Combining unparalleled leadership in technology and product innovation, a comprehensive product line, global support and a thorough understanding of market needs, the Saint-Gobain Performance Plastics Microelectronics business is the premier supplier of semiconductor grade fluid handling solutions. Our extensive line of products has been developed to meet or exceed the most stringent semiconductor industry standards for purity, reliability and safety.

We manufacture a complete line of Furon® and AstiPure™ fluoropolymer-based fluid handling components and systems for the semiconductor market that are designed, manufactured and assembled to meet and exceed demanding industry requirements. Our broad product line, including pumps, valves, fittings, integrated manifolds and high-purity tubing, allows us to offer a “one-stop solution” for our customers. Our high-performance components may be integrated to create complete systems that protect sensitive media from contaminants, and withstand highly corrosive chemistries. As a world-leading provider of high-purity fluid handling components to the semiconductor industry, Saint-Gobain Performance Plastics’ goal is to become your preferred source for semiconductor system solutions.

**Collaborative Technology Solutions**

We partner with our customers in an effort to develop products that will help them succeed, while maintaining close relationships with our material suppliers to bring new problem-solving solutions to the marketplace. These efforts are forged by Saint-Gobain Performance Plastics’ international network of more than 200 R&D professionals who share their knowledge and expertise to set new standards in advanced polymer technology. Our patented technology provides leading-edge solutions for our customers. We focus dedicated research and development resources to meet demanding customer requirements for aggressive, ultra-pure and corrosive chemical fluid handling applications. Injection molding from high-purity PFA ensures cleanliness for demanding environments.

**Global Products—Local Support**

We provide our worldwide customer base with technical support, customer service and local inventory through more than 25 sales offices in North America, Europe and Asia, and manufacturing facilities in Europe and in the United States.

**Fluid Handling Solutions for Semiconductor Industry Critical Requirements**

Welcome

We provide our worldwide customer base with technical support, customer service and local inventory through more than 25 sales offices in North America, Europe and Asia, and manufacturing facilities in Europe and the United States.
Manufacturing Capabilities

Our state-of-the-art, 182,000 square-foot facility in Garden Grove, CA, includes Class 100 and Class 10,000 Clean Room facilities, machinery and inventory capabilities that enable us to deliver exceptionally high-quality products in a minimal amount of time. We offer decades of experience in injection molding, compression molding and hot molding of fluoropolymers, utilizing state-of-the-art equipment to assure accurate repeatable processes. Our extraordinary range of molding capabilities allows us to convert raw resin into near net components, thus reducing material waste and manufacturing time. Our injection molding capacity, combined with unparalleled precision CNC machining capabilities, delivers to our customers a wide range of extruded, molded and machined components. All of our production, including our machine shop, is conducted in a “build-clean” process environment. To ensure enhanced mechanical properties and optimum product performance, we custom-engineer our processes to meet customer specifications.

Company Background

Saint-Gobain Performance Plastics is the world’s leading producer of engineered high-performance polymer products for virtually every industry around the globe, using materials such as fluoropolymers, and high-temperature thermoplastics. Through more than 50 locations in 17 countries, our company is positioned to provide innovative products and comprehensive service no matter where our customers are located.

Parent company, Compagnie de Saint-Gobain, is one of the top 100 industrial corporations in the world. Founded in 1665, the company is a leading producer of flat glass, glass containers, insulation, reinforcements, building materials, abrasives, industrial ceramics and piping.

Ordering Information

For pricing information and product availability, contact our Customer Service Department at 1-800-833-5661 or 714-630-5818.

For additional information on our company or products, or to request literature, visit our website at www.microelectronics.saint-gobain.com or call 1-800-463-8766.
Furon® Q-Valve

The injection-molded Furon Q-Valve was developed to provide you with a high performance, low cost solution that insures reliable fluid delivery to critical process applications. Available in 1/4”, 1/2” and 3/4” sizes, the Q-Valve offers “Drop-in” replacement capability that meets or exceeds competitive product offering’s performance and function.

