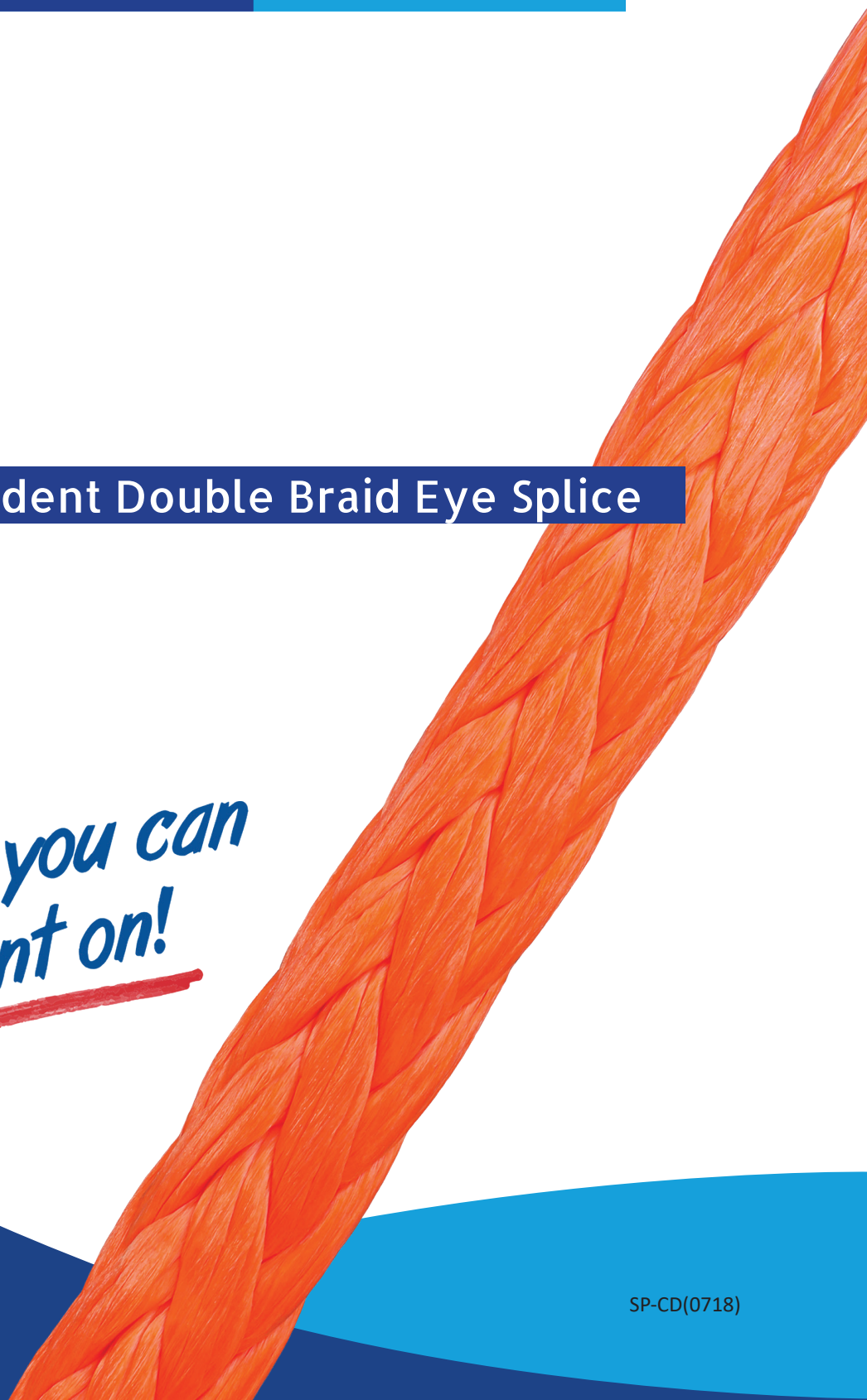
ATLANTIC BRAIDS

Core Dependent Double Braid Eye Splice



Strength you can count on!

