

SAINT-GOBAIN MEDICAL

QUALITY MEDICAL COMPONENTS, ENGINEERED WITH PRECISION.




SAINT-GOBAIN

Improving care one component at a time

At Saint-Gobain Medical, we strive to make a difference in the safety and well-being of others. As a recognized leader in the medical component industry, we work closely with our customers to design, develop, and deliver quality custom components and engineered systems for the most challenging applications.

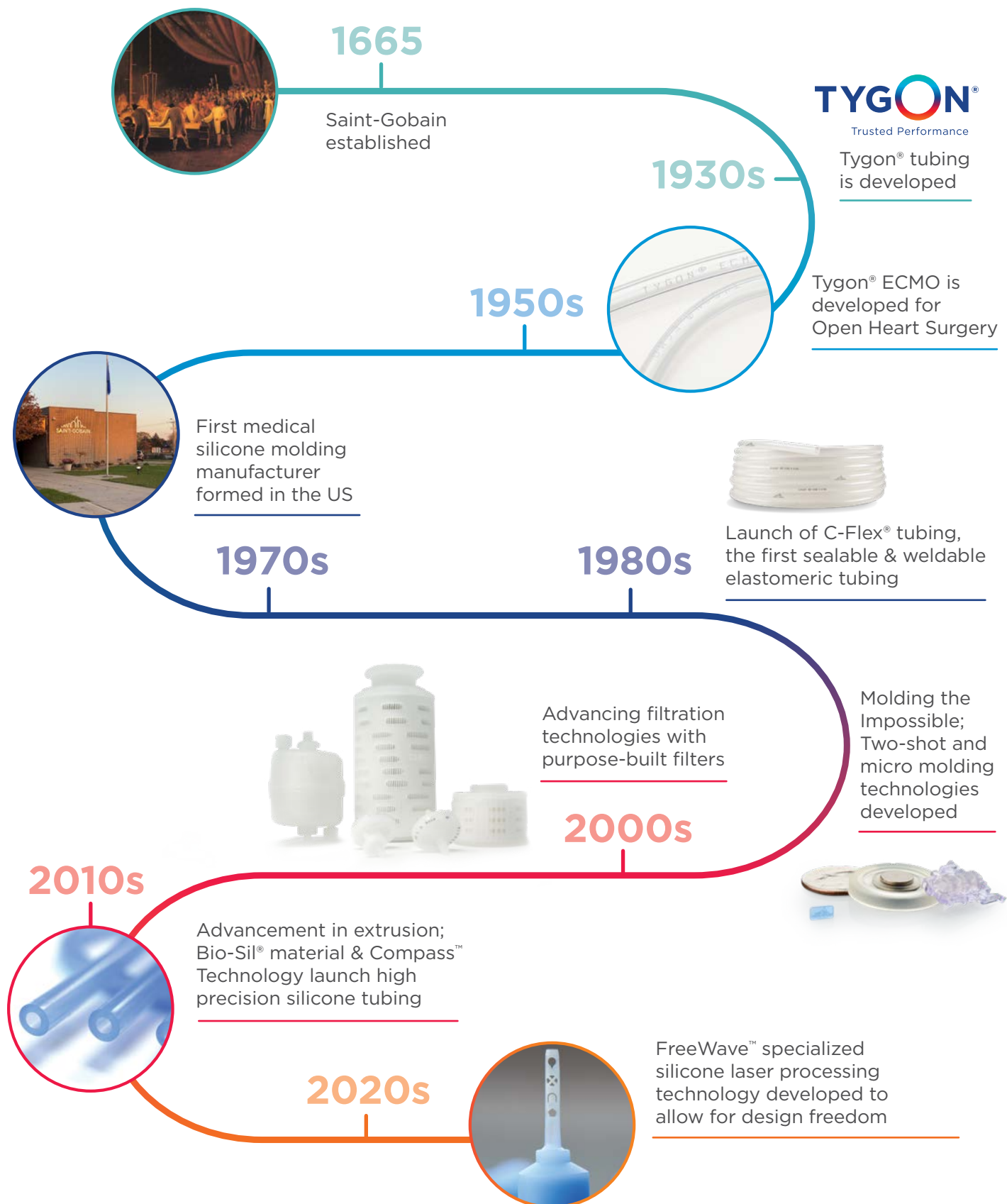
Collaborate with our experts and you'll be working with some of the brightest engineering minds in the industry. Together, we'll provide breakthrough solutions for your most demanding application needs, advancing medical technology for better patient outcomes.



