



**Where ideas
take shape.**



MEDICAL




Persistently achieving

For more than 50 years, medical companies have turned to Pexco for premium injection molding, medical tubing, CNC machining and custom medical plastic extrusions. Our mission is to help design solutions that satisfy unique application and performance needs while maintaining tight, repeatable outcomes.

As a trusted, FDA-registered medical plastics contract manufacturer, our extensive in-house development capabilities and broad range of experience are supported by our financial stability across multiple facilities. Our ISO 9001 & ISO 13485 quality control systems and more than eight medical Class 7 and Class 8 clean rooms across four sites in North America allow us to efficiently deliver high volume and small batch specialty production while supporting growth capacity.

With solutions ranging from extruded tubing, injection molding plastics and components, custom assembly and rigorous quality control measures, Pexco is able produce and ship dock-to-stock to OEMs across many medical market segments, including, orthopedic, dental, drug delivery, sports medicine and medical device market customers.

Key offerings include:

- Extrusion - tube and profile
 - Precision injection molding & CNC machining
 - Manual, semi- and fully-automated assembly
 - Sterilization management and medical packaging, tray and pouch
 - Design for manufacturability
 - Efficient tool transfers to support ramp up and delivery
- 





Providing consistency

From inspiration to delivery, Pexco offers a comprehensive portfolio of services that consistently sets the standard for medical plastics manufacturing.

Our products support life-saving procedures and our customers rely on us to consistently support design, extrude, mold, machine, assemble and deliver components and medical devices in a variety of configurations and materials. Our quality control measures are among the most rigorous in the industry and allow us to ensure we deliver the quality solutions you can trust for the most critical projects.

Pexco's medical plastics product expertise includes designing and processing a variety of materials, from PVC and polyurethanes to Pebax®, PEEK, PSSU, polycarbonate as well as lactic acid-based materials.

Making medical device manufacturing easy

► Challenge

A major player in the orthopedic medical device market was seeking a partner to design and launch an innovative, new surgical device for knee reconstruction procedures with limited needle exposure. It had line drawings and concepts, but wanted to partner with a company that could meet several requirements:

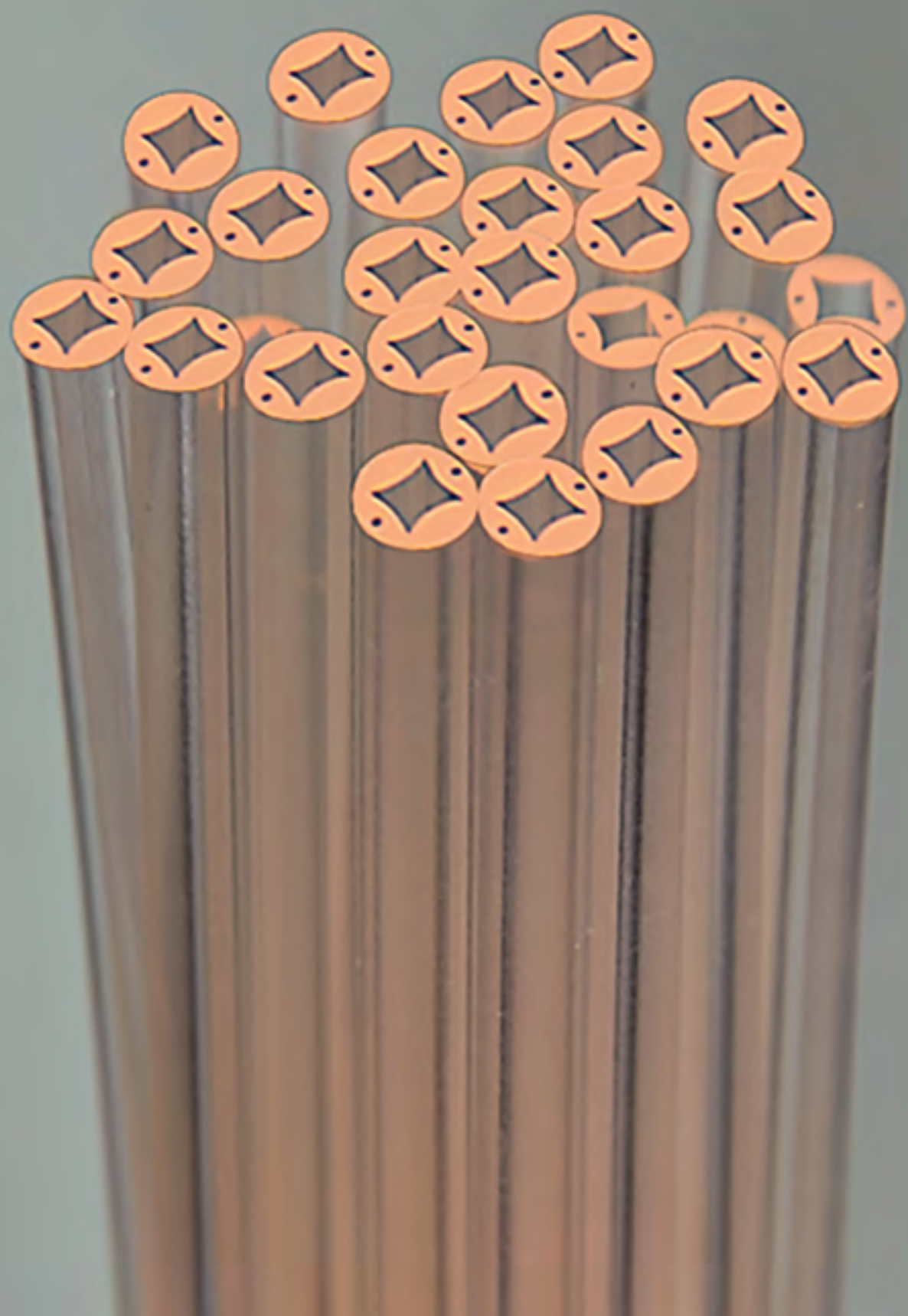
- Take rough ideas and deliver Design for Manufacturing (DFM) expertise and solutions
- Identify moldable parts for eight tools and 11 part numbers
- Streamline the design and delivery timeline