SP-CD(0718)

Core Dependent Double Braid Eye Splice

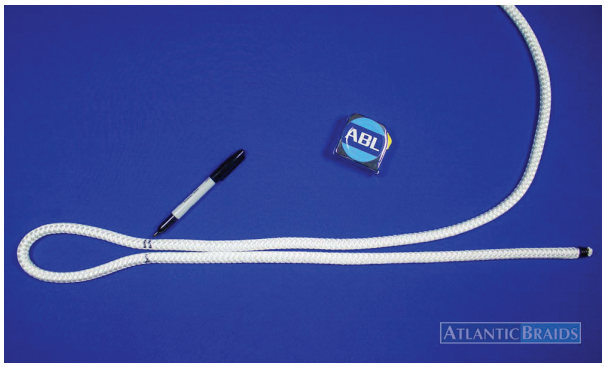
This "core-to-core" eye splice is used to create a permanent loop at the end of a rope. It is intended for double braid ropes with cores made of Dyneema®, Spectra®, Plasma®, Vectran®, Technora®, Kevlar® and other high modulus fibres or any combination of these fibres.

PREPARATIONS

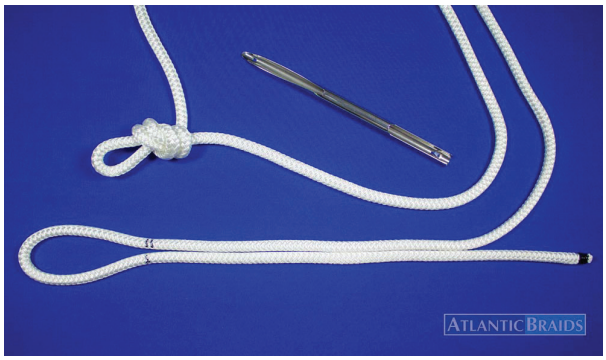
Items required for this splice include…

1. Rope and matching fids
2. Measuring tape
3. Marker
4. Tape
5. Scissors

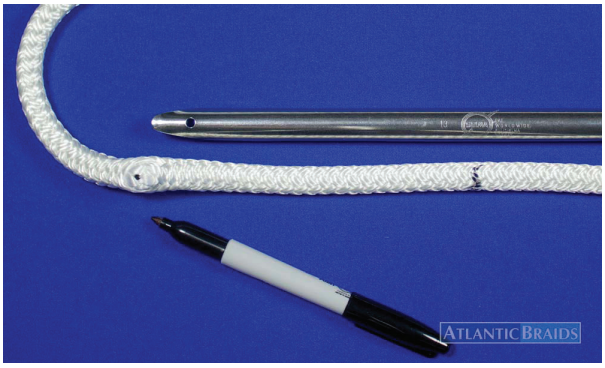
STAGE 1 – MEASUREMENTS & MARKING



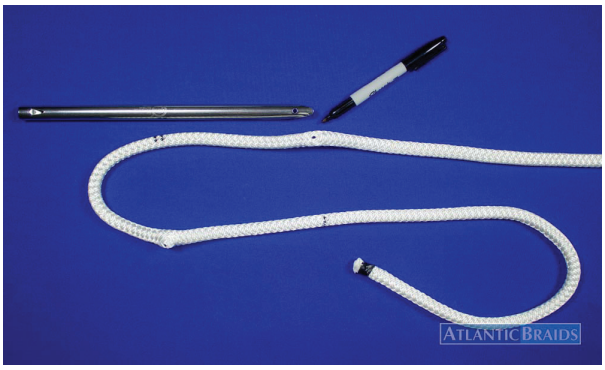
1. Make "mark 1" 2 fid lengths (42 times the diameter of the rope) from the bitter end.