Our expertise includes silicone and thermoplastic molding, extrusion, filtration technologies, and catheter systems, with a focus on material differentiation through custom compounding and advancement in surface modification. We harness our collective ingenuity as our team works side-by-side with you to bring new innovations to life.

INNOVATION THROUGH COLLABORATION

With a legacy of over 355 years of innovation as a company, and over four decades working with customers in the medical device industry, we pride ourselves in our collaborative spirit.



Your trusted end-to-end resource

We work with our customers to solve technical challenges and deliver products with the highest quality. Drawing on our proven track record, deep expertise, and extensive industry knowledge, we collaborate with you to guide the success of your project.



DEEP MATERIAL EXPERTISE

- Expertise with an extensive library of materials including: fPVC, TPO, TPU, TPE, PEBA, PEEK, FEP, PFA, PTFE, Silicone (HCR & LSR) and more
- Material analytical testing and interpretation for material benchmarking, formulation development, polymer characterization and customer support
- Global network of internal experts in material sciences and polymer processing



DESIGN & PROTOTYPING

- Application engineering coupled with manufacturing process knowledge to support DfX
- Design, feasibility studies and testing capabilities for custom development of catheter and filtration solutions
- Dedicated equipment, production intent material and dimensionally accurate prototype parts for molding services
- Modeling simulation for improved product performance

>3,500
RESEARCHERS

8 GLOBAL R&D
CENTERS

MANUFACTURING & PROCESS EXCELLENCE

- Global footprint with over 20 manufacturing sites to support local needs
- Automation, equipment, and tooling design and fabrication
- Dedicated manufacturing R&D resources focusing on process innovation and raw material sourcing
- Consistent and precise dimensional control to eliminate material variability



CONFIDENCE IN PRODUCT QUALITY, SAFETY & EFFICACY

- Certified quality management systems (ISO 13485 and ISO 9001) in over 20 global facilities
- FDA registered facilities in US, EU and Asia
- ISO Class 7 & 8 clean rooms that comply with ISO 14644-1
- Global change control process including comprehensive customer change notification program
- Continuous adoption of regulatory requirements



Our Capabilities

We can provide the innovative solutions you need for your most demanding applications.



SILICONE MOLDING

- Dedicated prototyping and development center for early-stage concept and design
- Specializing in molded parts with high complexity, such as micro and multi-material components
- Best-in-class tooling management and full validation services for quality assurance
- Expertise in selecting the ideal silicone material grade for the application



EXTRUSION SOLUTIONS

- Standard tubing formulations including Tygon® and Bio-Sil® specifically designed for medical applications
- Portfolio of silicones, thermoplastics, and ultra-engineered polymers (e.g., PFA, PTFE, FEP, PEEK)
- Leverage our material expertise, breadth of portfolio and custom compounding services to develop the right tubing solution for your application
- Pair your medical pump with highly concentric tubing to enable precise drug delivery

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“I’ve always said Saint-Gobain is a really good team to work with...They are reliable, flexible, and you know they will deliver when you need them to.”



