برنتن وايـر روبـس ش م ح

Brunton Wire Ropes FZCo.

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an usha martin Group company

www.bruntonwire.com

Designed & produced by Headliners

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Brunton Wire Ropes FZCo.

BRUNTON WIRE ROPES
THE SPECIALIST

We are **wire rope specialists** with **200+ years of group experience.** Located strategically at the crossroads of global supply chains, we serve **325+ customers globally.** Our facilities around the world have **12,800 km of annual production capacity.** Clocked **double-digit growth** across markets around the world.

BRUNTON WIRE ROPES FZCo

At a glance

One of 5 global plants of the Steel Rope & Wire giant, Usha Martin Group, located in Jebel Ali Free Zone, Dubai.

300% growth in 10 years. Supplying a range of wire ropes from 3mm – 77mm; complete solutions from a single plant.

More than 200 years of Group experience in evolving advanced rope designs, backed by R&D in Italy.

35 countries where products are sold - across Europe, North America, South America, North Asia, Australia, Africa, the Middle East & South East Asia.

Oil giants, Mining groups, Rigging companies & Elevator OEMs constitute the company's clients.

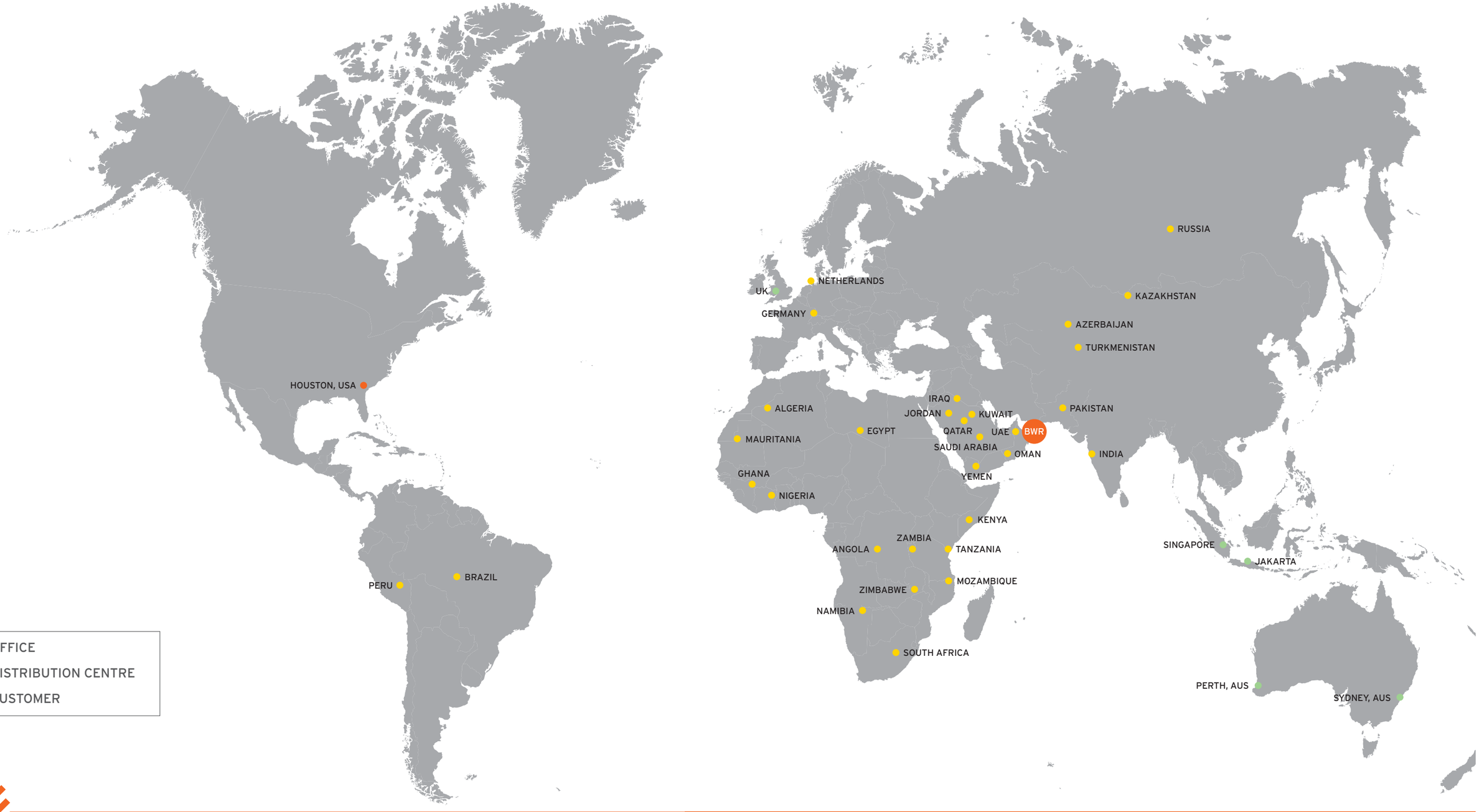
Oil & Gas, Crane, General Engineering, Fishing, Dredging, Mining & Elevator applications are the major consumers of steel wire ropes produced by the plant.

QMS, Lloyds & API certifications and monograms. Provisional membership of LEEA (Lifting Equipment Engineers' Association)

ISO/IEC 17025:2017 accredited lab. Elaborate testing facilities, from raw material to final product, give products a qualitative edge over competitors.

Swift deliveries anywhere in the world are the result of extensive inventory planning, logistical advantage and proximity to the large and efficient Jebel Ali Port in Dubai.

CUSTOMER SPREAD



BRUNTON WIRE ROPES
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CUSTOMERS THE GROUP SERVES

Schindler
OTIS
TKE
KONE
MITSUBISHI ELECTRIC
ELEVATORS AND ESCALATORS
ADANI
TOSHIBA
OCP
VALE
СУЭК
bp
SBM OFFSHORE
GROVE
Oman Oil Company
Port of Tacoma
People. Partnership. Performance.
ADES
TATA STEEL
MICT
Kuwait Drilling Company K.S.C
BKE
KAZAKHMYS
GAZPROM NEFT
Weatherford
PTP
Eni Saipem
BR PETROBRAS
ENRC
Chevron
SHELF DRILLING
APM TERMINALS
Lifting Global Trade
Technip
bhpbilliton
INTERMOOR
TEREX
PHUOCLONG ICD - PORT
PORT KLANG malaysia
NORTH AMERICAN COAL CORPORATION
FREEDOM MINE
SAGT
South Asia Gateway Terminals (Pvt.) Ltd.
Port of Colombo, Srilanka
Manitowoc
KOBELCO
Abraj Energy Services LLC
ANGLO AMERICAN
РУСАЛ
Coal India Ltd.
LIEBHERR
WESTMORELAND COAL COMPANY
DP WORLD
POTAIN
TADANO
GOTTWALD port technology
ROSNEFT

ACCREDITATIONS

Quality comes first. Our ropes undergo tough quality tests, including endurance testing and on-line magnetic evaluation to ensure that only those products which satisfy stringent quality testing are allowed to reach our customers. Our production and quality systems are designed and managed in accordance with our Quality Management System as per ISO 9001: 2015, ISO 14001: 2015, ISO 45001: 2018, Lloyd's, and API-9A. We have obtained provisional membership to LEEA (Lifting Equipment Engineers' Association) and expect to obtain full membership.

Brunton Wire Ropes slings are of exceptional quality and come with premium fittings of your choice.

We partner only with world-leading manufacturers of end terminations. Thus, our products meet and exceed the most exacting specifications. An ISO/IEC 17025:2017 - accredited lab with elaborate testing facilities gives our products a qualitative edge over competitors. Quality tracking is not restricted to thorough design and production controls on the assembly floor, but into the field where the customer uses them.

TODAY WE ARE ON THE VERGE OF HELPING OUR CUSTOMERS SOAR

THE OBJECTIVE OF EVERY BUSINESS IS NOT JUST TO CREATE VALUE, BUT TO ENHANCE IT.

BRUNTON WIRE ROPES
THE SPECIALIST

How have we enhanced value at BRUNTON WIRE ROPES?

By enhancing the efficiency of our customers.

For instance, correct tolerances ensure better lifting; higher breaking loads certify safety during site operations; flexibility of the wire rope prevents unnecessary deformations, and high quality guarantees no gaps between strands as well as long service lives.

Over the years, we have embarked on a number of customer efficiency-enhancing initiatives. Brunton Wire Ropes Rigging Solutions is the latest.

Formerly, dealers had to purchase wires from Brunton Wire Ropes; end terminations from another source, then turn ready wire ropes into slings and ship them to customer sites. By stepping into the rigging solutions market, Brunton Wire Ropes will simplify this process for rigging customers, considerably increasing their uptime and reducing costs.

While competitors purchase wire ropes and fittings from various manufacturers and add their rigging expertise, we make our own wire ropes. So, customers will be happier to rely on us for this entire process since we are specialists at producing high performance wire ropes.

As a subsidiary of the Steel Rope & Wire giant, Usha Martin Group, BRUNTON WIRE ROPES is uniquely placed to be a one-stop superstore for the widest range of off-the-shelf and customised slings and rigging products. Worldwide.

Our location next to Jebel Ali Port, Dubai, in the Free Trade Zone, makes us equidistant from major consuming markets of the world.

Whereas small rigging workshops purchase wire ropes from one source, fittings from another and put it all together on a third shop-floor, Brunton Wire Ropes, as a single integrated source, will benefit customers in more ways than one:

BRUNTON WIRE ROPES
THE SPECIALIST

First, on **Trust,** as a specialist producing high performance wire ropes.

Second, on **Reliability,** as customers are assured of unerring adherence to the same quality standards.

Third, on **Availability,** due to our logistical advantage ensuring 'just-in-time' supply that minimises customer inventory and downtime.

BRUNTON WIRE ROPES RIGGING SOLUTIONS WILL ENHANCE UPTIME AND LOWER COSTS

BRUNTON WIRE ROPES successfully pioneered incremental value in the steel wire rope business through a simple stated objective: **enhanced efficiency of our customers.**

We recognised that very large steel wire rope manufacturers are too volume-driven to customise their product to the requirement of each buyer. So, we positioned ourselves as a Real Solutions Provider.

Whereas, previously, customers would incur significant downtime and incremental costs first deciding on a wire rope of choice, then a rigging solutions workshop, followed by a dealer of both with logistical proximity, now things become different.

As a single window for the widest range of off-the-shelf and customised slings and rigging products, our Rigging Solutions division adds value not just by cutting down time for our customers, but by cutting down their costs from multiple transfers and commissions at multiple interfaces

Result: our customers not only get a product of superior design, engineered as per their special needs with an understanding of their regional requirements, but

delivered sooner and at a lower cost.

BRUNTON WIRE ROPES RIGGING SOLUTIONS WILL PROVIDE VALUE-ADDED CUSTOMER SERVICE

BRUNTON WIRE ROPES has benchmarked itself to international standards to provide a world class customer service. We have turned around one-time users to lifelong customers through an unforgettable after sales service.

For instance, in the rigging products and services space the demand for the world's most reliable end terminations is greater than supply. There are only a few at the top and our Rigging Solutions division partners with all of them.

If a customer has a preference for any one of them from past experience, chances are we have it. So, they are assured of consistency and reliability batch after batch.

Through these value added services, we have placed ourselves a step higher in a highly competitive industry environment and have ensured repeat business from our customers year after year.

World-leading manufacturers of end terminations partner with us, so we can partner our customers' growth at every step.

BRUNTON WIRE ROPES not only generates value for its customers but is also setting the benchmark in customer service for the industry.

BRUNTON WIRE ROPES RIGGING SOLUTIONS WILL NOT JUST SATISFY, BUT DELIGHT

BRUNTON WIRE ROPES' quality commitment is reflected in quality certifications that it has received. International and national standards & certifications include Lloyds Register, API 9A, Intertek, UKAS and BS EN ISO9001

The quality policy of the company is:

'We are committed to make all efforts to achieve customer satisfaction through the quality of our products and services'. Accordingly the company's quality standards are benchmarked to customer's expectations.

As a one-stop superstore for the widest range of off-the-shelf and customised slings and rigging products, Brunton Wire Ropes Rigging Solutions ensures unparalleled reliability, which translates to consistency for customers.

BRUNTON WIRE ROPES
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Consistency in quality means end customers do not have to adjust on-going rigging requirements every time a new order arrives. It also means that they can confidently use the rigging products sourced from BRUNTON WIRE ROPES without incurring batch-to-batch inspection costs.

Increased efficiencies lead to increased customer confidence and lower sales returns and rejects.

