



industrial safety
performance



DONAGHYS
PERFORMANCE FIRST



application

Donaghys Arboriculture range has been developed extensively alongside certified, respected arborists and world champion tree climbers. Our Armor-Prus braid has helped break world records in foot locking and is popular with arborists worldwide. Donaghys climbing and prusik lines are certified to both Australian and International standards.

arboriculture

Donaghys Response® range was designed with safety in mind to deliver the most “responsive” and reliable static descent braids available. They are supple with superior feel and control when used with certified hardware in any abseil, belay or static descent application. Response® XT and abseil braids are certified to Australian and International standards.

height safety

Donaghys range of fully certified rescue ropes have been developed to perform in the most rugged environments including water or air rescue situations. The range features highly visible braids such as our Hi Viz braid with reflective marker tape, ideal for rescues in dark or confined spaces.

rescue

Donaghys have a long history working hand in hand with all branches of the Armed Services to provide “responsive” static lines and technical solutions required in the most challenging environments. Response® Tactical is certified to Australian and International standards.

military / tactical

Donaghys have a wide range of ropes and braids to meet the variety of challenges faced in Theatrical Rigging situations. Whether it be a pulley rope, a lifting rope or a curtain lashing, Donaghys have the product to meet any colour, performance and strength requirements.

theatrical rigging

When it comes to safety and reliability you can't take shortcuts. Featuring extreme high strength with minimal elongation and recoil, Donaghys wire replacement ropes are lighter, safer and stronger than steel for many industrial applications. With OH&S paramount in this rapidly expanding segment, make the smart choice for preventing accidents before they happen.

wire replacement

From Donaghys beginnings as a small rope works in 1876, we have had a long history with providing ropes to the shipping industry. Today, Donaghys shipping range includes 8 strand and 12 strand options in a full range of fibres to meet the most vigorous demands of this industry.

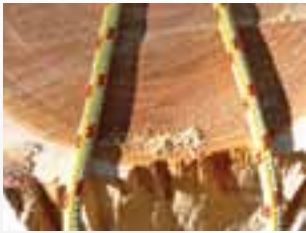
shipping

Donaghys range of general ropes, cords and accessories round off a comprehensive product offering. From tying down to rope bags, Donaghys have a product that will meet your requirements. Donaghys also offer an in-house splicing service, packaged to meet your individual requirements.

general

arboriculture

SPARK



- 12mm
- 30m lengths
- 100m and 200m reels

- Climbing line

- A hard wearing cost effective climbing line
- Fully splicable cover dependent construction
- Low stretch
- 12mm for easy grip while retaining a light weight climbing line
- Wears well with high abrasion resistant low snag polyester cover
- Kernmantle core construction
- Highly visible
- Meets ANSI Z-133 standards

TECHNICAL Average Breakload (kg).

Ø	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
12mm	2560									

COUGAR



- 11.7mm
- 100m reels

- High performance climbing line for use in sports climbing and professional Arborist applications

- Superior double braid construction with abrasion resistant HT Polyester cover for improved grip and handling
- Will not milk when used with prusiks and traditional hitches
- Light weight and flexible
- Low stretch for excellent foot locking
- Easy to splice with convenient double braid splice
- Works well with hardware
- Meets ANSI Z-133 standards

Ø	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
11.7mm	2800									

NRG



- 12mm
- 30m lengths
- 100m and 200m reels

- High performance climbing line for use in sports climbing and professional Arborist applications

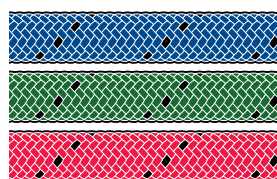
- 24 strand cover construction for easy handling
- Excellent bend ratio
- Light weight
- Low stretch for excellent foot locking
- Kernmantle core construction
- Works well with hardware
- Meets ANSI Z-133 standards

Ø	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
12mm	2900									

arboriculture

“ Smaller diameter double braid climbing lines have become the staple diet of tree climbers around the world. With great grip and prusik compatibility, the Cougar makes an excellent all round climbing line ” –GRANT CODY, AUSTRALIAN ARBOR CHAMPION

SPECTRASPEED



RANGE

- 8mm & 10mm
- 100m reels

APPLICATION

- Prusik line
- Access line

FEATURES

- Approved for use as a prusik material climbing hitches
- Uses a high tenacity polyester braided cover over a braided Spectra900 core
- Very light weight
- Easy to splice
- Meets ITCC climbing comp rules

TECHNICAL Average Breakload (kg).

ø	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
8mm	3000									
10mm	4500									

STANDARD-PRUS



- 8mm
- 100m reels

- Prusik line
- General applications

- A double braided high tenacity nylon Prusik or accessory cord
- Bright hotdog colour
- Easy handling and knot holding

ø	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
8mm	2000									

ARMOR-PRUS



- 8mm & 10mm
- 25m reels

- Prusik line
- Access line

- Blended Technora cover acts like Armor to prevent melting and glazing
- Light weight Armored Spectra/ Kevlar safety core
- Core features twin Kevlar strands preventing the core from being cut or melted completely in the unlikely event of cover failure
- Technora is rated 234°C higher than standard Polyester
- Very low stretch
- Easy to splice
- Meets ITCC climbing comp rules

ø	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
8mm	2800									
10mm	4300									

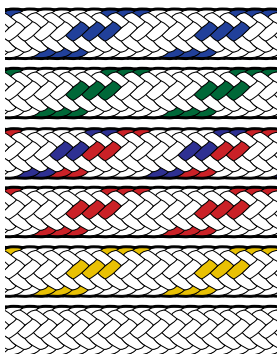
“ Since first sampling the product in New Zealand three years ago, Armor Prus has become an important part of our climbing system. As a climbing prusik, the cord performs brilliantly, when tied correctly it is reliable and runs well on modern double braid climbing lines. As it has a breaking strength exceeding 22kn, the 8mm Armor Prus is perfect to splice as a footlock prusik or as a back up link in SRT systems.

The 10mm version has also proven itself as a superior foot lock line due to its static nature and high grip. At the world comps in 2010, the footlock comp was won on 10mm Armor Prus, with several other climbers recording PB's on the rope also.

The only problem with Armor Prus is that other climbers always want to “borrow” some - piss off, get your own! ”

—GRANT CODY, AUSTRALIAN ARBOR CHAMPION

YACHTMASTER XS



RANGE

- 16mm
 - 100m reels
- Available in white with colour fleck or solid colour combinations

APPLICATION

- Rigging and lowering line

FEATURES

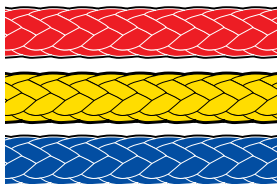
- 100% Polyester double braid
- High strength with low stretch
- Easy to splice
- Excellent handling and abrasion resistance
- UV stable
- Designed to run easily through hardware

TECHNICAL

Average Breakload (tons). Refer breakload table (pg 41) for full specs

Ø	1	2	3	4	5	6	7	8	9	10
16mm	6.50									

RIGGING BRAID



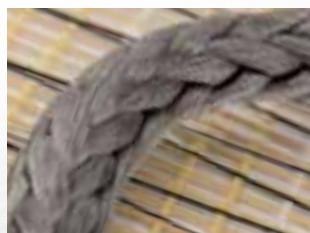
- 12mm size
- 3 fibre options to suit strength requirements
- 350m carton

- Rigging and lowering line
- Whoopie or Loopie Slings

- High strength
- 12 strand easy spliceability
- Donaghys Armorcoat enhances abrasion resistance
- Colour coded for strength

Ø	1	2	3	4	5	6	7	8	9	10	11
12mm Red	5.0										
12mm Yellow	7.5										
12mm Blue	10.5										

OCEAN12



- 3mm - 20mm
- Coated with Donaghys Armorcoat
- Sold by the metre
- High performance abrasion / heat resistant jackets available on request

- Towing lines
- Lifting
- Rigging and Utility
- Wire replacement
- Trawl and Bridle lines
- Logging
- Can be easily spliced for Whoopie or Loopie Slings

- High strength to weight ratio
- High UV resistance
- Floats and does not absorb water
- Low stretch
- High internal and external abrasion resistance
- Melt point 152°C
- Elongation 3.7%
- Donaghys standard dark grey Armorcoat enhances abrasion and cut resistance

Ø	5	10	15	20	25	30	35	40	45	50
3mm	1.1									
4mm	2									
5mm	2.5									
6mm	4.2									
8mm	6.6									
10mm	10.7									
12mm	13									
14mm	18.7									
16mm	24.2									
18mm	28.4									
20mm	34									

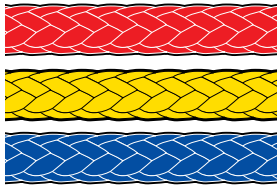
“ For me, the Spectraspeed is a super lightweight, low-stretch access line that offers optimum and consistent performance on vertical canopy ascents. It is fantastic for SRT access and footlocking with its low stretch and high strength characteristics. It has excellent flex-fatigue features, is a pleasure to splice and really soft to touch. Overall, it's a great functional rope for everyday use that also works well in the rain.”

—KIAH MARTIN (2003 WORLD CHAMPION, INTERNATIONAL TREE CLIMBING CHAMPIONSHIPS)



Photography by Total Height Safety.

WHOOPIE SLINGS



RANGE

- 12mm size
- 3 adjustable length options
- 3 fibre options to suit strength requirements

APPLICATION

- Lifting and rigging tasks
- Knotless rigging. Sling length adjusts around trees, poles or object without the need for knots. Knots create a weak point in the system.

