Tolerance %	Weight per Unit of Length kg/m	Minimum Breaking Force kn When Tensile Strength= 1570N/mm²	1570N/mm²
1	+5	0.00495	0.825	0.930
1.5	0	0.0111	1.86	2.09
2		0.0198	3.30	3.72
2.5		0.0310	5.15	5.81
3		0.0446	7.42	8.37
3.5		0.0607	10.1	11.4
4	+4	0.0793	13.2	14.9
5	0	0.124	20.6	23.2
6		0.178	29.7	33.5
7		0.243	40.4	45.6
8		0.317	52.8	59.5
9		0.401	66.8	75.3
10		0.495	82.5	93.0

BREAKING LOAD AND MASS FOR 6 ×7 (6/1) CONSTRUCTION



With Fibre Core

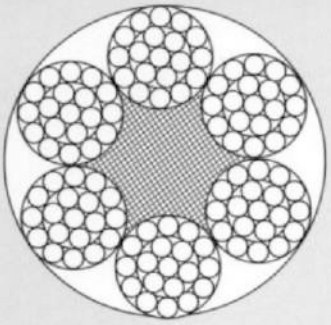


With Steel Core

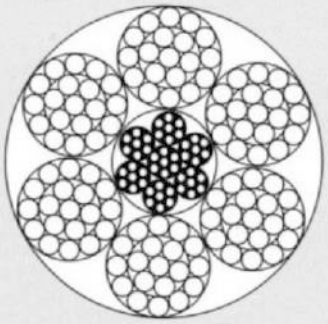
Nominal Diameter	Approximate		Minimum Breaking Load Corresponding To Tensile Designation of the Wires of					
			1570		1770		1960	
	Fibre Core	Steel Core	Fibre Core	Steel Core	Fibre Core	Steel Core	Fibre Core	Steel Core
(MM)	FC	SC	FC	SC	FC	SC	FC	SC
1	2	3	4	5	6	7	8	9
mm	kg/100m		kN	kN	kN	kN	kN	kN
2	1.43	1.57	–	–	2.4	2.5	2.6	2.8
3	3.22	3.54			5.3	5.7	5.9	6.3
4	5.72	6.29			9.4	10.2	10.4	11.3
5	8.94	9.83	–	–	14.7	15.9	15.3	17.6
6	12.9	14.9	–	–	21	23	23	25
7	17.5	19.3	–	–	20	31	32	34
8	22.9	25.2	33	36	38	41	42	45
9	28.9	31.8	42	45	48	51	53	57
10	35.7	39.3	52	56	59	63	65	70
11	43.2	47.6	63	68	71	77	79	85
12	51.5	56.6	75	81	85	91	94	101
13	60.4	66.4	88	95	99	107	110	119
14	70.1	77.0	102	110	115	124	128	138
16	91.5	101	133	144	151	162	167	180
18	116	127	169	182	190	206	211	228
19	129	142	188	203	212	229	235	254
20	143	157	209	225	235	254	260	281
22	173	190	252	273	285	307	315	340
24	206	227	300	324	339	366	375	405
26	242	266	352	381	397	429	440	475
28	280	308	409	441	461	498	510	551
32	366	403	534	577	602	650	667	721
36	463	509	676	730	762	823	844	911
40	572	629	834	901	941	1016	1042	1125

Note 1 - To obtain the calculated aggregate breaking loads of the ropes, multiply the figures given in col 4, 6 and 8 by 1.112 and those in col 5, 7 and 9 by 1.220.
Note 2 - The nominal diameter 19mm is non-preferred.

