

Shaft Mining Rope Tables

Preferred Triangular Strand Winding Ropes

Nominal Rope Diameter (mm)	Con-struction	Estimated Mass (kg/m)	Estimated Breaking Force (kN)		Outer Wire Diameter (mm)
			1800MPa	1900MPa	
26,0	6x26Δ/F	2,80	480	504	2,50
27,0	6x26Δ/F	3,12	534	561	2,60
28,0	6x26Δ/F	3,26	558	586	2,70
29,0	6x26Δ/F	3,50	600	630	2,80
30,0	6x26Δ/F	3,76	645	677	2,90
31,0	6x26Δ/F	4,02	691	726	3,00
32,0	6x26Δ/F	4,29	738	776	3,10
33,0	6x26Δ/F	4,55	785	824	3,20
34,0	6x26Δ/F	4,85	836	878	3,30
35,0	6x27Δ/F	5,18	893	938	3,15
36,0	6x27Δ/F	5,51	951	999	3,25
37,0	6x27Δ/F	5,73	988	1038	3,30
38,0	6x28Δ/F	6,07	1045	1097	3,15
38,5	6x28Δ/F	6,26	1080	1134	3,20
39,0	6x28Δ/F	6,44	1111	1165	3,25
40,0	6x29Δ/F	6,78	1170	1227	3,10
41,0	6x29Δ/F	7,19	1242	1302	3,20
42,0	6x29Δ/F	7,47	1288	1351	3,25
43,0	6x30Δ/F	7,95	1371	1437	3,15
43,5	6x30Δ/F	8,02	1384	1451	3,15
44,0	6x30Δ/F	8,24	1421	1490	3,20
45,0	6x30Δ/F	8,71	1502	1575	3,30
46,0	6x31Δ/F	9,04	1557	1631	3,15
47,0	6x31Δ/F	9,31	1604	1680	3,20
48,0	6x31Δ/F	9,94	1715	1797	3,30
49,0	6x32Δ/F	10,14	1746	1829	3,15
50,0	6x32Δ/F	10,49	1804	1889	3,20
51,0	6x32Δ/F	11,13	1917	2008	3,30
52,0	6x33Δ/F	11,32	1945	2036	3,15
53,0	6x33Δ/F	12,04	2068	2165	3,25
54,0	6x33Δ/F	12,47	2140	2240	3,30
55,0	6x33Δ/F	12,88	2213	2316	3,35
56,0	6x33Δ/F	13,32	2284	2391	3,40
57,0	6x33Δ/F	13,74	2359	2469	3,45
58,0	6x33Δ/F	14,39	2475	2591	3,55
59,0	6x33Δ/F	14,84	2550	2670	3,60
60,0	6x33Δ/F	15,29	2630	2753	3,65

