



PRECISION WOUND SPOOLS

Optical fiber spools capable of high-speed deployment underwater on land or in space. These precision-wound optical fiber packs are designed for use in such critical applications as submarine-launched buoys, underwater munitions and terrestrial robots to provide a capability for two-way, high-bandwidth communications.



Optical tethers provide two-way, high-bandwidth communications link to mobile robots, ROV's, UUV's, deployable sensors, and other systems. Unlike RF-based communications systems, an optical tether is secure, covert, and immune to jamming, multipath, and line-of-sight problems.

Our standard spools are made from either Strong Tether Fiber Optic Cable (STFOC) - with a >50 lbs breaking strength and slim 0.03" OD - or bare optical fiber. These spools are designed with one twist per turn of cable so no kinking issue develop as a result of rapid payout. Both come standard as singlemode or can be modified with multimode fiber.

STANDARD SPOOL SIZES – STFOC CABLE

Spool ID	Spool OD	Spool Length	Cable Length	P/N
0.75"	3"	6"	800m	1-3-A-8.5-27-B-1.5-30-0.75-3-6
1.5"	3.7"	10"	3km	1-3-A-8.5-27-B-1.5-30-1.5-3.7-10
5"	10"	8"	14km	1-3-A-8.5-27-B-1.5-30-5-10-8

STANDARD SPOOL SIZES – BARE FIBER

Spool ID	Spool OD	Spool Length	Cable Length	P/N
0.75"	3"	6"	10km	1-3-N1-0.75-3-6
1.5"	3.7"	10"	22km	1-3-N1-1.5-3.7-10



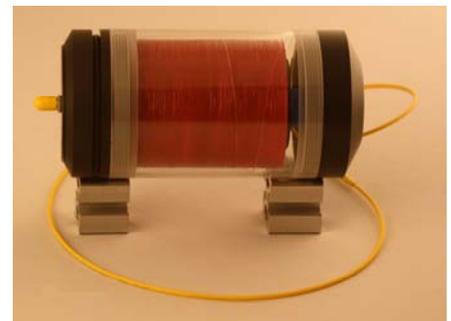
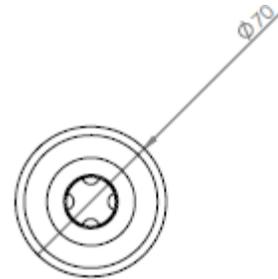
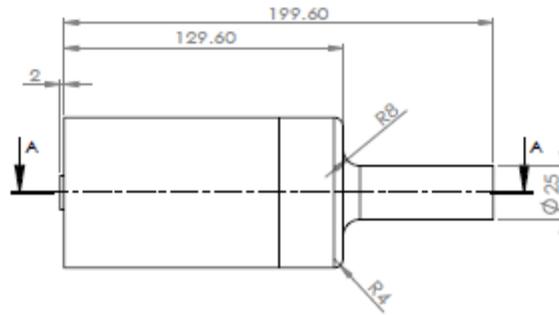
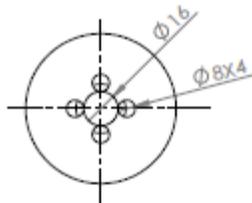
As a standard product for mobile robots we offer a unit that deploys an expendable optical fiber at very low tension. It includes a flexible 'tail' that minimizes the chance the fiber could be damaged when the vehicle backs up or makes tight turns. Produced using a fully-automated, high-precision process we achieve low pack attenuation and low unit cost. Standard configuration is 5.5"x1"x1.5", and is available with fiber lengths of up to 700 m of singlemode fiber.



CUSTOM SPOOLS

In addition to our standard, cost efficient precision wound spools, we are able to leverage our quality team of engineers to design and build custom spools with specialty fiber or cable in custom sizes to meet your exacting requirements. Some of our custom design capabilities include;

- Externally deployable spools
- Buoyant cables
- High strength cables
- Specialty optics
- Custom Sizes
- Custom designed canisters



Contact your local Linden Photonics Representative for more information, to order a standard spool or begin working on your custom design.