Combined with a red position indicator, the Q-Valve features transparent upper components ideal for easy assessment of the valve’s condition. Innovations such as Saint-Gobain’s patented Rolling Diaphragm Technology enable maximum flow and pressure ratings while optimizing safety.

Features/Benefits:
• 100% PFA HP and virgin PTFE wetted flow path
• Integrated visual position indication
• Transparent actuation components
• Bi-directional flow
• Pneumatic, multi-turn and quarter turn activation

Furon® RDVM and SMDVM Self-Manifolding Distribution Valves

Furon high-purity, injection-molded RDVM and SMDVM Rolling Diaphragm Valves offer a revolutionary new concept in high flow fluid handling systems. The patent-protected line of Furon Universal Fittings allows system integrators the unique ability to quickly configure and assemble custom valve manifolds utilizing standard off-the-shelf valves and fittings, to reduce inventory requirements. The RDVM 2-way valve can be utilized as a stand-alone valve featuring a small footprint and high flow rate, or can be used in conjunction with the SMDVM. The SMDVM 2-way valve offers an additional 3rd or 4th port that supports self-manifolding of multiple valves. Primary applications include high-purity chemical and de-ionized water delivery for bulk chemical distribution systems, valve boxes and chemical processing companies.

Features/Benefits:
• Available in pneumatically or manually actuated versions
• Maximum flow rating of Cv-15
• Flexible design to meet a wide range of customer requirements; can be assembled without tools
• Valves may be serviced without removal from system

Furon® J-Series Valve

Developed to address the specific requirements of the Asian market, the J-Series 3/4” orifice valve offers a high Cv flow factor and high-pressure capabilities in a compact package required by process equipment manufacturers. Available in both manually and pneumatically actuated 2-way versions, the J-Series Valve features injection-molded, high-purity PFA-wetted flow path with virgin PTFE diaphragm and has been qualified at over two million cycles. In addition, the J-Series Valve features a smaller footprint than competitive valves with similar flow capabilities.

Features/Benefits:
• Maximum flow rating of Cv-7.2
• Fully swept flow path supports no-hold-up volume
• Visual position indication
• Leak detection capability
Saint-Gobain Performance Plastics’ comprehensive line of Furon® valves benefit from state-of-the-art, patent-protected technology developed by our team of research and development professionals who possess a combined 120 years of design engineering expertise. The newest generation of Furon valves are constructed from high-purity, injection molded fluoropolymers including HP grade PFA. This ensures optimal performance in your high-purity and aggressive chemical delivery applications. Cleaned, assembled and double-bagged in a Class 100 clean room environment, the valves’ high-purity innovative designs and construction reduce the possibility of process contamination and ensure maintenance-free operation. Saint-Gobain Performance Plastics also offers innovative designs and machined valve configurations required to satisfy your most demanding applications.
Valves

Furon® High Performance Diaphragm Valve (HPV)
The HPV features a wide array of discrete configurations from 3-way pneumatically actuated valves to 2-way quarter turn valves to suit your system requirements. It's high-purity PFA or PTFE bodies with PTFE diaphragm, assures you the highest system purity and performance. The HPV valve is suited for your critical ultra high-purity and corrosive chemical processes applications requiring proven reliability at a competitive price. Its compact profile makes the HPV the ideal choice where footprint reduction is a primary design constraint.

Features/Benefits:
• High-purity PFA or PTFE wetted flow path and PTFE diaphragm
• 80 PSIG (552 kPa) forward / back-pressure rating
• Available in pneumatic normally closed, normally open, multi-turn, and quarter-turn actuation

Furon® UPX-2000 Valve
The UPX-2000 combines a high performance valve with latest materials technology to provide you with maximum system uptime. The proprietary Furon SCR spring has proven reliable in the most aggressive HCl applications, while providing a 100% high-purity PFA and PTFE wetted flow path. It’s patent protected diaphragm assembly eliminates potential leak paths with its unique design. For the ultimate performing valve in your ultra pure fluid handling system, specify the Furon UPX-2000 for added assurance.

