
microspec
medical extrusions

redefining the limits of extrusion technology…



Since 1989, medical device companies the world over have turned to Microspec for custom extruded parts that challenge the limits of extrusion technology.

At Microspec, research, process development, tool design and fabrication, and extrusion of precision medical parts stay entirely in-house. As a result, we're more agile and adaptive to change and have tighter control over the finished part.

Microspec extrudes most thermoplastic elastomers, including fluoropolymers, engineering resins, and custom compounds. The precision medical parts we extrude are among the smallest and most complex, with some of the tightest tolerances in the industry.

Microspec specializes in advanced medical extrusion services. We are recognized, as well, for our exceptional customer service which prioritizes close working relationships with our customers, from concept through commercialization.

Contact Microspec with your extrusion challenge – we'll turn it into reality.

Intertek

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35 Years microspec medical extrusions 1989-2024



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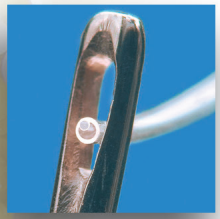
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Research/Prototyping Development

microspec medical extrusions

YOU NEED A CUSTOM MEDICAL TUBE with tight tolerances and complex specifications. That's why you come to Microspec. We help make your unique part possible.

Come to us with your extrusion challenges:

- SINGLE AND MULTI-LUMEN TUBING • BUMP TUBING • CO-EXTRUSIONS
- MICRO-EXTRUSIONS • PROFILE EXTRUSIONS • COATED WIRE • TRI-EXTRUSIONS
- MULTI-LAYERED EXTRUSIONS • FULLY ENCAPSULATED STRIPES • OVER-EXTRUSIONS
- BALLOON TUBING • INTERMITTENT/MULTI-DUROMETER EXTRUSIONS
- RIBBON EXTRUSIONS • NEW CONCEPTS

Through skillfull processing and in-house tool design and fabrication, Microspec delivers quality and functionality in your custom part. At Microspec, we pride ourselves on a culture of innovation. We have a globally recognized reputation of success and welcome difficult challenges as they offer us opportunities to innovate.

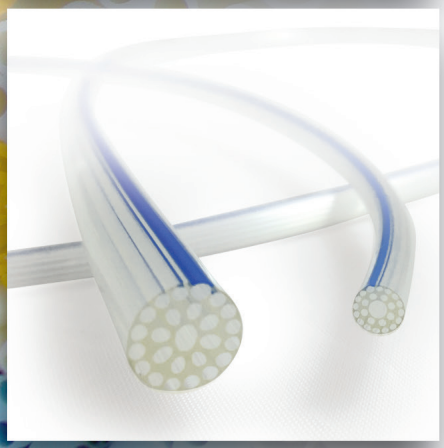
"Microspec was born out of innovation." – Tim Steele, Founder/CEO

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Intertek 13485

Bump Tubing
Intermittent/Multi-Durometer Tubing

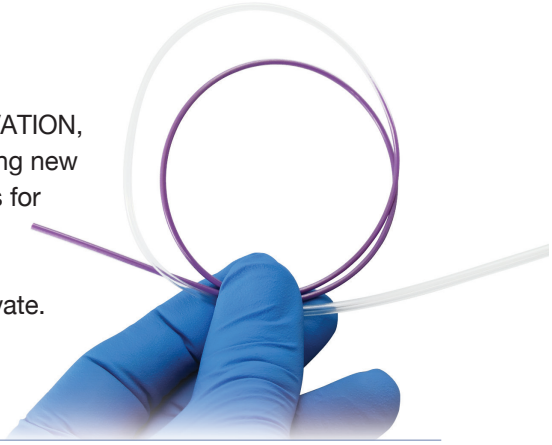




MICROSPEC HAS EXTRUDED BUMP TUBING since 1989 and is recognized as an industry leader in multi-lumen bump extrusions, as it was the first company in the world to extrude multi-lumen bump tubing commercially. Bump extrusion technology has enabled designers to shrink distal dimensions while maximizing the functionality at the proximal end. Microspec has led the industry in its introduction of miniature multi-lumen bump extrusions — and continues to innovate bump tubing technology into a wide variety of extrusion technologies we offer, including intermittent/multi-durometer extrusion.

MICROSPEC EXTRUDES INTERMITTENT/MULTI-DUROMETER TUBING, a cutting-edge process that produces extruded parts with varying material durometers, radiopacity, and/or colors all in one step along a tube's length. Available as single, multi-lumen, or bump tubing, intermittent/multi-durometer extrusions offer designers additional functional options with added reliability by eliminating welded or glued parts.
Ask us for a sample.