1. Tie a simple knot in the rope approximately 10 fid lengths from "mark 2" or further and as needed.
2. Form the desired eye and make "mark 2" opposite of "mark 1". (If you are installing a thimble, form the eye around it and make "mark 2" opposite of "mark 1".)

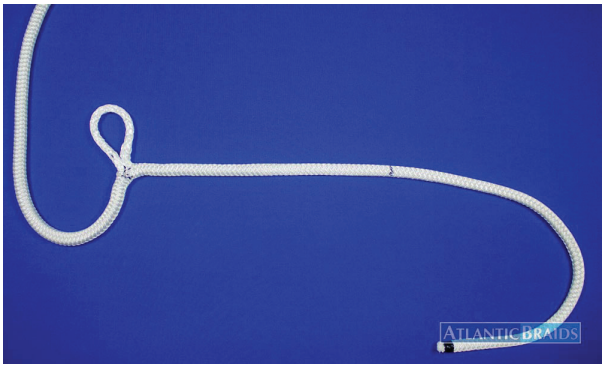


1. From “mark 1”, measure a ½ fid length (or 10.5x the diameter of the rope) away from the bitter end, at this point, carefully spread the cover strands and make “core mark 1”.

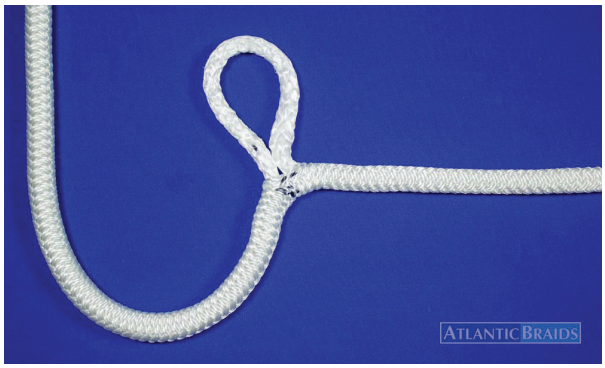


1. From “mark 2”, measure a ½ fid length away from the bitter end and once again spread the cover strands and make “core mark 2” as shown.

