

## A SMARTER ALTERNATIVE TO PTFE-COATED STAINLESS STEEL

# SOLID PTFE CATHETER MANDRELS

- 1 ULTRASMOOTH & LUBRICIOUS**  
 Solid PTFE mandrels are naturally lubricious and easy to remove. Our ultra-polished finish improves consistency and helps make catheter assembly faster and more reliable.
- 2 DIMENSIONAL STABILITY**  
 High compressive strength allows precision grinding for demanding applications.
  - Diameters starting at ~.016"
  - Tolerances to  $\pm .0005$ "
  - Custom lengths available
  - Temperatures up to 500°F / 260°C
- 3 BIOCOMPATIBILITY**  
 PTFE is biocompatible and chemically inert. With no coating to peel or flake, solid PTFE helps reduce contamination risk while providing reliable release.
- 4 BIOCOMPATIBILITY**  
 Unlike coated stainless steel mandrels requiring multiple processes, solid PTFE mandrels can be produced faster—reducing lead times, cost and complexity.
- 5 APPLICATION DRIVEN**  
 Available in Virgin PTFE and glass-filled PTFE, with custom options to meet specific application requirements.

## AVAILABLE CONFIGURATIONS

### STEERABLE / GROOVED



### STEP MANDRELS



### SHORT & LONG TAPERS



### D-TAPER / C-SHAPE



### MULTI-LUMEN / SQUARE



### HOLLOW TUBE



COMPLEX DESIGNS AND FEATURES CAN BE PRODUCED IN SOLID PTFE FOR DEMANDING APPLICATIONS

## FEATURES & BENEFITS



Precision  
tolerances  
 $\pm .0005$ "



Highly lubricious  
& easy to remove



No PTFE coating  
flaking or  
contamination  
risk



Can be elongated  
while maintaining  
precise IDs



Withstands high  
manufacturing  
temperatures  
(Up to 260°C / 500°F)



Perfect alternative  
for PTFE-coated  
stainless steel  
mandrels



Medical Component Specialists Inc.  
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## PURE & GLASS-FILLED MATERIAL OPTIONS

# PTFE MANDREL CAPABILITIES

### PTFE PURE



- Improved Coefficient of Friction ( $< .10$ )
- Elongation for quick release
- Ultimate flexibility
- Softer
- Finer diameter potential
- > 99% purity

### PTFE GLASS-FILLED



- Rigidity/stiffness
- Complex designs (tapers, slots, etc.)
- Higher UTS
- Customizable glass %
- Increased thermal conductivity
- Resistant to compressive forces
- Easier to handle

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#### CENTERLESS GRINDING

High-precision straight mandrels start with centerless grinding.

- 6 dedicated to metals // .0002" standard diameter tolerancing
- 6 dedicated to polymers // .0005" standard diameter tolerancing

2

#### CNC GRINDING

High precision meets high production for challenging mandrel and guidewire designs.

- 15 three-axis CNC Tru Tech grinders // engineered for complex geometries
- 2 Glebar CAM.2 guidewire grinders // down to .0005" diameter over virtually any discrete length
- 2 CNC ProtoTRAK mills // single or multiple axial slotting for mandrels up to 8' long

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#### INFEEED / FORM

Precision grinding for complex mandrel designs, including steps, tapers, flats, and more.

- 6 dedicated to metals // .0002" standard diameter tolerancing
- 3 dedicated to polymers // .0005" standard diameter tolerancing

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#### ECC CUTOFF

Precision burr-free cutoff.

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#### LASER MARKING

In-house part marking (text, barcodes, logos, etc.)

**A ROBUST MATERIAL SELECTION FOR PRECISION MANUFACTURING AND DEMANDING APPLICATIONS**

### RAW MATERIAL INVENTORY



Nitinol



300 series SS



17 -4 // 17 -7 ss



PTFE (Pure &  
Glass-Filled)



M2



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