MASS & BREAKING FORCE FOR 6 × 19M (12/6-1) CONSTRUCTION ROPES



With Fibre Core

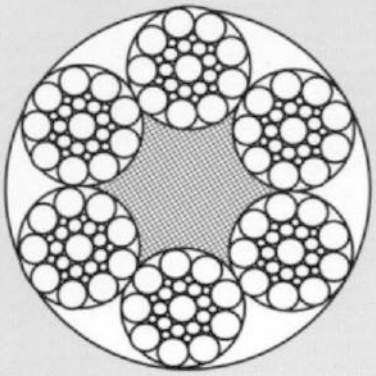


With Steel Core

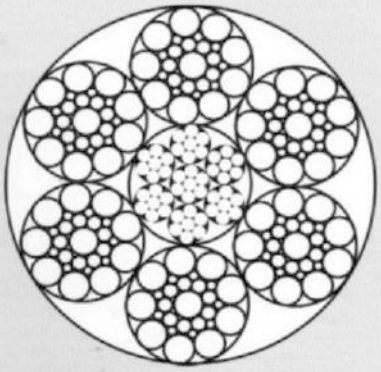
Nominal Diameter	Approximate		Minimum Breaking Force Corresponding to Rope Grade of					
			1570		1770		1960	
	Fibre Core	Steel Core	Fibre Core	Steel Core	Fibre Core	Steel Core	Fibre Core	Steel Core
(MM)	FC	SC	FC	SC	FC	SC	FC	SC
1	2	3	4	5	6	7	8	9
mm	kg/100m		kN	kN	kN	kN	kN	kN
3	3.11	3.43	_	_	4.9	5.3	5.4	5.9
4	5.54	6.09	_	_	8.7	9.4	9.6	10.4
5	8.65	9.52	_	_	13.6	14.7	15.1	16.3
6	12.5	13.7	_	_	19.6	21	22	23
7	17.0	18.8			27	29	30	32
8	22.1	24.4	31	33	35	38	39	42
9	28.0	30.8	39	42	44	48	49	53
10	34.6	38.1	48	52	54	59	60	65
11	41.9	46.1	58	63	66	71	73	79
12	49.8	54.8	69	75	78	85	87	94
13	58.5	64.3	82	88	92	99	102	110
14	67.8	74.6	95	102	107	115	118	128
16	88.6	97.4	124	133	139	150	154	167
18	112	123	156	169	176	190	195	211
19	125	137	174	188	196	212	217	235
20	138	152	193	208	218	235	241	260
22	167	184	234	252	263	284	292	315
24	199	219	278	300	313	338	347	375
26	234	257	326	352	368	397	407	440
28	271	298	378	409	426	461	472	510
32	354	390	494	534	557	602	617	666
36	448	493	625	675	705	761	781	843
38	500	550	697	752	785	848	870	939
40	554	609	772	843	870	940	964	1041
44	670	_	934	_	1053	_	1166	_
48	797	_	1112	_	1253	_	1388	_
52	936	_	1305	_	1471	_	1629	_

Note - To calculate the aggregate breaking force multiply the figures given in column 4, 6 and 8 by 1.163 and in column,5,7 and 9 by 1.25.
1) Wire strand core may be used for rope diameter 12 mm and below.

