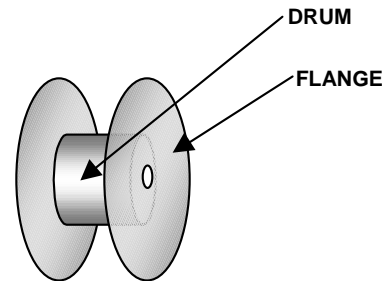


## Proper Storage and Respooling of Fiber Optic Cable

(Many guidelines also apply to metallic data cables)

### Cable Storage

1. Large cable reels should always be stored standing up, not laying on their sides. Cables laid on the flanges are subject to “cascading”, where the top layers of cable fall, crossing the traverse wraps of cable. Cascading makes paying off the cable difficult and increases the chances for kinking the cable and breaking fibers.
2. Always ensure the outside cable end is secured. This will prevent the cable from unwinding on the reel and make subsequent paying off much easier.
3. Larger reels should be “chocked” to prevent unintentional movement. These reels can be very heavy, hard to stop once rolling and can cause serious injury.
4. Do not staple the cable on the outside of the flange. The staple can puncture through the flange and damage the cable while it is on the reel.



### Cable Respooling

1. Securely suspend the master cable reel so it is not resting on the ground. The master reel should not roll along the ground when paying off the cable – this can be dangerous and lead to crushed cable, hands or feet.
2. Select the take-up reel so that the reel drum is at least 20 times the cable’s diameter. Further, for small cables the reel drum should not be smaller than 10 inches in diameter.
3. Check that the cable pays off the master reel smoothly and that the free end is not crossed over by a subsequent wrap of cable. Such a cross over can result in a kinked or damaged cable.
4. Check the master reel and take-up reel flanges to make sure there are no sharp edges or points that could damage the cable or interfere with a smooth traverse.
5. Securely fasten the cable to the take-up reel in a manner to couple the cable components – do not secure the cable by the jacket only. For smaller cables, tying a knot at the end of the cable can do this. For cables containing more than 12 fibers, the jacket can be stripped back allowing the inner strength members to be used to tie into the take-up reel. Again, do not staple the cable on the outside of the flange - the staple can puncture through the flange and damage the cable while it is spooled onto or off of the take-up reel.
6. Ensure the master reel is prevented from freely spinning – generally by providing some kind of back tension on the reel. Because of its larger size and weight, this reel will be difficult to stop and excessive cable may pay off the reel, increasing the chances for kinked or damaged cable. To ensure that the cable is not damaged and that the master reel is prevented from freely spinning, the recommended respooling tensions are as follows: 500 grams maximum for cables with four fibers or less, 1000 grams maximum for cables with 6 through 12 fibers, and 1000 to 2000 grams for cables with greater than 12 fibers.
7. Slowly start the respooling process, being careful to avoid excessive tension on cable – particularly at the cable ends. The take-up reel should not be used to pull the cable onto the reel – the master reel and take-up reel should rotate simultaneously.
8. Control the traverse on the take-up reel to maintain a neat, orderly, taut cable traverse.
9. Do not cut the cable “on the fly”. Bring both reels to a stop before cutting to prevent cable whipping on the take-up and excessive cable payout on the master reel. Cutting on the fly can also be dangerous because the aramid yarns do not cut cleanly and may grab the cutting tool.
10. Once complete, secure the cable ends and shrink-wrap the cable on the reel to prevent the cable from inadvertently loosening on the reel.