Features/Benefits:
• The Furon SCR spring is rated for concentrated HCl and other aggressive applications
• 100 PSIG rated forward and back-pressure in 2-way and 3-way configurations
• True dual containment with leak detection capability
• Available in 1/2” and 3/4” orifice versions

Furon® UPM-1000 Valve
Designed for transfer of ultrapure, aggressive chemicals and de-ionized water, the UPM-1000 series valves offer the highest levels of performance for your critical applications that demand the ultimate in purity, reliability and safety. Patent-protected technology provides end users space saving 3-way configurations for diverting or alternating fluid flow. The Furon UPM series valves are available with visual position indicators, permitting easy identification of open and closed positions.

Features/Benefits:
• Comprehensive offering of orifice sizes, actuation styles and port configurations
• 100 PSIG (827 kPa) forward and back-pressure rating
• 2-way and 3-way configurations
• Slurry and high temperature versions available
AstiPure high-purity PFA Molded Stopcock Valves have been designed to meet stringent semiconductor industry requirements. Quarter-turn manual actuation allows quick and easy operation from closed to open position, and a straight-through flow path. AstiPure Stopcock Valves are available in 2 and 3-port configurations, with sizes ranging from 1/4” to 1/2” orifice. In addition AstiPure Stopcock Valves are now offered in industry standard, fine thread flare connections making them ideal for quick installation.

Features/Benefits:
- 100% high-purity PFA and PTFE wetted flow path
- Standard fine thread flare end connections
- Maintenance-free operation
- Panel mount versions are available

Furon® Mini Check Valve Molded (MCVM)

The Mini Check Valve Molded is an injection molded, high-purity valve constructed of 100% non-metallic materials, featuring a PFA-wetted flow path and no O-rings. Assembled and double-bagged in a Class 100 cleanroom, the valve is 100% tested for operation. The MCVM prevents back flow in process delivery manifolds as well as drain down in chemical delivery lines. It is designed for use in semiconductor process, high purity, and corrosive chemical applications.

Features/Benefits:
- 100% non-metallic construction
- O-ring-free design
- Easy in-line installation
- Low cracking pressure minimizes system pressure drop

Furon® CDV-1000 Compact Diaphragm Valve

Combining a small footprint with high media pressure capacity and a high Cv flow factor, the CDV-1000 is ideal for semiconductor process, high purity and corrosive chemical applications requiring a compact design and high flow rating. Constructed of injection-molded, high-purity PFA-wetted flow path with virgin PTFE diaphragm, the CDV-1000’s ultrapure design utilizes our patent protected diaphragm technology. This 1/2” orifice valve is offered in manual or pneumatic actuated 2-way and multi-turn configurations required to meet a wide range of customer requirements.

Features/Benefits:
- 90 PSIG (621 kPa) forward / back pressure rating
- Visual position indication
- Leak detection port
Developed to offer superior levels of efficiency, cleanliness and fail-safe performance, the Furon Integrated HPVM Manifold provides unparalleled design flexibility in a space-saving package. Furon HPVM Manifolds feature the all Injection-Molded High Performance Valve, with visual position indication, that clearly shows at a glance whether the valve is open or closed. The HPVM Valve’s body is constructed of high-purity, injection molded PFA and was designed to accommodate easy drop-in replacement for existing valves in Saint-Gobain Performance Plastics’ Manifold Systems.

