

A man wearing a white helmet and a dark grey polo shirt with orange accents is working on a tree. He is holding a thick orange and blue rope that is attached to several silver carabiners and green locking devices. The background shows a clear blue sky and the green foliage of a tree.

Marlow[®]

ARBORICULTURE

FOR LIFE
ON THE EDGE

ISSUE 8



COMPANY PROFILE

QUALITY, INNOVATION, TECHNICAL EXCELLENCE

In 1807 Thomas Burfield opened his rope factory in Hailsham, East Sussex and, over 200 years later, Marlow Ropes continue to manufacture ropes on the same site.

In the mid 1950's Burfield and Son's was incorporated into the expanding Hawkins and Tipson Rope Group, founded by George Hawkins and Alfred Tipson in 1881. At this time, the factory in Hailsham was one of the first in the world to be manufacturing synthetic fibre ropes. These ropes were specifically made for the yachting industry under the new "Marlow" brand.

These new nylon and polyester ropes were ideal for the demands of the re-emerging yachting industry, which was recovering after World War II. The success of the "Marlow" brand led to the founding of Marlow Ropes Ltd in 1961, as part of the Hawkins and Tipson Group, with the express purpose of manufacturing synthetic fibre ropes for the yachting market.

Very soon Marlow Ropes became internationally known as leaders in the field and over the course of the following decades, moved from strength to strength, further asserting its dominance in the yachting industry with innovation and marketing.

Today, over 200 years after Thomas Burfield first set up his rope factory, Marlow Ropes continue to manufacture innovative and quality British products. Our reputation

for quality and technical innovation continues in the 21st Century and the company continues to forge a path of progress and growth in the markets in which we operate.

We are proud to fly the flag for British manufacturing. Our factory in the UK is still on the same site that ropes were first made in the town in 1807, and we remain a key local employer with some of our staff being 3rd or 4th generation ropemakers. However, we always have an eye to the future and over the past few years we have expanded our factory and grown our work force to meet increasing demand.

At Marlow we recognise that being a market leader in the global arboriculture industry is not just about great products that you can trust – customer service is key.

Delivering quality and innovation as well as producing products to the specifications our customers want and need, is the maxim by which everyone at Marlow Ropes carries out their working day.

Marlow have worked hard over the last couple of years to eliminate as much waste and single-use plastic from our rope ranges and continue to look at bio-based materials to help us achieve our sustainability goals we are proud to be making significant changes in the rope-making industry.

Everything is driven by our passion and commitment. With Marlow you get a global guarantee of quality, service, commitment and a brand you can trust.

'Marlow', 'Blue Ocean' and the 'Black Marker' are registered trade marks of MARLOW ROPES LTD.

Marlow Ropes Ltd endeavor to ensure that all products are manufactured to the highest standards, these guidelines are for information only and do not create any warranties, expressed or implied, of merchantability or fitness for a particular purpose. Marlow Ropes Ltd shall not be liable for any loss or damage whatsoever relating from the use of these guidelines. Marlow Ropes Ltd has a policy of continual improvement which may result in specification and colour changes without prior notice.

All trademarks are recognised: Vectran®, Technora®, Dyneema® is a registered Trademark of Avient Protective Materials



SECTORS

- LEISURE MARINE
- DEFENCE
- VEHICLE RECOVERY
- ARBORICULTURE
- ROPE ACCESS
- MARINE & OFFSHORE
- GENERAL INDUSTRIAL
- UTILITY
- WORKING AT HEIGHT
- RENEWABLE ENERGY

CLIMBING ROPES

NEW

MAVERICK

New for 2024, The revolutionary Maverick is an 11.5mm climbing line with a nylon core and hardwearing polyester cover.

Maverick's 11.5mm diameter offers lighter weight and flexibility, performing extremely well with all modern hardware devices. Available with a low-profile spliced eye finished with a whip.

For further information, see specifications on page 5



COLOURS:

HI-VIS LIME / ORANGE



HI-VIS LIME / NEON YELLOW



TERMINATIONS:

LOW PROFILE SPLICE

AND WHIP



“AFTER 30 HOURS OF USE, THE MAVERICK PERFORMED EXTREMELY EFFICIENTLY IN SRT CONFIGURATION WITH A ROPE RUNNER AND ROPE RANCH. IT HELD ITS SHAPE WELL WITH ZERO CREEP. AFTER 30 HOURS USE IN DRT WITH THE ZIG-ZAG, THE MAVERICK STILL RETAINED GRIP ON THE HANDS FOR TENDING ROPE WHEN LIMB-WALKING BACK TOWARDS TRUNK.”

G Badger, CSP Distribution, Australia.

NEW

TYPHOON

Marlow's 12.2mm Typhoon is stirring up a storm and continues the trend of next-generation development and innovation for the modern Arborist. Typhoon has been developed with low-stretch and toughness in mind, made with high tenacity polyester. Typhoon's 16-plait polyester cover and multiple twisted polyester core, makes it the perfect partner for most modern hardware. Typhoon is fully compliant with EN 1891 Type A

For further information, see specifications on page 5



COLOURS:

YELLOW / RED / BLACK

RED / YELLOW / BLACK



TERMINATIONS:

LOW PROFILE SPLICE AND WHIP



VESPER

Vesper is an 11.8mm climbing line with an all polyester construction providing a low elongation rope with good friction and heat resistance.