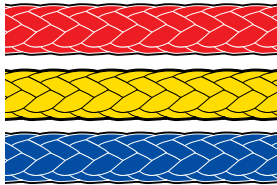
FEATURES

- Easily adjustable load rated lifting sling
- Fixed eye on one end with adjustable eye at other end
- Bearing point lengths are adjustable to allow the perfect sling length to be used in any application by tailoring as required
- Fewer slings required due to flexibility in adjustable sling
- Lightweight 12 strand hollow braid
- Differing strengths achieved by fibre type used

TECHNICAL Average Breakload (kg).

Fibre Type	Colour	Max length options (m)	Average BreakForce	WLL @ Factor 6
Polyester	Red	1.5m, 2m or 2.5m	5000kg	830kg
UHMPE / Polyester	Yellow	2.5m, 3m or 3.5m	7500kg	1250kg
UHMPE	Blue	2.7m, 3m or 3.5m	10500kg	1750kg

LOOPIE SLINGS



- 12mm size
- 3 fibre options to suit strength requirements

- Rigging applications
- Knotless rigging - commonly used to attach to a block at the top of the tree without the need for knotting
- Ideal for placing rigging block placement in tree canopy, for secondary pulleys, redirects, and multiple anchor points to assist load on the main pulley.
- Used at ground level for redirect blocks and lowering devices

- Easily adjustable
- Strong and lightweight continuous loop configuration
- Adjustable to fit and work in harmony with most rigging hardware
- 12 strand hollow braid
- Differing strengths achieved by fibre type used

Fibre Type	Colour	Min Length	Max length	Average BreakForce	WLL @ Factor 6
Polyester	Red	0.5m	1.8m	8000kg	1330kg
UHMPE / Polyester	Yellow	0.8m	2.3m	11000kg	1830kg
UHMPE	Blue	1.1m	2.8m	15000kg	2500kg

RHINO SLINGS



- 14mm – 22mm
- 2 length options in each size

- Lifting and rigging tasks

- Load rated lifting sling
- Nylon/Polyester sling with soft eye splice in one end
- 24 carrier double braid construction

Diameter	Colour	Max length options (m)	Average BreakForce	WLL @ Factor 6
14mm	Red	2m & 2.5m	5250kg	875kg
16mm	Gold	2.5m & 4m	6300kg	1050kg
20mm	Blue	2.5m & 4m	8100kg	1350kg
22mm	Orange	3m & 6m	11750kg	1960kg



Note: The Australian Fibre Rope Standard AS4142:1-1993 recommends a minimum safety factor for rope sling use of 6:1. (i.e. Ropes subject to occasional flexing or twisting e.g. ropes in made up articles such as slings, tow ropes).

height safety

RESPONSE XT



RANGE

- 11mm – 13mm
- 200m reels

APPLICATION

- Abseiling
- Belay
- Static descent
- Safety line
- Rescue line
- Access line

FEATURES

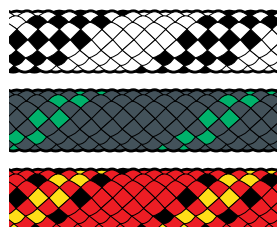
- Responsive and reliable
- Manufactured with heat set, pre shrink process
- Low stretch, high strength
- Quick access and excellent knot holding
- Kernmantle parallel core with plaited protective jacket
- Fully certified to AS4142.3, ANSI Z-133 & EN1981 standards
- Includes internal year of manufacture and standards marker yarns

TECHNICAL

Average Breakload (kg). Refer certification table (pg 40) for full specs

ø	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
11mm	3475									
13mm	4750									

RESPONSE ABSEIL BRAIDS



- 9mm – 13mm in 200m reels
- 6mm, 8mm and 16mm in 100m reels

Other size and colour options available on request

- Abseiling
- Belay
- Static descent
- Safety line
- Rescue line
- Access line

- Low stretch, high strength
- Quick access
- Excellent knot holding
- Highly visible
- Kernmantle construction
- Fully certified to AS4142.3, ANSI Z-133 and EN1981 standards

ø	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
6mm	1100									
8mm	1750									
9mm	2250									
11mm	3475									
13mm	4750									
16mm	6900									

RESPONSE POLYESTER ABSEIL LINE



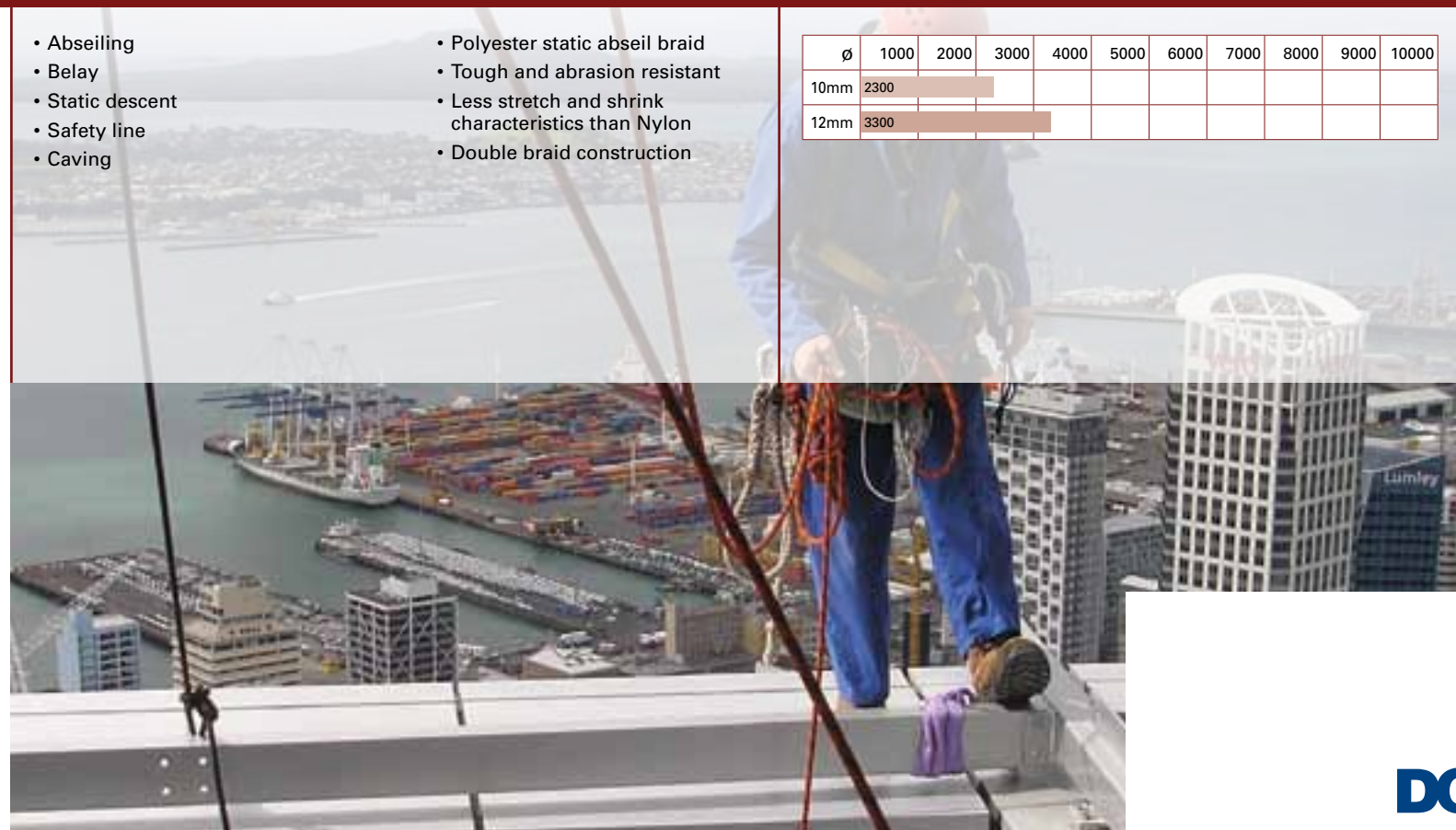
- 10mm & 12mm
- 100m & 200m reels

- Abseiling
- Belay
- Static descent
- Safety line
- Caving

- Polyester static abseil braid
- Tough and abrasion resistant
- Less stretch and shrink characteristics than Nylon
- Double braid construction

ø	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
10mm	2300									
12mm	3300									

“The “Response XT” Heat-Set range of Ropes provides a balance of cover to core integrity that ensures minimum sheath slippage and consistent repeatability of performance from the first use. Either in a high use aerial insertion or extraction or in hardware linked environment for ascent or descent, “Response XT” has met acceptance with leading users in their field such as; Capital Safety, DSE Victoria & SRTE.”



rescue

RESPONSE XT



RANGE

- 11mm – 13mm
- 200m reels

APPLICATION

- Abseiling
- Belay
- Static descent
- Safety line
- Rescue line
- Access line

FEATURES

- Responsive and reliable
- Manufactured with heat set, pre shrink process
- Low stretch, high strength
- Quick access and excellent knot holding
- Kernmantle parallel core with plaited protective jacket
- Fully certified to AS4142.3, ANSI Z-133 & EN1981 standards
- Includes internal year of manufacture and standards marker yarns

TECHNICAL

Average Breakload (kg). Refer certification table (pg 40) for full specs

ø	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
11mm	3475									
13mm	4750									

RESPONSE RESCUE 1



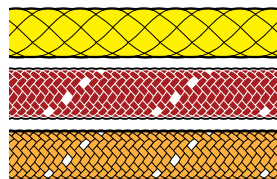
- 11mm
- 200m reels

- Abseiling
- Belay
- Static descent
- Safety line
- Rescue line
- Access line

- Highly visible
- Supple for handling & stowage
- Fully certified to AS4142.3, ANSI Z-133 & EN1981 Standards
- Includes internal year of manufacture and standards marker yarns

ø	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
11mm	3475									
13mm	4750									