► Solution

In addition to taking line drawings from prototype to final product delivery, Pexco's engineering team established a collaborative relationship that reduced development time and ensured the perfect tool was designed. While it is rare for a customer to engage with one manufacturer for all components of a medical device, the elite design team and established relationship was a natural fit for Pexco to assemble and deliver the finished product.

► Key takeaways

- Mutual respect and ready support to deliver a next-generation medical device
- Flexibility in options for design solutions
- Engineering expertise in molding and assembly — and the ability to apply to distinct scenarios





Team Up with someone you can count on.

Our customer relationships are at the center of everything we do.

Our expert engineers assist customers with all applications, from the design and material phase through stringent documentation and traceability requirements. Our partnership includes selecting the best for manufacture design and process solution, supported by extensive experience.

Pexco delivers the benefits of a sophisticated processor with locations across the United States and Mexico. Our locations allow us to enhance productivity, ensure on-time delivery and reduce transportation costs. You also benefit from a culture that is devoted to an individual approach, with years of successful manufacturing that is nimble and customer focused.

- Athol, Massachusetts
- Glens Falls, New York
- Minneapolis, Minnesota
- Mexicali, Mexico
- Monterrey, Mexico

Pexco is deeply committed to Lean manufacturing. Our Lean culture shapes how we efficiently run our business and ensures we work smarter together — from the beginning of the process through refining current work and delivering a finished product. Specialized programs including Kaizen are held regularly in every facility, involving a growing number of employees, from the clean room to customer service and company leadership. We believe our commitment to continuous improvement helps us be the best — and we can in turn deliver unparalleled manufacturing results and customer satisfaction.





Making it right the first time every time.

Extruded tubing applications & expertise

▶ Extruded tubing

No matter the end-use segment, Pexco is ready to meet the stringent quality standards and demands of any medical tubing application at each stage. From aligning materials with different performance properties for unique applications into a single solution, to micro level needs, Pexco is ready to deliver for the challenges you face.

▶ Microbore tubing, Co-, Tri, and Multilayered Extrusion

Pexco features specialty extruders to satisfy the needs of precision tubing at the micro level. Pexco provides catheter extrusions and catheter sub-assemblies. We specialize in co- and tri-extruded tubing, aligning materials with different performance properties for unique applications into a single solution.