BRUNTON WIRE ROPES
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PARTNERING IN THE GROWTH OF OUR CUSTOMERS THROUGH PRIDE-ENHANCING ALLIANCES

SINGLE LEG SLINGS

A Brunton Wire Ropes' sling can meet or exceed the most exacting specifications. They are of exceptional quality with premium fittings.

1. Single leg sling with standard soft eyes on each end

2. Single leg sling with standard soft eyes on one end and thimble eye at other end

3. Single leg sling with standard thimble on each end

4. Single leg sling with Alloy masterlink at top and thimble eye at bottom

5. Single leg sling with Alloy masterlink at top and eye sling hook at bottom

6. Single leg sling with Alloy masterlink at top and eye selflocking hook at bottom

7. Single leg sling with Alloy masterlink at top and thimble eye at bottom c/w sliding chocker hook

- Flemish spliced eyes with steel ferrule or Turnback swaged with Aluminum ferrule.
- Option for steel tag.
- Quality controlled swaging process.
- Option for rope construction and finish (6 x 19/25/36 IWRC, Gal/Ungalv).
- Proof load testing available on request.
- Slings designed and made as per BS EN 13414-1 standard.

We use only wire ropes manufactured in-house.

TABLE 1 Capacity chart (Slings 1 to 6)

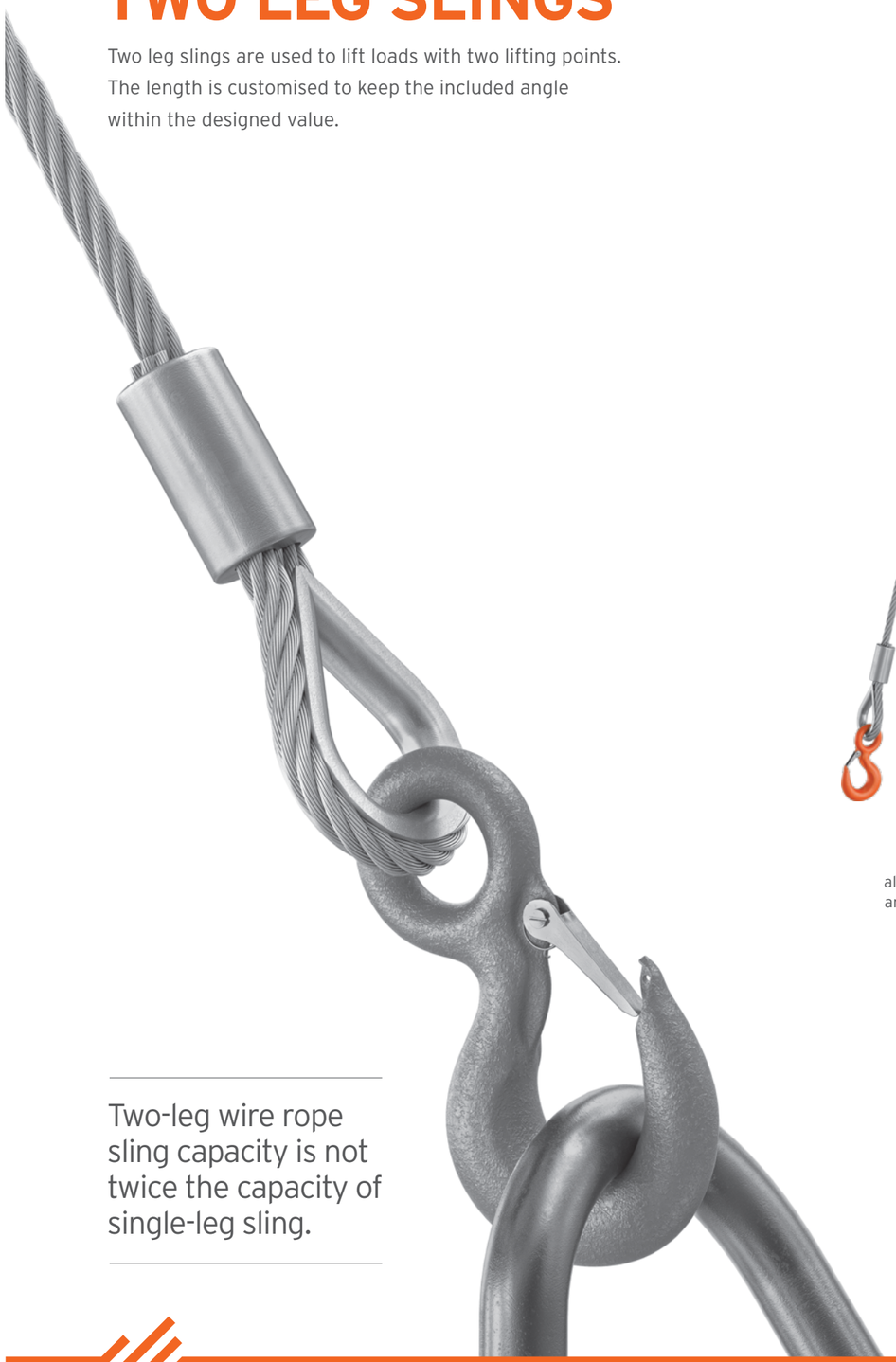
Dia. of Rope mm	Capacity, WLL tonne	Approximate Standard eye size
6	0.46	90 x 45
8	0.82	120 x 60
9	1.0	135 x 67
10	1.3	150 x 75
11	1.5	165 x 82
12	1.8	180 x 90
13	2.1	180 x 90
14	2.5	210 x 105
16	3.3	240 x 120
18	4.1	270 x 135
19	4.6	270 x 135
20	5.1	300 x 150
22	6.2	330 x 165
24	7.4	360 x 180
26	8.6	390 x 195
28	10.0	420 x 210
32	13.1	480 x 240
36	16.6	540 x 270
38	18.5	570 x 285
44	24.8	660 x 330
48	29.5	720 x 360
52	34.7	780 x 390
54	37.2	810 x 405
56	40.1	840 x 420
60	46.0	900 x 450
64	54.2	960 x 480

TABLE 2 Capacity chart (Sling 7 with choker hook)

Dia. of Rope mm	Capacity on choke, WLL tonne
12	1.4
13	1.6
14	2.0
16	2.6
18	3.2
19	3.6
20	4.0

TWO LEG SLINGS

Two leg slings are used to lift loads with two lifting points. The length is customised to keep the included angle within the designed value.



Two leg sling with alloy masterlink at top and eye sling hooks at bottom

Two leg sling with alloy masterlink at top and thimble eyes at bottom

TABLE 3 Capacity chart

Dia. of Rope mm	Capacity, WLL tonne at 0-45 Deg	Capacity tonne at 45-60 Deg
6	0.64	0.46
8	1.1	0.82
9	1.4	1.0
10	1.8	1.3
11	2.1	1.5
12	2.5	1.8
13	2.9	2.1
14	3.5	2.5
16	4.6	3.3
18	5.7	4.1
19	6.4	4.6
20	7.1	5.1
22	8.7	6.2
24	10.3	7.4
26	12.0	8.6
28	14.0	10.0
32	18.3	13.1
36	23.2	16.6
38	25.9	18.5
44	34.7	24.8
48	41.3	29.5
52	48.6	34.7
54	52.1	37.2
56	56.1	40.1
60	64.4	46.0
64	75.9	54.2

Two-leg wire rope sling capacity is not twice the capacity of single-leg sling.

- Flemish spliced eyes with steel ferrule or Turnback swaged with Aluminum ferrule.
- Option for steel tag.
- Quality controlled swaging process.
- Option for rope construction and finish (6 x 19/25/36 IWRC, Gal/Ungalv).
- Proof load testing available on request.
- Slings designed and made as per BS EN 13414-1 standard.

THREE LEG SLINGS

Three leg slings are used to lift loads with three lifting points. The length is customised to keep the included angle within the designed value.

Three leg sling with alloy master link assembly at top and eye sling hooks at bottom

Three leg sling with alloy master link assembly at top and thimble eyes at bottom

- Flemish spliced eyes with steel ferrule or Turnback swaged with Aluminum ferrule.
- Option for steel tag.
- Quality controlled swaging process.
- Option for rope construction and finish (6 x 19/25/36 IWRC, Gal/Ungalv).
- Proof load testing available on request.
- Slings designed and made as per BS EN 13414-1 standard.

TABLE 4 Capacity chart

Dia. of Rope mm	Capacity, WLL tonne at 0-45 Deg	Capacity tonne at 45-60 Deg	Dia. of Rope mm	Capacity, WLL tonne at 0-45 Deg	Capacity tonne at 45-60 Deg
6	0.96	0.69	24	15.5	11.1
8	1.7	1.2	26	18.0	12.9
9	2.1	1.5	28	21.0	15.0
10	2.7	1.9	32	27.5	19.6
11	3.1	2.2	36	34.9	24.9
12	3.8	2.7	38	38.9	27.7
13	4.4	3.1	44	52.1	37.2
14	5.2	3.7	48	62.0	44.2
16	6.9	4.9	52	72.9	52.0
18	8.6	6.1	54	78.1	55.8
19	9.6	6.9	56	84.2	60.1
20	10.7	7.6	60	96.6	69.0
22	13.0	9.3	64	114	81.3

Extra care should be taken to distribute the load evenly over the legs.

FOUR LEG SLINGS

Four leg slings are used to lift loads with four lifting points. The length is customised to keep the included angle within the designed value. We supply a variety of 4 leg wire rope slings, each with a different WLL (Working Load Limit.)

Four leg sling with alloy master link assembly at top and eye sling hooks at bottom

Four leg sling with alloy master link assembly at top and thimble eyes at bottom

- Flemish spliced eyes with steel ferrule or Turnback swaged with Aluminum ferrule.
- Option for steel tag.
- Quality controlled swaging process.
- Option for rope construction and finish (6 x 19/25/36 IWRC, Gal/Ungalv).
- Proof load testing available on request.
- Slings designed and made as per BS EN 13414-1 standard.

TABLE 5 Capacity chart

Dia. of Rope mm	Capacity, WLL tonne at 0-45 Deg	Capacity tonne at 45-60 Deg
6	0.96	0.69
8	1.7	1.2
9	2.1	1.5
10	2.7	1.9
11	3.1	2.2
12	3.8	2.7
13	4.4	3.1
14	5.2	3.7
16	6.9	4.9
18	8.6	6.1
19	9.6	6.9
20	10.7	7.6
22	13.0	9.3

Dia. of Rope mm	Capacity, WLL tonne at 0-45 Deg	Capacity tonne at 45-60 Deg
24	15.5	11.1
26	18.0	12.9
28	21.0	15.0
32	27.5	19.6
36	34.9	24.9
38	38.9	27.7
44	52.1	37.2
48	62.0	44.2
52	72.9	52.0
54	78.1	55.8
56	84.2	60.1
60	96.6	69.0
64	114	81.3

The Working Load capacity for 4 leg and 3 leg slings is the same.

SLINGS WITH SORTING HOOK

Sorting hooks are used in sundry sorting and laying operations - of plates, pipes, cylinders or tubes - where the full depth of the hook throat can be engaged. Used in multiple leg configurations, they are used to balance the load with attachments on multiple ends.

Two leg sling with master link at top and legs ending in sorting hooks.

Three leg sling with master link assembly at top and legs ending in sorting hooks.

Four leg sling with master link assembly at top and legs ending in sorting hooks.

Inspect your wire rope, slings, and assemblies regularly. The condition of your equipment is directly related to its service life.

TABLE 6
Capacity chart

Dia. of Rope mm	2 Leg Capacity, WLL tonne at 0-45 Deg	3 leg Capacity, WLL tonne at 0-45 Deg	4 leg Capacity, WLL tonne at 0-45 Deg
13	2.8 t at tip	4.2t at tip	4.2t at tip
16	2.8 t at tip	4.2t at tip	4.2t at tip

- Flemish spliced eyes with steel ferrule or Turnback swaged with Aluminum ferrule.
- Option for steel tag.
- Quality controlled swaging process.
- Option for rope construction and finish (6 x 19/25/36 IWRC, Gal/Ungalv).
- Proof load testing available on request.
- Slings designed and made as per BS EN 13414-1 standard.

PENDANTS WITH SWAGED SOCKETS

Wire rope pendants with swaged sockets are manufactured to precise lengths in different combinations or orientations of sockets. Swaged sockets are designed and swaged to provide 100% efficiency.

