Rollable Ribbon Fiber for Shipboard Use

MIL-PRF-85045/33, /34, /35, /36

Marmon Aerospace & Defense Group

- Reduces cable pathway congestion and provides a solution for increasing demand for fiber optic circuits aboard ship
- Current M85045 cables have multiple individual fiber optic core components
- Rollable Ribbon fiber optic cables can significantly reduce the space / weight up to 12X of Fiber Plant

Standard M85045 Cable Example

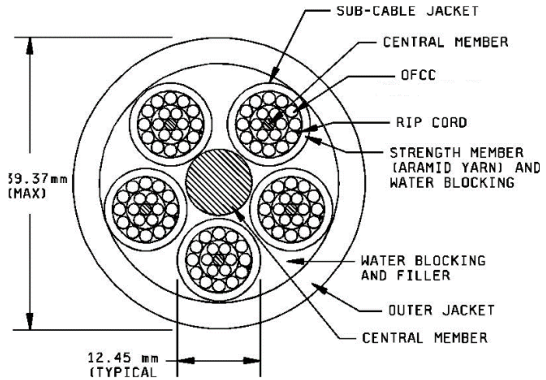
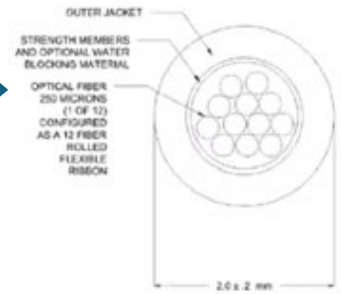
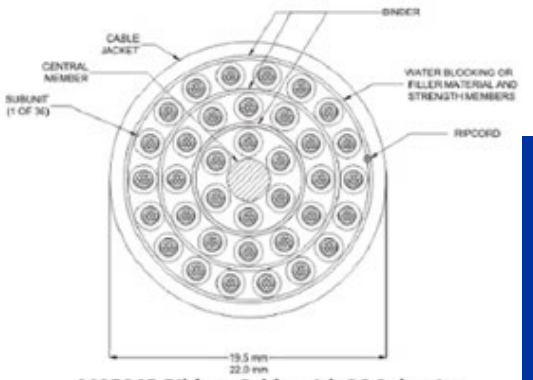


FIGURE 2. Ninety-OFCC fiber optic cable.

Current Fiber Cables vs Rollable Ribbon



12-Fiber Subunit



M85045 Ribbon Cable with 36 Subunits

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Rollable Ribbon Fiber for Shipboard – MIL-PRF-85045/33, /34, /36

Specification	# Subunits	Total Fiber Count
MIL-PRF-85045/33	1	12
MIL-PRF-85045/34	4	48
MIL-PRF-85045/35	8	96
MIL-PRF-85045/36	36	432

Amphenol FSI THDM Series MT Connector System

Ribbon Fiber Holders

AFL 90R Fusion Splicer

Rollable Ribbon Fiber for Shipboard Use

MIL-PRF-85045/33, /34, /35, /36

Marmon Aerospace & Defense Group

Step 1 M84045/33 (single 12-fiber unit) Commercial grade fiber mfg and testing

Test for:

- Attenuation
- Low Pressure Hosing
- Temperature Cycling
- Flammability
- Jacket Shrinkage

Step 2 M49291 Fiber Qualification

Full Test Schedule

Addition to QPL

Step 3 M85045/34 (4 12-fiber units / 48 fiber)

Using qualified fiber M49291/7

Full Test Schedule

Step 4 M85045/35 (4 12-fiber units / 48 fiber)

Fiber in accordance with M49291/7

Full Test Schedule

Step 5 Addition to QPL

Amphenol FSI THDM Series MT Connector System

Ribbon Fiber Holders

AFL 90R Fusion Splicer