WATER RESCUE & HI VIZ BRAIDS



- Water Rescue Line
- 6mm, 8mm & 10mm yellow braid
 - 100m reels

- Hi Viz braids
- 6mm & 9mm in Gold
 - 12mm Red
 - 200m & 400m reels

Reflective marker tape option available

- Life lines
- Water Rescue Throw Rope
- Air Rescue kits
- Confined spaces with minimal light
- Helicopter High-line Rescue Line

- Strong, light weight and floats with no water absorption
- Abrasion resistant with soft grip
- Water Rescue Line in 8 plait Polypropylene
- Hi Viz braids in 16 strand MF PP with twisted core construction for easy flaking and deployment from throw bag or valise
- Reflective marker tape option available

ø	200	400	600	800	1000	1200	1400	1600	1800	2000
6mm Yellow	420									
6mm Gold	550									
8mm Yellow	700									
9mm Gold	1050									
10mm Yellow	1200									
12mm Red	2000									



RESPONSE TACTICAL



- 11mm
- 200m reels

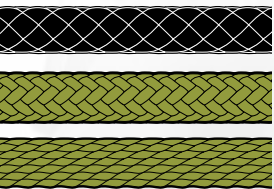
- Abseiling
- Belay
- Static descent
- Safety line
- Rescue line
- Access line

- Kernmantle Braid
- Suitable for hi-speed rappelling
- Supple for handling & stowage
- Manufactured with heat set, pre shrink process
- Fully certified to AS4142.3, ANSI Z-133 & EN1981 Standards
- Includes internal year of manufacture and standards marker yarns

TECHNICAL *Average Breakload (kg). Refer breakload table (pg 40-42) for full specs*

Ø	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
11mm	3475									

FINE BRAIDS



- 2mm – 3mm Black textured braids in 500m reels*
- 2.5mm Olive Green smooth braid in 500m reels*
- 4mm Olive Green solid braid in 300m reels*

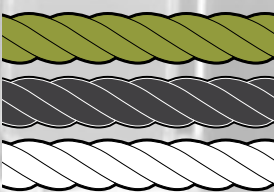
* Not stocked in NZ

- Hootch cord
- Tarp lacing cord
- Whipping
- Tent guy rope
- General purpose

- Hard wearing HT Polyester fibre supple 8 plait construction
- Smooth, textured and solid braids
- Highly resistant to stretch, abrasion, UV degradation and discolouration
- Excellent knotting and untying properties

Ø	25	50	75	100	125	150	175	200	225
2mm	100								
2.5mm	124								
3mm	169								
4mm	205								

POLYESTER ROPE



- 6mm, 8mm & 10mm Olive Green in 250m coils
- 10mm – 12mm Black in 200m reels
- 14mm – 20mm Black in 100m reels
- 6mm – 16mm White in 250m coils

- Lashings
- Lifting and tying
- Restraints

- 3 strand HT Polyester construction
- Soft feel and easy handling, coiling and knotting
- Low stretch and excellent abrasion resistance
- No strength loss when wet
- Stretches up to 46% before breaking
- Excellent shock absorption
- Sinks in water

Ø	1000	2000	3000	4000	5000	6000	7000	8000	9000
6mm	600								
8mm	1020								
10mm	1600								
12mm	2300								
14mm	3200								
16mm	4100								
20mm	6300								

theatrical rigging

RESPONSE



- 11mm
- 200m reels

APPLICATION

- Abseiling
- Belay
- Static descent
- Safety line
- Rescue line
- Access line

FEATURES

- Low stretch, high strength
- Quick access
- Excellent knot holding
- Kernmantle construction with Polyester cover and Nylon core
- Fully certified to AS4142.3, ANSI Z-133 and EN1981 standards

TECHNICAL

Average Breakload (kg). Refer breakload table (pg 41) for full specs

ø	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
11mm	3475									

BRIGHTS



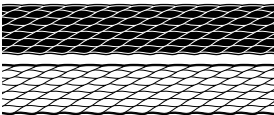
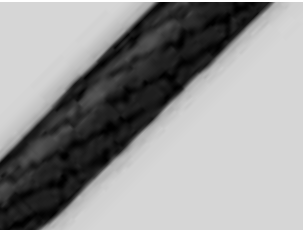
- 4mm – 12mm
- 100m reels

- Pulley rope
- Curtain lashings
- General purpose tying

- Double braid construction, manufactured from High Tenacity Polyester
- High jacket to core ratio assisting long life
- Excellent breakload and abrasion resistance
- Resistant to kinking, hockling and twisting
- Highly resistant to most chemicals and UV light
- Easy to splice

ø	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
4mm	500									
6mm	1050									
8mm	1650									
10mm	2650									
12mm	4000									

POLYESTER SASH CORD



- Australia
- 4mm and 6mm
- 100m reels

- NZ
- 3.6mm and 4.2mm in 100m
- 6mm in 150m reels
- White colour only

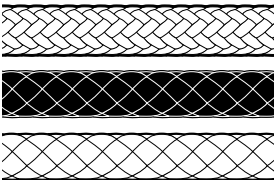
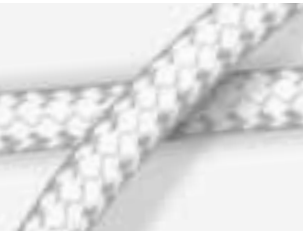
- Pulley rope
- Curtain lashings
- General purpose tying

- White HT Polyester solid braid
- Black Spun Polyester solid braid
- Excellent handling, knotting and non kink performance
- High abrasion resistance
- UV resistant

ø	100	200	300	400	500	600	700	800	900
3.6mm White	190								
4mm Black	115								
4mm White	205								
4.2mm White	215								
6mm Black	225								
6mm White	500								



FINE BRAIDS



- 1mm – 5mm white smooth braids in 100m and 300m reels
- 2mm – 3mm black textured braids in 500m reels*
- 4mm – 5mm (500m), 6mm (250m), 8mm (200m) and 12mm (80m) white textured braids*

* Not stocked in NZ

APPLICATION

- Blind draw cord
- Whipping cord
- Tying lashing
- Lacing cord

FEATURES

- Hard wearing HT Polyester fibre supple plait construction
- Smooth (16 plait) and textured (8 plait) options
- Highly resistant to stretch, abrasion, UV degradation and discolouration
- Excellent knotting and untying properties

TECHNICAL

Average Breakload (kg). Refer breakload table (pg 41-42) for full specs

Ø	50	100	150	200	250	300	350	400	450
1mm	47								
1.5mm	65								
2mm	100								
2.5mm	124								
3mm	169								
3.5mm	250								
4mm	290								
5mm	450								

POLYESTER ROPE



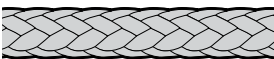
- 10mm – 12mm in 200m reels
- 14mm – 20mm in 100m reels

- Lashings
- Lifting and tying
- Restraints

- 3 strand HT Polyester construction
- Soft feel and easy handling, coiling and knotting
- Low stretch and excellent abrasion resistance
- No strength loss when wet
- Stretches up to 46% before breaking
- Excellent shock absorption

Ø	1000	2000	3000	4000	5000	6000	7000	8000	9000
10mm	1600								
12mm	2300								
14mm	3200								
16mm	4100								
20mm	6300								

OCEAN12



- 3mm - 20mm
- Coated with Donaghys Armorcoat
- Sold by the metre
- High performance abrasion / heat resistant jackets available on request
- Larger sizes available in Winchline range

- Strops
- High load purchase systems
- Lifting slings and tethers
- Lowering line
- Stay cables

- High strength to weight ratio
- High UV resistance
- Floats and does not absorb water
- Low stretch
- High internal and external abrasion resistance
- Melt point 152°C
- Elongation 3.7%
- Donaghys standard dark grey Armorcoat enhances abrasion and cut resistance

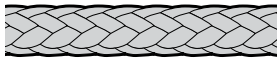
Average Breakload (tons). Refer breakload table (pg 41-42) for full specs

Ø	5	10	15	20	25	30	35	40	45	50
3mm	1.1									
4mm	2									
5mm	2.5									
6mm	4.2									
8mm	6.6									
10mm	10.7									
12mm	13									
14mm	18.7									
16mm	24.2									
18mm	28.4									
20mm	34									



wire replacement

OCEAN12



RANGE

- 3mm - 20mm
- Coated with Donaghys Armorcoat
- Sold by the metre
- High performance abrasion / heat resistant jackets available on request