**Features/Benefits:**
- Meets semiconductor industry’s high-purity chemical requirements
- Real estate savings greater than 50%
- Supports fiber optic position indication
- Universal Fittings offer additional design flexibility
- Available with Pillar® S-300 fittings

**Furon® RDVM/SMDVM Manifold Valves**

Furon Integrated CDV Manifolds are offered in manual or pneumatic actuated 2-way and multi-turn configurations to meet a wide range of customer requirements. The CDV valve features a uniform modular design that is ideally suited to support customized manifold configurations. The CDV Valve’s body is constructed of high-purity, injection molded PFA. True 1/2” orifice combined with our patent-protected rolling diaphragm technology supports higher flow rates and minimized footprints required for semiconductor process, high purity and corrosive chemical applications.

**Features/Benefits:**
- Compact design affords space-efficient footprint
- Maintenance free operation
- Reduces potential leak points by over 40%
- Universal fittings offer additional design flexibility
- Available with Pillar S-300 Fittings

**Furon® CDV Manifold Valves**

The new high-purity injection molded RDVM/SMDVM Valves are designed to provide end-users a modular valves system that offers custom configuration flexibility and does not require specialized tools to assemble. Three valve configurations: RDVM, SMDVM 3-port and 4-port combined with patent protected Universal Fittings offer unlimited manifolding capabilities. The valves are designed for use in high purity and aggressive chemical semiconductor process applications and are especially suited for high-purity chemical delivery systems. Outstanding performance characteristics and construction of the RDVM/SMDVM Valves make them highly recommended for bulk chemical delivery and valve box applications.

**Features/Benefits:**
- Quick-release, non metallic 8-position mounting base
- Visual position indicator
- Valves may be serviced without removal from system
- Purge port and lead detection options are available
Saint-Gobain Performance Plastics is proud to offer the Furon® Integrated Manifold product line. Furon Integrated Manifolds feature multiple function components in a single, pre-tested package that is easily installed into your system providing superior performance at a lower cost of ownership. By offering customers limitless combinations of the most reliable valves in the world, Furon Integrated Manifolds provides the ultimate in performance and dependability. Saint-Gobain’s dedicated manifold resources will support you in the development of all your critical fluid applications by offering innovative designs developed around the proven Furon Valve product line. Every Furon Integrated Manifold system benefits from 100% fluoropolymer wetted flow paths. In addition to reliability and safety, the Furon Integrated Manifold System provides real estate savings of over 50% versus traditional valve plumbing. Furon Integrated Manifolds are perfect for aggressive chemistry and ultra-pure de-ionized water delivery systems found in semiconductor, pharmaceutical, biomedical and laboratory applications.
**AstiPure™ PFD Series Pumps**

PFD Series Pumps are constructed without internal or external metal parts, which eliminates ionic contamination. This feature makes the PFD Pumps a perfect solution for high-purity applications in the semiconductor, pharmaceutical and chemical process industries. The pumps are pneumatically operated with two horizontally reciprocating bellows. The AstiPure PFD models have pumping rates ranging from 2.5 to 26 GPM. Primary applications include: transfer of ultrapure acids and solvents used in the semiconductor industry; recirculation, dispensing, and filtration with controlled flow rates and volumes; chemical injection and sampling; and safe transfer of corrosive chemicals and solvents in hazardous areas.

For CMP delivery, we offer a specific design for slurry applications. The PFS has been field-proven to be reliable in aggressive slurry.

**Features/Benefits:**
- Injection molded, high-purity PFA wetted flow path and virgin PTFE bellows
- Field-proven reliability
- Easy maintenance
- Chemical and slurry designs

**PPRD1 and PPRD2 Pneumatic Dispensing Pumps**

The AstiPure™ PPRD Dispense Pumps are injection molded from high-purity PFA. This line of pumps is designed to dispense high-purity or corrosive chemistries. Typical applications include semiconductor processing, sensitive fluids for pharmaceutical process and corrosive fluids such as chemical injection, pH/density and detergents. Pneumatically operated, the pump consists of one bellow driven forward and backward to deliver a set dose of chemical. The PPRD pump comes with either pneumatic, inductive or optical end position sensors, and can be operated according to various modes: single shot, timer, preset, etc. Suitable for pumping even the most corrosive concentrated chemicals such as acids and solvents, these pumps feature no metal parts and have a compact design.