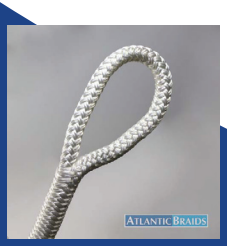
STAGE 2 - PULLING OUT THE CORE



1. Carefully pull out a section of the core at “mark 2”.

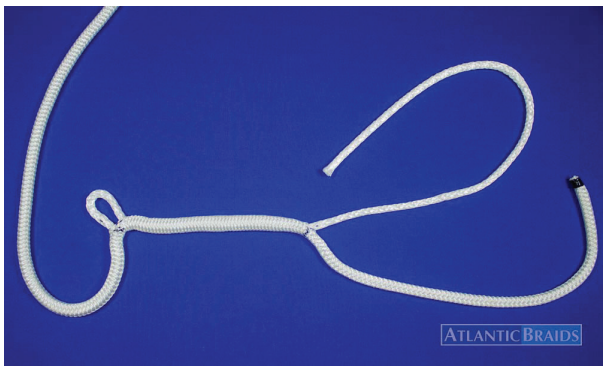


1. Look for the “core mark”.

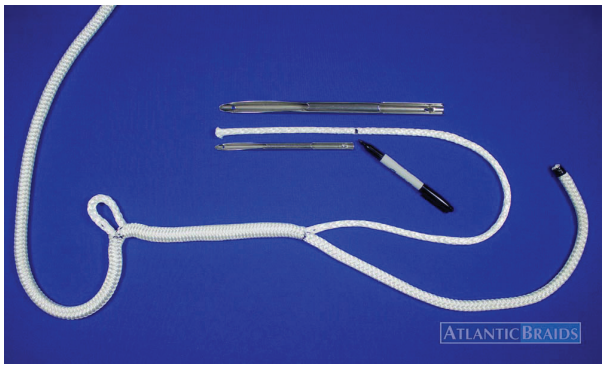


Core Dependent Double Braid Eye Splice

STAGE 2 Continued - PULLING OUT THE CORE

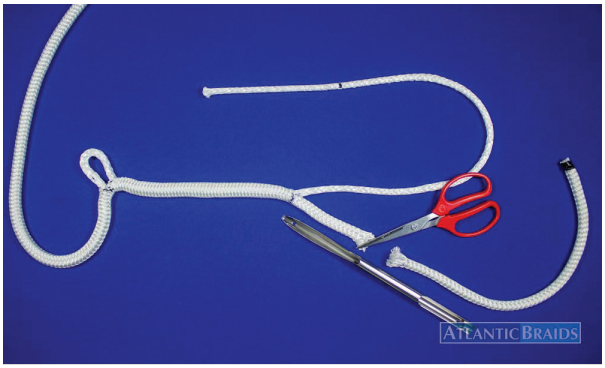


1. At “mark 1”, pull the core out entirely towards the bitter end.

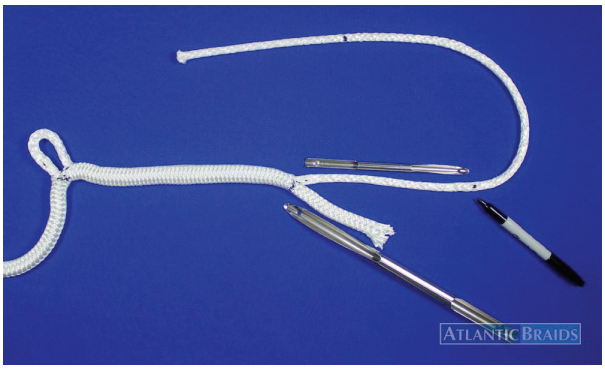


1. Make a “taper mark” 1 fid length (21x core diameter) from the bitter end.

STAGE 3 – BURYING THE COVER

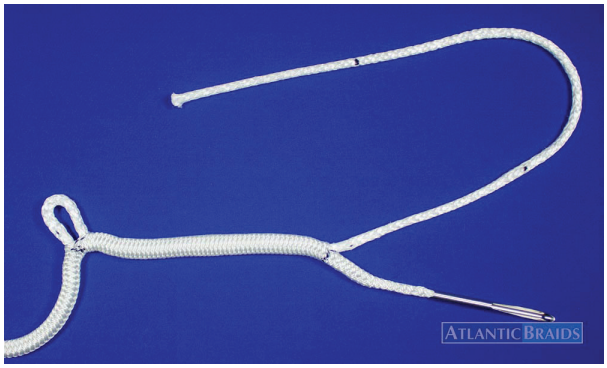


1. Cut the cover a short fid length from “mark 1” towards the bitter end (as shown).

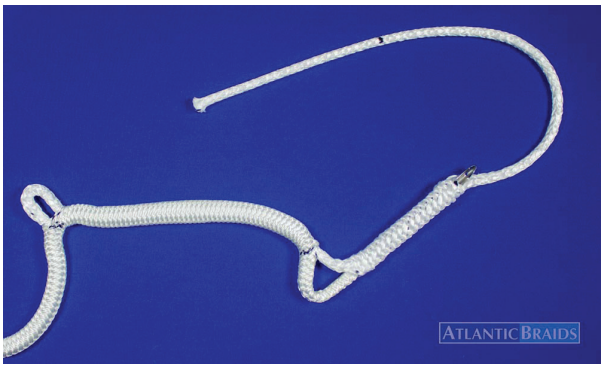