CATHETER SYSTEMS

- Design and development services, from conception to full scale production
- Trusted systems experience in major diagnostic and therapeutic areas such as cardiovascular, gastroenterology and neurology
- Vertically integrated design and manufacturing; from customization of polymer material properties to delivery and implant platform optimization
- Process expertise includes extrusion, reflowed deflectable and steerable shafts, molding and over-molding, adhesive bonding, complex tipping, handle assembly and more



FILTRATION TECHNOLOGIES

- Develop a filter built for your specific application
- Simplify change-outs and mitigate incorrect installations by accessing over 40 standard fitting options, with the ability to mix-and-match inlet and outlet fittings
- Extend filter lifetime and optimize performance with our extensive library of over 20 micro-filtration materials
- Customize the configuration, connectivity and purification of your filter



SPECIALTY CLOSURES

- Protect your most critical samples with our high purity closures
- Expertise in fluoropolymer films and elastomer materials to design custom closer assemblies to meet your exact specifications
- Choose from a wide range of sizes—from 8 to 89 millimeters in diameter
- Customize the thickness, durometer and the color of your liners
- Leverage our wide selection of barrier films, such as PTFE, FEP, PTFA and ETFE

Markets and Applications

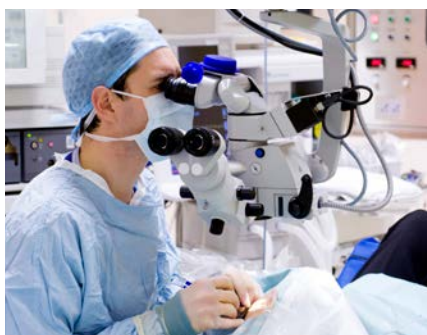
With years of deep industry expertise, we craft high-performance solutions tailored to specific markets and applications. Our unwavering commitment to quality and compliance positions us as a dependable collaborator, renowned for delivering consistent and reliable solutions.



DRUG DELIVERY

Applications include needleless connectors, infusion and enteral nutrition pumps.

- IV therapy components for bedside delivery, ambulatory pumps and auto-injection applications
- Tubing and molded components to enhance safety by ensuring consistent flow rate



OPHTHALMOLOGY

Applications include infusion sleeves, silicone test chamber and pump diaphragm.

- Micro-silicone components that provide precise fluid management for use in cataract and vitreoretinal eye surgeries
- Silicone laser processing capabilities enabling design freedom for aspiration port



DIAGNOSTICS

Applications include flow cytometry, immunoassay, clinical chemistry and molecular diagnostics equipment.

- A wide range of components from custom filters to specialty closures
- Sample and reagent, peristaltic pump and waste disposal tubing



ARTIFICIAL LIFE SUPPORT

Applications include organ preservation systems, extracorporeal membrane oxygenation (ECMO) and dialysis.

- Innovative Tygon® ECMO tubing
- Custom single use systems with tubing and filter components, non-DEHP polymer tubing for superior peristaltic pump life and exceptional flexibility



CARDIOLOGY

Applications include aortic, mitral, tricuspid valve replacement and coronary bifurcation stent delivery systems, PPE closure catheters and diagnostic catheters.

- Over 20 years of experience in the development of catheter systems for heart procedures
- Manufacturing capabilities such as engineered thermoplastic extrusion, steerable shaft and complex tipping providing end-to-end solutions



WEARABLES

Applications include pump tubing for insulin dispensing and silicone seals for diabetic devices.

- Multi-material molded components and tubing for wearable technology



ENDOSCOPY

Applications include endoscope reprocessing, single use endoscope and endoscopic suturing systems.

- Custom, low coefficient of friction (LCF) tubing, catheters and filtration systems
- Components that are customizable to achieve an optimal balance of flexibility and rigidity—a key requirement for endoscopy procedures



MINIMALLY INVASIVE SURGERY

Applications we serve include neurovascular guiding catheter, single use bronchoscope, laparoscopic and arthroscopic procedures.

- Custom catheter, filtration, tubing products for innovative design to support value-based care

Case Studies

We're renowned for addressing complex technical challenges in the medical device, biotech, and pharmaceutical sectors. Our consistent track record showcases our ability to deliver successful, innovative engineered solutions tailored to these industries.

We are proud to highlight some of our impactful collaborations and project successes with customers.