Shaft Mining Rope Tables

Ultra High Tensile Triangular Strand Winding Ropes

Nominal Rope Diameter (mm)	Con-struction	Estimated Mass (kg/m)	Estimated Breaking Force (kN)				Outer Wire Diameter (mm)
			1960 MPa	2000 MPa	2050 MPa	2100 MPa	
31,0	6x26Δ/F	4,02	747	761	778	796	3,00
32,0	6x26Δ/F	4,29	798	813	831	850	3,10
33,0	6x26Δ/F	4,55	848	864	884	904	3,20
34,0	6x27Δ/F	4,90	908	925	946	967	3,05
35,0	6x27Δ/F	5,18	964	982	1005	1027	3,15
36,0	6x28Δ/F	5,48	1017	1036	1059	1083	3,00
37,0	6x28Δ/F	5,83	1084	1104	1129	1154	3,10
38,0	6x28Δ/F	6,07	1128	1148	1174	1200	3,15
38,5	6x28Δ/F	6,26	1166	1187	1214	1240	3,20
39,0	6x29Δ/F	6,57	1220	1242	1270	1298	3,05
40,0	6x29Δ/F	6,78	1261	1284	1313	1341	3,10
41,0	6x29Δ/F	7,19	1339	1363	1393	1424	3,20
41,0	6x30Δ/F	7,24	1343	1367	1397	1427	3,00
42,0	6x30Δ/F	7,49	1393	1418	1449	1480	3,05
43,0	6x30Δ/F	7,95	1476	1503	1536	1569	3,15
43,5	6x30Δ/F	8,02	1491	1518	1552	1585	3,15
44,0	6x30Δ/F	8,24	1531	1558	1592	1627	3,20
44,0	6x31Δ/F	8,42	1560	1588	1622	1657	3,05
45,0	6x31Δ/F	8,73	1617	1646	1682	1718	3,10
46,0	6x31Δ/F	9,04	1676	1705	1743	1780	3,15
47,0	6x31Δ/F	9,31	1726	1757	1795	1834	3,20
47,0	6x32Δ/F	9,47	1752	1783	1822	1861	3,05
48,0	6x32Δ/F	9,81	1815	1847	1887	1926	3,10
49,0	6x32Δ/F	10,14	1878	1911	1952	1994	3,15
50,0	6x32Δ/F	10,49	1940	1974	2017	2059	3,20
50,0	6x33Δ/F	10,67	1966	2000	2043	2085	3,05
51,0	6x33Δ/F	11,03	2033	2068	2113	2157	3,10
52,0	6x33Δ/F	11,32	2091	2128	2173	2219	3,15
53,0	6x33Δ/F	12,04	2223	2262	2311	2359	3,25
54,0	6x34Δ/F	12,26	2258	2297	2346	2395	3,10
55,0	6x34Δ/F	13,10	2414	2456	2508	2560	3,20
56,0	6x34Δ/F	13,39	2468	2511	2564	2617	3,25
57,0	6x34Δ/F	13,79	2539	2583	2638	2693	3,30
58,0	6x34Δ/F	14,21	2620	2665	2722	2779	3,35

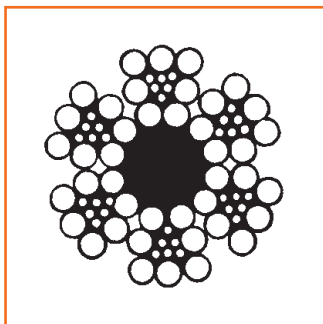
Large Diameter Ultra High Tensile Triangular Strand Winding Ropes

Nominal Rope Diameter (mm)	Construction	Estimated Mass (kg/m)	Estimated Breaking Force (kN)			Outer Wire Diameter (mm)
			1900 MPa	1960 MPa	2000 MPa	
54,0	6x32Δ/F	12,53	2259	2321	2361	3,50
55,0	6x32Δ/F	12,80	2309	2372	2414	3,55
56,0	6x32Δ/F	13,24	2385	2449	2492	3,60
57,0	6x32Δ/F	14,04	2528	2597	2643	3,70
58,0	6x32Δ/F	14,62	2630	2701	2749	3,78
59,0	6x32Δ/F	15,18	2736	2811	2860	3,86
60,0	6x32Δ/F	15,76	2845	2922	2974	3,94
54,0	6x33Δ/F	12,47	2240	2300	2340	3,30
55,0	6x33Δ/F	12,88	2316	2378	2420	3,35
56,0	6x33Δ/F	13,32	2391	2455	2498	3,40
57,0	6x33Δ/F	13,74	2469	2535	2580	3,45
58,0	6x33Δ/F	14,39	2591	2661	2707	3,55
59,0	6x33Δ/F	14,84	2670	2742	2790	3,60
60,0	6x33Δ/F	15,29	2753	2827	2876	3,65
61,0	6x33Δ/F	15,71	2833	2909	2960	3,70
62,0	6x33Δ/F	16,42	2948	3027	3080	3,78
63,0	6x33Δ/F	17,02	3062	3144	3199	3,86
64,0	6x33Δ/F	17,70	3181	3267	3324	3,94
65,0	6x33Δ/F	17,95	3226	3313	3371	3,94
66,0	6x33Δ/F	18,50	3333	—	—	4,02
67,0	6x33Δ/F	19,20	3458	—	—	4,10
68,0	6x33Δ/F	19,88	3585	—	—	4,18
54,0	6x34Δ/F	12,26	2200	2258	2297	3,10
55,0	6x34Δ/F	13,10	2352	2414	2456	3,20
56,0	6x34Δ/F	13,39	2404	2468	2511	3,25
57,0	6x34Δ/F	13,79	2473	2539	2583	3,30
58,0	6x34Δ/F	14,21	2551	2620	2665	3,35
59,0	6x34Δ/F	14,65	2634	2704	2751	3,40
60,0	6x34Δ/F	15,20	2728	2801	2849	3,45
61,0	6x34Δ/F	15,65	2813	2888	2937	3,50
62,0	6x34Δ/F	16,42	2948	3026	3079	3,60
63,0	6x34Δ/F	16,91	3039	3120	3174	3,65
64,0	6x34Δ/F	17,36	3116	3199	3255	3,70
65,0	6x34Δ/F	18,05	3239	3325	3383	3,78
66,0	6x34Δ/F	18,32	3286	3373	3431	3,78
67,0	6x34Δ/F	19,02	3411	3502	3563	3,86
68,0	6x34Δ/F	19,70	3540	3634	3697	3,94