1. Make an “exit mark” on the core 1 long fid length (21x the core diameter) from “mark 1” towards the bitter end.

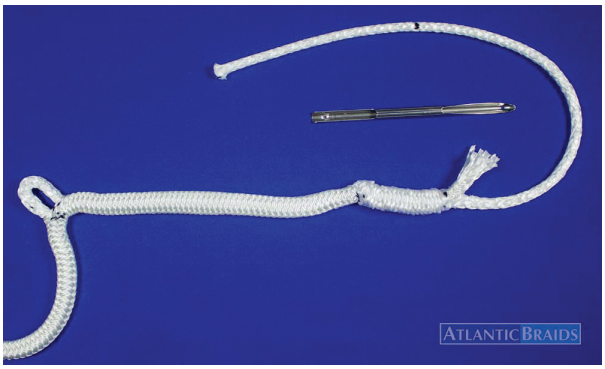
STAGE 3 Continued – BURYING THE COVER



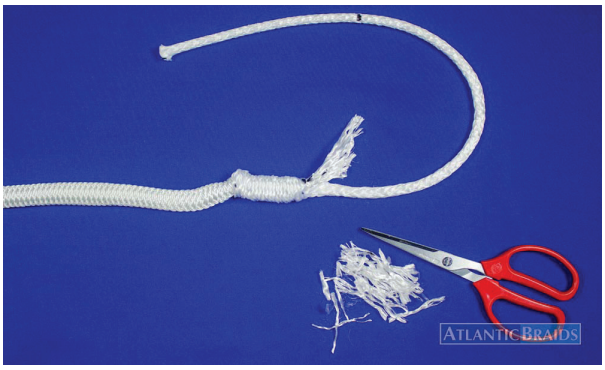
1. Place the bitter end of the cover in a fid of an appropriate size.



1. Enter the core at “core mark 1” and run the fid the short distance towards the bitter end and exit at the “exit mark”.

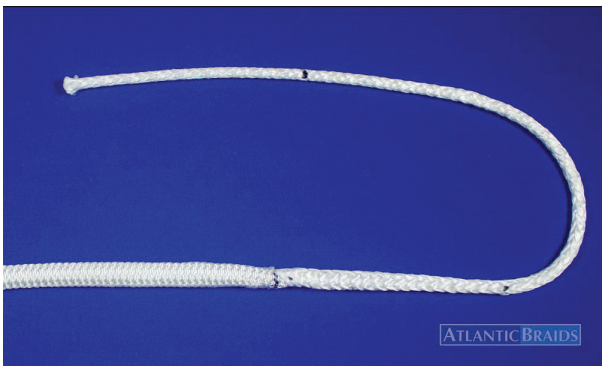


1. Remove the fid.



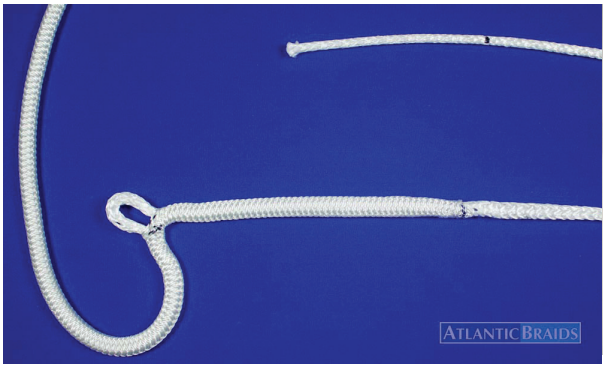
1. Taper the cover.

STAGE 3 Continued – BURYING THE COVER

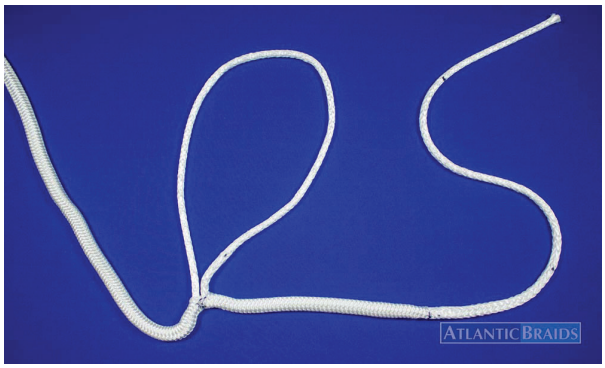


1. Hold the crossover point in one hand and milk/smooth the core towards the bitter end.
(The tapered cover will slip into the core.)