BWP-701: Single leg socket line with open swage socket each end, pins parallel

BWP-702: Single leg socket line with open swage socket each end, pins at right angles

BWP-703: Single leg socket line with open swage socket on one end and closed swage socket on other end, pins parallel

BWP-704: Single leg socket line with open swage socket on one end and closed swage socket on other end, pins at right angles

BWP-705: Socket line with closed swage socket each end, pins parallel

BWP-706: Single leg socket line with closed swage socket each end, pins at right angles

TABLE 7
Capacity chart

Dia. of Rope mm	Capacity, WLL tonne
10	1.4
11	1.6
12	2.0
13	2.3
14	2.7
16	3.6
18	4.5
19	5.1
20	5.6
22	6.8
24	8.2
26	9.5
28	11.1
32	14.5
36	18.4
38	20.5
44	27.5

Each pendant is proof load tested and marked with its WLL.

- Quality controlled swaging process.
- Proof load testing available on request.
- Compacted or non-compacted ropes of any construction and finish. Pre-stretched or non-pre-stretched.
- Pendants designed and made as per BS EN 13411-8 standard.
- Option for steel tag.

PENDANTS/RAISING LINES WITH SPELTER SOCKETS

Wire rope pendants with spelter sockets are manufactured to precise lengths in different combinations/orientations of sockets. Spelter sockets are designed and socketed by trained technicians to provide 100% efficiency.

BWP-801: Socket line with open spelter socket each end, pins parallel

BWP-802: Socket line with open spelter socket each end, pins at right angles

BWP-803: Socket line with open spelter socket on one end and closed spelter socket on other end, pins parallel

BWP-804: Socket line with open spelter socket on one end and closed spelter socket on other end, pins at right angles

BWP-805: Socket line with closed spelter socket each end, pins parallel

BWP-806: Socket line with closed spelter socket each end, pins at right angles

- Option for steel tag.
- Quality controlled process.
- Resin socketed with WIRELOCK
- Compacted or non-compacted ropes of any construction and finish. Pre-stretched or non-pre-stretched.
- Proof load testing available on request.
- Slings designed and made as per BS EN 13411-4 standard.

Each pendant is proof load tested and marked with its WLL.

TABLE 8
Capacity chart

Dia. of Rope mm	Capacity, WLL tonne
10	1.4
11	1.6
12	2.0
13	2.3
14	2.7
16	3.6
18	4.5
19	5.1
20	5.6
22	6.8
24	8.2
26	9.5
28	11.1
32	14.5
36	18.4
38	20.5
44	27.5
52	38.5
54	41.3
56	44.5
60	51.1
64	60.2

HEAVY LIFT SLINGS - GROMMETS

Cable-laid grommets are slings in the form of a continuous/endless loop. These slings are constructed from one continuous length of unit rope that is spirally wound to form a six over one construction. That means that the ends of the wire rope are tucked into the grommet through a splicing process in order to form the core. These slings give great flexibility and are made in accordance with BS EN 13414-3 and/or IMCA M179.

TABLE 9
Capacity Chart

Grommet diameter	Component rope diameter	MBL acc. EN 13414-3	WLL acc. EN 13414-3	MBL acc. IMCA M 179	WLL acc. IMCA M 179	Safety factor
mm	mm	metric tons 1,000kg	metric tons 1,000kg	metric tons 1,000kg	metric tons 1,000kg	
24	8	49.22	9.84	46.49	9.31	5.00
27	9	62.33	12.47	58.87	11.77	5.00
30	10	76.87	15.37	72.60	14.52	5.00
33	11	93.06	18.61	87.89	17.58	5.00
36	12	111.23	22.25	105.05	21.01	5.00
39	13	129.95	25.99	122.73	24.55	5.00
42	14	150.88	30.18	142.50	28.50	5.00
48	16	197.13	39.43	186.18	37.24	5.00
54	18	248.89	49.78	235.06	47.01	5.00
60	20	307.26	61.45	290.19	58.04	5.00
66	22	372.24	76.28	351.56	72.04	4.88
72	24	442.72	93.20	418.12	88.03	4.75
78	26	519.81	112.76	490.93	106.49	4.61
84	28	602.41	134.47	568.94	127.00	4.48
90	30	691.61	158.99	653.19	150.16	4.35
96	32	787.42	186.59	743.68	176.28	4.22
102	34	888.74	217.30	839.37	205.22	4.09
108	36	996.67	252.32	941.30	238.30	3.95
114	38	1,110.10	290.60	1,048.43	274.46	3.82
120	40	1,230.14	333.37	1,161.80	314.85	3.69
126	42	1,356.79	381.12	1,281.42	359.95	3.56
132	44	1,488.95	434.11	1,406.23	409.98	3.43
144	48	1,771.98	560.75	1,673.54	529.60	3.16
156	52	2,079.24	719.46	1,963.73	679.49	2.89

HEAVY LIFT SLINGS: 9 PART SLINGS

9-part slings are designed for heavy lifting and are one of the most flexible wire rope slings that meet the international industrial standards. These slings have parallel laid wire ropes at the eyes for better bearing surface and are mechanical Flemish spliced with steel sleeves. Short lengths can be fabricated for restricted lift height.

- Made in UAE with wire ropes by Brunton Wire Ropes
- Manufactured in a 9 strand configuration
- Fabricated in 9x(6x36WS + IWRC), Tensile Strength 1960N/mm2/ EEIPS
- Slings upto 3000 MT CSBL
- Standards in place to ensure effective working length tolerance
- Manufactures in accordance with ASME B30.9, wire rope technical board, IMCA 179 standards
- Greater flexibility, reduced weight and non-twisting characteristics
- Increased number of ropes in the eye leads to higher efficiency by parallel positions of unit ropes in the sling eye
- Terminated using flemish eye and steel ferrule
- Supplied with an in-house test certificate; 3rd party certification from DNV-GL, ABS, BV, TUV etc available upon request.

TABLE 10
Capacity Chart

Rope Dia (MM)	Sling Dia (MM)	Rated Capacity (Tons)			Eye Dimensions	
		Vertical	Choker Hitch	Basker Hitch		
					Eye Width (mm)	Eye Length (mm)
6	24	3.6	2.7	7	120	240
8	32	6.5	4.9	13	160	320
10	40	10	7.5	20	200	400
13	52	17	12.8	34	260	520
14	56	19	14.3	38	280	560
16	64	25	18.8	50	320	640
19	76	36	27.0	72	380	760
22	88	49	36.8	98	440	880
26	104	68	51.0	136	520	1040
28	112	79	59.3	158	560	1120
32	128	103	77.3	206	640	1280
36	144	131	98.3	262	720	1440
38	152	146	109.5	292	760	1520
44	176	195	146.3	390	880	1760
52	208	274	205.5	548	1040	2080
56	224	317	237.8	634	1120	2240
64	256	414	310.5	828	1280	2560
71	284	510	382.5	1020	1420	2840
76	304	585	438.8	1170	1520	3040

BRUNTON
WIRE ROPES
THE SPECIALIST

OUR ABILITY TO RAISE THE BAR KEEPS OUR CUSTOMERS COMING BACK FOR MORE

VALUE ADDED SERVICES

1

Rental of spooling machine

Installing steel wire ropes in multi-layer systems requires careful attention and specialized equipment like spooling machines. Installation must always be performed by trained personnel. During the spooling operation, the correct tension must be applied to avoid severe and costly damage to the steel wire ropes.

- 60-ton capacity
- Back tension
- Diesel engine driven
- Qualified spooling personnel

2

Proof load testing of heavy lift slings and shackles:

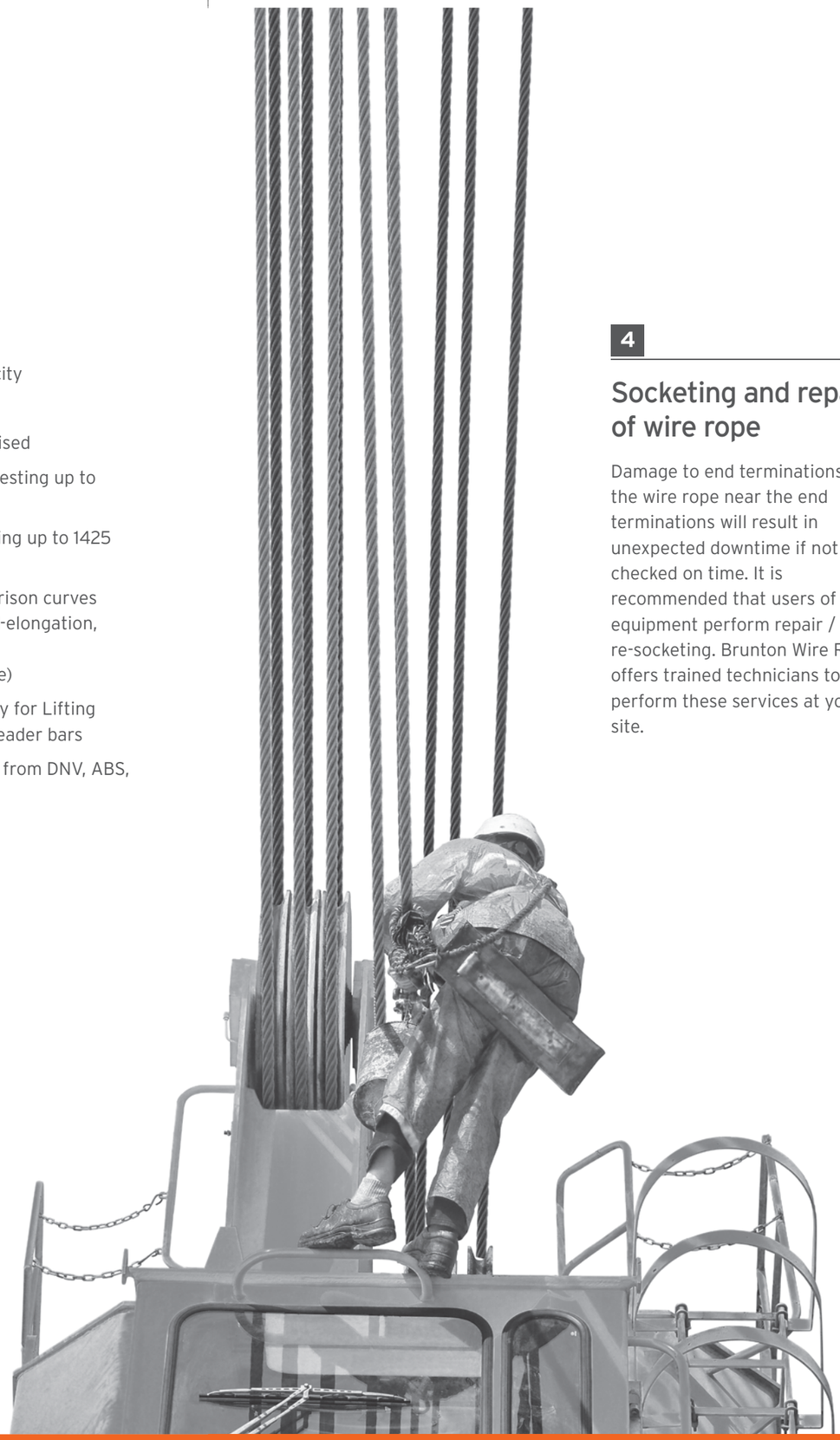
It is often required that the slings and shackle are load tested as per the inspection scheme or as per the manufacturing requirement. Brunton Wire Ropes offers load test facility for all types of slings, shackle, hook block, spreader beams etc. Getting your slings tested and rated by the manufacturer is further guarantee for quality of your equipment.

- 1500-ton capacity
- 85m long
- Fully computerised
- Breaking load testing up to 1125 ton
- Proof load testing up to 1425 ton
- Various comparison curves available (Load-elongation, Load-time and Elongation-time)
- Separate facility for Lifting beams and spreader bars
- Test certificate from DNV, ABS, TUV, BV

3

Wire rope installation and removal services

Trained technicians from Brunton Wire Ropes can be sent to your site for wire rope installation and removal services.



4

Socketing and repair of wire rope

Damage to end terminations or to the wire rope near the end terminations will result in unexpected downtime if not checked on time. It is recommended that users of such equipment perform repair / re-socketing. Brunton Wire Ropes offers trained technicians to perform these services at your site.

5

Relubrication & cleaning of wire rope

Build-up of contamination on rope surface will increase the wear and tear of the rope, this reduces the life span of rope. Brunton Wire Ropes recommends that the ropes are regularly inspected, cleaned, and relubricated. Trained technicians from Brunton Wire Ropes remove contamination or build-up, and remove old lubricant from the wire rope prior to re-lubrication, thereby improving the effectiveness of the process.