Note: 6x32Δ/F or 6x33Δ/F constructions should be used in preference to the 6x34Δ/F construction.

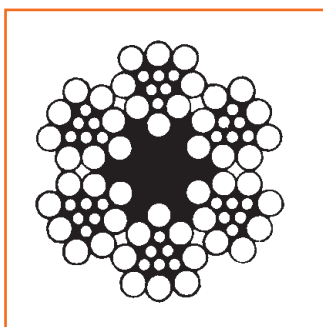
Simple Triangular Strand Winding Ropes

6x13(7/6/Δ)/F



Nominal Rope Diameter (mm)	Estimated Mass (kg/m)	Estimated Breaking Force (kN)	Outer Wire Diameter (mm)
		1800MPa	
13,0	0,76	119	1,40
14,0	0,89	141	1,52
15,0	1,02	162	1,64
16,0	1,13	180	1,72
17,0	1,29	206	1,84
18,0	1,47	233	1,96
19,0	1,64	262	2,08
20,0	1,83	293	2,20
21,0	1,99	316	2,28
22,0	2,19	349	2,40
23,0	2,37	378	2,50
24,0	2,59	411	2,60
25,0	2,86	457	2,75
26,0	3,06	490	2,85
27,0	3,30	528	2,95
28,0	3,52	564	3,05
29,0	3,74	601	3,15
30,0	4,02	643	3,25
31,0	4,36	700	3,40
32,0	4,61	741	3,50

6x14(8/6/ΔΔ)/F

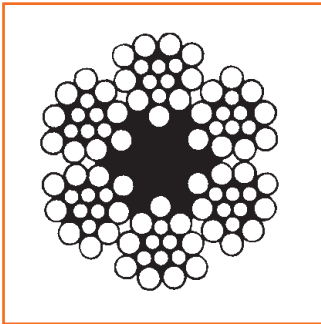


Nominal Rope Diameter (mm)	Estimated Mass (kg/m)	Estimated Breaking Force (kN)	Outer Wire Diameter (mm)
		1800MPa	
24,0	2,62	411	2,40
25,0	2,86	448	2,50
26,0	3,08	483	2,60
27,0	3,33	523	2,70
28,0	3,57	560	2,80
29,0	3,85	603	2,90
30,0	4,09	643	3,00
31,0	4,39	690	3,10
32,0	4,66	732	3,20

Shaft Mining Rope Tables

Simple Triangular Strand Winding Ropes

6x15(9/6 $\Delta\Delta$)/F

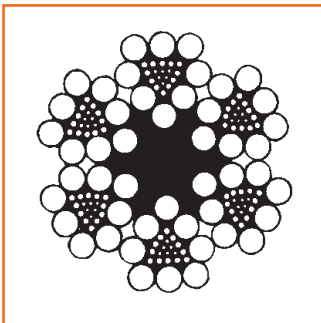


Nominal Rope Diameter (mm)	Estimated Mass (kg/m)	Estimated Breaking Force (kN)		Outer Wire Diameter (mm)
		1800MPa		
26,0	3,14	482		2,40
27,0	3,37	519		2,50
28,0	3,66	563		2,60
29,0	3,95	608		2,70
30,0	4,20	650		2,80
31,0	4,52	699		2,90
32,0	4,85	749		3,00
33,0	4,81	780		3,10
34,0	5,15	834		3,20
35,0	5,46	884		3,30
36,0	5,77	936		3,40

Plaited Triangular Strand Cores supplied in ropes above 32 mm diameter.