- Multilumen tubing
- Multilayered materials
- Wire encapsulation
- High pressure, wire-reinforced, coiled or braided tubing
- Thin walled tubing
- IV Cannula / Catheter Tubing
- Paratubing, solvent and UV bonding
- Balloon tubing for 0.5 mm to 50mm Balloons
- Striped tubing

PVC, HDPE, LDPE, Urethane, PP, Pebax, Nylon, Polycarbonate, ABS, PETG, Polysulfone, PEI, PEEK, FEP

- **Dimensional min/max**
 - OD 0.0025" min; 4.0" max
 - ID 0.0018" min; 4.0" max
 - Tightest tolerances 0.0005"
 - Multilumen range of sizes from 0.020" (0.5mm) to 0.400" (10 mm)
 - Up to 10 lumens depending upon size of material
- Vacuum sizing

Pexco openly accepts and encourages engineering development projects, prototype, and production runs. We provide quick-turn solutions to facilitate your innovation, and continuous improvement for manufacturing efficiency.

▶ Acetal Mandrel (Solid Rod Extrusion)

Pexco also offers, via its Precision Extrusion operation in Glens Falls, New York, mandrel core extrusion for use in the manufacture of wire-reinforced or braided extruded product.

- Consistent diameter, roundness, and smooth surface provide for easy removal with low force
- Premium layered plain Acetal mandrel
- Premium layered Acetal blend with silicone surface
- Economy version
- Acetal or Silicone Acetal layer with stainless steel wire reinforcing



Injection molded plastics applications and expertise

▶ A proven heritage

Pexco's premium, high quality component and full-assembly injection molded medical plastics complement our profile extrusions and allow us to deliver a fully integrated solution.

Our Spectrum operation has a 50-year heritage as a recognized leader and pioneer in performance medical plastics, including implantable and lactic acid-based bioresorbable materials. Our specialties include prototyping and producing insert-molded, over-molded and micro-molded engineering products for MIS reusable and disposable devices and medical instruments.

- Press sizes from 12.5 to 600 ton
- Single to multiple cavity molds
- Tight tolerance molded parts
- Multi shot molding, insert-, over- and micro-molding
- Mid-to-high volume medical components, sub-assemblies, and complete packaged devices
- Dispensing devices, enclosures, covers, etc.

▶ Implantable surgical components and systems

We have developed an expertise with implantable PEEK, the full range of bioresorbable materials and other engineered materials approved for implant including:

- PEEK-OPTIMA[®], polyurethane, ABS/PC, polysulfone and Solviva Biomaterials (Zeniva[®] PEEK, Proniva[®], Veriva[®] PPSU, Eviva[®] PSU) as well as Evonik's full line including Vestakeep[®] PEEK
- Miniaturized screws and fasteners; metal replacement
- Products and components that hold bone, tissue, ligaments, etc.
- Devices for ligament reattachment, anastomosis of small vessels, nerve reconstruction and cranial maxillofacial surgeries

▶ Bioabsorbables / bioresorbables

These materials pose unique preparation, processing and handling challenges due to their chemical makeup and include:

- PLLA and other PLA and -like derivatives (PLD, PLG, PLDL, PG)
- Applications across sports medicine, trauma, cardiology, cosmetic surgery, and oncology/neurology
- Anchors and screws, fasteners, staples, ties and microvascular anastomosis devices



Molded assembly packaging and sterilization

► Fabrication through assembly

Pexco's assembly and sterilization management expertise are a natural extension of our commitment to bringing your solutions to life.

Assembly

We have more than 50 years of experience serving as a contract manufacturing and product development partner. Working with you, we provide manual, semi-automated and fully automated processes and work with you to find the best solution for programs and quantities.