FILTRATION TECHNOLOGIES

Application

Flow cytometry filter to remove contaminants from sheath fluid

Customer Challenges

- Filter must be installed in correct orientation
- Need to prevent leaks during filter exchange
- Desire to extend filter lifetime

SAINT-GOBAIN SOLUTION

Filter Performance

- Optimized filter size and media combination via performance testing

Optimal Connectivity

- Gendered fittings at inlet/outlet prevent incorrect installation
- Valved quick-connect fittings prevent drips during filter exchange



EXTRUSION SOLUTIONS

Application

Peristaltic pump transfers saline to a catheter for cooling and flushing during radiofrequency (RF) ablation

Customer Challenges

- Must significantly reduce the ECG noise generated when rollers contact tubing in the pump
- Tubing needs to withstand high pressure and abrasion of aggressive pump rates
- Tubing must not generate spallation after 2-hours of use

SAINT-GOBAIN SOLUTION

Electrical Dissipative Tubing

Mitigating ECG noise generation while maintaining performance requirements:

- High burst pressure
- Flow rate stability
- No spallation

Enables more accurate diagnosis and increases alarm reliability



CATHETER SYSTEMS

Application

Gastroenterological suturing system for obesity treatment

Customer Challenges

- OEM startup developing a new innovative system with limited catheter manufacturing expertise
- Device complexity—amount of functionalities required, needle assembly
- Complex procedure with many steps for the surgeon

SAINT-GOBAIN SOLUTION

Catheter Design Optimization

- Improved the handle design and assembly to limit patient risk and improve procedure reliability
- Combination device streamlining the surgical process

Catheter Assembly Optimization

- Optimized assembly against tight requirements to ensure repeatable deliverability and functionality



MULTI-MATERIAL MOLDING

Application

Multi-material component for Continuous Glucose Monitoring device

Customer Challenges

- Challenging bond between low durometer silicone and polycarbonate
- Extremely tight manufacturing tolerances
- Rapid volume ramp up and commercialization

SAINT-GOBAIN SOLUTION

Multi-Material Bonding Resolution

- Technical challenge solved through expertise in polymers, silicone rheology, fracture mechanics and modeling
- Custom tooling and dedication automation processes