Compound Triangular Strand Winding Ropes

6x26(8/12/6 $\Delta\Delta$)/F

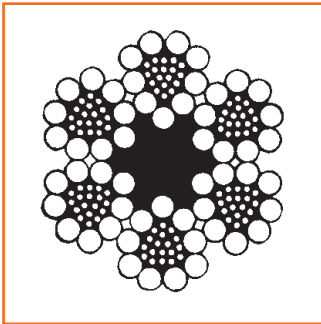


Nominal Rope Diameter (mm)	Estimated Mass (kg/m)	Estimated Breaking Force (kN)		Outer Wire Diameter (mm)
		1800MPa	1900 MPa	
22,0	2,07	343	361	2,12
23,0	2,24	371	390	2,20
24,0	2,47	410	431	2,32
25,0	2,72	451	474	2,44
26,0	2,80	480	504	2,50
27,0	3,12	534	561	2,60
28,0	3,26	558	586	2,70
29,0	3,50	600	630	2,80
30,0	3,84	638	671	2,90
31,0	4,11	684	719	3,00
32,0	4,39	732	769	3,10
33,0	4,70	781	821	3,20
34,0	4,96	829	871	3,30
35,0	5,22	873	918	3,40
36,0	5,54	927	974	3,50
37,0	5,88	982	1032	3,60
38,0	6,24	1039	1092	3,70

Shaft Mining Rope Tables

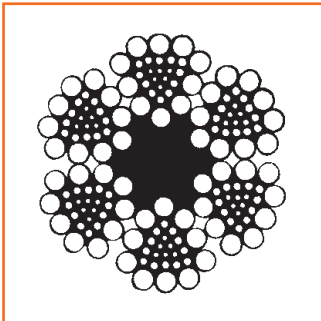
Compound Triangular Strand Winding Ropes

6x27(9/12/6 $\Delta\Delta$)/F



Nominal Rope Diameter (mm)	Estimated Mass (kg/m)	Estimated Breaking Force (kN)		Outer Wire Diameter (mm)
		1800MPa	1900 MPa	
30,0	3,93	650	682	2,70
31,0	4,09	676	710	2,75
32,0	4,39	726	763	2,85
33,0	4,69	778	817	2,95
34,0	5,01	831	873	3,05
35,0	5,18	893	938	3,15
36,0	5,51	951	999	3,25
37,0	5,73	988	1038	3,30
38,0	6,24	1038	1090	3,40

6x28(10/12/6 $\Delta\Delta$)/F



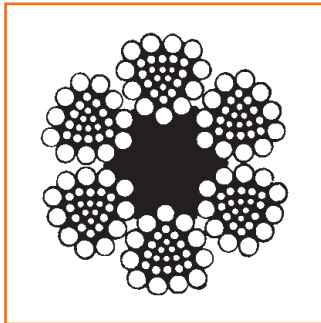
Nominal Rope Diameter (mm)	Estimated Mass (kg/m)	Estimated Breaking Force (kN)		Outer Wire Diameter (mm)
		1800MPa	1900 MPa	
32,0	4,41	728	765	2,65
33,0	4,76	786	825	2,75
34,0	4,94	816	857	2,80
35,0	5,13	883	926	2,90
36,0	5,48	943	990	3,00
37,0	5,83	1005	1055	3,10
38,0	6,07	1045	1097	3,15
38,5	6,26	1080	1134	3,20
39,0	6,44	1111	1165	3,25
40,0	6,82	1177	1235	3,35
41,0	7,03	1214	1274	3,40
42,0	7,43	1285	1349	3,50

Plaited Triangular Strand Cores supplied in ropes above 34 mm diameter.