Vesper is fully compliant with EN 1891 as a type A rope. Available in two high visibility colours with a ultra low-profile splice termination.



COLOURS:
ORANGE / BLUE
PURPLE / GREEN

TERMINATIONS:
LOW PROFILE SPLICE AND WHIP



“VESPER HAS AN IMPRESSIVE PERFORMANCE IN BOTH DRT AND SRT WITH LOW ELONGATION AND MINIMAL BOUNCE”

K Dunbar , Arborist

VEGA

Vega is EN1891 Type B certified and conforms to ANSI Z133. This light-weight arborist climbing rope boasts extremely low elongation (1.2%). Designed specifically to work with the new generation of mechanical devices and to provide a less fatiguing user experience. Marlow’s type B certified rope still exceeds the type A requirement for strength. For further information on this, see page 18.

Vega’s tough polyester core provides extremely low elongation whilst also being energy absorbing, making it a popular choice for SRT climbing. The 24 plait polyester jacket gives a rope with exceptional flexibility and handling without compromising on durability.



COLOURS:
GREEN / GREY
ORANGE / GREY
YELLOW / GREY

TERMINATIONS:
LOW PROFILE SPLICE AND WHIP



GECKO

Designed as a traditional 13mm climbing rope for double rope technique, the Gecko climbing ropes have a tough and durable 16 plait polyester cover making the rope supple and hardwearing - ideal for use with friction hitches. Gecko is fully compliant with EN 1891 Type A.



COLOURS:
RED / LIME
ORANGE / WHITE

TERMINATIONS:
SPLICED OR SEWN

GECKO



GECKO FCR ORANGE



Climbing Line Specifications

	TYPHOON	MAVERICK	VEGA	VESPER	GECKO
DIAMETER	12.2mm	11.5mm	11.7mm	11.8mm	13mm
LENGTHS	25m,35m,45m,60m,200m	25m,35m,45m,60m,200m	25m,35m,45m,60m,200m	25m,35m,45m,60m,200m	25m,35m,45m,200m
WEIGHT	110	93	100.9 g/m	107.9 g/m	125.4 g/m
AVERAGE BREAK LOAD	32.8kN	35kN	36.8kN	29.7kN	32.1kN
ELONGATION	1.5%	2.5%	1.2%	2.2%	1.5%
TEST STANDARDS	EN 1891 TYPE A ANSI Z133	EN 1891 TYPE A ANSI Z133	EN 1891 TYPE B ANSI Z133	EN 1891 TYPE A ANSI Z133	EN 1891 TYPE A ANSI Z133

RIGGING SLINGS



WHOOPIE SLINGS

Whoopie slings are adjustable in length, with one fixed and one adjustable eye Marlow Whoopie slings are manufactured using a unique multi-braided construction for improved durability without the need for PU coating.

Unique multi-braided construction that is hardwearing, strong and adjustable, with high elongation for superior energy absorption. Supplied pre-spliced.



COLOURS:

LIME 
 BLUE 
 RED 

TERMINATIONS:
 FIXED EYE SPLICE ONE END,
 ADJUSTABLE SPLICE OTHER END



Specifications

DIAMETER	LENGTHS	UNIT WEIGHT	MINIMUM BREAKLOAD	MATERIAL
18mm	0.9-1.83m	1079g	4740kg	Polyester
18mm	0.9-2.4m	1320g	4740kg	Polyester
18mm	0.9-3.6m	2050g	4740kg	Polyester

WHOOPIE EXTREME

Whoopie Extreme is 5x lighter than our equivalent standard Whoopie Sling yet 40% stronger. Lighter handling, increased safety factor and minimal elongation make this the ultimate tree rigging sling.

Very high strength & low stretch, very light weight and does not absorb water. It has excellent abrasion resistance, and is supplied with an adjustable factory splice.



COLOURS:

GREY 

TERMINATIONS:
 FIXED EYE SPLICE ONE END,
 ADJUSTABLE SPLICE OTHER END

Specifications

DIAMETER	LENGTHS	UNIT WEIGHT	MINIMUM BREAKLOAD	MATERIAL
10mm	1.1-3.6m	350g	6690kg	HMPE

RAPTOR DEAD-EYE SLINGS

Raptor dead-eye slings are made from Raptor Lowering lines and made from ArmourCoat coated Doublebraid polyester rope and are available in 2 sizes with pre-spliced 100mm eyes.

PU coated, hardwearing, high strength and low stretch.