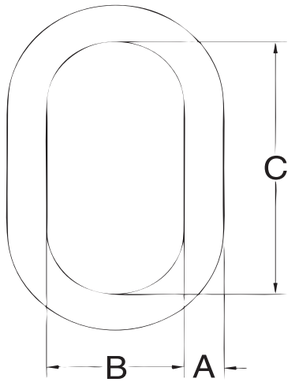
6

Inspection of wire rope

Wire ropes must be considered as an equipment, not merely as a spare part. Wire ropes need to be serviced and inspected at regular intervals to ensure reliable performance and avoid unexpected downtime. Brunton Wire Ropes offers inspection services both visual and MPI.

ALLOY MASTER LINKS

AS SUPPLIED BY Crosby®



- Alloy steel – quenched and tempered
- Individually proof tested to values shown, with certification
- Proof Tested with 60% inside width special fixtures sized to prevent localised point loading, as per ASMEA-952.
- Forgings have a Product Identification Code (PIC) for material traceability, along with the size, the name Crosby and USA raised in lettering
- Selected sizes designated with "W" in the size column have enlarged inside dimensions to allow additional room for sling hardware and crane hook.
- Crosby 7/8" to 2" A-342 master links are type approved to DNV Certification Notes 2.7-1-Offshore Containers. These Crosby master links are 100% proof tested, MPI and impact tested. The tests are conducted by Crosby and 3.1 test certification is available upon request. Refer to page 164 for Crosby COLD TUFF® master links that meet the additional requirements of DNV rules for certification of lifting appliances - Loose Gear.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these links meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.

BRUNTON WIRE ROPES THE SPECIALIST

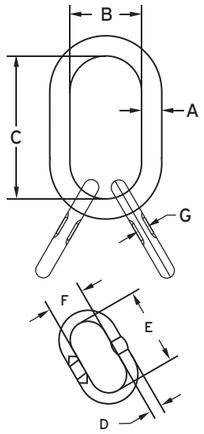
TABLE 11
Capacity & Dimensional Chart for A-342 Alloy Master Links

Size		A-342 Stock No.	Weight Each (kg)	WLL S.F=5/1 for Rope (t)*	Proof Load (kN)**	Dimensions (mm)			
(mm)	(in)					A	B	C	Deformation Indicator
13W	1/2W	1014266	0.59	3.40	77	13	71.1	127	89
16	5/8	1014280	0.69	4.00	80	16	76.2	152	89
19W	3/4W	1014285	0.91	5.60	126	19	81.3	152	102
22W	7/8W	3522213	1.50	6.90	169	22	95.3	162	114
26W	1W	3522214	2.77	11.8	289	26	109	191	140
32W	1-1/4W	3522215	5.44	17.7	435	32	140	241	178
38W	1-1/2W	3522216	8.44	27.7	680	38	150	267	191
44	1-3/4	3522217	11.4	38.5	944	44	152	305	191
51	2	3522218	16.8	46.5	1141	51	178	356	229
57	2-1/4	1014422	24.5	64.9	1287	57	203	406	254
63	2-1/2	1014468	31.1	72.6	1423	63	213	406	279
70	2-3/4	1014440	42.6	98.4	1930	70	251	457	318
76	3	1014486	52.0	103	2029	76	251	457	330
83	3-1/4	1014501	66.0	119	2332	83	254	508	343
89	3-1/2	1014529	91.0	126	2483	89	305	610	394
95	3-3/4	1015051	90.0	152	2990	95	254	508	343
102	4	1015060	120	169	3319	102	305	610	406
††108	††4-1/4	1015067	137	160	3150	108	305	610	-
††114	††4-1/2	1015079	156	163	3202	114	356	711	-
††121	††4-3/4	1015088	198	176	3460	121	356	711	-
††127	††5	1015094	234	179	3515	127	381	762	-

*Ultimate Load is 5 times the Working Load Limit. Based on single leg sling (in-line load), or resultant load on multiple legs with an included angle less than or equal to 120 degrees. Applications with wire rope and synthetic sling generally require a design factor of 5.
**Proof Test Load equals or exceeds the requirement of ASTM A952(8.1) and ASME B30.9. †Offshore Container Master Links Proof Tested to 2.5 times the Working Load Limit with 70 percent fixtures †† Welded Master Link.

WELDED MASTER LINKS WITH ENGINEERED FLAT

AS SUPPLIED BY Crosby®



Ultimate Load is 5 times the Working Load Limit. Applications with wire rope and synthetic sling generally require a design factor of 5. Based on single leg sling (in-line load), or resultant load on multiple legs with an included angle less than or equal to 120 degrees.

- Alloy steel – quenched and tempered
- Individually proof tested to values shown, with certification
- Proof Tested with 60% inside width special fixtures sized to prevent localised point loading, as per ASMEA-952.
- Forgings have a Product Identification Code (PIC) for material traceability, along with the size, the name Crosby and USA raised in lettering
- Selected sizes designated with "W" in the size column have enlarged inside dimensions to allow additional room for sling hardware and crane hook.
- Crosby 12mm to 57mm 344/347 master links are type approved to DNV Certification Notes 2.7-1-Offshore Containers. These Crosby master links are 100% proof tested, MPI and impact tested. The tests are conducted by Crosby and 3.1 test certification is available upon request. Refer to page 164 for Crosby COLD TUFF® master links that meet the additional requirements of DNV rules for certification of lifting appliances - Loose Gear.
- Engineered Flat for use with S-1325A coupler link.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these links meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.

BRUNTON WIRE ROPES THE SPECIALIST

N.B.: We can supply end fittings from any brand. Terminal fittings shown in this brochure are for informative purposes only.

TABLE 12

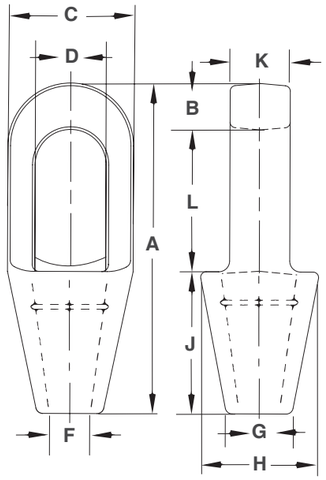
Capacity & Dimensional Chart for A-347 Welded Master Link with Engineered Flat

Size		A-347 Stock No.	Weight Each (kg)	Working Lode Limit (t)*	Proof Lode (kN)**	Dimensions (mm)							Engineered Flat Size for S-1325A
(mm)	(in)					A	B	C	D	E	F	G	(mm)
13/12	1/2	1257692	.81	2.4	59	13.0	60.0	120	12.0	85.0	45.0	6.00	6
17/13	11/16	1257762	1.56	4.10	101	17.0	90.0	160	13.0	120	60.0	6.50	7
19/13	3/4	1257832	1.80	4.25	104	19.0	90.0	160	13.0	120	60.0	6.50	8
22/20	7/8	1257977	3.93	8.50	208	22.0	90.0	170	20.0	150	80.0	-	-
22/17	7/8	1257972	3.35	6.7	164	22.0	100	180	17.0	160	90.0	8.50	10
22/16	7/8	1257979	3.53	5.80	142	22.0	145	275	16.0	120	60.0	-	-
25/20	1	1258122	4.65	10.7	262	25.0	100	190	20.0	150	80.0	-	-
25/19	1	1258102	5.51	8.90	218	25.0	145	275	19.0	160	90.0	-	-
28/22	1-1/8	1258162	6.40	12.9	316	28.0	110	210	22.0	170	90.0	-	-
28/22	1-1/8	1258142	7.17	14.5	355	28.0	145	275	22.0	180	100	10.5	13
31/25	1-7/32	1258182	9.72	17.0	417	31.0	145	275	25.0	210	115	13.5	16
32/25	1-1/4	1258202	9.92	17.0	417	32.0	140	270	25.0	190	100	-	-
36/28	1-3/8	1258222	12.20	23.6	579	36.0	145	275	28.0	190	100	-	-
38/32	1-1/2	1258224	18.23	28.1	689	38.0	140	270	32.0	270	140	-	-
40/31	1-9/16	1258332	18.68	28.1	689	40.0	160	300	31.0	275	145	-	-
45/38	1-3/4	1258422	27.96	38.3	939	45.0	170	320	38.0	270	140	-	-
45/36	1-3/4	1258402	26.56	38.3	939	45.0	180	340	36.0	285	155	-	-
50/38	2	1258442	32.86	45.0	1103	50.0	200	380	38.0	270	140	-	-
51/45	2	1258462	42.92	45.0	1103	51.0	190	350	45.0	340	180	-	-
57/50	2-1/4	1258482	59.70	67.0	1643	57.0	203	406	50.0	380	200	-	-

*Ultimate Load is 5 times the Working Load Limit. Based on single leg sling (in-line load), or resultant load on multiple legs with an included angle less than or equal to 120 degrees. Applications with wire rope and synthetic sling generally require a design factor of 5.
**Proof Test Load equals or exceeds the requirement of ASTM A952(8.1) and ASME B30.9. †Offshore Container Master Links Proof Tested to 2.5 times the Working Load Limit with 70 percent fixtures †† Welded Master Link.

CLOSED SPELTER SOCKETS

AS SUPPLIED BY Crosby®



Closed Grooved Sockets meet the performance requirements of Federal Specification RR-S-550, Type B, except for those provisions required of the contractor. For additional information, see page 452.

- Forged Steel Sockets through 38mm, cast alloy steel 440mm through 102mm.
- Spelter socker terminations have an efficiency rating of 100%, based on the catalog strength of the wire rope.
- Ratings are based on recommended use with 6x7, 6x19, or 6x37, IPS or XIP (EIP), XXIP (EEIP), RRL, FC, or IWRC wire rope.
- Strand constructed with minimal number of wires (e.g., 1x7) requires special consideration that socket basket length be five (5) times the strand diameter or fifty (50) times the wire diameter, whichever is greater.

Note: All cast steel sockets 40mm and larger are magnetic particle inspected and ultrasonic inspected. Proof testing available on special order. Drawing illustrates one groove used on sockets 6mm through 18mm. Sizes 20mm through 38mm use 2 grooves. Sizes 40mm and larger use 3 grooves.

N.B.: We can supply end fittings from any brand. Terminal fittings shown in this brochure are for informative purposes only.

BRUNTON WIRE ROPES THE SPECIALIST

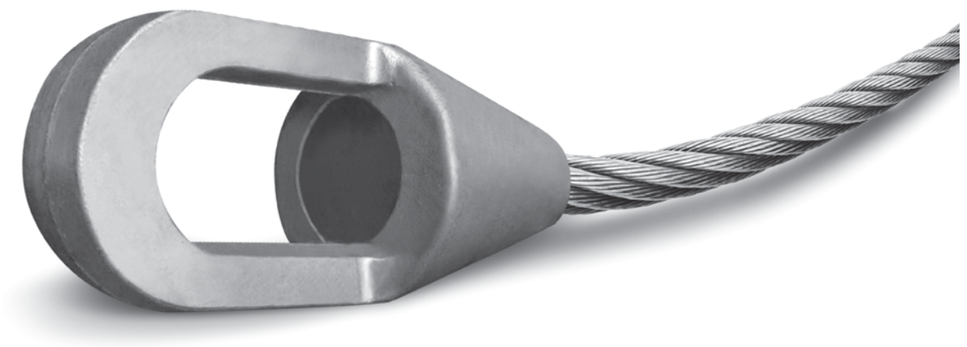


TABLE 13

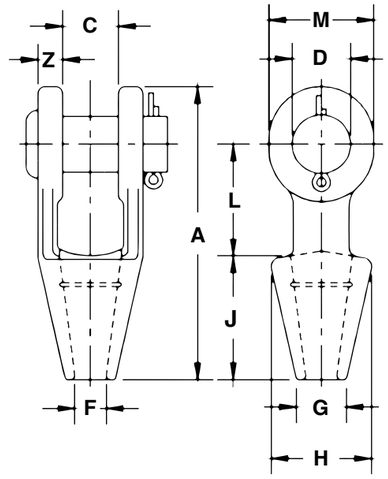
Capacity & Dimensional Chart for G-417 / S-417 Closed Spelter Sockets