Shaft Mining Rope Tables:

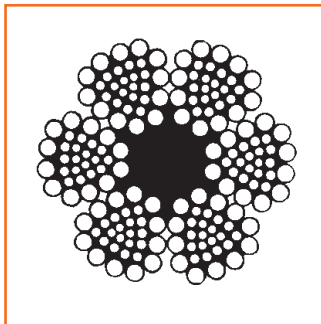
High Tensile Triangular Strand Winding Ropes

6x29(11/12/6 $\Delta\Delta$)/F



Nominal Rope Diameter (mm)	Estimated Mass (kg/m)	Estimated Breaking Force (kN)		Outer Wire Diameter (mm)
		1800MPa	1900 MPa	
34,0	4,91	846	888	2,65
35,0	5,14	885	928	2,70
36,0	5,49	947	993	2,80
37,0	5,86	1011	1060	2,90
38,0	6,17	1064	1115	2,95
39,0	6,57	1132	1187	3,05
40,0	6,78	1170	1227	3,10
41,0	7,19	1242	1302	3,20
42,0	7,47	1288	1351	3,25
43,0	7,90	1364	1430	3,35
44,0	8,16	1411	1479	3,40

6x30(12/12/6 $\Delta\Delta$)/F



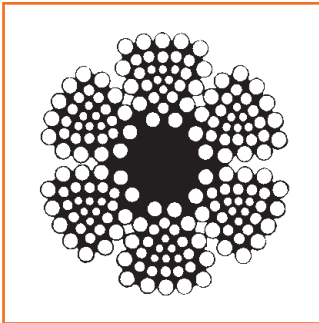
Nominal Rope Diameter (mm)	Estimated Mass (kg/m)	Estimated Breaking Force (kN)		Outer Wire Diameter (mm)
		1800MPa	1900 MPa	
24,0	2,51	408	427	1,72
25,0	2,73	444	466	1,80
26,0	2,96	482	505	1,88
27,0	3,23	525	550	1,96
28,0	3,47	566	593	2,04
29,0	3,73	608	638	2,12
30,0	3,91	637	668	2,16
31,0	4,18	682	715	2,24
32,0	4,50	739	775	2,32
33,0	4,81	788	826	2,40
34,0	5,11	838	878	2,48
35,0	5,40	885	928	2,55
36,0	5,61	965	1012	2,65
37,0	5,83	1001	1049	2,70
38,0	6,07	1044	1095	2,75
39,0	6,47	1114	1168	2,85
40,0	6,73	1160	1216	2,90
40,5	6,96	1199	1257	2,95
41,0	7,24	1246	1307	3,00
42,0	7,49	1293	1355	3,05
43,0	7,95	1371	1437	3,15
43,5	8,02	1384	1451	3,15
44,0	8,24	1421	1490	3,20
45,0	8,71	1502	1575	3,30
46,0	8,95	1547	1622	3,35
47,0	9,25	1599	1676	3,40
48,0	9,74	1685	1767	3,50

Plaited Triangular Strand Cores supplied in ropes above 35 mm diameter.

Shaft Mining Rope Tables

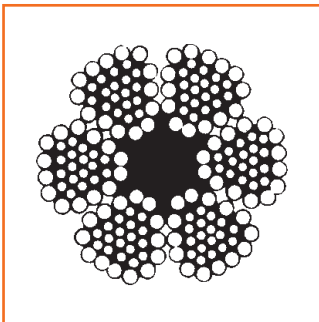
Compound Triangular Strand Winding Ropes

6x31(13/12/6 $\Delta\Delta$)/F



Nominal Rope Diameter (mm)	Estimated Mass (kg/m)	Estimated Breaking Force (kN)		Outer Wire Diameter (mm)
		1800MPa	1900 MPa	
40,0	6,86	1179	1235	2,75
41,0	7,14	1227	1285	2,80
42,0	7,66	1318	1381	2,90
43,0	7,96	1369	1435	2,95
44,0	8,42	1449	1518	3,05
45,0	8,73	1503	1574	3,10
46,0	9,04	1557	1631	3,15
47,0	9,31	1604	1680	3,20
48,0	9,94	1715	1797	3,30
49,0	10,15	1748	1831	3,35
50,0	10,81	1866	1955	3,45
51,0	11,10	1917	2009	3,50
52,0	11,45	1976	2071	3,55
53,0	11,81	2038	2136	3,60
54,0	12,43	2138	2240	3,70