COLOURS:

16MM RED 
 18MM YELLOW 

TERMINATIONS:
 SPLICED 100MM
 CLOTH PROTECTED EYE

Specifications

DIAMETER	LENGTHS	UNIT WEIGHT	MINIMUM BREAKLOAD	COVER MATERIAL	CORE MATERIAL
16mm	4m/ 5m	965g	5990kg	Polyester	Polyester
18mm	4m/ 5m	1393g	6550kg	Polyester	Polyester

LOWERING LINES

DRACO

Specially developed for the most demanding arborist rigging applications, Draco's proven 16 plait polyester cover is married with a braided high tenacity core to give a tough but high strength lowering line. The fully braided construction prevents twisting and allows for a supple rope without compromising on durability.

The core/ cover polyester construction ensures performance, durability and economy from a single rope.



COLOURS:

12MM BLUE FLECK



14MM GREEN FLECK



16MM RED FLECK



Specification

DIAMETER	LENGTHS	WEIGHT	MINIMUM BREAKLOAD	COVER MATERIAL	CORE MATERIAL
12mm	50m / 200m	100.6g/m	3590kg	Polyester	Polyester
14mm	50m / 200m	130.4g/m	5036kg	Polyester	Polyester
16mm	50m / 200m	197.0g/m	7550kg	Polyester	Polyester

RAPTOR

Raptor Rigging line is manufactured using our soft and supple Doublebraid rope with colour coded ArmourCoat for reduced water uptake. The ArmourCoat also improves abrasion resistance by 30%



COLOURS:

12MM BLUE



14MM GREEN



16MM RED



18MM YELLOW



Specification





DIAMETER	LENGTHS	WEIGHT	MINIMUM BREAKLOAD	COVER MATERIAL	CORE MATERIAL	COVER COATING
12mm	100m / 200m	111G/M	4380KG	Polyester	Polyester	Armourcoat
14mm	100m / 200m	156G/M	5570KG	Polyester	Polyester	Armourcoat
16mm	100m / 200m	193G/M	6650KG	Polyester	Polyester	Armourcoat
18mm	100m / 200m	232G/M	7280KG	Polyester	Polyester	Armourcoat

RAPTOR BULL ROPES

Braid on braid construction and easily spliced.
 ArmourCoated for 30% improvement in abrasion resistance and reduction in water absorption. Raptor Bull Ropes supplied pre-spliced with a spliced stainless steel thimble.

Hard wearing abrasion resistant ArmourCoated cover. High strength and low stretch.



COLOURS:
 12MM BLUE  14MM GREEN 
 16MM RED  18MM YELLOW 

Specification






DIAMETER	LENGTHS	UNIT WEIGHT	MINIMUM BREAKLOAD	COVER MATERIAL	CORE MATERIAL	COVER COATING
12mm	50m	5.6kg	3940kg	Polyester	Polyester	Armourcoat
14mm	50m	7.8kg	5010kg	Polyester	Polyester	Armourcoat
16mm	50m	9.7kg	5990kg	Polyester	Polyester	Armourcoat
18mm	50m	11.6kg	6550kg	Polyester	Polyester	Armourcoat

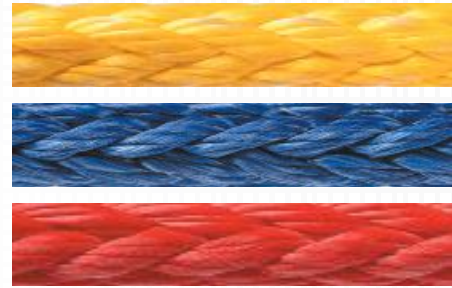
ARBOR12

High strength 12 strand polyester line coated with ArmourCoat for improved abrasion resistance and reduced water absorption.

Abrasion resistance, reduced water absorption, very easily spliced - great for on-site splicing.



COLOURS:
 9MM ORANGE  11MM BLUE 
 13MM GREEN  16MM RED 
 18MM YELLOW 



Specification

DIAMETER	LENGTHS	WEIGHT	MINIMUM BREAKLOAD	MATERIAL	COVER COATING
9mm	200m	61.3g/m	3090kg	Polyester	Armourcoat
11mm	200m	92.0g/m	4550kg	Polyester	Armourcoat
13mm	200m	123g/m	5960kg	Polyester	Armourcoat
16mm	200m	184g/m	8780kg	Polyester	Armourcoat
18mm	200m	184g/m	8780kg	Polyester	Armourcoat



Watch the Arbor 12 Splicing Tutorial

ACCESSORY CORDS

BOA CORD

Marlow's Boa is a high strength 12 strand polyester line that has a hardwearing 16 plait polyester cover with a braided polyester core. This anti-kink construction means Boa is ideal for use as a prussik and other friction hitches, offering easy knot tying and good grip.

High tenacity polyester balances economy and performance. Tough 16 plait construction for durability and flexibility.



COLOURS:
BLACK / LIME



Specification

DIAMETER	LENGTHS	WEIGHT	AVERAGE BREAKLOAD	TEST STANDARDS	COVER MATERIAL	CORE MATERIAL
9mm	200m reels	65.1g/m	20.6kN	CE approved	Polyester	Polyester

BOA LOOPS

Factory sewn, CE certified loops made using the tough and proven anti-kink Boa cord (see above).

High strength termination conforms to CE EN 566. Serial numbered, factory CNC sewn terminations for regulatory compliance.



