

RESCUE KNOTS (Part Two)

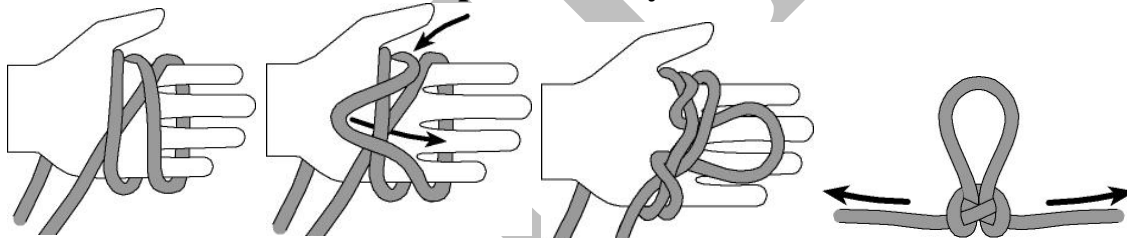
Alpine Butterfly Knot

The butterfly knot is designed to take a pull in three directions. To rig anchoring systems, rescues can sometimes use a butterfly to create a bridle to change the rope path. They can tie off a rope to two anchor points, leaving slack rope between. They can then tie a butterfly in this slack line at the desired location to form an anchor point for a rope or rope system.

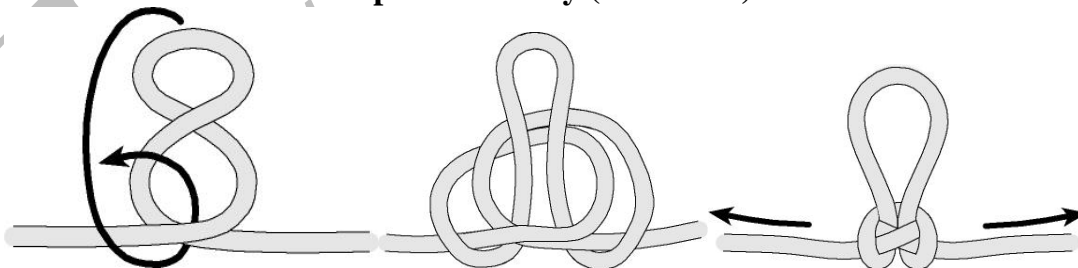
You can use the butterfly anytime a pull in more than two directions is required. It is considered to be a midline knot, so no safeties are required. This knot has an efficiency of about 75%.

To tie this knot lay the rope in the middle of your palm, wrap the first loop around your fingertips, not too tight, wrap the second loop back by your thumb. Take the loop closest to your finger tips and wrap it over top of the other loops and in under and out through the middle. Pull the loop and the two legs, but not too tight. Snap the two legs apart to pop the wings. The size of the loop depends on what you're hooking to it.

Alpine Butterfly (Method 1)



Alpine Butterfly (Method 2)

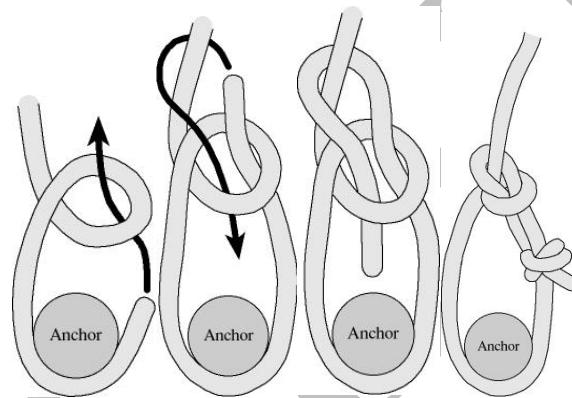


Bowline Knot

This is a traditional fire-service knot that creates a loop that will not slip. It is a good knot for some applications, in modern testing with kernmantle rope indicates the bowline has between 67 – 73 % efficiency. A bowline knot requires very little rope to tie and works very well in most anchoring applications.

The bowline does have a serious disadvantage; rescuers should never use it as a running knot (one moving over an edge). It is possible for a bowline to hang on an edge and become untied. Rescuers should only use the bowline in static (nonmoving) applications, and always tie a safety off in the loop. For this reason, we only use the bowline as a tag line and prefer to use one of the figure 8 knots as our anchor knot.

To tie the bowline start with a small counter clock wise loop, take the running end up through the loop, around the standing end and back down through the loop. To tighten pull on the standing end and the two ropes in the loop. Remember to tie a safety in the loop



Double Fisherman's Bend Knot

This is another knot used to tie two load-bearing ropes together. This knot is more suited to ropes of equal diameter. Because of its compact nature, it is commonly used to make prusik loops. The double fisherman's bend has the advantage of requiring no safeties. We prefer to use the figure 8 bend knot instead of the double fisherman bend when knots must be passed around objects or to tie two ropes together because the figure 8 bend has a knot efficiency of 81% and the double fisherman only 79% efficiency. Also if you load the double fisherman's bend it is hard to untie.

