

ATLANTIC BRAIDS

Double Braid Eye Splice

*Strength you can
count on!*



Double Braid Eye Splice

This splice is used to create a permanent loop at the end of a rope, it is intended for double braid ropes made with polyester, nylon, polyolefins or a combination of these fibres. For ropes with high modulus cores, the core dependant eye splice must be used.

PREPARATIONS



Items required for this splice include...

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

STAGE 1 – MEASUREMENTS & MARKING



1. Tie a simple knot in the rope 8 to 10 fid lengths from the bitter end.



1. Make “mark 1” 1 full fid length (*or 21 times the diameter of the rope*) from the bitter end.
2. Form the desired eye and make “mark 2” opposite of “mark 1”.

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1. At “mark 2”, carefully pop the core and make another “mark 2” on the core as shown. This mark will be referred to as “core mark 2”.



1. Carefully pull out some of the core.
2. Make “core mark 3” a short fid length away from “core mark 2”, away from the bitter end.



1. Pull out the core as shown in the photo.
2. Make an “exit mark” 1-1/3 fid lengths (*28x the diameter*) away from “core mark 3”.

STAGE 2 - COVER INTO CORE



1. Place the bitter end of the cover into the fid and enter the core at “core mark 3”.



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STAGE 2 Continued - COVER INTO CORE



1. Run the fid up the hollow of the core to the “core exit mark”. *Take care not to snag any strands along the way.*



1. Pull the cover out a short distance and remove the fid.

STAGE 3 – CORE INTO COVER



1. Place the bitter end of the core into the fid.



1. Enter the cover at “mark 1” as shown.

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STAGE 3 Continued – CORE INTO COVER



1. Carefully run the fid with core up the hollow of the cover and exit 1/3 of a fid past “cover mark 2”.

It may not be possible to exit at a full 1/3 of a fid length. In these instances, exit at least 8 picks in from “cover mark 2”.



1. Remove the fid.

Please note: In the following photos, the rope is flipped for photographic reasons.

STAGE 4 – THE COVER TAPER



1. Pull the cover out 2/3 of a fid length (as shown).



1. Mark a set of strands where the cover exits the core.
2. Count over and mark the 4th pick towards the bitter end.
3. Now count over 5 picks and mark this set of strands.
4. For the final set, count over to the 6th pick.
5. Remove the tape from the bitter end.

STAGE 4 Continued – THE COVER TAPER



1. Carefully pull out, cut and remove the marked strands.



1. At the bitter end of the cover, cut the remaining strands at an angle.

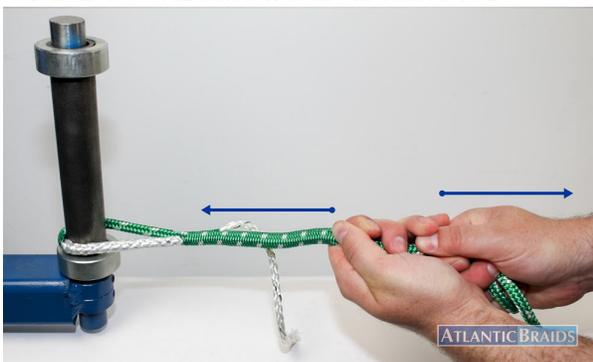


1. While holding the crossover point, milk/smooth the core over the tapered cover. *The tapered cover will slide back into the core.*

2. Now, continue holding the crossover point and smooth out the rope in the opposite direction.

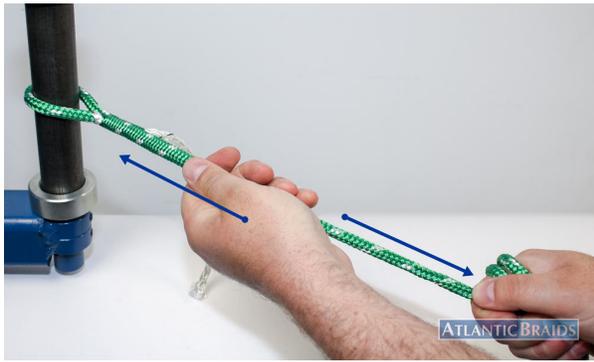
Note: The crossover point should be similar in diameter to the rope being spliced.

STAGE 4 – MECHANICAL ADVANTAGE



1. Place the loop over an anchor point and smooth the cover from the simple knot (made in Stage 1) towards the loop/eye.

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1. 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 crossover point should now be buried within the standing line with the loop tightened up to form the correctly sized eye.



1. If everything looks good, cut the core where it exits from the cover.



1. Place the eye back on the anchor point and pull the rope to draw the short piece of core back into the cover.



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

The Double Braid Eye Splice is now complete.

...As mentioned at the start of these instructions, this splice is intended for double braid rope made with olefin fibres, polyester and nylon.

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

With the loop/eye ON the anchor point, tie the rope at the simple 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 core, cover and crossover to be 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 mechanical advantage, this frees you up to use both hands to milk the cover towards the eye.

Notes:

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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 9001:2008 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!