COLOURS:
BLACK / LIME



TERMINATIONS:
SEWN LOOP

Specification

DIAMETER	LENGTHS	UNIT WEIGHT	AVERAGE BREAKLOAD	TEST STANDARDS	COVER MATERIAL	CORE MATERIAL
9mm	50cm	71.6g	27.4kN	CE EN 566	Polyester	Polyester
9mm	60cm	84.6g	27.4kN	CE EN 566	Polyester	Polyester
9mm	70cm	97.7g	27.4kN	CE EN 566	Polyester	Polyester

VIPER CORDS

Marlow's Viper is a Vectran® / polyester accessory cord designed for use as a high performance friction cord where heat generation is an issue. The high melting point of Vectran® prolongs the working life of the cord in tough or heavy use conditions.

High strength and heat resistant Vectran® cover for longevity in heavy use. 24 plait construction offers easy knotability in a smaller diameter and consistent friction performance.



COLOURS:
BLUE / NATURAL
GREY / NATURAL
PURPLE / WHITE

Specification

DIAMETER	LENGTHS	WEIGHT	AVERAGE BREAKLOAD	TEST STANDARDS	COVER MATERIAL	CORE MATERIAL
8mm	200m reels	44.8g/m	18.8kN	CE EN 564	Vectran® / Polyester	Polypropylene
10mm*	100m reels	57.0g/m	27.9kN	N/A	Vectran® / Polyester	Polypropylene

* 10mm is not CE certified

VIPER LOOPS

Factory sewn CE certified loops manufactured using the durable and heat resistant Viper Cord.

This high strength loop is serial numbered, CNC factory sewn and conforms to EN 566.



COLOURS:
BLUE / NATURAL

TERMINATIONS:
SEWN LOOP

Specification

DIAMETER	LENGTHS	UNIT WEIGHT	AVERAGE BREAKLOAD	TEST STANDARDS	COVER MATERIAL	CORE MATERIAL
8mm	50cm	49.3g	27.2kN	CE EN 566	Vectran / Polyester	Polypropylene
8mm	60cm	58.2g	27.2kN	CE EN 566	Vectran / Polyester	Polypropylene
8mm	70cm	67.2g	27.2kN	CE EN 566	Vectran / Polyester	Polypropylene

VIPER2 SLING

A factory sewn CE certified eye-to-eye sling made using a high strength cord incorporating the proven Viper vectran cover. Viper2 slings have short stitching for efficient technique.

High strength termination conforms to CE EN 566. Serial numbered, factory CNC sewn terminations for regulatory compliance.



COLOURS:
PURPLE / NATURAL

TERMINATIONS:
SEWN LOOP

Specification

DIAMETER	LENGTHS	UNIT WEIGHT	AVERAGE BREAKLOAD	TEST STANDARDS	COVER MATERIAL	CORE MATERIAL
8mm	50cm	57.2g	23.6kN	CE EN 566	Vectran / Polyester	Vectran
8mm	60cm	64.6g	23.6kN	CE EN 566	Vectran / Polyester	Vectran
8mm	70cm	72g	23.6kN	CE EN 566	Vectran / Polyester	Vectran
8mm	80cm	75.5g	23.6kN	CE EN 566	Vectran / Polyester	Vectran
8mm	90cm	80.9g	23.6kN	CE EN 566	Vectran / Polyester	Vectran
8mm	1m	86.2g	23.6kN	CE EN 566	Vectran / Polyester	Vectran

ACCESSORY CORD

Strong, light, polyamide (Nylon) accessory cord provides ideal performance for a variety of applications.

Key attributes: CE certified (4mm, 5mm, 6mm and 8mm only).
4mm, 5mm, 6mm and 8mm versions conform to EN 564



COLOURS:
YELLOW
BLACK
OTHERS AVAILABLE ON REQUEST
(SUBJECT TO MOQs)

Specification

DIAMETER	LENGTHS	WEIGHT	COLOURS	AV. BREAKLOAD	TEST STANDARD	CONSTRUCTION	COVER CONSTRUCTION	CORE MATERIAL	COVER MATERIAL
3mm	100m, 200m	5.6g/m	Various	2.00kN		Twisted core	16 Plait	Polyamide (Nylon)	Polyamide (Nylon)
4mm	100m, 200m	9.9g/m	Various	3.65kN	CE EN 564	Twisted core	16 Plait	Polyamide (Nylon)	Polyamide (Nylon)
5mm	100m, 200m	16.6g/m	Various	8.38kN	CE EN 564	Twisted core	16 Plait	Polyamide (Nylon)	Polyamide (Nylon)
6mm	100m, 200m	22.5g/m	Various	11.17kN	CE EN 564	Twisted core	16 Plait	Polyamide (Nylon)	Polyamide (Nylon)
7mm	100m, 200m	30g/m	Various			Twisted core	16 Plait	Polyamide (Nylon)	Polyamide (Nylon)
8mm	100m, 200m	37.6g/m	Various	16.09kN	CE EN 564	Twisted core	16 Plait	Polyamide (Nylon)	Polyamide (Nylon)

DYNEEMA® ACCESSORY CORD

This CE certified, high strength Dyneema® accessory cord is Ideal for technical rigging, where exceptional strength and light weight are essential. Very low elongation ensures accurate positioning to maintain efficient rigging.