Rope Dia.		Structural Strand Dia.	Ultimate Load	Stock No.		Weight Each	Dimensions (mm)									
(mm)	(in)	(mm)	(t)	G-417 Galv.	S-417 S.C.	(kg)	A	B	C	D*	F	G	H	J	K	L
6-7	1/4	-	4.50	1039897	1039804	0.23	116	12.7	39.6	22.4	9.65	17.5	39.6	57.2	12.7	46.0
8-10	5/16-3/8	-	12.0	1039913	1039922	0.34	125	15.8	42.9	24.6	12.7	20.6	42.9	57.2	17.5	52.3
11-13	7/16-1/2	-	20.0	1039931	1039940	0.68	140	17.5	51.0	29.5	14.2	23.9	51.0	63.5	22.4	58.7
14-16	9/16-5/8	12-13	30.8	1039959	1039968	1.13	162	20.6	67.0	35.8	17.5	30.2	67.0	76.2	25.4	65.0
18	3/4	14-16	43.5	1039977	1039986	1.92	194	26.9	76.2	42.2	22.4	33.3	70.0	89.0	31.8	77.7
20-22	7/8	18-19	65.3	1039995	1040000	3.28	226	33.3	92.0	49.3	25.4	38.1	82.5	102	38.1	90.5
24-26	1	20-22	81.6	1040019	1040028	4.76	254	36.6	105	58.5	28.7	44.5	95.5	114	44.5	103
28-30	1-1/8	24-26	100	1040037	1040046	6.46	283	39.6	114	65.0	31.8	51.0	105	127	51.0	116
32-35	$1^{1}/_{4}$-$1^{3}/_{8}$	28	136	1040055	1040064	8.95	309	41.4	127	71.0	38.1	58.5	119	138	56.5	129
38	1-1/2	30-32	170	1040073	1040082	13.24	355	49.3	137	81.0	41.4	70.5	132	151	62.5	155
† 40-42	† 1-5/8	33-35	188	1040091	1040108	16.32	390	54.0	146	82.5	44.5	76.2	140	165	70.0	171
† 44-48	† $1^{3}/_{4}$-$1^{7}/_{8}$	36-40	268	1040117	1040126	25.96	445	55.5	171	95.5	51.0	79.5	162	191	76.2	198
† 50-54	† 2-$2^{1}/_{8}$	42-45	309	1040135	1040144	35.83	505	62.0	194	111	57.2	95.5	187	216	82.5	224
† 56-60	† $2^{1}/_{4}$-$2^{3}/_{8}$	46-48	360	1040153	1040162	47.62	546	70.0	216	127	66.8	105	210	229	92.0	248
† 64-67	† $2^{1}/_{2}$-$2^{5}/_{8}$	50-54	424	1041759	1041768	63.50	597	79.5	241	140	74.5	114	235	248	102	270
† 70-73	† $2^{3}/_{4}$-$2^{7}/_{8}$	56-62	549	1041777	1041786	99.79	645	79.5	273	159	79.5	124	259	279	124	286
† 75-80	† 3-$3^{1}/_{8}$	64-67	656	1041795	1041802	125	689	85.6	292	171	86.0	133	292	305	133	298
† 82-86	† $3^{1}/_{4}$-$3^{3}/_{8}$	70-73	750	1041811	1041820	142	743	102	311	184	92.0	146	311	330	146	311
† 88-92	† $3^{1}/_{2}$-$3^{5}/_{8}$	76-80	820	1041839	1041848	181	787	102	330	197	98.5	160	330	356	159	330
† 94-102	† $3^{3}/_{4}$-4	-	1005	1041857	1041866	246	845	108	362	216	108	184	362	381	178	356

*Diameter of pin must not exceed pin used on companion 416 socket. Reference adjacent page "D" dimension. † Cast Alloy Steel.

OPEN SPELTER SOCKETS

AS SUPPLIED BY Crosby®



Open Grooved Sockets meet the performance requirements of Federal Specification RR-S-550E, Type A, except for those provisions required of the contractor. For additional information, see page 444.

- Forged Steel Sockets through 38mm, cast alloy steel 404mm through 102mm.
- Spelter socket terminations have an efficiency rating of 100%, based on the catalog strength of wire rope. Ratings are based on recommended use with 6x7, 6x19, or 6x37, IPS or XIP (EIP), XXIP (EEIP), RRL, FC, or IWRC wire rope.
- Strand constructed with minimal number of wires (e.g., 1x7) requires special consideration that socket basket length be five (5) times the strand diameter or fifty (50) times the wire diameter, whichever is greater.

Notice: All cast steel sockets 40mm and larger are magnetic particle inspected and ultrasonic inspected. Proof testing available on special order. Drawing illustrates one groove used on sockets 6mm through 18mm. Sizes 20mm through 38mm use 2 grooves. Sizes 40mm and larger use 3 grooves.

N.B.: We can supply end fittings from any brand. Terminal fittings shown in this brochure are for informative purposes only.

BRUNTON WIRE ROPES THE SPECIALIST

TABLE 14

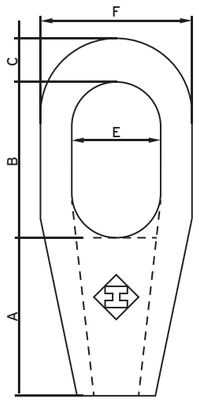
Capacity & Dimensional Chart for G-416 / S-416 Open Spelter Sockets

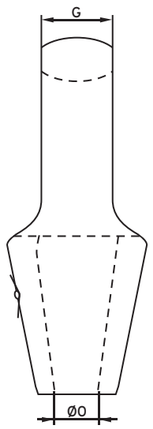
Rope Dia.		Structural Strand Dia.	Ultimate Load	Stock No.		Weight Each	Dimensions (mm)										Tolerance +/-
(mm)	(in)	(mm)	(t)	G-416 Galv.	S-416 S.C.	(kg)	A	C	D	F	G	H	J	L	M	N	C
6-7	1/4	-	4.50	1039619	1039628	.50	116	19.1	17.5	9.65	17.5	39.6	57.0	39.6	33.3	9.1	1.52
8-10	5/16-3/8	-	12.0	1039637	1039646	.59	123	20.6	20.6	12.7	20.6	42.9	57.0	44.5	38.1	11.2	1.52
11-13	7/16-1/2	-	20.0	1039655	1039664	1.02	141	25.4	25.4	14.2	23.9	47.8	63.5	51.0	47.8	12.7	1.52
14-16	9/16-5/8	12-13	27.0	1039673	1039682	1.63	171	31.8	30.2	17.5	28.7	57.0	76.0	63.5	57.0	14.2	1.52
18	3/4	14-16	43.0	1039691	1039708	2.64	202	38.1	35.1	20.6	31.8	66.5	89.0	76.0	66.5	15.7	1.52
20-22	7/8	18-19	55.0	1039717	1039726	4.38	235	44.5	41.4	23.9	38.1	82.5	102	89.0	79.5	20.3	1.52
24-26	1	20-22	78.0	1039735	1039744	7.03	268	51.0	51.0	28.7	44.5	95.5	114	102	95.5	22.4	1.52
28-30	1-1/8	24-26	92.0	1039753	1039762	9.75	300	57.0	57.0	31.8	51.0	105	127	117	105	25.4	3.05
32-35	$1^{1}/_{4}$-$1^{3}/_{8}$	28	136	1039771	1039780	14.1	335	63.5	63.5	38.1	57.0	121	140	127	121	28.7	3.05
38	1-1/2	30-32	170	1039799	1039806	21.4	384	76.0	70.0	41.4	70.0	133	152	152	137	30.2	3.05
*40-42	*1-5/8	33-35	188	1039815	1039824	24.9	413	76.0	76.0	44.5	76.0	140	165	165	146	33.3	3.05
*44-48	$1^{3}/_{4}$-$1^{7}/_{8}$	36-40	268	1039833	1039842	37.2	464	89.0	89.0	51.0	79.5	162	191	178	165	39.6	3.05
*50-54	*$2\text{-}2^{1}/_{8}$	42-45	291	1039851	1039860	59	546	102	95.5	57.0	95.5	187	216	229	178	46.0	3.05
*56-60	*$2^{1}/_{4}$-$2^{3}/_{8}$	46-48	360	1039879	1039888	76	597	114	108	63.5	102	210	229	254	197	54.0	3.05
*64-67	*$2^{1}/_{2}$-$2^{5}/_{8}$	50-54	424	1041633	1041642	114	648	127	121	73.0	114	235	248	274	216	60.5	3.05
*70-73	*$2^{3}/_{4}$-$2^{7}/_{8}$	56-62	511	1041651	1041660	143	692	133	127	79.0	124	267	279	279	229	73.0	6.35
*75-80	*$3\text{-}3^{1}/_{8}$	64-67	563	1041679	1041688	172	737	146	133	86.0	133	282	305	287	241	76.0	6.35
*82-86	*$3^{1}/_{4}$-$3^{3}/_{8}$	70-73	722	1041697	1041704	197	784	159	140	92.0	146	302	330	300	254	79.0	6.35
*88-92	*$3^{1}/_{2}$-$3^{5}/_{8}$	76-80	779	1041713	1041722	255	845	171	152	98.5	165	314	356	318	274	82.5	6.35
*94-102	*$3^{3}/_{4}$-4	-	875	1041731	1041740	355	921	191	178	108	184	346	381	343	318	89.0	6.35

*Cast Alloy Steel Note: Available with bolt nut and cotter. Contact us for more information.

CLOSED SPELTER SOCKET

AS SUPPLIED BY DE HAAN SPECIAL EQUIPMENT





- Material : Cast steel
- Working Load Limit : 20% of the MBL
- Finish : Painted or galvanised (< Type No. 201 standard galvanised)
- Temperature Range : -40˚C, up to +200˚C
- Standard Certification : Certificate of Conformity 3.1 material certificate EN 10204

These sockets include our non-rotating system (NRS-system) which prevents the tamp from turning or slipping out of the cone and guarantees a high performance connection.

Non-standard sizes or custom products available on request.

N.B.: We can supply end fittings from any brand. Terminal fittings shown in this brochure are for informative purposes only.

Sockets are Type Approved DNVGL according to DNVGL ST-0378

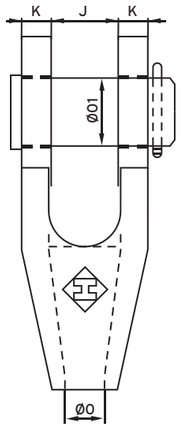
BRUNTON WIRE ROPES THE SPECIALIST

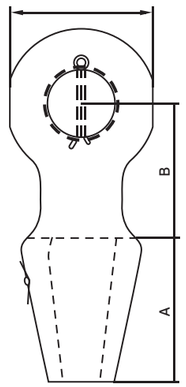
TABLE 15
Capacity & Dimensional Chart

NR.	RopeØ		Article number		MBL	A	B	C	ØD	E	F	G	Weight
	mm	inch	Painted RAL 5013 blue	Galvanised	tons	mm							kg ±
290	6-7	1/4	-	CSS290G	8	52	46	11	8	20	36.5	13	0.3
292	8-10	5/16-3/8	-	CSS292G	12	58	52.5	14	11	24	43	16	0.4
294	11-13	7/16-1/2	-	CSS294G	20	63.5	59	17.5	14	28.5	51	22	0.8
296	14-16	9/16-5/8	-	CSS296G	30	76.5	65	20.5	17.5	35	66.5	25.4	1.4
298	18-19	3/4	-	CSS298G	40	90	75	26	21	42	75	31	2.1
201	20-22	7/8	CSS201P	CSS201G	60	101	90	33	24	47	92	38	4
204	23-26	1	CSS204P	CSS204G	75	114	103	36	28	57	106	45	6
207	27-30	1 1/8	CSS207P	CSS207G	100	127	116	39	32	63	114	51	7.5
212	31-36	$1^1/_4$-$1^3/_8$	CSS212P	CSS212G	125	139	130	44	38	70	128	58	11
215	37-39	$1^1/_2$	CSS215P	CSS215G	150	152	155	51	41	79	137	64	14
217	40-42	$1^5/_8$	CSS217P	CSS217G	180	165	171	54	44	82	146	70	17.5
219	43-48	$1^3/_4$-$1^7/_8$	CSS219P	CSS219G	230	190	198	56	51	89	171	77	27.5
222	49-54	2-$2^1/_8$	CSS222P	CSS222G	280	216	224	62	57	98	194	84	40
224	55-60	$2^1/_4$-$2^3/_8$	CSS224P	CSS224G	375	228	247	73	65	110	216	94	52
226	61-68	$2^1/_2$-$2^5/_8$	CSS226P	CSS226G	425	248	270	80	73	140	241	102	63
227	69-75	$2^3/_4$-$2^7/_8$	CSS227P	CSS227G	500	279	286	79	79	159	273	124	88.5
228	76-80	3-$3^1/_8$	CSS228P	CSS228G	600	305	298	83	86	171	292	133	111
229	81-86	$3^1/_4$-$3^3/_8$	CSS229P	CSS229G	700	330	311	102	92	184	311	146	143
230	87-93	$3^1/_2$-$3^5/_8$	CSS230P	CSS230G	750	356	330	102	99	197	330	159	166
231	94-102	$3^3/_4$-4	CSS231P	CSS231G	950	381	356	108	108	216	362	178	217
233	108-115	$4^1/_2$	CSS233P	CSS233G	1200	460	425	120	125	235	405	190	338
240	122-130	5	CSS240P	CSS240G	1400	500	475	140	138	270	515	210	579
250	140-155	$5^1/_2$-6	CSS250P	CSS250G	2000	580	550	150	160	300	510	250	654
260	158-167	$6^1/_2$	CSS260P	CSS260G	2500	675	600	175	175	325	600	300	1063

OPEN SPELTER SOCKET WITH PIN

AS SUPPLIED BY DE HAAN SPECIAL EQUIPMENT





- Material : Cast steel
- Working Load Limit : 20% of the MBL
- Finish : Painted or galvanised (< Type No. 100 standard galvanised)
- Temperature Range : -40˚C, up to +200˚C
- Standard Certification : Certificate of Conformity 3.1 material certificate EN 10204

These sockets include our non-rotating system (NRS-system) which prevents the tamp from turning or slipping out of the cone and guarantees a high-performance connection.