**Features/Benefits:**
- All wetted parts are high purity PFA or virgin PTFE to eliminate potential ionic contamination
- Designed to meet a wide range of fluid delivery requirements from 0 to 60 PSI, from 32° F (0° C) up to 212° F (100° C) and up to 1000 Cpo
- Assembled and packed in a Class 100 clean room
Saint-Gobain Performance Plastics is a global leader in dependable, high-performance pumps designed specifically for delivery of high-purity and corrosive fluids. AstiPure™ pumps are pneumatically operated with two horizontally reciprocating bellows. The AstiPure™ line of bellows pumps includes the PFD and PRD 1, 2, 3, and 4 models with pumping rates ranging from 2.5 to 26 GPM. The pumps feature no metal parts and a compact design. The PFH2 and PFH3 high temperature models are capable of operating at 320°F (160°C). The PFS2 pump is designed specifically for use in slurry applications. The Furon Turbo Pump is a seal-free magnetically coupled pump where fluid pressure boosting is required.
Furon Chempure Pumps are designed for high-purity or corrosive applications where contamination is not acceptable and chemical inertness is a must. The pump’s fluid flow path is 100% virgin PTFE/high-purity PFA with fully swept internal chamber areas and no exposed metallic parts. High-purity spring-loaded valves incorporate a low particle generation design with dry priming capability. The “quick-release base” mounting system allows easy removal of the entire pump with the pull of a single pin.

Features/Benefits:
• Double PTFE diaphragm containment
• 100% continuous duty cycle
• Patented fiber optic leak detection option and containment area between diaphragms

Furon Turbo Pump

The Furon Turbo Pump is a seal-free, magnetically driven turbine pump with potential applications in boosting high purity and aggressive fluid pressure levels. Best suited for DI water, this pump can be used in systems requiring an increase in the pressure of low viscosity fluids, such as spraying and cleaning systems used in the semiconductor industry.

Features/Benefits:
• Seal-free magnetically coupled turbine pump
• High output pressure
• Qualified to 122° F (50° C) in DI water service
• All PTFE and 99.5% alumina ceramic wetted surfaces

PFH 2 and PFH3 High Temperature Pumps

The AstiPure™ PFH High Temperature Pumps are made with absolutely no metal parts, eliminating the possibility of ionic contamination. PFH pumps are pneumatically operated with two horizontally reciprocating bellows that provide lower pumping frequency than pumps with an equivalent diaphragm construction, to deliver extended pumping life. All AstiPure™ PFH pump wetted components are manufactured with high-purity PFA, PTFE and FEP materials, making them a perfect choice for pumping even the most corrosive concentrated acid or solvent chemicals. Typical applications include the transfer of ultrapure fluids used in the semiconductor industry; recirculation, dispensing and filtration with controlled flow rates and volumes; transfer of chemicals and solvents in clean rooms; and the transfer and dispensing of corrosive chemicals, solvents and pharmaceuticals.

Features/Benefits:
• Assembled and bagged in Clean room
• Handle wide range of liquid temperatures, from 32° F (0° C) up to 320° F (+160° C)
• No rotating shafts or glands to cause leakage
• Adjustable flow rate from 0-13 GPM (0-50 l/min)

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Saint-Gobain Performance Plastics manufactures the industry’s most complete line of high-purity PFA Furon® Flare Grip®, Flare Grip II, Grab Seal™ and Fuse-Bond fittings, to accommodate nearly any semiconductor fluid handling application. We also provide a wide array of accessory items engineered to complement our fittings. This line includes pressure regulators, tubing, pipe and much more. Our broad product offering provides you with a comprehensive single source for high-purity fluid-handling products. We offer decades of experience in injection molding of PFA and processing of PTFE, coupled with state-of-the-art equipment to assure accurate repeatable processes. This assures that our products meet or exceed the most stringent semiconductor industry standards for purity and ionic extractables to satisfy your critical fluid handling requirements.
Furon® Flare Grip® II Union Sweep Elbows
The Furon Union Sweep Elbow is designed to minimize flow restriction and pressure drop common in standard type of elbow fittings. They can be used anywhere that industry standard flare elbows are used to reduce turbulence and flow restrictions with up to 300% improved flow. Union Sweep Elbows are also ideal in where shear sensitive media or highly viscous fluid is used.