Low-stretch, CE certified, exceptional strength, braided Dyneema® core



COLOURS:
RED / BLACK

Specification

DIAMETER	LENGTHS	WEIGHT	COLOURS	AV. BREAKLOAD	TEST STANDARD	CONSTRUCTION	COVER CONSTRUCTION	CORE MATERIAL	COVER MATERIAL
3mm	100m, 200m reels	18.2g/m	Red/Black	17.91kN	CE EN 564	Braided Dyneema® Core	32 Plait Polyester	Dyneema®	Polyester



ACCESSORIES

WIRECORE FLIPLINE

Marlow Fliplines are CE certified work positioning lanyards made using flexible and strong 7x19 galvanised steel wire core with tough 16 plait polyester cover.

Galvanised 7x19 wire provides zero stretch, and is cut resistant. It gives ideal balance of flexibility and weight for improved flip performance. 16 plait polyester cover for excellent abrasion resistance and provides grip against the tree. 13mm diameter compatible with rope grabs and other adjustment methods.



COLOURS:

ORANGE / BLUE
YELLOW



TERMINATIONS:

FERRULED EYE WITH OR WITHOUT
SNAP HOOKS (FIXED OR SWIVEL) OR
GRAB HOOK



Specification

DIAMETER	LENGTHS	UNIT WEIGHT	AVERAGE BREAKLOAD	TEST STANDARDS	COVER MATERIAL	CORE MATERIAL
13mm	2m	646g	30kN	CE EN 354	Polyester	7 x 19 galvanised steel wire
13mm	3m	864g	30kN	CE EN 354	Polyester	7 x 19 galvanised steel wire
13mm	4m	1082g	30kN	CE EN 354	Polyester	7 x 19 galvanised steel wire
13mm	5m	1300g	30kN	CE EN 354	Polyester	7 x 19 galvanised steel wire

Swivel Hook Termination

The swivel hook helps to remove any twist that can get induced during the climb. Available with thimble eyes or with a grab and stopper.



Fixed Hook Termination

The fixed hook termination reduces weight and clutter on the harness.



FLIPLINE ASSEMBLY WITH ROPE GRAB

Adjustable in length. This system comes integrated and CE certified.

Available with a fixed eye one end (including fixed or swivel hook) and a stopper at the other end.



COLOURS:

ORANGE / BLUE



TERMINATIONS:

WITH OR WITHOUT SNAP HOOKS
(FIXED OR SWIVEL)

Specification

DIAMETER	LENGTHS	UNIT WEIGHT (ROPE+ GRAB)	MINIMUM BREAKLOAD	TEST STANDARDS	MAX. USER WEIGHT	CORE MATERIAL
13mm	2m	823g	15kN	CE EN 358	140kg	Galvanised wire
13mm	3m	1041g	15kN	CE EN 358	140kg	Galvanised wire
13mm	4m	1259g	15kN	CE EN 358	140kg	Galvanised wire
13mm	5m	1477g	15kN	CE EN 358	140kg	Galvanised wire



SPLIT TAILS

Marlow Split Tails are made from our CE certified Maverick, Gecko and Vega climbing ropes. These are finished with a strong factory sewn eye termination. Available in 3 lengths.



Serial numbered, factory CNC sewn terminations for regulatory compliance.

GECKO

COLOURS:



TERMINATIONS:

SEWN EYE

Specifications

DIAMETER	LENGTHS	UNIT WEIGHT	AVERAGE BREAKLOAD	TEST STANDARDS	COVER MATERIAL	CORE MATERIAL
13mm	1.5m	188g	28.3kN	CE EN 1891 TYPE A ANSI Z133	Polyester	Polyester
13mm	3.5m	439g	28.3kN	CE EN 1891 TYPE A ANSI Z133	Polyester	Polyester
13mm	5m	627g	28.3kN	CE EN 1891 TYPE A ANSI Z133	Polyester	Polyester



VEGA

COLOURS:



TERMINATIONS:

SEWN EYE

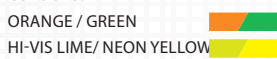
Specifications

DIAMETER	LENGTHS	UNIT WEIGHT	AVERAGE BREAKLOAD	TEST STANDARDS	COVER MATERIAL	CORE MATERIAL
11.7mm	3.5m	373g	27.8kN	CE EN 1891 TYPE A ANSI Z133	Polyester	Polyester
11.7mm	5m	525g	27.8kN	CE EN 1891 TYPE A ANSI Z133	Polyester	Polyester



MAVERICK

COLOURS:



TERMINATIONS:

SEWN EYE

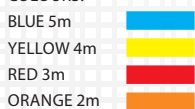
Specifications

DIAMETER	LENGTHS	UNIT WEIGHT	AVERAGE BREAKLOAD	TEST STANDARDS	COVER MATERIAL	CORE MATERIAL
11.7mm	3.5m / 5m	373g/525g	27.8kN	CE EN 1891 TYPE A ANSI Z133	Polyester	Polyester