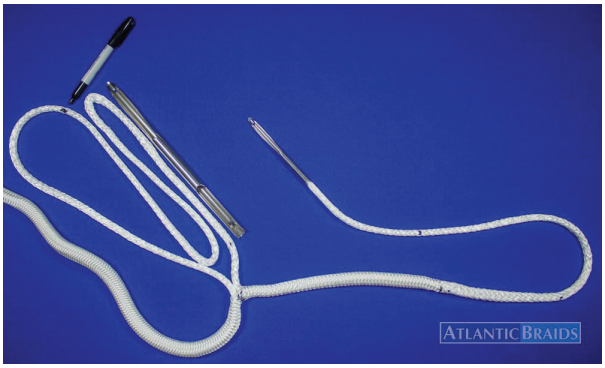
STAGE 4 – CORE INTO CORE



1. At "mark 2", enlarge the size of the existing loop of core by pulling out a length of core which leads to the simple knot.



1. A large loop of core should now be exposed, as in the photo.



1. From "core mark 2", measure 3 fid lengths away (63x the core diameter) from the bitter end and make an "exit mark".

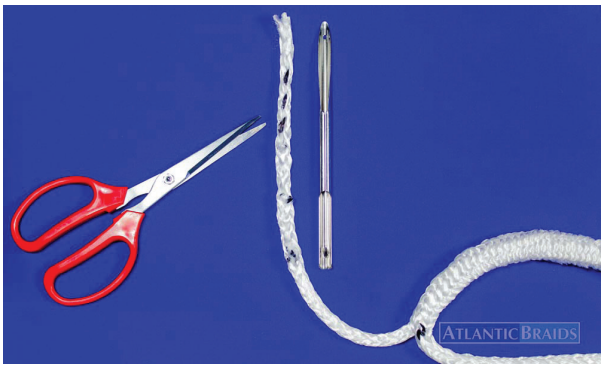
STAGE 4 Continued – CORE INTO CORE

1. Place the bitter end of the core into a fid and enter the core at “core mark 2”, run the fid away from the bitter end.

1. Exit at the “exit mark”, pull out a fid length of core. (Look for the “taper mark” made earlier.)

STAGE 5 - TAPERING THE CORE

1. From the “taper mark”, mark and cut every 4th set of left and right strands a total of 3 times.



1. Cut and remove the next three consecutive strands towards the bitter end.

STAGE 5 Continued – TAPERING THE CORE

1. Now, cut the remaining strands at an angle.

STAGE 6 – THE BIG BURIAL

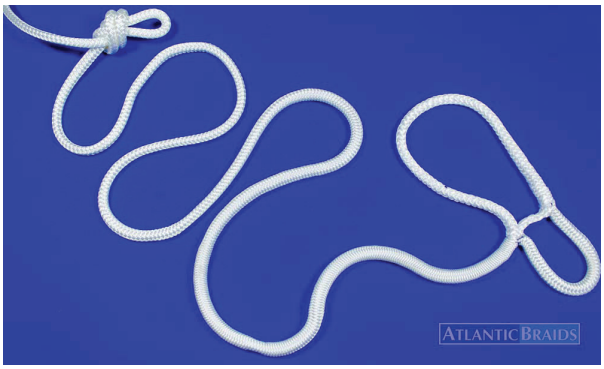
1. Align “core mark 1” and “core mark 2”.

