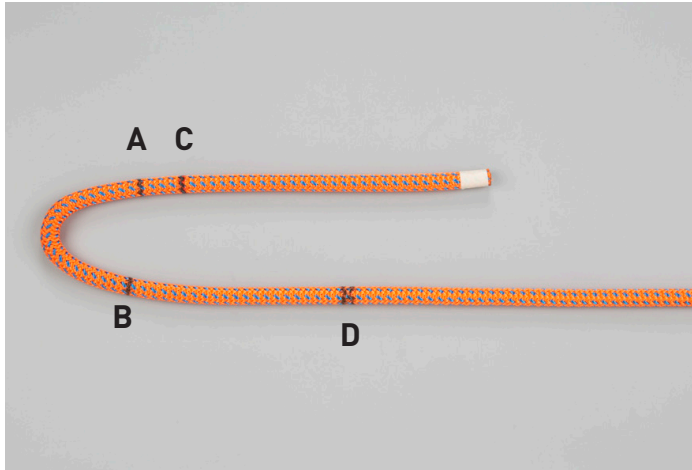




# TACHYON™ EYE SPLICE

FIGURE 1



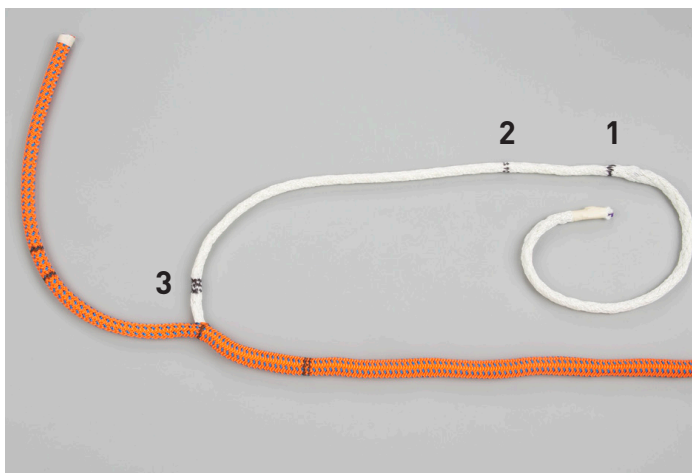
**Step #1** - From end of rope measure back one full fid length (see Fid Measurement Table) and make Mark "A". Using Mark "A" as a reference, form the desired size eye and make Mark "B" on the rope directly opposite Mark "A", as shown. (If using a thimble, shackle or other hardware in the eye refer to the special tips section). From Mark "B" measure one long fid section (down the body of rope) and make Mark "D". From Mark "D" measure down the rope approximately 5 full fid lengths and tie a slip knot or figure 8 knot in the rope. From Mark "A" count eight consecutive left or right strands toward the end of the rope and make a heavy mark completely around the rope. This is Mark "C" (Fig 1).

FIGURE 2



**Step #2** - Bend the rope sharply at Mark "B" and carefully spread the cover strands to expose the core. Pry the core braid out from the cover. Use care to avoid pulling any strands. Pull the end of the core braid completely out of the cover (Fig 2). Tightly tape the end of both the cover and core braids. Holding the exposed core, slide the cover braid back to the knot. Then hold the knot and slide the slack cover back down the core in the direction of the end of the rope until all of the slack has been removed. Mark the core at the point where it exits from the cover. This is Mark "1".

FIGURE 3



Once again slide the cover toward the knot. Measure one short fid length (see "Fid Measurement Chart" ) from Mark "1", toward the knot and make two marks that go completely around the core. This is Mark "2". From Mark "2" measure one full fid length plus a short fid length toward the knot and make three marks completely around the core. This is Mark "3" (Fig 3).



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FIGURE 4

**Step #3** - Extract inner core from braided core at Mark 2 (Fig 4).

**Step #4** - Taper the braided core tail and attach fid. Insert the fid into the cover at Mark "C" and out at Mark "D". Pull core tail through at Mark "D" until Marks "2" & "C" align. Remove the fid from core tail (Fig 5).