ON THE FOREFRONT OF EXTRUSION TECHNOLOGY AND EXTRUSION INNOVATION, Microspec is always looking for and finding new ways to solve complex design challenges for the medical device industry. Come to us with your design challenges and we will welcome them as an opportunity to innovate.



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Materials





WHEN YOU NEED CUSTOM MEDICAL PARTS, you need a company with expertise in extrusion materials, processing, and tool design and fabrication — someone who can translate your vision into a precision, extruded part.

Microspec has earned a worldwide reputation for extruding and developing some of the most advanced and challenging medical parts in the industry. It is noteworthy that our experience in extruding medical grade polyurethanes and nylons may be unmatched throughout the world. Microspec's background with medical thermoplastics does not end there. We are also a pioneer in extrusion of high heat engineering plastics, such as PEEK, PEI and Polysulfone, and in thermoplastic fluoropolymers, such as FEP, EFEP, and PFA.

Whether your part is co-extruded or not, or made from a custom compound, you can count on Microspec's experience and expertise to deliver high quality and precision extruded parts every time.

A partial list of materials extruded by Microspec:

Polyurethanes
Tecoflex®
Tecothane®
Carbothane®
Estane®
Pellethane®
Chronoflex®
Texin®
Quadraflex®
Quadrathane®
Neusoft®
Tecobax®

Fluorinated Resins
FEP
ETFE
PFA

Engineering Resins
PEEK
PEI
Polysulfone
Polycarbonate
PBT
Celcon®
Delrin®

Nylons
Pebax®
Aesno®
Besno®
Vestamid®
Nylon 6
Nylon 66
Nylon 12
Zytel®

Commodity Resins
LDPE
HDPE
PVC
Santoprene®
EVA
Surlyn®
PP
ABS

Bioabsorbable Resins

Custom Compounds

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About Microspec

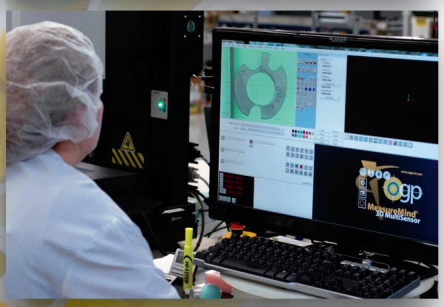
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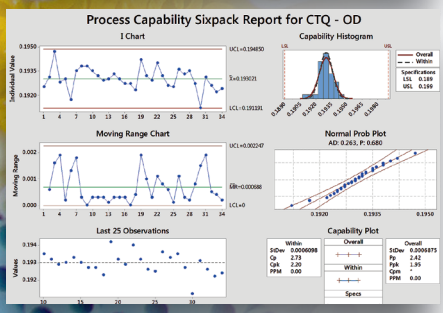
In Peterborough, New Hampshire, USA, our more than 40,000-sq.ft. facility offers:

- Skillful proprietary processing
- In-house tool design and fabrication
- Exceptional customer service
- High quality parts, delivered on time
- An integrated research, engineering, validation, and product testing department

Microspec customers are among the foremost suppliers of medical devices in the world. The precision medical parts Microspec extrudes are among the smallest and most complex in the industry, with some of the tightest tolerances. We specialize exclusively in advanced medical extrusion services.







Manufacturing Area

- Over 20 extrusion lines, including co-extrusion, tri-extrusion, and intermittent/multi-durometer lines
- Climate controlled warehouse

Extrusion Capabilities

- Bump tubing, co- and tri-extrusions, ribbon tubing, micro-extrusions, multi-layered tubing, coated wire, multi-lumen tubing, profile extrusions, over extrusions, balloon tubing, fully encapsulated stripes, intermittent/multi-durometer extrusions, and new concepts
- Most thermoplastic elastomers and engineering resins, including fluoropolymers and custom formulations
- Small prototype lots to high-volume commercial runs

Technical Expertise

- Specialization in extrusions from .003 inch to approximately 1.00 inch. (0.076mm to 25.4 mm)
- Annealing services
- Raw material and product testing, including burst and tensile
- Product validation services, including OQ, PQ, and PPAP

Exceptional Customer Experience

- Close working relationship with customers
- Regular, detailed updates from receipt of order to shipment of product
- Technical advice is part of our extrusion service

Our Machine Shop

- Contains specialized equipment and software, including MasterCAM and wire EDM (electrical discharge machine)
- Designs and fabricates our proprietary tooling
- Maintains our extrusion equipment

Our Quality Assurance Area

- Contains laser gauging equipment and highly precise electronic microscopes
- Checks incoming raw materials and specifications
- Evaluates tubing at the start of, during, and after each run, and before shipment
- Proactively collaborates with our customer's quality team to align inspection methods

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