Robotic Surgery

Spectrum Plastics Group's expertise with advanced polymeric component manufacturing suits precisely the needs of this trending product and application segment.

Product Solutions

- Insulation sheaths and silicone jackets for electrocauterization
- Lubricious tubing for articulation wires and mechanisms
- Single lumen and para-tubing drainage extrusions
- Metal replacement components for robotic system housings, instruments, and fixtures
- Catheter delivery system components and sub-assemblies
- Orthopedic implants and instrumentation components
- Puncture/tear resistance film used to fabricate sterile drapes

Material Solutions

High Temperature Flexible Polymers

Fluoropolymers:

- Biocompatibility
- Lubriciousness
- Chemical resistance

Other flexible materials Spectrum Plastics converts for Surgical Robotics innovators

- Polyurethane
- PEBA

Metal Replacement Materials

PEEK, Polysulfone (PSU), Polyphenylsulfone (PPSU), and Polyarylamide (PARA):

- Chemical resistance
- Impact strength
- Extended service life
- Wear/Abrasion resistance
- Dielectric strength

Silicone:

- Durable and flexible
- Inert & bacteria resistant
- Biocompatible
- Dielectric properties

Why Choose Spectrum Plastics?

- Experience in converting advanced polymeric materials
- Precision component manufacturing via both extrusion and injection molding conversion processes
- Polymer science knowhow from technical experts
- Work with highly experienced engineering teams to conceive, and develop your next project