**Notes:**

1. The rope may be extremely tight where the fid is traveling between Marks "B" and "D". To create more space in this area, grasp the core as it exits the cover at point "B" and pull extra core out of the rope. This will cause the

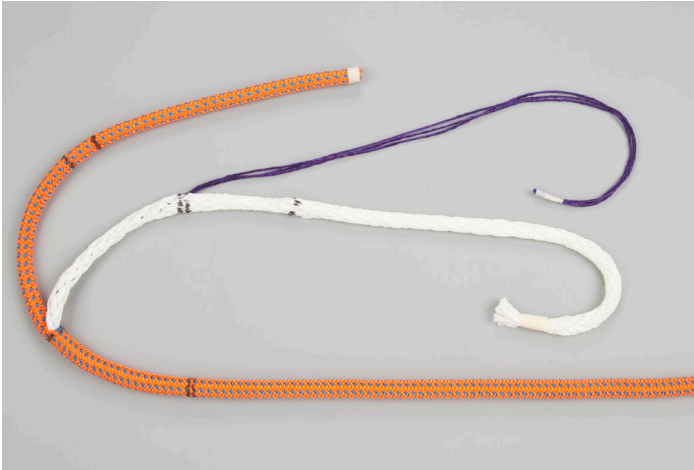


FIGURE 5

- cover to "pucker" and give you some extra space.
2. If the distance between "C" and "D" is longer than the length of the fid, hold the fid in place by squeezing it through the cover braid. Slide the cover slack back from the fid to Mark "C" to draw the core tail into the cover. Then continue working the fid through the cover to Mark "D". Repeat as necessary.
3. Avoid snagging the core with the tip of the fid when it is passing through the cover in the vicinity of Mark "B". To check if the core has been snagged, pull on the exposed core where it exits from the cover at Mark "B". If the core moves freely it is OK to proceed. If the core appears to be stuck, pull the Fid back until the core is no longer snagged and continue.

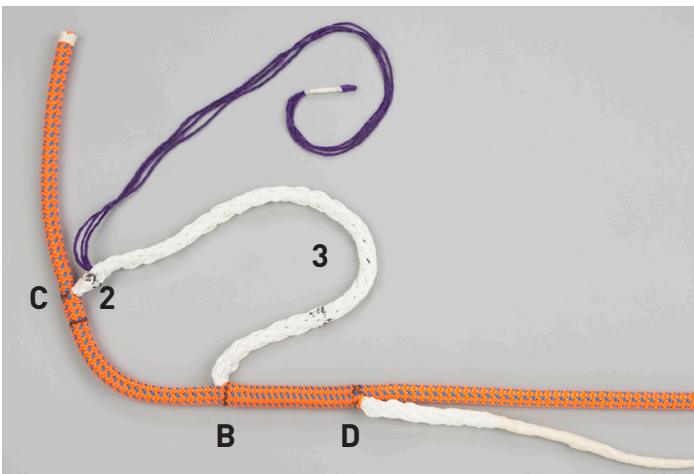


FIGURE 6

4. When exiting or entering the braid with the fid always go between strands.

**Step #5** - To taper the cover tail, from Mark C, count towards the bitter end of the sleeve, 3 strand pairs, pull out the 3rd strand pair, removing both the "S" and "Z" yarns. Move up the sleeve, counting another 4 strand pairs, removing the 4th strand pair. Continue this pattern 3, 4, 3, 4, etc... until a total of 6 strand pairs have been removed. Cut the pulled strand pairs (Fig 6).





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FIGURE 7

**Step #6** - Attach the fid to the cover tail and tape as needed. Insert the fid into the braided core at Mark “2” and out at Mark “3” (Fig 7).

**Notes:**

1. Make sure not to cross the yarns of the inner core.
2. Notice the loop at mark “C” after running the cover through the core, to remove this loop simply pull on the core exiting mark “D” until the loop disappears.