WORK POSITIONING LANYARD

COLOURS:



TERMINATION OPTIONS:

SEWN EYE OR WITH SNAP HOOK (5M ONLY)



Specification

DIAMETER	WEIGHT	LENGTHS	AV. BREAKLOAD	MIN. BREAKLOAD	TEST STANDARD	CONSTRUCTION	COVER CONSTRUCTION	CORE MATERIAL	COVER MATERIAL
11mm	188g	2m	30.9kN	22kN	CE EN 354	Multiple Twisted Cores	16 plait	Nylon	Nylon
11mm	261g	3m	30.9kN	22kN	CE EN 354	Multiple Twisted Cores	16 plait	Nylon	Nylon
11mm	355g	4m	30.9kN	22kN	CE EN 354	Multiple Twisted Cores	16 plait	Nylon	Nylon
11mm	409g	5m	30.9kN	22kN	CE EN 354	Multiple Twisted Cores	16 plait	Nylon	Nylon
11mm			30.9kN	22kN	CE EN 354	Multiple Twisted Cores	16 plait	Nylon	Nylon



THROWLINE

Supplied on handy 50m mini spools, our 2mm Throwline has a smooth and hardwearing polyester cover.

Excellent handling characteristics and excellent longevity. Supplied in multiples of 10.



COLOURS:
ORANGE



Specifications

DIAMETER	LENGTHS	WEIGHT	MINIMUM BREAKLOAD	MATERIAL
2mm	50m	2.7g/m	0.97kn	Polyester

DYNEEMA® THROWLINE

For easier handling and higher breaking strength, the Dyneema® Throwline is over 3 times as strong as our standard polyester product, but is 12% lighter.

Light, strong and hardwearing. Now made from bio-based Dyneema®.



COLOURS:
YELLOW



Specifications

DIAMETER	WEIGHT	MINIMUM BREAKLOAD	MATERIAL
1.8mm	2.4g/m	4.0kN	Bio based Dyneema®

MINI SPOOL DISPENSER - RETAIL DISPLAY

Marlow's Mini Spool Dispenser is a great point-of-sale display for till spaces and table-tops, available free of charge when purchased with 16 mini-spool reels from our Throwline range.

Spools can be re-ordered as and when required.



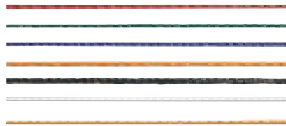
DISPENSER MEASUREMENTS (H X W X D)

200 x 70 x 315mm

WHIPPING TWINE

Marlow's Wax Polyester Whipping Twine is widely regarded as the best whipping twine on the market.

Available in 4 sizes and a variety of colours (no.4 only). The waxed finish makes for easier whipping and a better finish. Available in "display boxes" of spools or on 1kg cops.



Specifications

DIAMETER	SIZE * (SEE SIZE CHART BELOW)	MATERIAL	COVER COATING
0.5mm	No.2	Polyester	Wax
0.8mm	No.4	Polyester	Wax
1.1mm	No.8	Polyester	Wax
1.5mm	No.16	Polyester	Wax

Size chart

SIZE	NO.2 (Thin)	NO.4 (Med.)	NO.4 (Med.)	NO.4 (Med.)	NO.4 (Med.)	NO.4 (Med.)	NO.4 (Med.)	NO.4 (Med.)	NO.8 (Lge.)	NO.16 (Lge.)
DIAMETER	0.5mm	0.8mm	0.8mm	0.8mm	0.8mm	0.8mm	0.8mm	0.8mm	1.1mm	1.5mm
COLOUR	White	White	Red	Blue	Black	Green	Gold	Beige	White	White

CORDLESS HOT KNIFE

Marlow's new cordless hot knife cuts and heat-seals ropes quickly and efficiently with the blade reaching a temperature of 400°C in seconds. Supplied in a handy carry case shown in the image below including 1 x KD-DC100R Handle, 1 x brush, 1 x battery pack 14.4V/2.0Ah



Specifications

VOLTAGE	WEIGHT (INC BATTERY & BLADE)
DC14.4v	0.7kgs



ROPE BAG

The Marlow rope bag is able to accommodate up to 45m of climbing rope



COLOURS:
BLACK



SEAMLESS TUBE BANDANA

These 100% recycled polyester tubes are the perfect accessory to any arborists tool-kit. Its multi-use function means that it can be used as a bandana, wristband or face mask.