Features/Benefits:
• Fully swept flow path, flows up to 300% more than conventional elbows
• Features fully molded flare technology, resulting in perfect flare connections with optimum repeatability
• Molded from 100% virgin high-purity PFA

Furon® Flare Grip® II Fine Thread Flare Fittings
Furon® Flare Grip® II Fine Thread Flare Fittings are used in conjunction with Furon 400 Series Tubing to create a system for the transfer and direction of high purity or corrosive liquid chemicals throughout semiconductor process equipment and factories. Flare Grip II Fittings are available in a full line of industry standard flare fittings in straight, elbow, and Tee configurations, and offer the same footprint as industry standard fine thread flare fittings. All fittings are class 100 clean room assembled and double bagged.

Features/Benefits:
• Available in 1/4”, 3/8”, 1/2”, 3/4” and 1” sizes to meet any application
• Interchangeable and compatible with most industry fluid handling systems
• Provide reliable leak-free connections
• Minimal dead space for fluid entrapment

Furon® Grab Seal™ Fittings
The Furon Grab Seal compression fitting line offers PFA purity combined with the robust compression style fitting. These fittings are ideal for gas or pneumatic connections in applications that do not require flared connections. Once tubing has been cut to the desired length, Grab Seal fittings require no tools for installation. The fittings are available in 1/8”, 1/4”, 3/8”, 1/2”, 3/4” and 1” sizes.

Features/Benefits:
• Simple design for ease of installation
• No special tools required
• Accommodates temperatures up to 212° F (100° C)
• Working pressure to 100 PSIG at ambient temperature
**Furon® Fuse Bond Fittings**

Our complete line of high-purity PFA weldable Fuse-Bond pipe fittings are designed to be compatible with our Furon Fuse-Bond “schedule 40” pipe. Saint-Gobain’s patented system of alignment marks at every 45 degrees maintains precise alignment of fittings during assembly and welding, are faster and easier to use, and ensure that welded assemblies are consistent and repeatable. A wide variety of configurations and sizes are available in 1/4”, 1/2”, 3/4”, 1” and 2”.

**Features/Benefits:**
- Lowers hold-up volume due to reduced fitting size
- All fittings are class 100 clean room assembled and double bagged
- All Fuse-Bond fitting ends and Fuse-Bond pipe are manufactured to standard schedule 40 pipe dimensions
- Manufactured from 100% virgin high purity PFA resin

**Furon® No O-Ring Union**

Furon No O-Ring Union Fittings are designed for use in any welded PFA piping system in semiconductor, instrumentation, pharmaceutical and chemical processing industries. Applications include bulk chemical delivery, wet process, CMP, pipe manifolds, and valve boxes. Made of high-purity PFA, Furon No O-Ring Union fittings are manufactured with our patent protected tongue and groove seal and No O-Ring design, eliminating dead space, and elastomeric contamination. No O-Ring Unions are available in 1/2”, 3/4”, 1” and 2” sizes.