Larger sizes available in Winchline range

APPLICATION

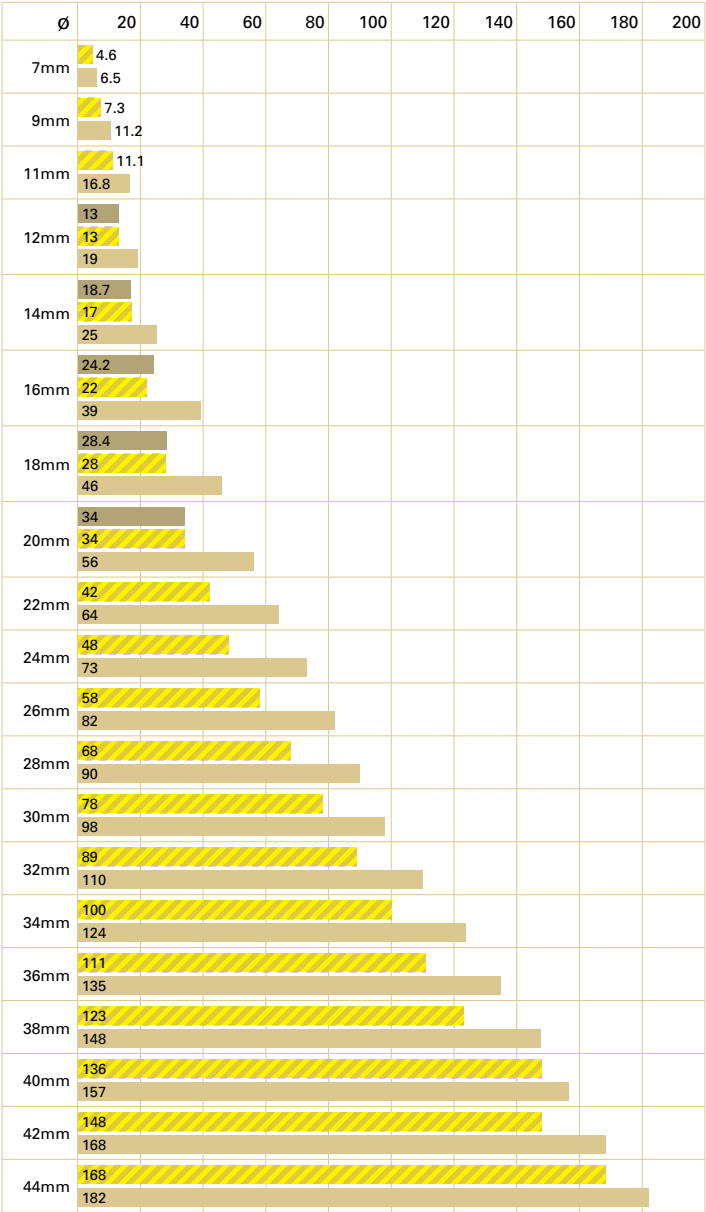
- Towing lines
- Lifting
- Rigging and utility
- Wire replacement
- Trawl and bridle lines
- Logging

FEATURES

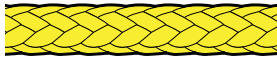
- High strength to weight ratio
- High UV resistance
- Floats and does not absorb water
- Low stretch
- High internal and external abrasion resistance
- Melt point 152°C
- Elongation 3.7%
- Donaghys standard dark grey Armorcoat enhances abrasion and cut resistance

TECHNICAL

Average Breakload (tons). Refer breakload table (pg 41) for full specs



WINCHLINE

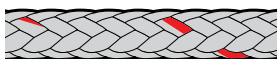


- 4 – 96mm
- Coated with Donaghys Armorcoat
- Sold by the metre
- High performance abrasion/ heat resistant jackets available on request

- Mining
- Vehicle rescue lines
- Vehicle winch lines
- Logging applications
- Towing lines
- Pulling/stringing lines

- 8 x lighter and 70% stronger than steel wire with low stretch
- High UV resistance
- Floats and does not absorb water
- High internal and external abrasion resistance
- Virtually no recoil in the unlikely event of failure
- Non rotational

OCEAN12 HS



- 7mm – 44mm
- Sold by the metre

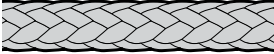
- Strops
- High load purchase systems
- Winch lines
- Tow lines and cables
- Wire rope replacement

- HMPE Dyneema® SK75 12 strand single braid heat stretched
- Very high strength to weight ratio
- Finished with Donaghys Armorcoat for long life in harsh conditions
- Very low stretch
- High UV light resistance
- Floats and does not absorb water
- Easy to splice

Donaghys' wire rope replacement products are manufactured from a wide range of high performance fibres and can be customised with covers and fittings to suit specific applications.

wire replacement

SOFT EYE STROP

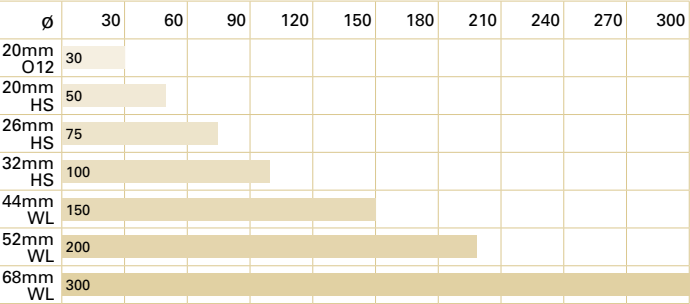


- RANGE**
- 20mm - 68mm
- Length in metres bearing point to bearing point
- 6m, 10m, 15m & 20m options

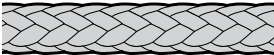
- APPLICATION**
- Towing
 - Vehicle recovery
 - Lifting
 - Winching
 - Tug lines

- FEATURES**
- Lightweight with high strength/weight ratio
 - Flexible for excellent handling benefits
 - Full webbing cover resists ingress of grit and abrasion
 - Non rotational with minimal recoil at break

TECHNICAL *Average Breakload (tons).*



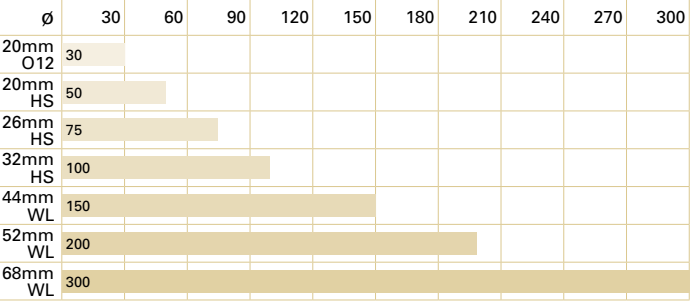
THIMBLE EYE STROP



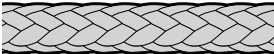
- RANGE**
- 20mm - 68mm
- Length in metres bearing point to bearing point
- 6m, 10m, 15m & 20m options

- APPLICATION**
- Towing
 - Vehicle recovery
 - Lifting
 - Winching
 - Tug lines

- FEATURES**
- Lightweight with high strength/weight ratio
 - Flexible for excellent handling benefits
 - Non rotational with minimal recoil at break
 - Thimble eye provides bearing point protection



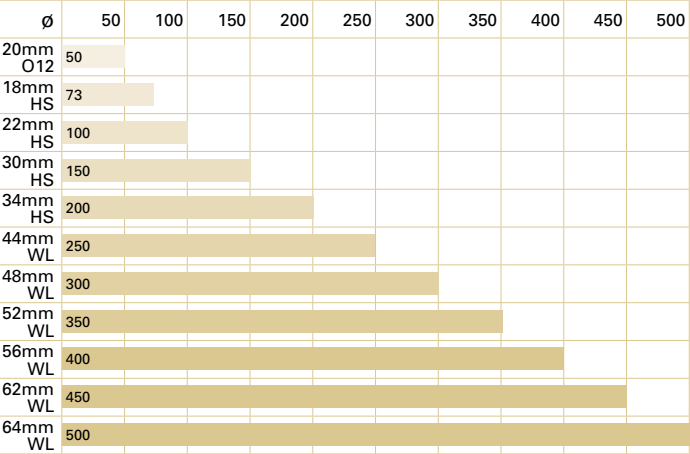
GROMMETS



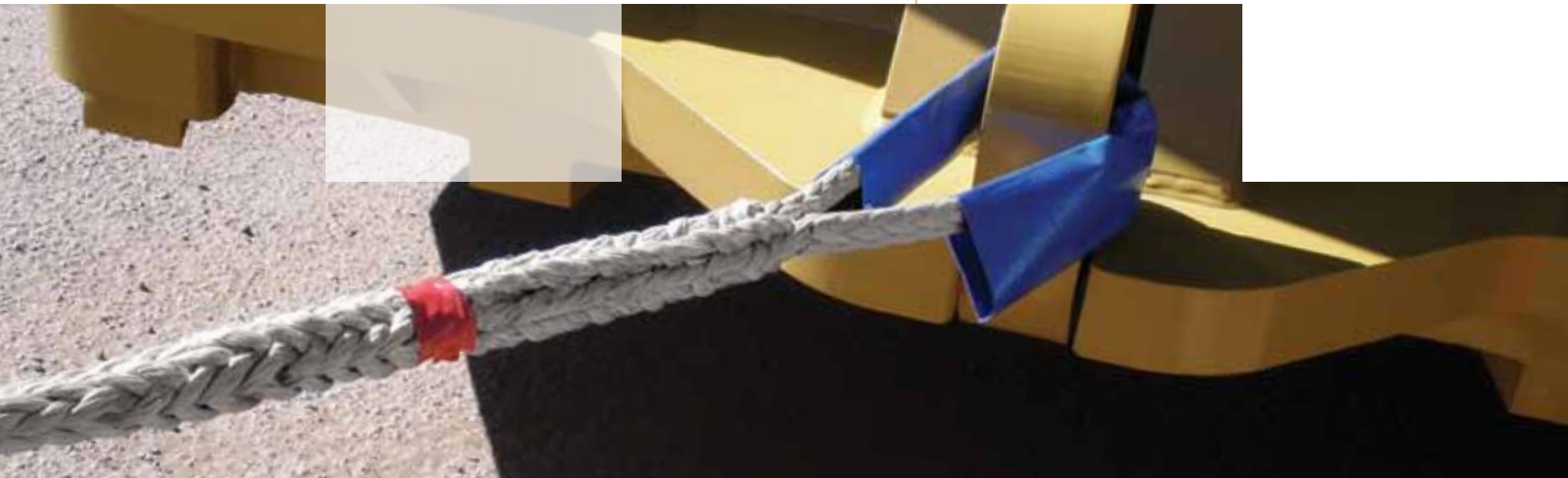
- RANGE**
- 18mm - 64mm base size
 - 30mm - 96mm finished size
- Length in metres bearing point to bearing point
- 6m, 10m, 15m & 20m options

- APPLICATION**
- Towing
 - Vehicle recovery
 - Lifting

- FEATURES**
- Floating webbing sleeves provide bearing point protection
 - Lightweight with high strength/weight ratio
 - Flexible for excellent handling benefits
 - With splice positioned between load and bearing points, 1.6 x the rope tensile Break Force is achieved
 - Excellent visual wear inspection