1. Hold the rope firmly where the 2 “core marks” meet.

1. Now milk/smooth the outer core over the buried core to draw the tapered end of the buried core inside the rope.

STAGE 6 Continued –

1. The splice should now look similar to this step's corresponding photo.



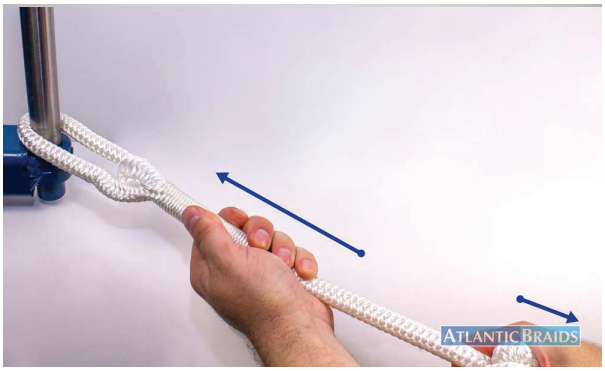
1. From the simple knot, work/smooth/milk the cover toward the splice.

1. An amount of core will be drawn into the cover in this process.

...An anchorpoint will be required in order to draw enough of the material in to finish the splice.

Core Dependent Double Braid Eye Splice

STAGE 6 Continued –



1. Place the loop over an anchor point and smooth/milk the cover from the slipknot towards the loop/eye.
2. While milking the cover towards the loop, put the loop under tension to reduce the diameter of the material being buried. See additional methods below.

1. The finished eye should look similar to the photo.

Additional methods for setting the eye on larger diameter rope or slightly tighter double braided rope:

With the loop/eye ON the anchor point, tie the rope at the simple knot (The knot made in Step 1 of Stage 1) to a strong fixed point or to another rope with controlled tension or alternatively, enlist the help of another person and have them hold the slip knot and pull on the rope. This helps in two ways, firstly, the added tension reduces the diameter of material being buried and secondly, it frees you up to use both hands to milk the cover from the slipknot towards the eye.

or

With the loop/eye OFF the anchor point, tie the rope at the simple knot (made in Step 1 of Stage 1) to a strong fixed point, now tie a smaller rope to the cover side of the loop close to the crossover point and apply tension to the smaller rope with the careful use of some mechanical advantage, this frees you up to use both hands to milk the cover towards the eye.

ABL Rope - Quality and Performance

Performance

Atlantic Braids Ltd. has been designing and manufacturing rope for decades.
We specialize in manufacturing braided synthetic cordage, producing over 2,400 variations of our products, all designed with application performance in mind.

Quality

We are an ISO 9001:2015 certified company; this quality management system is in place to ensure that every effort is taken to manufacture and deliver the finest products and services. Manufacturing processes take place in a safe and clean environment with experienced workers using premium raw materials on professional equipment.

Rope Usage & Safety

Always Inspect your rope

Any rope or steel cable will fail if it is worn out. Be sure to visually inspect your cordage before and after every use. While some rope fibres handle certain elements perfectly fine, the following rules generally apply.

- You should always keep your cordage clean
- Protect it from making contact with sharp edges, abrasive surfaces, harsh chemicals and unnecessary prolonged exposure to sunlight.

Rope Specifications & The WLL

Tensile strength is determined by testing done on new cordage under laboratory conditions. NEVER use the nominal/tensile/break-strength listed for a rope or steel cable as the working load limit. A safe WLL (working load limit) is determined by dividing the minimum break strength of a rope by an appropriate design factor (also known as a Safety Factor). For example: A design factor of 10 to 1 means that a rope with a minimum break strength of 30,000lbs will have a WLL of 3,000lbs.
For more information, you can visit our website and consult the Cordage Institute's International Guideline on the "Safer Use of Fibre Rope".

Safe Use

Understanding a specific rope's strengths and weaknesses is an important first step in understanding whether it is suitable for a particular application or not. It is ultimately the responsibility of the end user to take all possible precautions when using a rope. It is also the end user's responsibility to have sufficient knowledge and a complete understanding of the proper techniques required for any specific rope application.

Always put safety first!