**Features/Benefits:**
- Patent-protected tongue and groove technology provides leak tight seal
- Easy maintenance of equipment components connect with No O-Ring Unions reducing or eliminating replacement and service cost
- High pressure capability for improved safety
- 120 PSI pressure seal and 300° F (148° C) maximum temperature

**Furon® Dual Containment Fittings**

Furon Dual Containment Fittings provide an extra level of safety in critical applications, transforming standard Flare Grip fittings to PFA over PFA dual containment. The Dual Containment Fitting can mate up with chemical delivery systems, wet tools, valve boxes, individual components and drain lines. Furon Dual Containment Fittings are available in three designs: Flare Fittings, Flare Fitting Rear Seal Bulkhead, and Flare Fitting Front Seal Bulkhead. The Front Seal version provides complete dual containment to the face of the bulkhead without requiring access to process tool internal components. The Rear Seal version is used primarily in applications requiring sealing on the internal surface of the containment area—such as a process tool cabinet.

**Features/Benefits:**
- Chemically inert, all high-purity PFA wetted parts
- Convoflex™ PFA tubing may be used as secondary containment
- Annular space may be used for media temperature control
- Primary containment pressure up to 150 PSIG at ambient temperature
Furon® Integrated Vessels
The next step in modular system design now features custom configurable, multi-stage integrated fluid vessels. Developed to satisfy a growing demand to shrink system footprint while reducing leak paths the Integrated Vessels affords their users an economic package that will replace traditional discrete components. Combined with S-G’s extensive line of fluid control valves and fittings, the Integrated Vessels are ideal for critical blend and dispense applications. Best of all, Furon Integrated Vessels come preassembled and tested for quick “Plug and Play” system integration.

Features/Benefits:
- Constructed from high purity PTFE and PFA components
- Multiple stage configurations that can be isolated with control valves
- Custom volumes range from as little as 50ml to more than 5 liters
- Sizes up to 8” diameter

Furon® Suckback Diaphragm Valve
The SBVM is a precision valve for your photoresist, adhesive, and other liquid chemical media dispensing applications. The SBVM utilizes air actuation to open the valve for fluid dispensing. When the actuation air stops, the valve closes while a vacuum is generated to “suck-back” a predetermined amount of fluid downstream of the valve. The suckback amount is adjustable to suit your application and eliminate dripping at the point of dispense.

Features/Benefits:
- Eliminates dripping of dispense media from nozzles
- Adjustable suckback capability permits precise metering of dispense media
- Ultra high-purity PTFE and PFA wetted flow path

Furon® Single and Double Diaphragm Molded Gauge Protectors
The Furon Gauge Protector isolates metal gauge or pressure transducers from potentially damaging media, protecting downstream plumbing and equipment. The Gauge Protector’s PTFE diaphragm isolates media fluid from filler fluid. IPA/DI water, glycerin, or other isolation fluid can be used as filler fluid. The Double Diaphragm Gauge Protector offers dual containment protection against potential contamination, shielding high temperature media from filler fluid. Its leak detection port can be used to purge and isolate highly permeable chemical media from filler fluid and gauge.

Features/Benefits:
- Proprietary diaphragm seals with no hold-up volume or elastomers
- Variety of optional mounts including fuse bonded flow-thru tee option
- 100% non-metallic construction
- All molded high-purity PFA body; PTFE diaphragm
Furon® 1/4” UPRP Precision Pressure Regulator

The Furon UPRP Regulators were designed to precisely deliver aggressive pure chemicals and DI water while maintaining downstream pressure to a predetermined set level. The UPRP 1/4” is available in either manual or pneumatically actuated versions. The UPRP is ideal for high-purity semiconductor, chemical processing and pharmaceutical requirements. For higher flow requirements, Saint-Gobain Performance Plastics also offers a UPRP 1” regulator with pneumatic actuation.