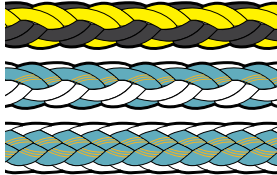
Refer to Donaghys price list for further information



wire replacement

shipping

AQUATEC & TIGER MOORING ROPES



RANGE

- Tiger Rope**
- 8 strand
 - 24mm - 64mm in 220m
 - Yellow/Black colour
- Aquatec Rope**
- 8 and 12 strand options
 - 40mm - 80mm in 220m
 - Green/White colour

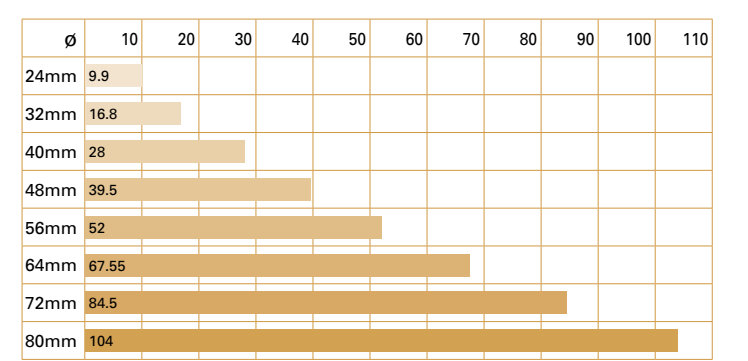
APPLICATION

- Mooring
- Fishing
- Heavy industrial
- Oil exploration
- Slings
- Towing
- Docking
- Anchoring
- Fibre rope tails

FEATURES

- 1.8m eye splice in each end
- Good abrasion resistance
- High strength to weight ratio
- Shock load resistant
- UV resistant with excellent weathering properties
- Excellent splicing
- Not affected by water
- Floats on water
- Kink resistant
- Lloyds certification

TECHNICAL Average Breakload (tons) for 8 strand ropes. Refer breakload table (pg 42) for full specs



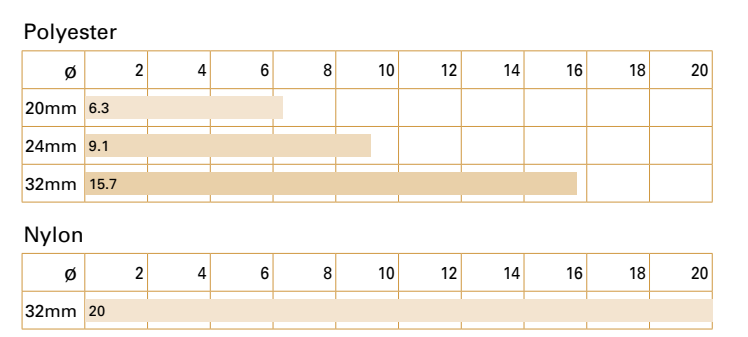
POLYESTER & NYLON MOORING ROPES



- Polyester 8 Strand Rope**
- 20mm - 32mm in 125m coil
 - Other sizes 40mm - 80mm available on request
- Nylon 8 Strand Rope**
- 32mm in 200m coil
 - Other sizes 40mm - 80mm available on request

- Mooring and pendant lines
- Towing lines
- Block lines
- Pulling lines
- Slings

- High strength
- Excellent wear life
- High abrasion resistance
- Excellent UV resistance
- Torque free
- Balanced and easy handling
- GL certification provided with each coil



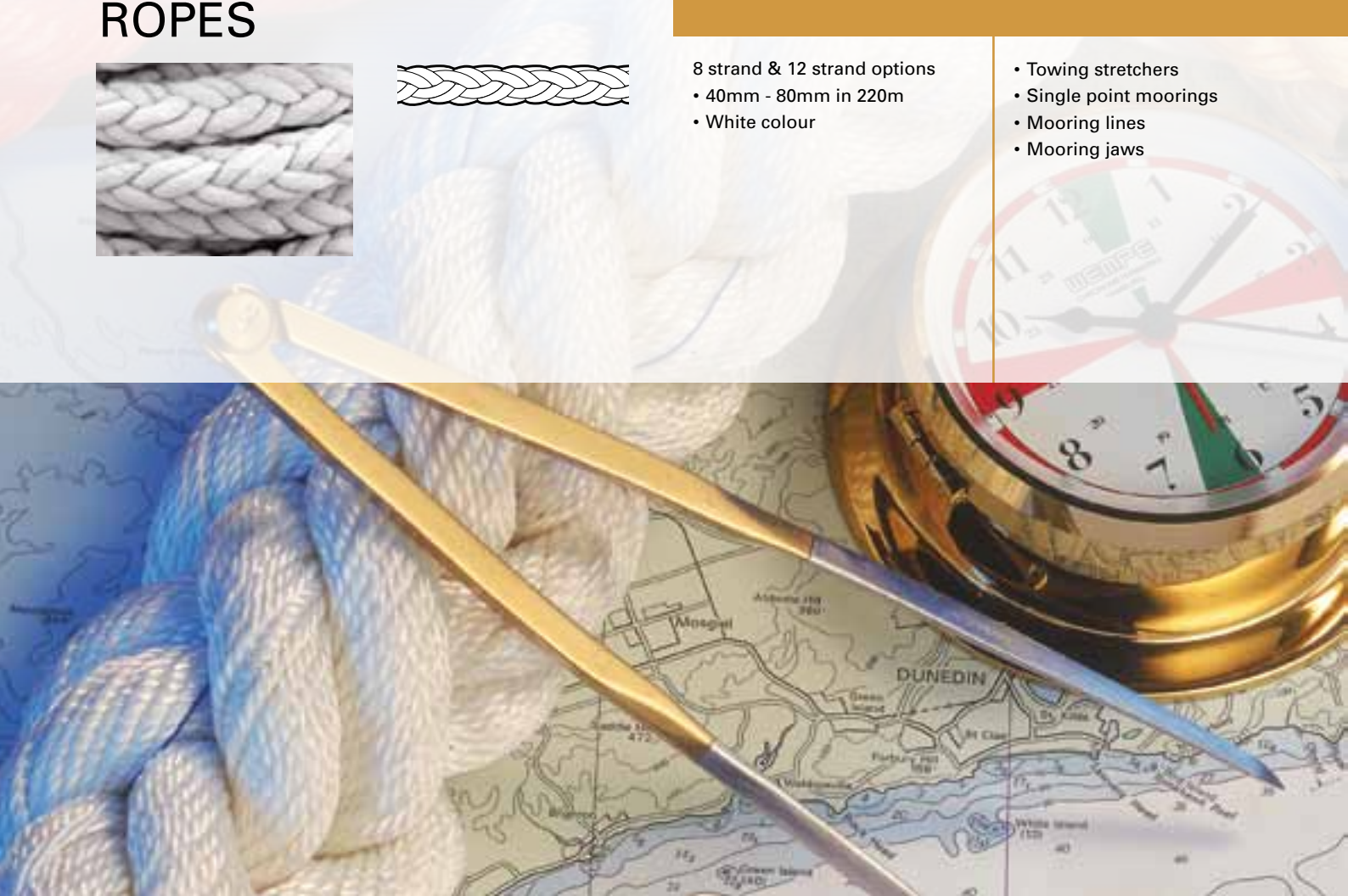
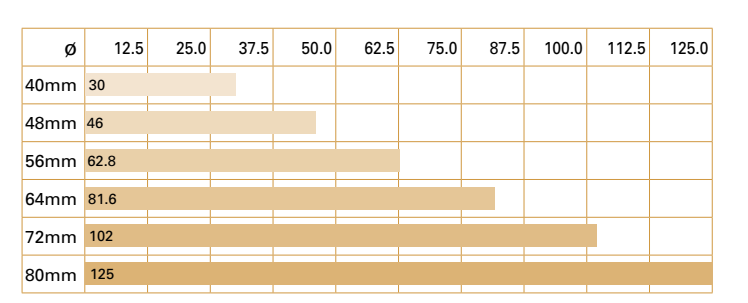
AQUAFLEX MOORING ROPES



- 8 strand & 12 strand options**
- 40mm - 80mm in 220m
 - White colour

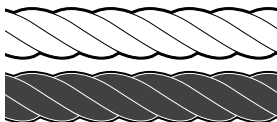
- Towing stretchers
- Single point moorings
- Mooring lines
- Mooring jaws

- 1.8m eye splice in each end
- Equivalent wet/dry strength
- High strength to weight ratio
- Excellent abrasion against internal and external friction
- Excellent resistance to frictional heat damage
- Excellent shock load absorption, yielding low snapback at break
- Flexible and easy to splice in use
- GL certification provided with each coil



general

POLYESTER ROPE



RANGE

- Australia
- 6mm – 24mm
- Various lengths from 100m – 250m
- Reel and coil options
- White and black* colour options

*Black not available in NZ

APPLICATION

- General purpose
- Mast stays
- Slings
- Bolt ropes
- Flat halyards
- Lifelines
- Hoist ropes
- Safety lines
- Docking line

FEATURES

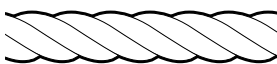
- 3 strand HT Polyester construction
- Soft feel and easy handling, coiling and knotting
- Low stretch and excellent abrasion resistance
- No strength loss when wet
- Stretches up to 46% before breaking
- Excellent shock absorption
- Sinks in water
- Blue internal marker

TECHNICAL

Average Breakload (kg). Refer breakload table (pg 42) for full specs

ø	1000	2000	3000	4000	5000	6000	7000	8000	9000
6mm	600								
8mm	1020								
10mm	1600								
12mm	2300								
14mm	3200								
16mm	4100								
20mm	6300								

NYLON ROPE



- Range 4mm – 32mm
- Various lengths from 100m – 300m
- Reel and coil options
- White colour