Non-standard sizes or custom products available on request.

N.B.: We can supply end fittings from any brand. Terminal fittings shown in this brochure are for informative purposes only.

BRUNTON WIRE ROPES THE SPECIALIST

TABLE 16
Capacity & Dimensional Chart

NR.	RopeØ		Article number		MBL	A	B	C	ØD	ØD1	J	K	Weight
	mm	inch	Painted RAL 5013 blue	Galvanised	tons	mm							kg ±
192	6-7	1/4	-	OSSP192G	8	52	39.5	33.5	8	17.5	17.5	8	0.4
194	8-10	5/16-3/8	-	OSSP194G	12	58	44.5	39.5	11	20.5	20.5	11	0.8
196	11-13	7/16-1/2	-	OSSP196G	20	63.5	51	49	14	25.5	25.5	12	1.3
198	14-16	9/16-5/8	-	OSSP198G	30	76.5	63.5	62	17.5	30	32	14	2.3
100	17-19	3/4	OSSP100P	OSSP100G	40	89	76	100	21	35	38	16	3.2
104	20-22	7/8	OSSP104P	OSSP104G	60	101	89	85.5	24	41	44	19	5
108	23-26	1	OSSP108P	OSSP108G	75	114	101	114	28	51	51	22	8.8
111	27-30	$1^{1}/_{8}$	OSSP111P	OSSP111G	100	127	114	123.5	32	57	57	25	11.6
115	31-36	$1^{1}/_{4}$-$1^{3}/_{8}$	OSSP115P	OSSP115G	125	139	127	135	38	63	63	28	16.3
118	37-39	$1^{1}/_{2}$	OSSP118P	OSSP118G	150	152	162	152	41	70	76	30	23.5
120	40-42	$1^{5}/_{8}$	OSSP120P	OSSP120G	180	165	165	168	44	76	76	33	29
125	43-48	$1^{3}/_{4}$-$1^{7}/_{8}$	OSSP125P	OSSP125G	230	191	178	190	51	89	89	39	45
128	49-54	2-$2^{1}/_{8}$	OSSP128P	OSSP128G	280	216	229	206	57	95	102	45	64.5
130	55-60	$2^{1}/_{4}$-$2^{3}/_{8}$	OSSP130P	OSSP130G	375	229	254	225	63	108	113	53	88
132	61-68	$2^{1}/_{2}$-$2^{5}/_{8}$	OSSP132P	OSSP132G	425	248	273	251	73	121	127	60	125
135	69-75	$2^{3}/_{4}$-$2^{7}/_{8}$	OSSP135P	OSSP135G	500	279	279	266	79	127	133	73	162
138	76-80	3-$3^{1}/_{8}$	OSSP138P	OSSP138G	600	305	286	274	86	133	146	76	195
140	81-86	$3^{1}/_{4}$-$3^{3}/_{8}$	OSSP140P	OSSP140G	700	330	298	286	92	140	159	79	224
142	87-93	$3^{1}/_{2}$-$3^{5}/_{8}$	OSSP142P	OSSP142G	750	356	318	310	99	152	171	83	280
144	94-102	$3^{3}/_{4}$-4	OSSP144P	OSSP144G	950	381	343	352	108	178	191	89	378
146	108-115	$4^{1}/_{2}$	OSSP146P	OSSP146G	1200	460	480	430	125	190	208	101	564
150	122-130	5	OSSP150P	OSSP150G	1400	500	500	550	138	250	210	120	922
160	140-155	$5^{1}/_{2}$-6	OSSP160P	OSSP160G	2000	580	500	590	160	275	230	140	1295
170	158-167	$6^{1}/_{2}$	OSSP170P	OSSP170P	2500	675	600	640	175	290	310	160	1950

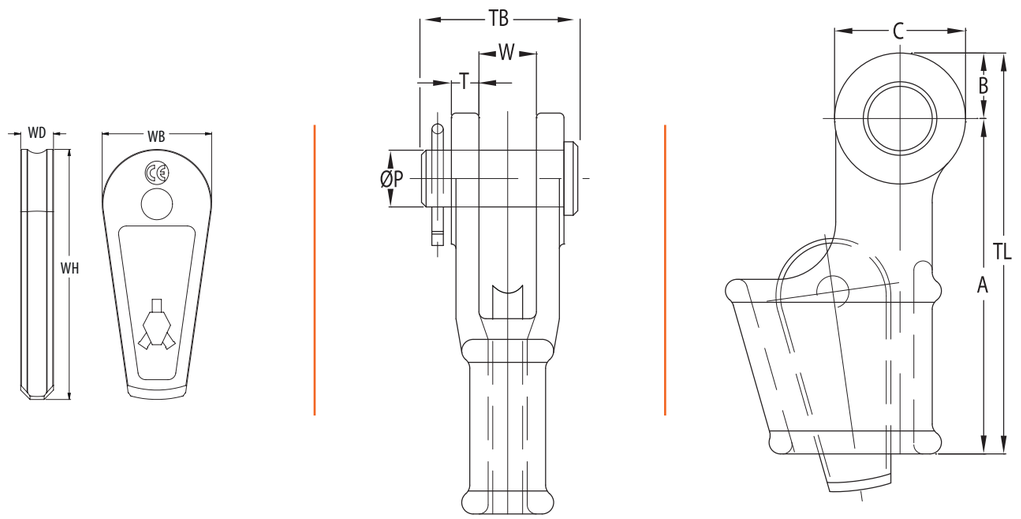
OPEN WEDGE SOCKETS WITH PIN

AS SUPPLIED BY

ROPEBLOCK

BRUNTON WIRE ROPES
THE SPECIALIST

Made of quenched and tempered cast steel



N.B.: We can supply end fittings from any brand. Terminal fittings shown in this brochure are for informative purposes only.

TABLE 17
Capacity & Dimensional Chart

Model nr.	MBP (Mtons)	for wire ø		Dimensions (mm)											Weight (kg)
		(mm)	(inch)	A	B	C	øP	T	TL	TB	W	WH	WB	WD	
OWS 0.25 P	8	7-8	5/16	110	18	36	16	9	128	51	18	70	35	9	0.8
OWS 0.5P	12	9-10	3/8	145	23	46	21	11	168	63	21	74	36	12	1.7
OWS 1P	20	11-13	1/2	157	29	57	25	12	185	67	25	115	48	14	2.1
OWS 2P	25	14-16	5/8	190	35	70	30	15	225	85	31	135	57	18	4
OWS 3P	40	18-19	3/4	210	40	80	35	16	250	95	38	160	70	21	7
OWS 4P	55	20-22	7/8	252	48	95	41	18	300	110	44	187	77	24	10
OWS 5P	75	23-26	1	298	55	110	51	22	353	128	51	212	83	28	15
OWS 6P	90	27-29	1 1/8	322	65	130	57	25	387	142	57	232	91	30	21
OWS 7P	110	30-32	1 1/4	350	73	146	63	28	423	155	63	266	108	33	31
OWS 8P	125	34-36	1 3/8	400	74	148	64	28	474	160	70	298	116	35	37
OWS 9P	150	37-39	1 1/2	450	80	142	70	30	530	177	77	338	130	38	51
OWS 10P	170	40-42	1 5/8	500	87	160	76	33	587	187	76	373	140	41	64
OWS 11P	225	43-48	1 3/4 - 1 7/8	550	100	186	89	39	650	215	89	408	146	48	96
OWS 12P	280	49-52	2	637	105	205	95	46	740	244	101	450	160	53	130
OWS 13P	360	54-58	2 1/4	660	125	250	108	54	785	275	114	470	168	58	180
OWS 14P	425	60-68	2 1/2	835	135	270	121	60	970	300	127	500	176	65	275
OWS 15P	460	72-76	3	1000	150	300	133	76	1150	355	146	550	244	70	440
OWS 16P	625	81-86	3 1/4 - 3 3/8	1160	150	300	140	79	1310	375	159	670	260	80	510

MBL = Minimum Breaking Load

* The standard finish of our sockets is blue. Hot dipped galvanized is also available.
* All sockets are provided with an EN 10204-2.1 declaration of conformity, EN 10204-3.1 material certificate and can be provided with a 2006/42/EC declaration where applicable.
* Dimensional tolerances depend on the manufacturing techniques applied and are different between machined components (pins) and cast components (socket bodies and wedges).
* Also surface finish e.g. hot dip galvanizing or even paint may add to the overall thickness and fork distance.
* Please contact Ropeblock for further guidance and a detailed dimensional tolerance sheet.

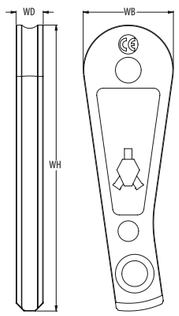
TAILGRIP OPEN WEDGE SOCKETS WITH PIN

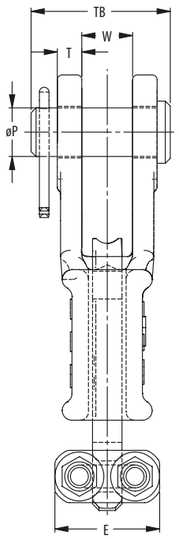
AS SUPPLIED BY ROPEBLOCK

Made of quenched and tempered cast steel

BRUNTON WIRE ROPES THE SPECIALIST

N.B.: We can supply end fittings from any brand. Terminal fittings shown in this brochure are for informative purposes only.





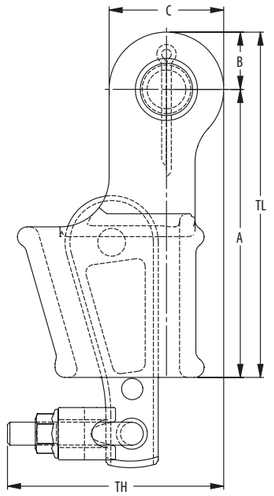


TABLE 18

Capacity & Dimensional Chart

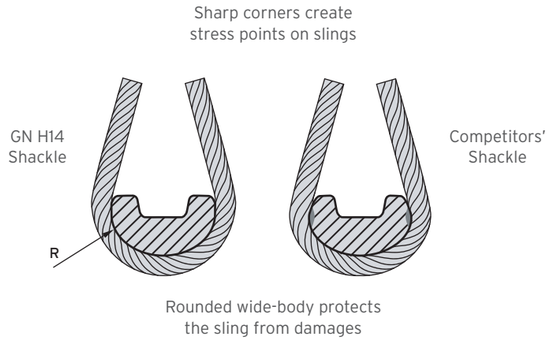
Model nr.	MBP (Mtons)	for wire ø		Dimensions (mm)												Weight (kg)
		(mm)	(inch)	A	B	C	E	øP	T	TH	TL	TB	W	WH	WB	WD	
OWS-TG 0.5 P	12	9-10	3/8	145	23	46	40	21	11	76	168	63	21	130	36	12	1.9
OWS-TG 1P	20	11-13	1/2	157	29	57	55	25	12	100	185	67	25	170	48	14	2.4
OWS-TG 2P	25	14-16	5/8	190	35	70	64	30	15	125	225	85	31	195	57	18	5
OWS-TG 3P	40	18-19	3/4	210	40	80	68	35	16	142	250	95	38	222	70	21	8
OWS-TG 4P	55	20-22	7/8	252	48	95	74	41	18	164	300	110	44	251	77	24	11
OWS-TG 5P	75	23-26	1	298	55	110	84	51	22	189	353	128	51	274	83	28	16
OWS-TG 6P	90	27-29	1 1/8	322	65	130	95	57	25	217	387	142	57	292	91	30	23
OWS-TG 7P	110	30-32	1 1/4	350	73	146	105	63	28	238	423	155	63	349	108	33	34
OWS-TG 8P	125	34-36	1 3/8	400	74	148	117	64	28	263	474	160	70	394	116	35	38

* The standard finish of our sockets is blue. Hot dipped galvanized is also available.
* All sockets are provided with an EN 10204-2.1 declaration of conformity, EN 10204-3.1 material certificate and can be provided with a 2006/42/EC declaration where applicable.
* Dimensional tolerances depend on the manufacturing techniques applied and are different between machined components (pins) and cast components (socket bodies and wedges).
* Also surface finish e.g. hot dip galvanizing or even paint may add to the overall thickness and fork distance.
* Please contact Ropeblock for further guidance and a detailed dimensional tolerance sheet.

