

High performance ropes for

SURFACE MINING

BruntonShaw
STRENGTH IN SERVICE



*A range of ropes
Specifically developed to
satisfy the demands of
the global surface mining
industry.*



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High performance ropes for

SURFACE MINING

Brunton Shaw is a successful manufacturer of high quality, high performance wire ropes which are designed to satisfy the technically demanding requirements of the Surface Mining Industry.



The company effectively combines more than 100 years of experience and tradition with an up to the minute range of products, and a customer service package ideal for the modern market place.

Brunton Shaw works in partnership with its customers, delivering quality assured, high performance products, backed by a commitment to service and continuous improvement. This dedication to serving customers has led to Brunton Shaw achieving sole supplier status with many of its partners, and becoming approved suppliers to many internationally recognised companies.



Our determination to deliver quality products backed by quality service has meant continuous investment in both plant and people, and this enables us to offer products which are fully tested and certified, produced through systems which are independently registered to BS EN ISO 9001.

In addition to our comprehensive range of wire rope and wire rope products, the majority of which are available from stock, we offer advice on rope handling, storage, installation, maintenance and lubrication. "Strength in Service" is the proud claim of Brunton Shaw, a claim we are more than delighted to substantiate. We look forward to offering that strength, and being of service, to all our customers.



Every rope manufactured by Brunton Shaw UK will satisfy the **Loadrite** strength testing requirement. This means that a sample from each production length is tested to destruction and must either equal or exceed the published minimum breaking load.



Brunton Shaw UK ensure correct and consistent diameter during manufacture by applying the rigorous **Sizerite** regime of diameter measurement throughout the production process.



Luberite ensures that during manufacture Brunton Shaw UK ropes are fully impregnated with a controlled amount of high performance lubricant designed to minimise corrosion and maximise rope life.

[Plastic Impregnated Rope (PIR)]

Plastic impregnated ropes are recommended for severe applications where the rope is exposed to high levels of wear and fatigue and Particularly where there is a possibility that abrasive dust, dirt or corrosive material might penetrate the rope during normal operation.



Plastic impregnated ropes have been successfully used on coal and ore unloaders and also in piling operations.

Brunton Shaw UK are able to offer most of the rope constructions shown in this catalogue as Plastic Impregnated Rope (PIR).



The steel wire rope is impregnated by a special process whereby the individual strand gaps within the rope are filled with a sealing thermo-plastic material forming a protective layer between the individual strands and around the core of the rope..

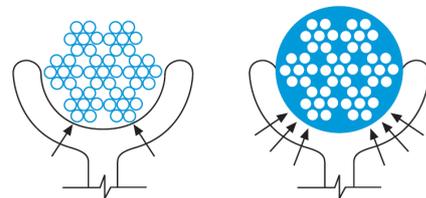
The end result is a balanced, sealed—lubricated wire rope that provides exceptional performance and extended service life when working under severe operating conditions.

Improved wear resistance - The plastic impregnation acts as a shield to prevent the ingress of solid abrasives and, combined with the locked in internal lubricant, reduces weakness due to internal deterioration.

Improved fatigue resistance - The plastic filling reduces wire contact bending stresses thereby improving load transfer and sharing between wires and strands. This results in continued flexibility and a considerable increase in the working life of the rope.

PIR for safety - High visibility bright orange plastic is used in the manufacture of PIR wire ropes. The resultant rope is clean as well as being easy and safe to handle.

Reduced drum and sheave wear - The plastic filling process results in a rope with a completely full cross section. A full pitch circle is presented to those parts of the machine which both cause wear to the rope and are worn by the rope.



Contact of conventional wire rope with the winding drum and sheaves inevitably leads to high pressure point contact where individual wires meet the contour of the groove. With PIR rope the load is spread and wear on both the rope and drum is minimised.

Less maintenance—lower cost - The increased lifetime associated with PIR rope results in decreased downtime because of fewer wire rope changes and less maintenance of drums and sheaves due to the polishing effect of the PIR fully circular cross section.