COLOURS:
BLACK / RED



LENGTHS

25 x 50cm



EZYiD

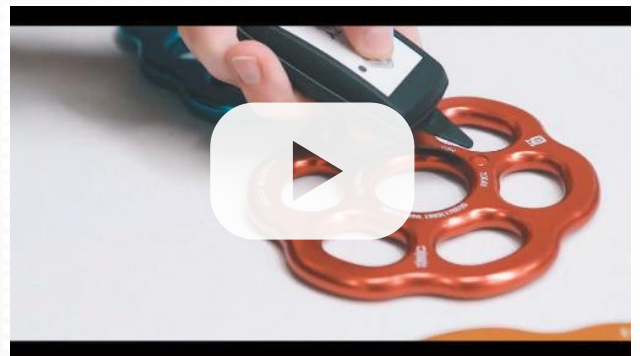
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TECHNICAL INFORMATION - TYPE A VS TYPE B CLIMBING ROPES

When the EN 1891 rope standard was written there was no consideration of the arb industry's requirements. However, in most respects the standard is suitable and has been adopted by the industry accordingly. The issue with EN 1891 in respect of tree climbing is with the drop test which is designed to simulate a person falling on a slack length of rope. To pass the requirements of EN 1891 the rope must survive 5 drops of factor 1*, however this does not accurately simulate arb rope use.

In doubled rope technique there's always two strands of rope between the climber and the attachment, not one as stated in the standard test. In SRT climbing the rope is usually secured below the climber, passing through a cambium saver and so a fall of more than factor 0.5 is not possible.

Elsewhere in the world, ropes don't actually need to pass a drop test so there is long history of lower elongation ropes being used safely in the Arb industry outside of Europe.

EN 1891 has a provision for two rope types, Type A and Type B. Type B "has lower performance than type A ropes, requiring greater care in use". Crucially the drop mass used in testing type B is lighter at 80kg and this lower drop mass allows a low elongation rope to pass the type B drop test and so gain certification.

Testing to type B has allowed Marlow to make the whole rope from polyester, reducing the static elongation to less than half that of an equivalent nylon rope. This directly translates into a less fatiguing user experience.

Marlow's type B certified rope still exceeds the type A requirement for strength of 22kN and the ANSI Z133 requirement of 5400 lbs. By reducing the drop mass by 20kg to pass an unrepresentative test. Marlow have created Vega, a rope that is CE certified, ANSI compliant and meets and exceeds the strength requirements of Arb climbing ropes, traditionally used in Europe, but is significantly less fatiguing in use.

* Factor 1 test is when the fall distance and the rope length are the same.

VEGA CLIMBING ROPE SPECIFICATIONS	OUR TESTING RESULTS	EN 1891 TYPE A REQUIREMENTS	EN 1891 TYPE B REQUIREMENTS	ANSI Z133 REQUIREMENTS
DIAMETER	11,7mm	8.5 -16mm	8.5 -16mm	>11mm
50-150KG ELONGATION	1.2%	< 5%	< 5%	N/A
ELONGATION AT 540IBS	2.6%	N/A	N/A	< 7%
SHRINKAGE	0%	N/A	N/A	N/A
MASS CORE	45.2 g/m	N/A	N/A	N/A
MASS COVER	55.6 g/m	N/A	N/A	N/A
MASS ROPE	36.8kN	N/A	N/A	N/A
AV. STATIC STRENGTH EX TERMINATIONS	27.8kN	22kN	18kN	24kN
AV. STATIC STRENGTH WITH FIG.8 LOOP	18.9kN	15kN	12kN	N/A
AV. STATIC WITH LOW-PROFILE SPLICED EYE	21.2kN	18kN	12kN	N/A
MATERIAL	POLYESTER			
DROP TEST				
FALL FACTOR 1 FALLS. FIG. 8 LOOP	10*	5**	5***	N/A
PEAK FORCE FIG. 8 LOOP	5.25kN	< 6kN	< 6kN	N/A

* Marlow Drop testing results using 80kg weight ** Drop test type A requires to use 100kg weight *** Drop test type B requires to use 80kg weight.

ROPE STRENGTHS AND WEIGHTS

Rope strengths are tested according to Marlow's QA25 and 26 quality procedures. Generally these procedures are in line with BS EN ISO 2307, however, a number of other internationally recognised test standards are used including EN 1891 and EN 564. Rope mass is determined by weighing a sample of rope whose length has been measured at a reference load. For most ropes this load is calculated as:

$$\text{REFERENCE LOAD (kg)} = D^2/8$$

Where D is the rope nominal diameter (mm)

Most rope strengths in this catalogue are given in kilograms (kg). However, the correct measure of force or breaking strength is kilonewtons (kN). Conversion factors from one to the other are:

$$\text{kg to kN} \times 0.0098 \quad \text{1 kN to kg} \times 101.972$$

WORKING LOADS

Marlow Ropes specify a minimum breaking load. It is the responsibility of the user to determine an appropriate factor of safety and safe working load. This factor of safety must be determined after considering all the risks, the strength reducing factors, and the expected life of the rope. For lifting and lowering, the factor applied should be 7 to 1 in Europe and 5 to 1 in USA.

DO NOT expose ropes to bleach. This can cause severe damage to rope fibres, in particular the polyester used in many of Marlow's arborist products.

DO NOT expose ropes to oxidizing agents such as hydrogen peroxide. These can severely damage fibres like Nylon without any visible indication of harm.

DO NOT use UV lights to sterilize ropes, the UV will damage fibres, in particular UVC used in industrial sterilization equipment can be expected to do more harm than other types of UV.