Packaging

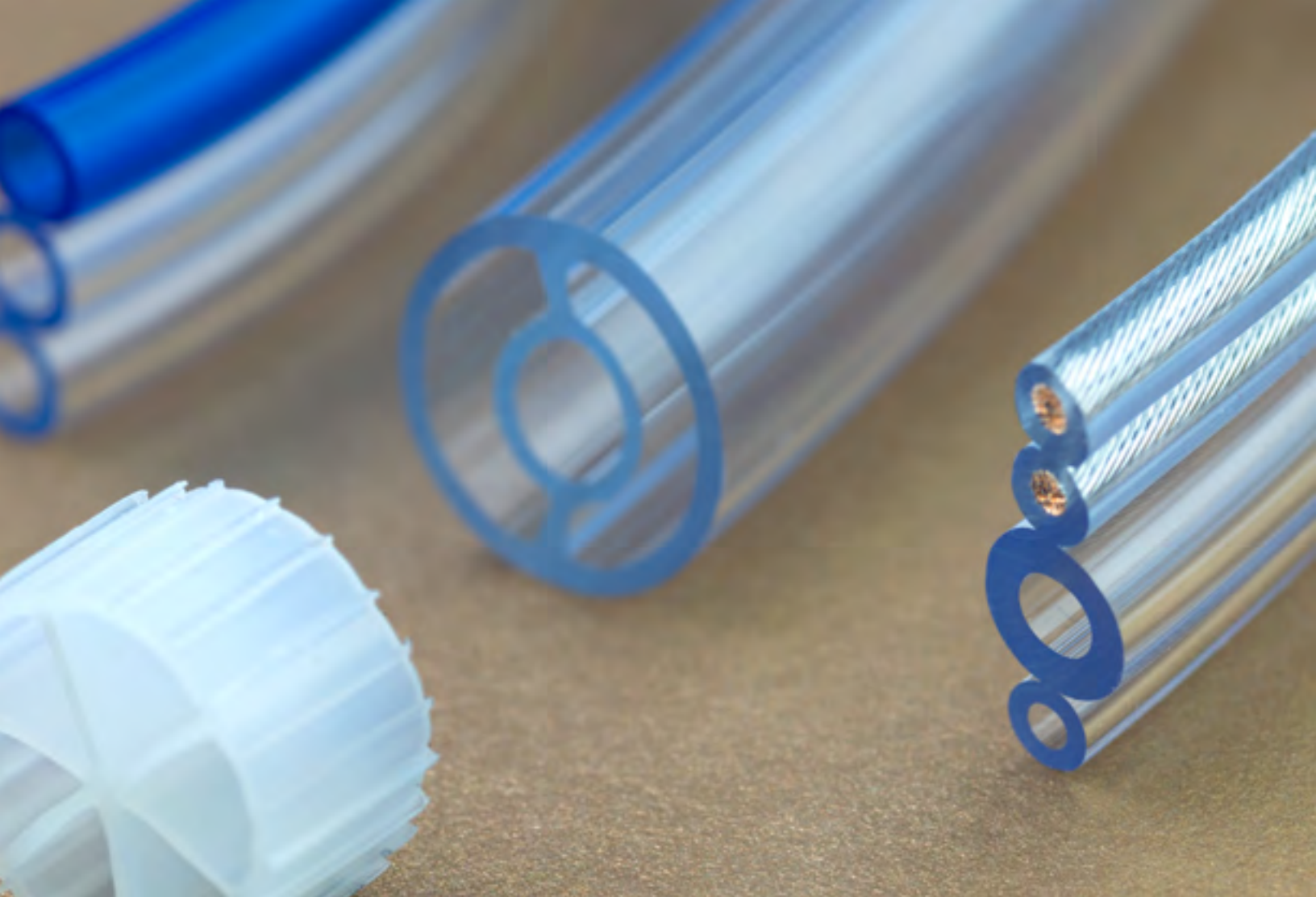
From nitrogen-purged foil pouches, Tyvek®-sealed rigid thermoformed trays and a variety of requirements, we are ready to provide packaging for the next stage of distribution.

Sterilization

Pexco supports the critical step of sterilization and offers a variety of methods to ensure product delivery conforms to all requirements and is supported by documentation and certifications.

Quality Control

Pexco quality control measures are among the most rigorous in the industry. In addition to online precision laser measuring and ultrasonic monitoring of the tubing wall thickness and real-time SPC data, our dedicated Quality Assurance Center checks and verifies all data during and after production.



Custom medical plastics and assembly

▶ Partnering with you to deliver custom solutions

Our broad manufacturing capabilities are a benefit that can serve the current and future needs of the medical market. We are a leader in open profile extrusion, insert- and over-molding plastics for disposable devices and medical instruments.

Today, more than 100 Pexco engineering and production specialists provide consultation, design and production of extrusions and injection molded parts to meet unique end-use challenges. Bringing forward our design expertise and partnering early in the development ensures efficient design, prototype and final product delivery, without compromising functionality of the final product.

- Flexible and rigid profile extrusions of major market resins and materials
- Custom injection molding
- Downstream fabrication and CNC machining



Get to know the Pexco way.

Pexco is a North American leader in the design, manufacturing and delivery of custom plastics solutions. Our team of engineers and proven experience in several specialty segments including medical, industrial, commercial, building and infrastructure ensure you receive the highest quality products to satisfy your unique needs.

Find out how a partnership with Pexco is the best way to start shaping your future today.

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