*Range not stocked in NZ

- Slings
- Forestry ropes
- Anchor ropes
- Safety lines
- Safety nets
- Car tow rope

- 3 strand Nylon
- Good strength
- Abrasion resistant
- Low water absorption
- High extension and recovery
- Soft feel and easy handling
- Coils and knots well

ø	1500	3000	4500	6000	7500	9000	10500	12000	13500	15000
6mm	750									
8mm	1346									
10mm	2080									
12mm	3000									
14mm	4100									
16mm	5300									
20mm	8260									
24mm	12035									

AQUATEC ROPE



- 4mm – 40mm
- 250m coils

- Truck ropes
- Nets
- Ladder ropes
- Head and foot ropes
- Blasting mats
- Car tow rope
- Air sea rescue lines
- Slings
- Control ropes
- Ducting draw cords

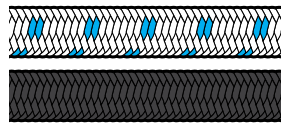
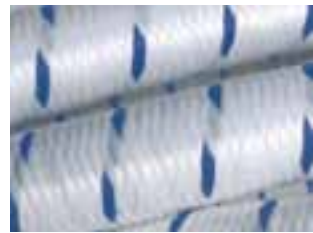
- PP/PE 3 strand crushed mono rope
- Abrasion resistance
- High strength to weight ratio
- Shock load resistant
- UV resistant with excellent weathering properties
- Excellent knotting and splicing
- Not affected by water

ø	1500	3000	4500	6000	7500	9000	10500	12000	13500	15000
6mm	680									
8mm	1200									
10mm	1800									
12mm	2700									
16mm	4500									
20mm	6900									
24mm	9900									
28mm	13200									



general

SHOCK CORD



RANGE

- 3mm – 6mm in 100m reels
- 7mm – 10mm in 50m reels

APPLICATION

- General purpose

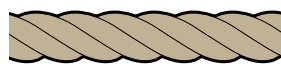
FEATURES

- Premium Marine Grade rubber core to ensure minimum 100% stretch characteristic
- HT Polyester cover with fine plait smooth jacket construction offering long life wear resistance to abrasion and UV degradation
- Not affected by water

TECHNICAL

Average Breakload (kg). Refer breakload table (pg 42) for full specs

SISAL ROPE



- 4mm – 24mm
- Various lengths from 80m – 300m
- Reel and coil options

Larger sizes available on request.

Limited stock available in NZ

- Mining
- General industrial
- Trucking
- Rope handles
- Barrier ropes
- Halters and nets
- Capstan ropes
- Driver ropes
- Tug-o-war ropes
- Slings

- 3 strand rope
- Tough and abrasion resistant
- Non conductive
- Easily spliced and knotted
- Natural and biodegradable

Ø	500	1000	1500	2000	2500	3000	3500	4000	4500	5000
6mm	260									
8mm	480									
10mm	635									
12mm	955									
14mm	1285									
16mm	1805									
20mm	2845									
24mm	4070									

MANILA ROPE



- 6mm – 32mm
- 250m coils

Larger sizes available on request.

Not stocked in NZ

- Marine
- Shipping
- Lifting
- Capstan ropes
- Driving ropes
- Slings
- Rope ladders
- Cargo nets
- Safety nets
- Block fall ropes

- Strong durable 3 strand rope
- Soft feel and smooth handling
- Non conductive
- Good abrasion resistance
- Low stretch
- Biodegradable
- Weather resistant
- Resistant to fungal attack and moisture

Ø	500	1000	1500	2000	2500	3000	3500	4000	4500	5000
6mm	260									
8mm	480									
10mm	635									
12mm	955									
14mm	1285									
16mm	1805									
20mm	2845									
24mm	4070									



accessories

HOT KNIFE CUTTERS



- Electronic cutters available in hand held or bench type models
- For use on synthetic ropes, twines and braids
- Cuts and seals low melting point synthetic fibres with ease
- Not suitable on Natural, Vectran®, Kevlar® or PBO Zylon® fibres

ROPE MEASURERS



- Measurer accommodates rope and cordage from 6mm to 20mm in diameter
- The toothed Measuring Wheel and Stainless Steel Pressure Shoe, assure uninterrupted NO SLIP contact with cordage
- Wall or bench mounted
- Digital counter adds or subtracts
- Resets to zero with one turn of knob
- Conforms to Weights and Measures specifications

SPLICING KITS



- Provides all the tools you need to create the perfect splice
- Contains 5 splicing fids to splice from 6mm to 24mm with wire fid pusher
- Comes with basic instructions to get you started

ROPE COAT



- Donaghys Armorcoat for additional protection to Polyester, Spectra®, Dyneema® and Vectran® fibres
- The impregnation of Bindacoat adds the dimensions of handling, wear resistance and fibre binding to the slippery texture of Spectra® to provide greater interaction between cover and core
- Urethane impregnation enhances the abrasion resistance of a braid by forming a protective barrier to the braid fibres beneath
- Can include colouration for identification

ROPE BAG



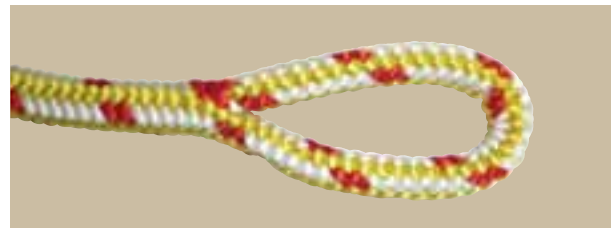
- Designed to keep ropes clean, tangle free and protected while not in use
- Strong polyester construction
- Light weight and hard wearing
- Features drawstring top closure for quick and easy access
- Will store 50 metres of rope

general



terminations

Donaghys are proud to offer an in-house splicing service available on all our rope and cordage products, delivered to you in cardboard cartons or reeled onto timber drums.



SOFT EYE SPLICE

- Flexible soft eye which can be tailored for inner eye sizing
- All rope constructions i.e. 3 strand, 8, 12 and 16 plait can be spliced



TUBED STEEL THIMBLE

- Hard eye fitting which holds and protects rope in tubing around thimble
- Fittings available to suit varying rope diameters



ENDLESS SPLICED GROMMET

- A flexible continuous rope join primarily for 12 strand ropes
- Join to be positioned between bearing point and load
- Realises 1.6 times strength of braid tensile



TUBE WEBBING SERVING

- Available for soft eye covering or both eyes and full body
- Protects from grit which can cause internal or external damage through abrasion
- Applying to eye gives added life by protecting at the bearing point



EXTRA HEAVY DUTY TOWING STROP

Completed 80mm x 3 metres

- Manufactured from Ocean12 Dyneema® SK75, urethane coated
- Tensile strength 419.4 tons
- Fitted with a 96mm marine grade cast steel galvanised captive thimble each end
- The body of the strop is covered with a rubber tube for added protection to reduce abrasion and prevent penetration of debris into the rope fibres



DRUM WINDING

- Winch line delivered to customer in this form allows for easy rewinding onto their winch drum
- Also protects line against damage during transport



CAPTIVE THIMBLE EYE & GUSSETED TUBE THIMBLE

- Captive thimble eye has welded "V"
- Both suited to heavy duty applications
- Captive thimble retains synthetic ropes within thimble under high loads and allows unrestricted use of heavier fittings e.g. shackles and rings
- Gusset prevents expansion and distortion of thimble under high loads but reduces the size of connecting fitting that can be used



STANDARD THIMBLE

- With open "V" available in galvanised steel, stainless steel or nylon
- Strengthens and protects spliced eye against abrasion
- Light applications e.g. anchor ropes



EYE SLING WITH SAFETY LATCH

- This fitting is usually used in conjunction with a steel captive thimble in dragline applications (mining and heavy industry)



END WHIPPING

- It is important that a whipping be put on any bare end of rope in order to prevent the unlaying and fraying of the strands

general



care & maintenance

Extreme care must be employed in use of any load bearing device. Misuse may lead to injury. To ensure you select the right product for your application, take into account these key considerations:

- Rope selection must consider all fibre characteristics, manufacturer's load certification and mode/factors as per AS1380.1:1998.
- Ropes should not be subject to dynamic (shock) loading i.e. sudden application of 10-15% of BF rating.
- All mechanical hardware must be free from defect prior to use i.e. pulleys, shackles, terminations etc.
- Ropes should not be subjected to excessive heat abrasion or chemical exposure.
- Strength loss factors must be applied to splicing (10-20% dependant on type) and up to 50% for basic knotting used for joining or termination.

ALWAYS:

- Consider all factors applying to the job at hand.
- Consider all relevant standard and manufacturer's information provided with the product for use.
- Avoid abrasion, shock loading, overloading, extreme bend ratios or environments.
- Consult Donaghys for further technical information and assistance as required.

During rope inspection, the following should be considered.

EXTERNAL WEAR

Braids develop fur/pile on the surface as a result of friction and abrasion. This is normal and forms a protective barrier to the main body of the jacket yarns initially. Excessive wear is indicated by severe yarn filamentation or breakage either distorting the round profile of the braid, breaking yarns or exposing the core materials through the jacket. Note, certified kernmantle braids must have a contrasting colour core to jacket to assist this inspection. In the event of significant jacket wear the braid must be retired immediately.

INTERNAL WEAR

Dirt, grit or other foreign matter may penetrate between the core and jacket constructions. Examination must be undertaken carefully being mindful not to buckle or distort fibres in this process which may cause problems later. The presence of large quantities of fibre dust in the centre of the rope indicate that replacement is due.

CHEMICAL OR SUNLIGHT ATTACK

Degenerative contamination can occur to synthetic fibres through accidental exposure to chemicals. Nylon is sensitive to strong oxidising agents and mineral acids. It is soluble in formic acid, concentrated sulphuric acid and phenolic compounds. Examination should determine whether any areas of fusion or carbonisation are present. If in doubt, discard the braid.