6x32(14/12/6 $\Delta\Delta$)/F

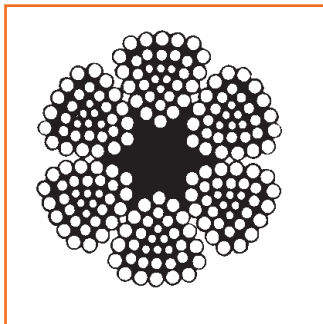


Nominal Rope Diameter (mm)	Estimated Mass (kg/m)	Estimated Breaking Force (kN)		Outer Wire Diameter (mm)
		1800MPa	1900 MPa	
42,0	7,50	1285	1346	2,70
43,0	7,78	1335	1398	2,75
44,0	8,09	1388	1453	2,80
45,0	8,66	1487	1557	2,90
46,0	8,97	1540	1613	2,95
47,0	9,47	1629	1706	3,05
48,0	9,81	1687	1767	3,10
49,0	10,14	1746	1829	3,15
50,0	10,49	1804	1889	3,20
51,0	11,13	1917	2008	3,30
52,0	11,50	1980	2073	3,35
53,0	11,87	2044	2140	3,40
54,0	12,53	2157	2259	3,50
55,0	12,80	2205	2309	3,55
56,0	13,24	2277	2385	3,60
57,0	14,04	2414	2528	3,70
58,0	14,62	2510	2630	3,78

Shaft Mining Rope Tables

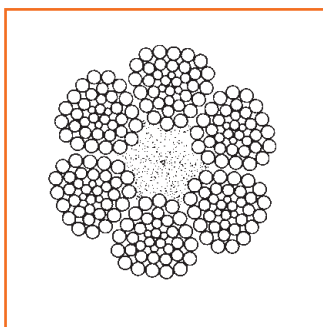
High Tensile Triangular Strand Winding Ropes

6x33(15/12/6 $\Delta\Delta$)/F



Nominal Rope Diameter (mm)	Estimated Mass (kg/m)	Estimated Breaking Force (kN)		Outer Wire Diameter (mm)
		1800MPa	1900 MPa	
50,0	10,67	1829	1914	3,05
51,0	11,03	1892	1980	3,10
52,0	11,32	1945	2036	3,15
53,0	12,04	2068	2165	3,25
54,0	12,47	2140	2240	3,30
55,0	12,88	2213	2316	3,35
56,0	13,32	2284	2391	3,40
57,0	13,74	2359	2469	3,45
58,0	14,39	2475	2591	3,55
59,0	14,84	2550	2670	3,60
60,0	15,29	2630	2753	3,65
61,0	15,76	2706	2833	3,70
62,0	16,42	2815	2948	3,78

6x34(16/12/6 $\Delta\Delta$)/F



Nominal Rope Diameter (mm)	Estimated Mass (kg/m)	Estimated Breaking Force (kN)		Outer Wire Diameter (mm)
		1800MPa	1900 MPa	
52,0	11,43	1959	2050	3,00
53,0	11,84	2030	2124	3,05
54,0	12,26	2102	2200	3,10
55,0	13,10	2247	2352	3,20
56,0	13,39	2298	2404	3,25
57,0	13,79	2363	2473	3,30
58,0	14,21	2438	2551	3,35
59,0	14,65	2517	2634	3,40
60,0	15,20	2607	2728	3,45
61,0	15,65	2688	2813	3,50
62,0	16,42	2817	2948	3,60
63,0	16,91	2904	3039	3,65
64,0	17,36	2977	3116	3,70
65,0	18,05	3095	3239	3,78
66,0	18,32	3140	3286	3,78
67,0	19,02	3260	3411	3,86
68,0	19,70	3383	3540	3,94