MBL = Minimum Breaking Load

WIDE BODY SHACKLE

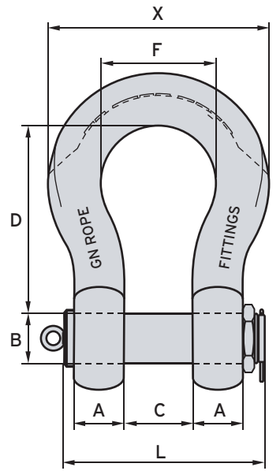
AS SUPPLIED BY
GN ROPE FITTINGS

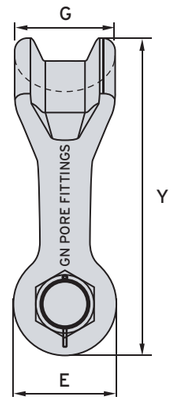


- **Material** : Alloy Steel
- **Safety factor** : < 2000 ton 5 times
  > 2000 < 3000 ton 4.5 times
  > 3000 ton 4 times
- **Finish** : Painted
- **Temperature range** : < 40 ton -20°C up to +200°C
  > 40 ton -40°C up to +200°C, Polar rated
- **Standard certification** : Certificate of conformity 3.1 material certificate EN 10204

Note: Non-standard sizes or products available on request

BRUNTON WIRE ROPES
THE SPECIALIST





N.B.: We can supply end fittings from any brand. Terminal fittings shown in this brochure are for informative purposes only.

TABLE 19
Capacity & Dimensional Chart

Art. No.	WLL	A	B	C	D	E	F	G	L	R	X	Y	Weight
	ton	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
36000025	30	35	44	65	180	90	128	80	202	45	204	292	14
36000040	40	45	51	84	200	109	140	97	252	53	232	331	21
36000055	55	65	56	95	250	130	160	110	300	55	288	400	33
36000075	75	75	70	110	300	150	185	120	345	60	334	485	53
36000125	125	85	80	140	370	165	220	150	395	80	390	583	84
36000150	150	90	95	150	400	200	250	170	420	90	429	638	115
36000200	200	105	105	160	480	225	275	205	470	110	484	755	183
36000250	250	120	120	180	550	240	300	230	520	125	540	850	255
36000300	300	140	134	195	600	280	350	265	580	140	628	947	368
36000400	400	160	160	230	620	330	370	320	655	170	689	1035	571
36000500	500	170	180	265	680	350	440	340	710	180	779	1125	719
36000600	600	180	200	290	720	405	490	370	795	190	847	1213	960
36000700	700	210	215	320	780	465	540	400	880	210	957	1330	1350
36000800	800	220	230	345	800	465	555	420	925	220	990	1358	1400
36000900	900	235	250	370	850	480	585	440	1010	235	1060	1450	1850
36001000	1000	235	270	400	850	530	615	460	1050	240	1091	1490	2050
36001250	1250	275	300	455	960	570	645	560	1210	285	1205	1695	3000
36001500	1550	275	320	485	980	610	680	580	1240	290	1240	1745	3300
36001750	1750	310	360	500	1120	660	700	600	1325	300	1346	1960	4700
36002000	2000	320	385	520	1140	680	705	620	1365	310	1368	2012	4800
36002500	2500	330	400	520	1140	740	710	635	1380	320	1383	2065	5400
36003000	3000	340	420	530	1140	760	720	650	1410	330	1413	2080	5800
36003500	3500	350	440	540	1140	790	750	670	1480	340	1480	2130	6800
36004000	4000	360	460	550	1140	810	760	690	1510	350	1510	2140	7200

* Shackles from WLL 30 ± 125 ton are not supplied with an eyebolt, shackles from WLL 900 ton completed with eyebolts on both sides
Tolerance: Inside length ± 7.5%, all other forged parts ± 5%, machined parts ± 1 mm

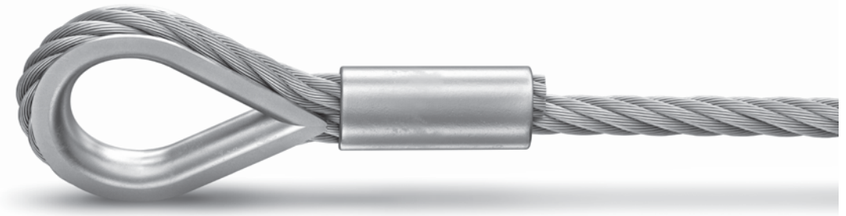
THIMBLES

AS SUPPLIED BY VAN BEEST

BRUNTON WIRE ROPES THE SPECIALIST

Generally to EN 13411-1

- **Material** : mild steel
- **Standard** : generally to EN 13411-1 formerly BS 464
- **Finish** : hot dipped galvanized
- **Certification** : 2.1



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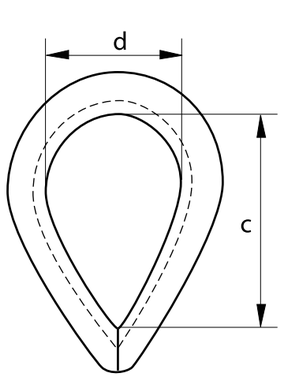
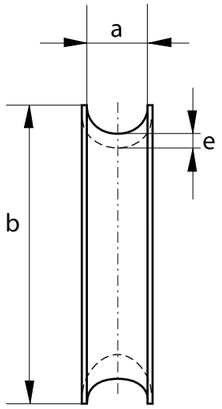




N.B.: We can supply end fittings from any brand. Terminal fittings shown in this brochure are for informative purposes only.

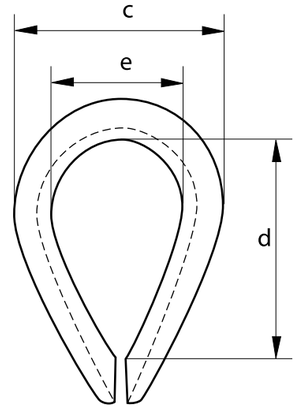
TABLE 20

Wire Rope Thimbles as per BS EN 13411-1 (Dimensions & Weight)

Diameter rope		Width groove	Length	Length	Width inside	Thickness back	Weight pre 100 pcs
mm	mm	a mm	b mm	c mm	d mm	e mm	kg
3/16	5	5.5	44	28	19	3	3.5
1/4	6	7	48	30	20	3.5	2.8
5/16	8	8	54	33	22	4	5.7
3/8	10	10	64	38	25	4.8	8
7/16	11	13	73	41	29	4.8	14.2
1/2	13	14	80	44	32	5.6	18
9/16	15	15	80	44	32	5.6	18.9
5/8	16	17	98	59	41	7.9	22.4
11/16	17	19	108	67	44	7.9	39.7
3/4	19	20	124	73	51	9.5	45.6
13/16	21	21	124	73	51	9.5	62.4
7/8	22	23	133	83	57	9.5	61.5
15/16	24	25	146	92	64	10.3	106
1	25	27	162	108	70	10.3	97.3
1 1/8	28	29	178	111	76	12.7	151
1 1/4	32	33	197	133	95	12.7	204
1 3/8	35	38	229	152	105	15.9	318
1 1/2	38	41	254	165	114	17.5	363
1 5/8	42	46	254	165	114	17.5	499
1 3/4	45	51	286	178	127	25.4	556
1 7/8	47	60	318	191	133	28.6	-
2	50	64	330	203	140	28.6	-
2 1/8	54	64	330	203	140	28.6	-
2 1/4	57	67	356	216	146	30.2	-
2 1/2	65	70	413	241	159	31.8	-
2 3/4	70	86	502	273	203	41.3	-

Generally to US Fed. Spec. FF-T-276b type III

- **Material** : mild steel
- **Standard** : generally to US Federal Specification FF-T-276b type III and generally to EN 13411-1
- **Finish** : hot dipped galvanized
- **Certification** : 2.1



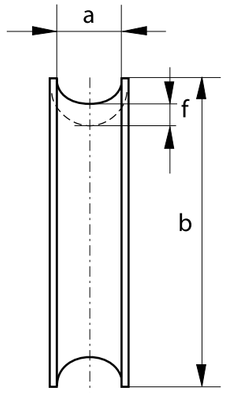


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TABLE 21
Heavy Duty Wire Rope Thimbles as per US Fed specs (Dimensions & Weight)

Diameter rope	Width groove	Length	Width	Length inside	Width inside	Thickness back	Weight pre 100 pcs
mm	a mm	b mm	c mm	d mm	e mm	f mm	kg
6	7	55.5	38	41	22	1.6	2.7
8	9	63.5	46	47.5	27	2	5.1
9	10	73	54	54	28.5	2.8	9.1
11	12	82.5	60	60	32	3.2	13.9
13	13.5	92	70	70	38	3.6	19.9
14	15	92	68	70	38	3.6	20.5
16	16.5	108	79	82.5	44.5	4	29.8
19	20	127	97	95	51	5.5	60.8
22	24	140	108	108	57	5.5	80.4
25	27	156	125	114	63.5	6.3	109
28-32	30	178	149	130	73	6.3	147
32-35	33	205	173	159	89	12.7	366
35-38	36.5	229	181	165	89	12.7	478
41	43.5	286	206	203	102	12.7	731
45	47	310	216	229	114	12.7	778
48-51	50	384	264	305	152	12.7	1150
57	59.5	435	302	356	178	12.7	1935
64	66	464	311	378	178	19	2640
76	78.5	514	356	419	200	19	3850

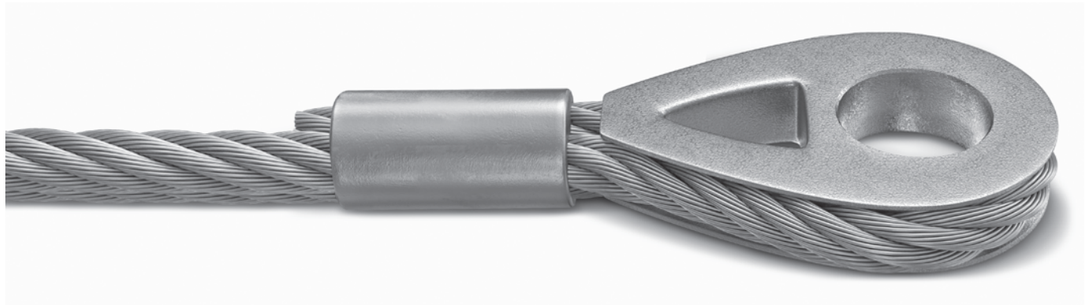
TABLE 21A
Table 22 in Imperial values

Diameter rope	Width groove	Length	Width	Length inside	Width inside	Thickness back	Weight pre 100 pcs
inch	a inch	b inch	c inch	d inch	e inch	f inch	lbs
1/4	9/32	2 3/16	1 1/2	1 5/8	7/8	1/16	5.9
5/16	11/32	2 1/2	1 13/16	1 7/8	1 1/16	5/64	11.2
3/8	13/32	2 7/8	2 1/8	2 1/8	1 1/8	7/64	20.1
7/16	15/32	3 1/4	2 3/8	2 3/8	1 1/4	1/8	30.6
1/2	17/32	3 5/8	2 3/4	2 3/4	1 1/2	9/64	43.9
9/16	19/32	3 5/8	2 11/16	2 3/4	1 1/2	9/64	45.2
5/8	21/32	4 1/4	3 1/8	3 1/4	1 3/4	5/32	65.7
3/4	25/32	5	3 13/16	3 3/4	2	7/32	134
7/8	15/16	5 1/2	4 1/4	4 1/4	2 1/4	7/32	177
1	1 1/16	6 1/8	4 15/16	4 1/2	2 1/2	1/4	241
1 1/8 - 1 1/4	1 3/16	7	5 7/8	5 1/8	2 7/8	1/4	324
1 1/4 - 1 3/8	1 5/16	8 1/16	6 13/16	6 1/4	3 1/2	1/2	807
1 3/8 - 1 1/2	1 7/16	9	7 1/8	6 1/2	3 1/2	1/2	1054
1 5/8	1 23/32	11 1/4	8 1/8	8	4	1/2	1612
1 3/4	1 27/32	12 3/16	8 1/2	9	4 1/2	1/2	1715
1 7/8 - 2	1 31/32	15 1/8	10 3/8	12	6	1/2	2535
2 1/4	2 11/32	17 1/8	11 7/8	14	7	1/2	4266
2 1/2	2 19/32	18 1/4	12 1/4	14 7/8	7	3/4	5820
3	3 3/32	20 1/4	14	16 1/2	7 7/8	3/4	8488