The entire length of the rope should be carefully inspected prior to and at completion of every use. Avoid using rope that shows signs of wear. If in doubt, retire the rope. Jackets protect strength integrity of braided rope cores and profile loss % age guide to retirement is:

- 3 strand rope: 8-15%
- 8 & 12 strand braids: 20-25%
- 16 & 24 carrier braid on braid jackets: 40%

Once a rope has been subjected to shock loading, potential internal damage decrees it must be replaced. Ropes displaying inconsistencies in size, colouration or work hardened (stiffening) should be retired.

PROTECTIVE MEASURES

Always store, transport and contain braids in a dustproof, strong storage bag which is impervious to light. Always use Donaghys braids and fibre rope slings only for the purpose they have been designed and intended. It is good practice to maintain a braid history/usage log to assist in determining a responsible retiring date on aged product.

Shelf life for nylon kernmantle braids and synthetic fibre rope slings is estimated as a maximum of 10 years when stored in a cool, dry and UV light excluded environment. There must be no exposure to chemicals or fumes. In the event of limited casual usage, an estimated six years would apply where no significant wear is evident, internally or externally of the braid.

Always apply conservatism to rope use as the following factors will ensure long life in application:

- A larger/stronger rope will work at lesser loading capacity and last longer.
- Wear sleeves can be used to protect from excess chaffing and localised wear points.
- Always purchase from a reputable certified manufacturer as your best guarantee of reliability.

SPLICING

Splicing produces a fastening point which has a strength of up to 90% of the unspliced rope when completed correctly. Inspect regularly and in the case of a plaited rope splice, ensure that no new fibres appear at the neck of the splice. If the rope eye appears to be moving i.e. if clean rope appears, we recommend you seek professional advice of rigging specialists.

FITTINGS

Ensure that all moving parts of fittings or blocks are performing freely as seized blocks and swivels can damage ropes very quickly. For information on recommended sheave diameters, please consult your retailer.

CARE

At the end of each season all ropes should be immersed in lukewarm clear water, with non halogenic mild detergent additive if required to remove traces of dirt or salt which can harm ropes. Drying is best achieved in a cool, shaded area with healthy air circulation.

technical



coatings

ARMORCOAT

Donaghys Armorcoat is specifically designed to work with high performance fibres enhancing their abrasion resistance, UV protection and to make splicing easier. The state of the art aqueous aliphatic coating utilises nanotechnology to bond to the individual fibres creating a protective barrier on the braid.

BINDACOAT

Donaghys Bindacoat is designed to act as an intermediary membrane linking high performance cores to their covers eliminating core cover slippage. This allows Donaghys to maximise the amount of material packed into a core greatly increasing the performance of the product. Bulky intermediate covers take up this valuable space reducing cost but also greatly reducing the performance.

WATERSHIELD

Donaghys Watershield can be used by itself or combined with either Armorcoat or Bindacoat to obtain a durable water resistant coating on most fibres.



fibre qualities						
DESCRIPTION	FIBRE TYPE	SPECIFIC GRAVITY	SENSITIVE TO	RESISTANT TO	HEAT REACTION	STRENGTH AND ELONGATION
Sisal	Natural	1.50	Mineral acids, weak or strong paints, detergents, chemical salts, fats, weathering and sunlight.	Volatile petroleum solvents, batching oils and alkalis.	Burns as fire touches flame. Supports combustion.	Fibre elongation: Dry 2.9%, Wet 3.4%. Rope elongation: Dry 13%, Wet 16%. Extension causes rupture.
Manila	Natural	1.50	Mineral acids, weak or strong paints, detergents, chemical salts, fats, weathering and sunlight.	Volatile petroleum solvents, batching oils and alkalis.	Critical temp is 150°C after which fibre burns at flame. Supports combustion.	Fibre elongation: Dry 2.8%, Wet 3.2%. Rope elongation: Dry 13%, Wet 15%. Extension causes rupture.
Polyethylene	Continuous filament	0.95	Xyelene at 95°C, hot nitric or sulphuric acids, some hot organic solvents. Sensitive to prolonged sunlight exposure.	Most acids, alkalis, grease, oils and organic solvents.	Softens 100°C, Melts 110°C - 120°C.	High tenacity with good recovery after stretch and extension at break of 50%.
Polypropylene	Continuous filament	0.91	Sodium hypochlorite and some hot organic solvents. Very susceptible to sunlight but with suitable additives, loss of strength is retarded.	Hot and cold acids like alkalis.	Shrinks rapidly from flame. Curls and melts at 165°C.	High tenacity. Good recovery from stretch and elongation at break for ropes is 25-30%
HT Polyester	Continuous Filament	1.38	Alkalis, phenolic compounds, sulphuric acid.	Most organic and mineral acids, organic solvents, bleaches and oxidising agents.	Softens 228°C Melts 255°C	Equivalent wet/dry strength ratio. Elongation 35% at break.
Polyamide (Nylon)	Continuous Filament	1.14	Strong acids and oxidising agents, soluble in formic, sulphuric acids and phenolic compounds.	Alkalis, alcohols, esters, hydrocarbons and most bleaches.	Softens 229°C. Melts 249°C – 260°C	Elongation Dry 40%. Wet 35%. 90-95% strength ratio wet/dry.
Aramid (Kevlar®)	Continuous Filament	1.44	Hydrochloric, hydrobromic and sulphuric acids, bleaching and sunlight. Highly sensitive to abrasion.	Mineral and organic acids, alkalis, organic solvents, mildew and fungi.	371°C decomposition	Equivalent wet/dry strength ratio. Elongation 4% at break.
Technora®	Spun Filament	1.39	Hydrochloric, hydrobromic and sulphuric acids, bleaching and sunlight.	Mineral and organic acids, alkalis, organic solvents, sea water and steam.	500°C+ decomposition	Equivalent wet/dry strength ratio. Elongation 4.5% at break.
UHMP (Spectra®/ Dyneema®) Ultra high modulus polyolefin	Continuous Filament	0.97	Strong oxidising agents, chlorosulfonic and nitric acids at high temperatures.	Most acids and alkalis, cold alcohols, ethers, esters, ketones and bleaches.	Melts 147°C	Equivalent wet/dry strength ratio. Elongation 2-5% at break.
PBO (Zylon®)	Continuous Filament	1.56	Strong acids, acids and alkalis at higher temperatures, sunlight.	Organic solvents, acids and alkalis at room temperature.	650°C decomposition	2.5% at break.

covers

Donaghys High Performance cover systems work perfectly in combination with our core range to protect and enhance the life and performance of the braids. Careful blending of state of the art fibres with specific twist ratios provides the ultimate for any application.



SNAKESKIN

In the snakeskin configuration, visible lines of each fibre type provide greater heat dissipation and adds grip when needed.



MOTTLED

In the mottled configuration, the different fibre types are blended providing the ultimate in performance and protection from heat build up and abrasion while maintaining optimum control.



WEAR SLEEVES

Designed to offer additional protection against continuous abrasion, Wear Sleeves can be inserted over ropes or standing rigging to prevent damage.

Available in Vectran®, Spectra® and Dyneema® to cover sizes from 8mm to 18mm.



KEVLAR®/POLYESTER

An economic technical mix to assist heat dissipation in areas of friction. The HT Polyester component provides cost savings in medium heat applications. Noticeable enhancement to grip.



TECHNORA®/POLYESTER

Superior abrasion and heat resistance, Technora® offers a step up from Kevlar® where general protection is required.



PBO

PBO cover offers unrivalled strength and precise control on winches even under extreme loads. Will not melt or glaze.

cores

Donaghys Performance cores are available with either Armorcoat if exposed or Bindacoat if one of the cover systems is selected.



OCEAN12 (SK75 DYNEEMA®)

12 strand single braid Dyneema® SK75 fibre.



SUPERBRAID (SK75 DYNEEMA®)

16, 24 strand single braid Dyneema® SK75 fibre with Bindacoat.



SPECTRASPEED (SPECTRA900)

8, 16 Plait single braid Spectra®900 fibre with Bindacoat.



YACHTMASTER XS (HT POLYESTER FILAMENT)

8, 16 or 24 plait single braid HT polyester fibre.

response

Hanging by a thread

Donaghys new “Response” range of static lines covers all applications from height safety with Response XT to the complete semi static Response Abseil range, Rescue1 is designed specifically for top end Rescue Teams while Response Tactical with its stealth cover is ideal for Military and Armed response units.

CONSTRUCTION

Response® abseiling braids are manufactured to the construction standards defined in the Std EN 1891:1998 as “Low Stretch Kernmantel Rope, a textile rope consisting of a core enclosed by a sheath designed for use by persons in rope access including all kinds of work positioning and restraint; for rescue and speleology”.

PARALLEL CORE YARNS The sheath is harmonised to the twisted yarns of the core positioned parallel through the length of the braid. Virgin multifilament polyamide nylon is used in the core construction.

SHEATH The 32 plait sheath uses optimised production technology to give low elongation values and minimise sheath slippage. The jacket is full colour which sharply contrasts to the white core as a strong visual wear indicator.

MATERIAL

Response® abseiling braids are manufactured from premium grade polyamide nylon. Yarn elongation is around 40% at break however, elongation and tensile strength are reduced between 5-10% when wet.

This fibre is resistant to diluted mineral acid, organic acids and alkalis, organic solvents, mildew and fungi.

Jackets may be constructed of either Nylon or Polyester as detailed in product type.

MARKINGS

- All Response® braids contain a marker yarn in the core to identify the year of manufacture. The colour marker is changed each calendar year and a record is held of the sequence of change. ie. 2011 marker identification colour is maroon.
- Certified compliant braids contain a marker tape with the statement “Donaghys Response abseiling braid for static life rescue line” and a reference to the relevant standard, which repeats through the length of the braid.