Minestar® 6

Typical constructions:- 6x36WS(1-7-7+7-14) - CWR
 6x41WS(1-8-8+8-16) - CWR
 6x49WS(1-8-8-8+8-16) - CWR



Minestar 6 is a high quality rope used for dragline and faceshovel applications.
 Can be supplied with a plastic impregnated core or fully **PIR** which is ideal for arduous applications where longer service life is required.



Independent wire rope core.
 A sample of rope from each production batch is tested to destruction to confirm compliance with catalogue breaking force values— **LOADRITE**.



Fully lubricated in manufacture— **LUBERITE**
 +2% to +4% close diameter tolerances for improved spooling control— **SIZERITE**.
 Can be supplied with Galvanised (B) finish.
 RHOL (sZ) as standard but available in other lay directions.
 Supplied in 1770N/mm² or 1960N/mm².

Nominal Rope Diameter mm	Approx. Diameter ins	Approx. length Mass (M) in air Kg/100m	Minimum Breaking Force (F _{min})				Metallic CSA (A) mm ²		
			Galvanised and Ungalvanised						
			Rope Grade						
			1770 N/mm ²		1960 N/mm ²				
			kN	tonnes	kN	tonnes			
36		531	817	83.3	904	92.2	620		
40		655	1010	103	1120	114	766		
44		793	1220	124	1350	138	927		
48	1 7/8	943	1450	148	1610	164	1103		
52	2	1111	1700	173	1890	193	1294		
56		1281	1980	202	2190	223	1501		
60	2 3/8	1471	2270	231	2510	256	1723		
64	2 1/2	1673	2582	263	2861	292	1962		
68		1889	2915	297	3230	329	2215		
72		2118	3268	333	3620	369	2483		
76	3	2360	3640	371	4033	411	2766		
80		2614	4034	411	4469	456	3065		
84		2882	4447	453	4927	502	3379		
88		3163	4881	498	5408	551	3709		
90	3 1/2	3309	5105	521	5656	577	3879		

Intermediate sizes also available.



Minemaster[®] 6

Typical constructions:- 6xK36WS(1-7-7+7-14) - CWR
6xK41WS(1-8-8+8-16) - CWR



Minemaster 6 is a high quality rope used for dragline and faceshovel applications. Can be supplied with a plastic impregnated core or fully **PIR** which is ideal for arduous applications where longer service life is required.



Independent wire rope core.

A sample of rope from each production batch is tested to destruction to confirm compliance with catalogue breaking force values— **LOADRITE**.

Minemaster 6 can be substituted for any six strand conventional rope construction to improve service life and reduce total cost.



High fatigue life resulting from unique compaction process.

Maximum resistance to crushing. Recommended for multi-layer spooling operations.

Increased abrasion resistance.



Fully lubricated in manufacture— **LUBERITE**.

+2% to +4% close diameter tolerances for improved spooling control— **SIZERITE**.

Can be supplied with Galvanised (B) finish.

RHOL (sZ) as standard but available in other lay directions.

Nominal Rope Diameter mm	Approx. Diameter ins	Approx. length Mass (M) in air Kg/100m	Minimum Breaking Force (F_{min})				Metallic CSA (A) mm ²		
			Galvanised and Ungalvanised						
			Rope Grade						
			1960 N/mm ²		2160 N/mm ²				
			kN	tonnes	kN	tonnes			
36		592	1065	108	1122	114	672		
38	1 1/2	643	1165	118	1192	121	749		
40		715	1295	132	1363	139	829		
42	1 5/8	791	1425	145	1500	153	914		
44		859	1505	153	1648	168	1004		
46		929	1665	169	1795	183	1097		
48	1 7/8	1030	1885	192	1950	199	1194		
50		1120	1975	201	2110	215	1296		
52	2	1190	2135	217	2275	232	1402		

Intermediate sizes also available.



Minestar® 8

Typical constructions:- 8x26WS(1-5-5+5-10) - CWR
8x31WS(1-6-6+6-12) - CWR



Minestar 8 is a high quality rope used for dragline and faceshovel applications.
Can be supplied with a plastic impregnated core or fully **PIR** which is ideal for arduous applications where longer service life is required.
Independent wire rope core.