FIGURE 8

**Step #7** - The crossover is the point where Mark “C” on the cover and Mark “2” on the core meet. To tighten, hold the rope at the crossover point and alternately pull on the free ends of the cover and core tails. Continue this process until the crossover is approximately the same diameter as the rope. Remove tape from cover tail and finish taper from point of last cut strand pair in Step 5, taper cover tail by cutting the strands at a 45 degree angle. The same needs to be done to the inner core. Gently pull the inner core so all of the slack in the yarns is removed. Cut one of the ends at the point where it exits the core at mark 2. Cut a second end 2” up from the first cut end, and cut the third end 2” up from the second end (Fig 8).



FIGURE 9

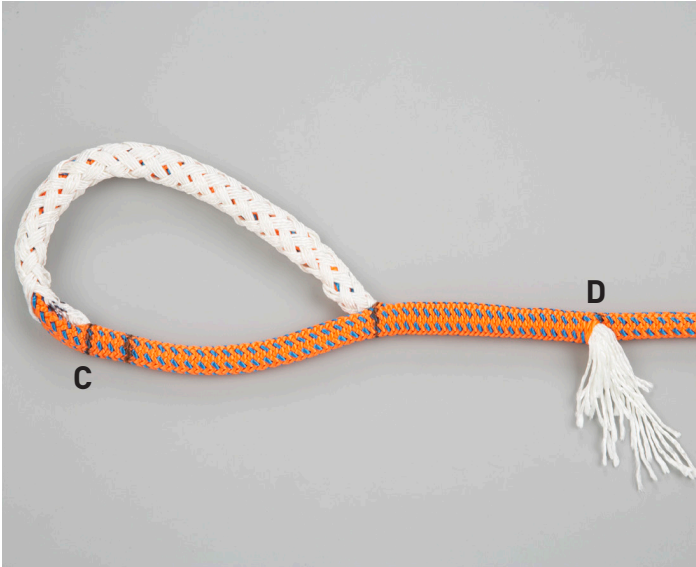
To bury the cover tail and inner core, hold the rope in the eye and pull back on the rope slightly, pull just enough to bury cover and the inner core. Once buried, hold the rope at the crossover and smooth the core (Fig 9).





## TACHYON™ EYE SPLICE

FIGURE 10



**Step #8** - To bury the core tail, hold the crossover and smooth out the slack in the cover braid from the crossover down to Mark "D". Repeat this process several times to remove all cover slack. Most of the core will disappear; however, some of the core tail will still remain at Mark "D" after this process. Mark the core tail where it exits from the cover at Mark "D". This is mark 4. Pull out the core tail at Mark "D" a distance equal to the distance between Mark B and Mark D (1 long fid). Cut off the excess core tail at Mark 4 and unbraid the core tail a distance equal to the distance between Mark B and Mark D (1 long fid). Fan out the strands. Cut the strands at a 45 degree angle starting at a point about halfway back from the end (Fig 10). Again, hold the rope at the crossover and smooth the cover braid from the crossover toward Mark "D". The exposed core will disappear completely inside the cover.

**Step #9** - Secure the knot tied in the body of the rope to a solid anchor point. The slack in the cover braid between the knot and Mark "B" will be used to bury the exposed core, crossover and cover down to Mark "A" to produce the desired size eye. This is accomplished by holding the rope at the top of the eye and milking the cover slack back from the knot towards the splice. Milk the cover from the crossover around the radius of the eye to the throat at "B". Place a metal rod (or fid) in the eye and pull sharply to help seat the splice.

**Note:** Flex and/or hammer the splice section as needed to loosen the fibers. It is very important that all of the slack in the eye and in the body of the rope be removed. If insufficient tension is placed on the rope while milking up the slack the crossover may tend to bunch up. If this happens, slide the cover slack back toward the knot until the crossover is the proper size. Then repeat the milking procedure.

**Step #10** - Lock stitch & whip the splice. Begin the whipping 3" down from the throat of the splice and whip a distance equal to the diameter of the rope. Then using double strand of whipping twine; next to the whipping cross stitch completely thru the rope, pass the twine over the whipping and cross stitch again. Pass twine over whipping again, then stitch thru the cover exiting next to the whipping 90 degrees from the entry point. Pass twine over the whipping a third time; then cross stitch completely thru the rope, pass twine over the whipping and cross stitch again. Trim ends close to rope and heat seal.