RESPONSE CERTIFICATION CRITERIA

Criteria	Australian Standard Certification			European Standard Certification		
	Actual Test Results	AS4142.3:1993	Certified Compliant	Actual Test Results	EN1891:1998	Certified Compliant
Actual Breakforce (Avg. KN)	34.45	> 29.4 kN	Yes	34.3 kN	(A) ≥ 22 kN	Yes
Knot Breakforce (Avg. KN)	19.00	> 14.7 kN	Yes			
Impact (Fall Test)	3.75 Falls	> 2 Falls (80kg)	Yes			
Dynamic Performance				≥ 5 Drops	≥ 5 Drops	Yes
Elongation @ 80Kg	1.4%	< 3%	Yes			
Elongation @ 150Kg				1.5%	≤ 5%	Yes
Elongation @ 375Kg	6%	< 10%	Yes			
Fall Arrest Peak Force				5.4 kN	(B) ≤ 6 kN	Yes
Knotability Ratio K	1.04	≤ 1.1	Yes	0.65	< 1.2	Yes
Sheath Slippage	3.5mm	≤ 40mm	Yes	2.28%	(A) Formula	Yes
Shrinkage				3.8%	Not Specified	
Core Mass				57.9%	(A) Formula	Yes
Mass/Metre Grams				81		Yes

Note: Above results relate to independent testing of 11mm Response® XT braid.

FIBRE ROPE SLINGS

CARE & USAGE RECOMMENDATIONS

The practice of static decent for the purpose of sport, industrial or rescue usage, does involve inherent dangers emerging from technique or technical application or the impinging of external factors. Donaghys’ products are manufactured to the highest quality and certified standards as labelled, however correct and proper care, storage and use in conjunction with certified hardware is imperative to enhancing safety in use.

The following guidelines are important for correct use, but can never replace experience, responsibility and knowledge of possible dangers. Full responsibility in all aspects relating to the use of the product rests with the user. In no event will Donaghys be liable in the event of any departure from the prudent application of these guidelines.

DONAGHYS SLINGS ARE MANUFACTURED IN AUSTRALIA AND CONFORM TO AUSTRALIAN “FIBRE ROPE SLINGS” STANDARD AS1380.1:1998 GUIDELINES

SAFE WORKING LOAD FACTORS UNDER GENERAL USAGE OF SYNTHETIC FIBRE ROPE SLINGS DIRECT LOADED OR CHOKE HITCHED ARE:

LIFTING MODE & FACTOR													
	SINGLE LEG		DOUBLE LEG				BASKET HITCHED						
	CHOKE HITCHED		DIRECT LOADED		CHOKE HITCHED		Round Load				Rect Load		
	Round Load	Rect Load											
			$a = 0 \text{ to } 60^\circ$		$a = 90^\circ$		$a = 0^\circ$	$a = 60^\circ$	$a = 90^\circ$	$a = 120^\circ$	$a = 0^\circ$	$a = 60^\circ$	$a = 90^\circ$
Factor	$L = 0.75$	$L = 0.50$	$L = 1.73$	$L = 1.41$	$L = 1.00$	$L = 1.30$	$L = 0.87$	$L = 2.00$	$L = 1.73$	$L = 1.41$	$L = 1.00$	$L = 0.87$	$L = 0.71$

NOTES:

- Minimum BF ratings of rope are stated in AS4142.1:1993 or as evidenced by manufacturer's certificate in the case of UHMPE fibres & plaited/braided construction.
- SWL formula = (Minimum breaking force) x L/(9.806 65 x 8) and the exact (i.e. non-rounded) values for L.

DONAGHYS
PERFORMANCE FIRST

BREAKLOADS
AVERAGE BREAKLOAD (kg)

Diameter (mm)	Ocean12 HS	Ocean12	Winchline	Superbraid	Spectraspeed	Yachtmaster XS / Brights	Diameter (mm)
2					295		2
3		1100			450		3
4		2000	1400	1100	700	500	4
5		2500	2200		1000	700	5
6		4200	3200	2000	1600	1050	6
7	6500	6000	4600				7
8		6600	5800	4200	3000	1650	8
9	11200	9000	7300				9
10		10700	9100	6000	4500	2650	10
11	16800		11100				11
12	19000	13000	13000	9000	6000	4000	12
14	25000	18700	17000	10700	8000	4800	14
16	39000	24200	22000	13000	10000	6500	16
18	46000	28400	28000	18700	14000	7800	18
20	56000	34000	34000	24200	16500	9500	20
22	64000		42000	28400	21000	11000	22
24	73000		48000	34000	25500	13000	24
26	82000		58000	37000	26750		26
28	90000		68000	40000	28000	17500	28
30	98000		78000	44000	30500		30
32	110000		89000	48000	33600	22000	32
34	124000		100000				34
36	135000		111000				36
38	148000		123000				38
40	157000		136000				40
42	168000		148000				42
44	182000		168000				44
46			182000				46
48			192000				48
50			203000				50
52			220000				52
54			235000				54
56			250000				56
60			280000				60
62			286000				62
64			314000				64
68			348000				68
72			384000				72
76			421000				76
80			461000				80

STANDARDS FOR STRENGTH AND APPLICATIONS

NEW ROPE TENSILE STRENGTH

New Rope Tensile Strengths (breakload) as stated are based on the manufacturer’s standard test methods. Rope strength can be expected to decrease with use and age.

WORKING LOADS

Because of the broad range of rope use it is not possible to make a general recommendation for working load. For non-critical applications with appropriate terminations and/or splices, a normal workload of between 11% and 20% of published break load is acceptable for new rope.

For critical applications, which may involve dynamic loading or when there is a danger of injury should a rope fail, then a reduction from the normal workload is recommended. Higher workloads should only be selected after professional analysis of conditions including a thorough inspection of the rope before use.

Do not use a rope if it has been exposed to high dynamic loading, excessive use, sustained loading for extended periods, or elevated temperatures. Rope under tension stores energy. Should the rope or termination fitting fail, stored energy may be transferred into recoil. Avoid standing in line with any rope under tension. In all cases when people are at risk the rope

workload should be substantially reduced and the rope properly inspected before each use.

DYNAMIC LOADING

Normal working loads are not applicable when a rope is or has been subjected to significant dynamic loading. Dynamic loading is applied to the rope when a load is picked up, stopped or swung. The more rapidly or suddenly such actions occur the greater the dynamic loading will be.

In extreme cases the force on the rope may be many times the normal load involved. In such applications including towing lines, lifelines, safety lines, climbing ropes etc working loads do not apply.

Note: Dynamic effects are greater on low elongation rope made from products such as polyester or HMPE, and lesser on a high elongation rope such as nylon. Dynamic effects are also greater on shorter rope lengths than longer measures.

Although product specifications and performance data is deemed accurate and reliable at time of print, no responsibility for inaccuracies can be assumed by Donaghys Industries Ltd. Donaghys Industries Ltd reserves the right to change performance characteristics and specifications without prior notice. Not all products are available in all countries.

3 strand ropes

Diameter (mm)	Sisal / Manila	Silver rope (PE)	PE Mono rope	PP rope	3 strand Aquatec (PP/PE)	3 strand Polyester	3 strand Nylon	Diameter (mm)
4			200	214	240	300	320	4
6	260	375	400	600	680	600	750	6
8	480	620	700	1060	1200	1020	1346	8
10	635	945	1100	1560	1800	1600	2080	10
12	955	1265	1500	2210	2700	2300	3000	12
14	1285	1440	2100	3050	3600	3200	4100	14
16	1805	2120	2800	3770	4500	4100	5300	16
18	2140	2590	3500	4810	5800	5100	6730	18
20	2845	3160	4300	5800	6900	6300	8260	20
22	3405	3755	5100	6960	8400	7600	10000	22
24	4070	4395	6100	8130	9900	9100	12035	24
28	5325	5945	8200	10700	13200	12200	15800	28
32	6865	7770	10700	13500	16800	15700	20000	32
36	8700	9820	13500	16930	20600	19400	24900	36
40	10500	12140	16300		25700	24000	30000	40
48	14790	17135	22800	28610	36600	33500	42000	48
56	19890	23360	30400	37850	52000	44800	56000	56
60			34500	43280	59500	49800	63800	60

8 and 12 strand ropes

Diameter (mm)	8 strand Aquatec (PP/PE)	8 strand Polyester	8 strand Nylon	8 strand Aquaflex (PP/Pest) 60:40	12 strand Aquatec (PP/PE)	12 strand Polyester	12 strand Nylon	12 strand Aquaflex (PP/Pest) 60:40	Diameter (mm)
24	9900	9100	12857						24
32	16800	15700	20000						32
40	28000	27500	30000	34200					40
48	39500	38600	42000	47400					48
52	45750	45000	49000	55500	47400	48200	54000	64300	52
56	52000	51500	56000	63200	55100	55600	61200	72800	56
60	59500	58500	64000	72400	61700	63000	70400	81200	60
64	67550	66600	72000	81600	70500	71000	79200	90400	64
68	76000	74400	81000	91800	79800	80200	89000	104100	68
72	84500	83000	90000	102000	89200	89500	98900	113100	72
76	94000	92500	100000	112000	98500	99400	110000	134100	76
80	103999	102000	110000	125000	108400	110000	121000	148100	80
84	114000	112000	120000		117800	118500	132000	175100	84
88	125000	122000	131000	148000	127700	129300	144100	205100	88
96	148000	144000	154000	174000	150800		169000	235100	96
104	169500	167000			171700				104
108		179500			186000				108
112	201000	192000			200200				112

Donaghys Industries Ltd endeavour to ensure that all products are manufactured to the highest standards, all guidelines are for information only and do not create any warranties, expressed or implied, of merchantability or fitness for a particular purpose.

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