A sample of rope from each production batch is tested to destruction to confirm compliance with catalogue breaking force values— **LOADRITE**.



Fully lubricated in manufacture— **LUBERITE**
+2% to +4% close diameter tolerances for improved spooling control— **SIZERITE**.
Can be supplied with Galvanised (B) finish.
RHOL (sZ) as standard but available in other lay directions.

Nominal Rope Diameter mm	Approx. Diameter ins	Approx. length Mass (M) in air Kg/100m	Minimum Breaking Force (F_{min})				Metallic CSA (A) mm ²
			Galvanised and Ungalvanised				
			Rope Grade				
			1960 N/mm ²		2160 N/mm ²		
			kN	tonnes	kN	tonnes	
38	1 1/2	629	1040	106	1128	115	632
40		703	1160	118	1249	127	700
42	1 5/8	784	1300	132	1378	140	772
44		866	1440	146	1512	154	847
46		929	1540	157	1652	168	926
48	1 7/8	1010	1680	171	1799	183	1008
50		1110	1830	186	1952	199	1094
52	2	1189	1313	134	1407	143	1183
54		1282	1416	144	1517	155	1276
56		1379	1523	155	1632	166	1372
58		1479	1634	167	1750	179	1472

Intermediate sizes also available.



Minemaster[®] 8

Typical constructions:- 8xK26WS(1-5-5+5-10) - CWR
8xK31WS(1-6-6+6-12) - CWR



Minemaster 8 is a high quality rope used for dragline and faceshovel applications. Can be supplied with a plastic impregnated core or fully **PIR** which is ideal for arduous applications where longer service life is required.



Independent wire rope core. A sample of rope from each production batch is tested to destruction to confirm compliance with catalogue breaking force values— **LOADRITE**.



Greater surface contact area resulting from the eight strand construction and compacted finish give longer rope life and reduced sheave wear.

High fatigue life resulting from unique compaction process.

Maximum resistance to crushing. Recommended for multi-layer spooling operations.

Increased abrasion resistance.

Fully lubricated in manufacture— **LUBERITE**

+2% to +4% close diameter tolerances for improved spooling control— **SIZERITE**.

Can be supplied with Galvanised (B) finish.

RHOL (sZ) as standard but available in other lay directions.

Nominal Rope Diameter mm	Approx. Diameter ins	Approx. length Mass (M) in air Kg/100m	Minimum Breaking Force (F _{min})				Metallic CSA (A) mm ²	Axial stiff- ness @ 20% of MBL MN
			Galvanised and Ungalvanised					
			Rope Grade					
			1960 N/mm2		2160 N/mm2			
			kN	tonnes	kN	tonnes		
38	1 1/2	681	1270	129	1354	138	737	71
40		752	1407	143	1501	153	817	78
42	1 5/8	800	1535	156	1648	168	901	86
44		878	1702	173	1815	185	988	95
46		960	1858	189	1982	202	1080	104
48	1 7/8	1044	2025	206	2158	220	1176	113
50		1135	2205	225	2345	239	1276	122
52	2	1219	2340	239	2490	254	1380	132
54		1320	2530	258	2680	273	1489	143
56	2 1/4	1424	2720	277	2890	295	1601	154
58		1523	2920	298	3100	316	1717	165
60		1644	3122	318	3315	338	1838	176

Intermediate sizes also available.

High performance ropes for

CRANES

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STRENGTH IN SERVICE

A Division of  Usha Martin UK Limited

BRUNTON SHAW UK

Head Office & Factory

Sandy Lane, Worksop
Nottinghamshire S80 3ES

T: +44 (0) 1909 537600

F: +44 (0) 1909 500199

sales@brunton-shaw.co.uk

www.brunton-shaw.co.uk

BRUNTON SHAW UK

Scottish Sales Office

5 Blair Court
Clydebank G81 2LA

T: +44 (0) 141 951 8801

F: +44 (0) 141 951 8802

sales@brunton-shaw.co.uk

www.brunton-shaw.co.uk

Brunton Shaw UK ropes
are manufactured under
an ISO 9001:2008 Regis-
tered Quality System



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