MASS AND BREAKING FORCE FOR 6 ×19S (9-9-1) CONSTRUCTION ROPES



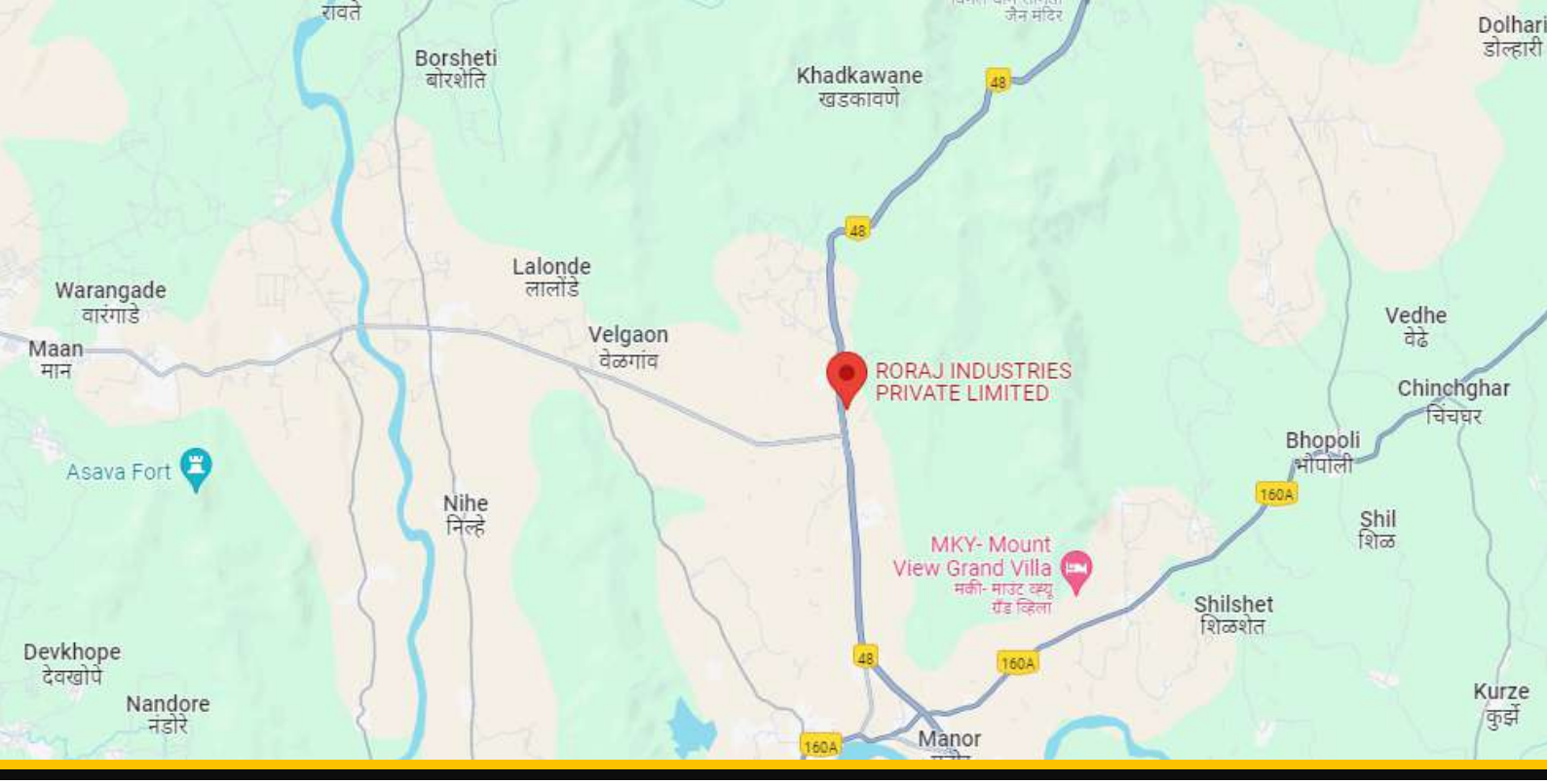
6×19 S (9-9-1)
With Fibre Core



6×19 S (9-9-1)
With Steel Core

Nominal Diameter	Approximate		Minimum Breaking Force Corresponding to Rope Grade of					
			1570		1770		1960	
	Fibre Core	Steel Core	Fibre Core	Steel Core	Fibre Core	Steel Core	Fibre Core	Steel Core
(MM)	FC	SC	FC	SC	FC	SC	FC	SC
1	2	3	4	5	6	7	8	9
mm	kg/100m		kN	kN	kN	kN	kN	kN
8	23.8	26.2	33	36	37	40	42	45
9	30.2	33.2	42	45	47	51	53	57
10	37.3	41.0	52	56	59	63	65	70
11	45.1	49.6	63	68	71	77	78	85
12	53.7	59.0	75	81	84	91	93	101
13	63.0	69.3	88	95	99	107	110	118
14	73.0	80.3	102	110	115	124	127	137
16	95.4	105	133	144	150	162	166	179
18	121	133	168	182	190	205	210	227
19	135	148	188	203	211	228	234	253
20	149	164	208	224	234	253	260	280
22	180	198	252	272	284	306	314	339
24	215	236	299	323	337	364	374	403
26	252	277	351	379	396	428	439	474
28	292	321	407	440	459	496	509	549
32	382	420	532	575	600	648	664	717
36	483	531	673	727	759	820	841	908
38	538	592	750	810	846	913	937	1012
40	596	656	831	898	937	1012	1038	1121
44	721	794	1006	1086	1134	1225	1256	1356
48	858	744	1197	1293	1350	1458	1495	1614
52	1008	1108	1405	1517	1584	1711	1754	1894

Note :- To calculate the aggregate breaking force, multiply the figures given in col 4, 6 and 8 by 1.163 and in col 5, 7 and 9 by 1.25
1) Wire strand core may be used for rope diameter 12 mm and below.



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Stronger Together

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