



If your application requires a custom designed fiber optic, Dolan-Jenner has the resources to take your project from concept to completion. Dolan-Jenner is unique in that we design, engineer and manufacture fiber optics all within a single facility.

Our experienced application engineers can assist you in designing a fiber optic that meets your specific requirements.

Our fiber drawing capabilities allow us to better serve our customers by shortening lead times due to the elimination of fiber outsourcing. This also allows us to ensure that our customers get the very best quality fiber.

Our assemblers have the experience and skill necessary to build even the most complex fiber optics with excellent build quality.

Custom Fiber Optic Capability

Dolan-Jenner Provides Custom Solutions

Key Features of Dolan Jenner Fiber Optics:

- **High Intensity:** Fiber optic light guides can provide the highest levels of intensity in an unlimited number of configurations and sizes.
- **Cold Light:** Keeps damaging lamp and infrared heat away from your samples and application area.
- **Reduced Size:** Small distal size capability and fiber flexibility allow access to confined spaces and work areas.
- **Safe Comfortable Handling:** Fiber optic light guides are always at ambient temperature allowing for safe adjustment and positioning at any time.
- **Light Output Configurations:** More than just multi-branches. Fiber optics may be constructed to provide shaped output configurations to fit many needs, such as: annular, lines, multi-aperture, segmented, multi-points, arches and co-axial.
- **Extreme Temperature Capability:** Fiber optic light guides can be configured to withstand environmental temperatures from -40 F, and up to 2000 F (1093 c).
- **Harsh Environments:** Glass and quartz fibers can tolerate most fluids and chemicals that get splashed during machining, milling, drilling, assembly, or cutting processes.
- **Custom Mechanical Packaging:** Assemblies can be integrated or custom designed to meet your dimensional and optical requirements such as fiber type, end ferrule diameter and shape, cable lengths, sheathing materials, etc.

Custom Fiber Optic Materials:

Fiber Types

Glass Fibers:	Quartz (fused silica) Fibers:	Fiber can also be purchased from an outside vendor and assembled into configurations suitable for your application.
Individual fiber diameters: .001" and .002"	Individual diameters of .004" and .010"	
Numerical Aperture of .55 and .66	Numerical Aperture of .22 and .35	
Acceptance Cone of 68 and 83 degrees	Acceptance Cone of 25 and 35 degrees	
Bundle diameters from single strand (.001) up to 3 inches	Bundle diameters from single strand (.004) up to 1 inch	
Temperature ratings: -40 F up to 1100 F	Temperature ratings: -40 F up to 2000 F	
Transmission: 400 nm – 2000 nm	Transmission: 220 nm – 2700 nm	
Cable length up to 30 feet.	Cable length up to 30 feet.	

Sheathing Materials

Standard Sheathing Materials:	Other Choices Include:	
PVC covered Monocoil	Silicone tubing	Welding hoses
Stainless steel interlocked hose	Silicone covered monocoil	Rigid steel tubing
PVC tubing	Nylon hose	PVC hose
Self supporting Gooseneck	Braided stainless steel	Semi-rigid interlocking hose
	Woven fiberglass	

End Ferrules/Terminations

Geometries:	Materials:
SMA /ST/FC	Stainless steel
Threaded	Brass
NPT fittings	Aluminum
Grooved	Delran
Many more...	Nylon

Special Housings

Our machining capability enables us to design custom housings for specific fiber optic applications. Housings designed to fit your required output geometry and can include a matrix of bundles, custom designed line to circle, and special annular configurations. Standard flare housing materials and finishes are typically black anodized aluminum.



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