DO NOT use elevated temperatures to sterilize a rope. High temperatures can affect fibres, particularly materials like HMPE's. As always, if there is any reason to think a rope's performance may be in question it is best to retire that rope from service.

CARE IN USE

STORAGE: Ropes should be stored in a suitable clean, dry place out of direct sunlight and away from extreme temperature. Do not store ropes on dirty floors or drag over rough ground – dirt and grit can work between the fibres and cause abrasion damage. Keep ropes away from chemicals and in cases of long term storage, hose down with fresh water to reduce dirt and salt that can affect the life and efficiency.

COILING: 3 Strand ropes may become damaged if they are taken from a coil the wrong way. If this happens turn the coil over and withdraw the rope from the centre – the rope should run correctly without kinking.

Braided ropes can have excessive twist imparted into them by incorrect handling. Ideally these ropes should be "hanked" in a figure of 8 fashion this avoids putting twist in and will ensure free running when deployed. If supplied on a reel, this must be allowed to rotate freely on a central pin so that the rope may be drawn off from the top layer. Never take the rope from a reel lying on its side unless placed onto a turntable.

SHEAVES, PULLEYS AND ROLLERS: When any rope is used around a sheave there will be a reduction in its strength and life. For most non-specialised applications a sheave diameter 8-10 times the rope diameter will suffice, however certain materials such as Aramids may require a sheave size of up to 20 times diameter.

The profile of the groove in a sheave should support the entire rope. Normally a semicircle of 10% greater diameter than that of the rope is appropriate. 'V' groove sheaves should be avoided since they compress the rope and have points of local friction reducing the life of the rope. Sheaves should be maintained so that they rotate freely in use.

WINCHES AND CAPSTANS: When a rope is wound onto a winch it is important that the wraps are neat and tightly wound. This can be achieved by winding the rope on whilst under tension. If the rope is wound on slack then it will be more prone to burying between the turns of the previous layer. Length of rope that can be held on a winch drum or reel can be calculated as follows:

$$\text{Length (m)} = \frac{710000 \times T(F2-D2)}{d^2}$$

WHERE: T= Traverse in metres

F= Flange diameter in metres

D= Drum diameter in metres

d= Rope diameter in millimetres

TERMINATIONS

Splices: Most Marlow ropes can be spliced, this is normally the preferred method of termination. A good splice using the recommended method should not reduce the strength of a rope by more than 10%.

KNOTS: A knot will reduce the strength of the rope, sometimes very significantly. This loss is caused by the tight bends and compression found in any knot. The amount a rope will be weakened will depend on the knot, type of rope and the material from which it is made but can be up to 60%.

EYE SIZES: Wherever possible the angle formed at the throat of a splice when it is loaded should be 30 degrees or less. This means that the length of the eye when flat must be at least 2.7 times the diameter of the object over which the eye is to be used and the distance from the bearing point to the throat when in use should be at least 2.4 times the diameter. Some materials like Aramids and HMPEs (Dyneema®) will require a larger eye with an angle at the throat of 15 degrees or less.

INSPECTION AND RETIREMENT: It is important that a rope is regularly inspected to ensure that it is undamaged and is still fit for service. The entire length of rope should be examined. The following are some of the points that should be checked. The degree to which any of the following may be allowed before the rope is retired will be dependant on the assumptions made when the rope and safety factors were determined.

EXTERNAL ABRASION: When a multifilament rope is subjected to abrasion the outer filaments will quickly become broken and a furry finish will develop. This furry layer will protect the yarns underneath preventing further abrasion. If this condition does not stabilise and continues to develop then there may be excessive abrasion that could lead to significant strength loss.

INTERNAL ABRASION: The rope should be opened up so that the condition of the internal yarns can be assessed. If they show signs of abrasion then there could be some exposure to abrasive particles or there may be inter yarn abrasion.

GLAZING: If a rope has been subjected to excessive heat then there may be glazed or glossy areas of rope. The glazing is caused when the yarns melt, if this has happened then the nearby yarns will also have been exposed to elevated temperatures and will have been affected. This type of damage is often seen if ropes slip on winch barrels or capstans.

DISCOLOURATION: This could indicate the presence of dirt that may cause internal abrasion or could be an indication of chemical damage. If chemical damage is suspected then the amount that the rope has been weakened is very difficult to assess and the rope should be retired.

INCONSISTENCIES: If any section of the rope is found to contain lumps, flat areas or thin bits then this could indicate that the rope has been damaged internally. This type of damage is often caused by overloading or shock loads.

No rope will last forever and it is important to ensure that if there are any risks if a rope fails then it should be retired after an appropriate period.



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Marlow Ropes Ltd.

Hailsham
East Sussex
United Kingdom

+44 (0) 1323 444 444

sales@marlowropes.com



Marlow Ropes Inc.

Plymouth
Massachusetts
United States

+1 508 830 0444

salesusa@marlowropes.com

Marlow®

marlowropes.com
marlowropes.com/us



Photos:

Michael Salvage

Tree Surgery

Michael Day

Ruby Taylor