Features/Benefits:
• Designed for fluid temperatures up to 194°F (90°C)
• Composed of all virgin PTFE/Fluoroloy®T and PFA wetted flow paths
• Integral leak detection port is standard
• PTFE isolation bellows provides secondary containment
• Unique design eliminates chatter and squealing even at low flow rates

Top Photo:
Manually actuated 1/4” UPRP Precision Pressure Regulator

Middle Photo:
Pneumatically actuated 1/4” UPRP Precision Pressure Regulator

Furon® UPRP 1” Precision Regulator

The Furon UPRP 1” Precision Regulator maintains downstream pressure to a predetermined set pressure utilizing a pneumatic actuator. The UPRP 1” regulator is designed for precise delivery of aggressive pure chemicals and DI water applications requiring higher flow rates. The 1” orifice provides a Cv of up to 10.0 while virtually eliminating squealing and chatter at all flow rates. Made of all virgin PTFE/Fluoroloy®T wetted flow path, the precision regulator is ideal for use in semiconductor, pharmaceutical and chemical process industries.

Features/Benefits:
• Precise construction maintains predetermined output pressure
• Pneumatic actuation assures rapid response to pressure inlet changes
• Handles fluid temperatures up to 194°F (90°C)
• Maximum Cv of 10.0
Furon® 400 Series High-Purity PFA Tubing
Furon 400 Series Tubing is specifically designed to be used with the Furon line of Flare Grip™ II, Flare Grip™, Flare Fittings, Fast Flare™ cold forming tools and GrabSeal™ Tube Compression Fittings. The 400 Series tubing features a superior smooth surface inner bore, which provides excellent non-wettability, batch-to-batch clean-out, and purging. Manufactured from FDA-approved high-purity PFA, this tubing is ideal for use in the Semiconductor, Biotech, Pharmaceutical and Chemical process industries. It should be specified when the reliability and dependability of an application requires the ultimate in purity and chemical resistance.

Features/Benefits:
- Non-contaminating laser scribing for positive identification of size, material and 100% lot traceability
- Heat stabilized during extrusion for broadest service temperature range
- Tube ends capped to prevent I.D. contamination
- Furon 400 Series Tubing is available on white plastic reels or in double bagged coils

Furon® ConvoFlex™ Tubing
Furon ConvoFlex (convoluted flexible tubing) is specially designed to be used with the Furon line of Flare Grip™ molded PFA Flare Fittings. ConvoFlex is easily cold flared with our FastFLARE™ cold forming tools so there is no need for expensive straight cuffs. ConvoFlex Tubing’s excellent flexibility makes for a great wire conduit due to its high dielectric strength and superior chemical resistance. ConvoFlex Tubing resists chemicals and elevated temperatures and is ideal for use in the biotech, pharmaceutical, aerospace, semiconductor and chemical process industries.

Features/Benefits:
- Flexible convoluted construction
- Read-through transparency
- Virtually unlimited length capability
- Continuous flow path—self flushing

Furon® Fuse-Bond Pipe
Furon Fuse-Bond Pipe is designed specifically for use in high-purity PFA pipe systems. Specify Furon Fuse-Bond Pipe with Fuse-Bond fittings, No O-ring Unions and Furon valves with Fuse-Bond end connections to create a complete welded system where media purity is critical. The piping system is designed to meet schedule 40 pipe specifications and is available in 1/8”, 1/4”, 3/8”, 1/2” 3/4” 1” and 2” nominal sizes in standard lengths of 10’.

Features/Benefits:
- Manufactured from virgin high-purity PFA
- Nominal sizes standard in 10’ lengths
For our Furon & AstiPure product catalog on CD-ROM,
Please contact us at:
Tel: (714) 630-5818
Fax: (714) 688-2614
USA Toll Free: (800) 833-5661
Saint-Gobain Performance Plastics is the world’s leading producer of engineered high-performance polymer products for virtually every industry around the globe, using materials such as fluoropolymers, and high-temperature thermoplastics. We team with our customers to develop products that will help them solve demanding industry challenges. Global R&D centers concentrate on leading-edge polymer engineering and manufacturing technology. Our worldwide engineering, manufacturing and customer support facilities are dedicated to meeting customers’ individual requirements. Through more than 50 locations in 17 countries, we are positioned to provide innovative products and comprehensive service no matter where our customers are located.