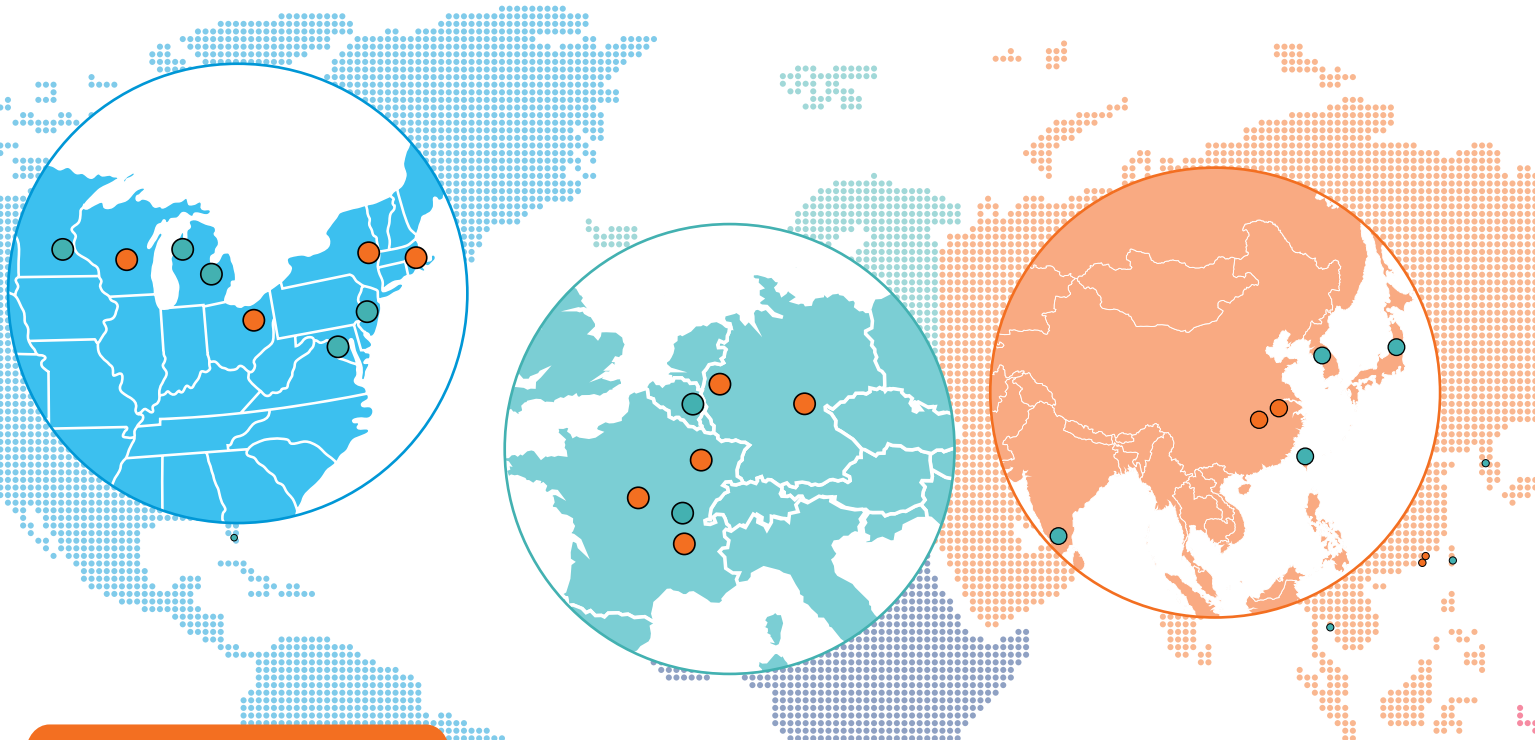
Expedited Deployment of Seven Manufacturing Cells

- Leveraged validation knowledge and project management to expedite rapid deployment of manufacturing cells



ADVANCING MEDICAL SOLUTIONS AROUND THE WORLD

Our Life Sciences global footprint means we're always ready to respond to your challenges or unique needs wherever you are.



KEY MEDICAL CAPABILITIES

Akron, Ohio:

Thermoplastic Extrusion

Portage, Wisconsin:

Silicone Molding & Extrusion

Neuss, Germany:

Fluoropolymer Extrusion

Neuhaus am Rennweg, Germany:

Thermoplastic Molding

Hangzhou, China:

Filtration

Poestenkill, New York:

High Purity Closures

Saint-Quentin-Fallavier, France:

Silicone Extrusion

Pompey, France:

Catheter Systems

Charny, France:

Silicone & Thermoplastic Extrusion

Taunton, Massachusetts:

Silicone Extrusion

Shanghai, China:

Silicone & Thermoplastic Extrusion

- Key Medical Capabilities
- Life Science Sites

Saint-Gobain Performance Plastics Corporation's Life Science ("Saint-Gobain") products that are used as components in the manufacture of any Medical Devices (as defined by the FDA) are sold by Saint-Gobain only and exclusively to Medical Device manufacturers for use in the manufacture, assembly or distribution of their medical devices. Medical Device manufacturers, to whom Saint-Gobain sells components or for whom Saint-Gobain acts as a subcontractor for finished products, are solely responsible for determining whether their finished products are a medical device and complying with the appropriate certifications and registrations.

NOTE: This document is intended to provide information about the product to enable you to consider whether generally the Product meets your application need and is not intended to provide product specification. This document should not be considered a Product warranty or guaranty. To the extent this document mentions any tests done by Saint-Gobain, such tests are done under controlled laboratory circumstances and hence other factors in your use and application may impact such values.

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