

COMPLEX COMPONENTS

Engineered Shafts

Nordson MEDICAL has an extensive portfolio of advanced component technologies for the development and manufacture of catheter based devices. Leveraging the technical knowledge of veteran braiding experts, our Center of Excellence is the industry-leading partner for complex braided shafts and component solutions. Let Nordson MEDICAL's experts partner with your engineering team today to provide leading-edge solutions.

BRAID-ENGINEERED SHAFTS

Nordson MEDICAL can provide a wide range of braided shafts in both micro and large sizes ranging from 0.3F – 32F.

Reinforcement is ideal for medical device components including:

- Braided catheters
- Multi-durometer braided catheters
- Deflectable/steerable shafts
- Tapered braided shafts
- Variable pitch braided shafts
- Coil reinforced shafts
- Multi-lumen braid engineered shafts
- Hybrid braid/coiled shafts

UNIQUE APPLICATIONS

- Micro-catheters
- Fiber optics
- High-pressure systems
- MRI compatible devices
- TAVI devices
- Energy-delivery systems

Reinforced Tubing

CUSTOM BRAID-ENGINEERED SHAFT CAPABILITIES

Minimum Inner Diameter	0.004" (0.3F)
Maximum Outer Diameter	0.420" (32F)
Liner Materials	PTFE, FEP, HDPE, Pebax®, Nylon, Urethane, TPE, Multi-layers, Polyimide, Polyimide with Particle Composites, Polyamide-imide, Polyester, Polyphenylsulfone, and others
Outer Jacket Materials	All medical-grade polymers, including Nylon, Pebax® and Urethane, Polyimide, Polyimide w/Particle Composites, Polyamide-imide, Polyester, Polyphenylsulfone
Reinforcement Materials	Stainless steel round and flat wire, Nitinol, Kevlar®, PLLA, UHMWPE, PP, Aramid, and others
Typical Flat Wire Size Range	0.0005" x 0.0025" – 0.001" x 0.007" (0.013 x 0.064 mm – 0.025 x 0.178 mm)
Typical Round Wire Size Range	0.001" – 0.007" (0.025 mm – 0.178 mm)
Variable-Pitch Braiders	16, 32, and 48 carriers
Additional Features	Multi-lumen, variable-stiffness continuous processing, multi-durometer, radiopaque fillers, variable-pitch, braid-over-braid, braid-over-coil

BENEFITS OF PARTNERING WITH NORDSON

- Faster than industry standard lead times.
- Deep breadth of offering and capabilities including 48 carrier braider and many unique braid materials.
- One place to get braid-reinforced shafts with all secondary processing capabilities including:
 - Soft tips
 - Overmolded hubs
 - Forming
 - Pad printing
 - Tapering
 - Grinding
 - Hold punching
 - Radiopaque market bands
 - Performance testing
 - Custom tipping