According to DIN 3091

- **Material** : cast mild steel, (GTW 40)
- **Standard** : according to DIN 3091
- **Finish** : self coloured
- **Certification** : 2.1

Note: the diameter (e) of the timble for diameter wire rope 72 mm is 140 mm



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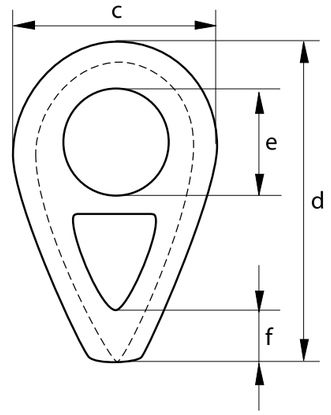


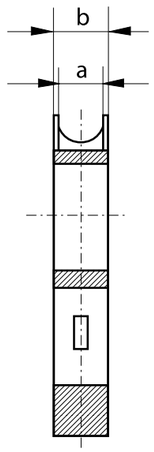


TABLE 22
Solid Thimbles as per DIN 3091 (Dimensions & Weight)

Diameter rope	Width groove	Width overall	Width	Length	Diameter	Length	Weight pre 100 pcs
mm	a mm	b mm	c mm	d mm	e mm	f mm	kg
8	9	15	40	66	14	-	18
10	11	17.5	50	82	18	-	32
12	13	20	60	98	21	-	52
14	16	23.5	70	114	25	-	80
16	18	26	80	130	28	16	90
18	20	28.5	90	145	31	18	121
20	22	31	100	161	35	20	161
22	24	33.5	110	177	38	22	211
24	26	36	120	193	41	24	271
26	29	39.5	130	209	44	26	355
28	31	42	140	224	47	28	420
32	35	47	160	256	53	32	630
36	40	53	180	288	59	36	884
40	44	58	200	320	65	40	1100
44	48	63	220	352	70	44	1500
48	53	69	240	384	76	48	2000
52	57	74	260	416	81	52	2500
56	62	80	280	448	86	56	3200
64	70	90	320	512	95	64	4600
72	79	101	360	576	140	72	6600

EVOLVING THE NATURE OF OUR BUSINESS SERVES TO MEET DEVELOPING NEEDS OF CUSTOMERS

USE AND MAINTENANCE OF WIRE ROPE SLINGS FOR GENERAL LIFTING SERVICE.

Use of wire rope slings (ref.: BSEN 134-2:2003+A2:2008):

A.1: Use of wire rope slings:

A.1.1 General
The adequacy of wire rope sling should be checked to ensure that it is capable of lifting the load without releasing it.
Consideration be given to the guidance in A.1.2 to A.1.5

A.1.2 Use in adverse environments

A.1.2.1 High and low temperatures
The WLL of the wire rope slings should be de-rated based on the environment temperature and considering the terminal fittings and core of wire rope.

TABLE A.1
De-rated working load limit of slings due to temperature

Termination type	Ferrule material	Rope core	De-rated working load limit expressed as % of WLL of the sling Temperature, T, ºC					
			40<T≤100	100<T≤150	150<T≤200	200<T≤300	300<T≤400	400<T
Turn-back eye	Aluminium	Fibre	100	Do not use	Do not use	Do not use	Do not use	Do not use
Turn-back eye	Aluminium	Steel	100	100	Do not use	Do not use	Do not use	Do not use
Flemish eye	Steel	Fobre	100	Do not use	Do not use	Do not use	Do not use	Do not use
Flemish eye	Steel	Steel	100	100	90	75	65	Do not use
Hand splice	-	Fibre	100	Do not use	Do not use	Do not use	Do not use	Do not use
Hand splice	-	Steel	100	100	90	75	65	Do not use

The use of wire rope slings within the permissible temperature ranges given in table A.1 does not require any permanent reduction in working load limit when the sling is returned to ambient temperature.
Wire rope slings are not adversely affected by temperatures down to -40º C and no reduction due to this account. Where wire rope slings used at temperature below -40º C the manufacturer should be consulted.

A.1.2.2 Acidic conditions

Wire rope slings should not be used either immersed in acidic solutions or exposed to acid fumes. Attention is drawn to the fact that certain production processes involve acidic solutions, fumes, and sprays, and in these circumstances, the manufacturer's advice should be sought.

A.1.2.3 Conditions in which the sling is likely to be subjected to attack (chemical, abrasive, etc.)

The manufacturer of the sling should be consulted, particularly if the sling is to be exposed to chemicals combined with high temperatures.

A.1.3 Use in hazardous conditions

The rating of slings for general lifting service excludes hazardous conditions including offshore activities, the lifting of persons, and the lifting of potentially dangerous loads such as molten metals, corrosive materials, or fissile materials. In such cases, the degree of hazard should be assessed by a competent person and the working load limit adjusted accordingly.

A.1.4 Actions to be taken before putting into first use

Before first use of the wire rope sling, it should be ensured that:

a. the sling is precisely as ordered

b. the manufacturer's certificate is to hand

c. the identification and working load limit marking on the sling correspond to the information on the certificate

d. full details of the sling are recorded in a register of slings

e. the actual use is to be as intended

A.1.5 Information for safe use of the wire rope sling

A.1.5.1 Preparation

Before starting the lift, it should be ensured that the load is free to move and is not bolted down or otherwise obstructed. Packing may be required where a rope comes into contact with a load in order to protect either the rope or the load or both, since sharp corners of hard material may bend or damage the rope or, conversely, the rope may damage the load because of high contact pressure. Corner protection should be used to prevent such damage. In order to prevent dangerous swaying of the load and to position it for loading, a tagline is recommended. When loads are accelerated or

decelerated suddenly, dynamic forces occur which increase the stresses in the rope. Such situations, which should be avoided, arise from snatch or shock loading e.g., from not taking up the slack rope before starting to lift.

A.1.5.2 Mass of the load

It is essential that the mass of the load to be lifted is known

A.1.5.3 Stability of the load when first raised

It is assumed that the attachment point of the hook is directly above the centre of gravity of the load. To lift the load the following conditions should be met: For loads with attachment points

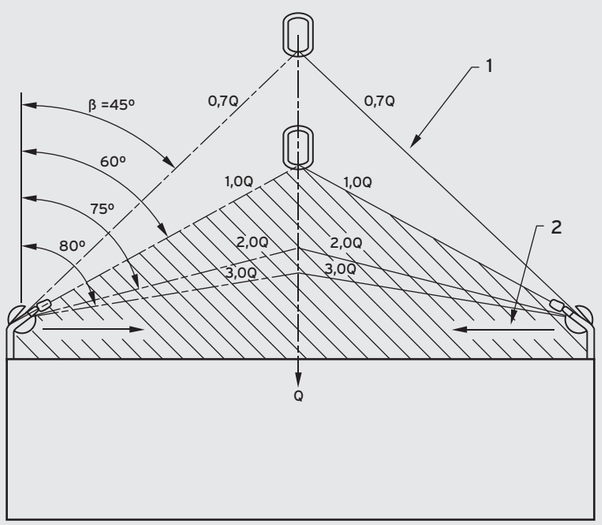
a. For single-leg and single endless wire rope slings the attachment point should be vertically above the centre of gravity.

b. For two-leg wire rope slings the attachment points should be on either side of and above the centre of gravity.

c. For three- and four-leg wire rope slings the attachment points should be distributed in plan around the centre of gravity. It is preferable that the distribution should be equal (but see A.1.5.6) and that the attachment points are above the centre of gravity. If the attachment points using a. or b. are at or below the centre of gravity, other lifting arrangements should be used.

A.1.5.4 Angles for multi-leg slings

When using two-, three- and four-leg wire rope slings the attachment points and sling



1. Loading of leg • 2. Horizontal component of force Hatched area: not covered by tag

configuration should be selected to achieve angles between the sling legs and the vertical within the range marked on the sling. Preferably all angles to the vertical (angle β in figure A.1) should be equal (but see A.1.5.6).

Angles to the vertical of less than 15° should be

avoided if possible as they present a significantly greater risk of load imbalance. All multi-leg slings exert a horizontal component of force (see figure A.1) which increases as the angle between the sling legs is increased. Care should always be taken to ensure that the load to be moved is able to resist the horizontal component of force without being damaged.

A.1.5.5 Method of connection

A wire rope sling is usually attached to the load and the lifting machine by means of terminal fittings. Sling legs should not be twisted or knotted. The lifting point should be seated well down in a hook, never on the point or wedged in the opening; the sling hook should be free to incline in any direction so as to avoid bending. For the same reason, the terminal fitting should be free to incline in any direction on the hook to which it is fitted.

The rope may be passed under or through the load to form a choke hitch (see figure A.2) or basket hitch (see figure A.3). When using the basket hitch method and where it is necessary, due to the danger of the load tilting, to use more than one sling, this should preferably be done in conjunction with a lifting beam having two upper connections to the crane hook.

When a wire rope sling is used in a choke hitch, the rope should be allowed to assume its natural angle and should not be hammered down.

When attaching the sling to the lifting hook, ensure that there is adequate clearance to permit articulation and to prevent damage to the sling. Never force a hammer or wedge a sling into position. If there is insufficient clearance, fit a shackle between the sling and the hook.

To prevent the formation of kinks and subsequent weakening of the rope of slings having soft eye terminations, ensure that the effective diameter of the shackle pin/hook is at least twice the diameter of the rope.

In the case of a multi-leg sling the tip of a sling hook should be directed outwards. No rope should be wrapped around a crane hook

Sling legs may be attached to the load in several ways:

a. Straight leg

In this case lower terminals are connected directly to the attachment points. The selection of hooks and attachment points should be such that the load is carried in the seat of the hook and tip loading of the hook is avoided.

b. Choke hitch

In this case, sling legs are passed through or under the load and the lower terminal back hooked or reeved onto the rope. A single-leg sling may also be used in a double choke hitch. This method can, therefore, be used where no suitable attachment points are available and have the additional advantage that the wire rope sling legs tend to bind the load together. Where choke hitch is employed the working load limit (WLL) of the sling should be no more than 80 % of that market.

If two or more wire rope sling legs are used in a choke hitch or a double choke hitch care should be taken:

1. if it is important, to avoid imparting torque to the load, to align the chokes; or

2. if it is important, to avoid the load rolling or moving laterally when first lifted, to ensure that (at least) one leg passes either side of the load. When endless slings are used, they should be so placed such that any joining ferrules or splices are in the free length of the sling.

c. Basket hitch

There are two methods of forming a basket hitch; passing a single sling through a load or wrapping two slings around the load. The second method is not suitable where the slings are able to move towards each other when the load is lifted or when lifting loads that are not held together such as loose bundles; a choke hitch is preferred.

WIRE ROPE SLING WARNINGS

When you inspect a wire rope sling, it shall be taken out of service immediately and returned for repair or replacement when any of the below defects are present.

			
Missing or illegible sling identification (tag)	Kinking, crushing, bird caging, or any other damage to the rope structure	For single part slings, 10 randomly distributed broken wires in one lay length or 5 broken wires in one strand in one rope lay	Evidence of heat damage
			
For cable-laid slings, 20 broken wires per braid	End attachments that are cracked, deformed, or worn	For 6-part braided slings, 20 broken wires per braid	Severe corrosion of the rope, end attachments, or fittings
			
For 8-part braided slings 40 broken wires per braid	Damaged hooks as per ASME B30.10	Severe localised abrasion or scraping	Damaged rigging hardware as per ASME B30.26