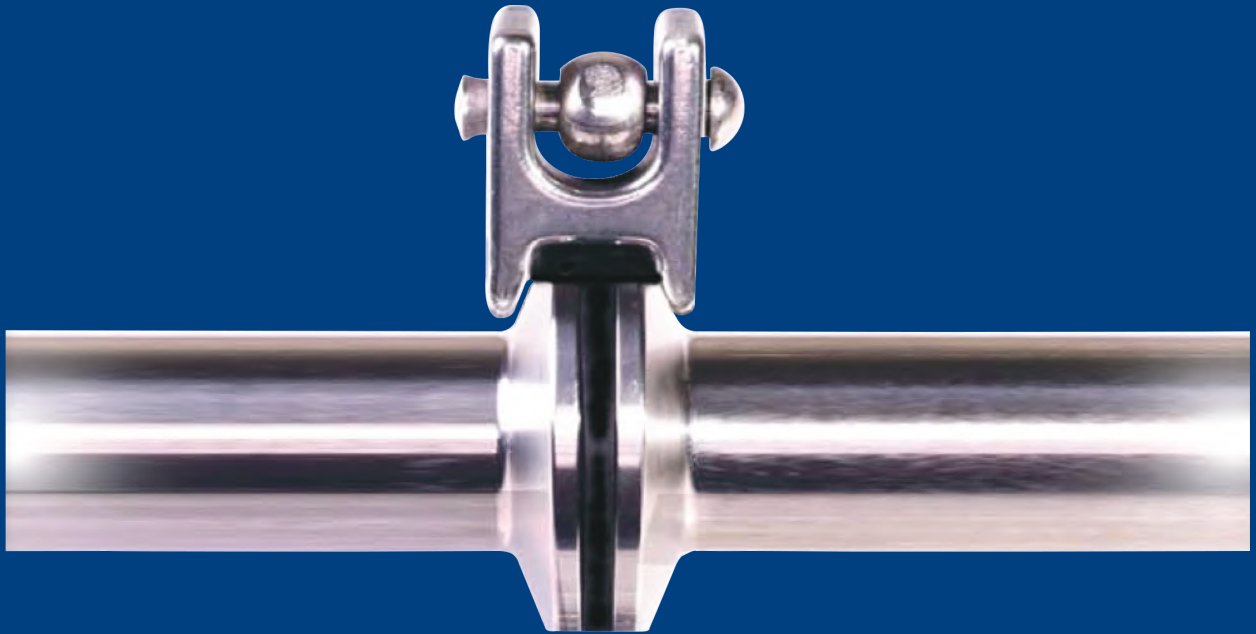




FlowSmart High Purity Solutions



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Polysource Clamp And Gasket Assembly



Gauge Guard™ Isolator



Polyscreen™ and Filtering Products



Source Assemblies provide access to your pipeline through your sanitary connections with a Source Gasket assembly. 1, 2, 3, or 4 ports through the wall of the gasket enable users to perform thermal mapping or draw samples out of a process pipeline. Only a sanitary clamp connection is required to utilize a Source Gasket Clamp assembly.

Thermal Mapping and validation can be performed safely without the risk of exposing operators to dangerous steam. Wires can be fed through the clamp and gasket and the system is closed from atmosphere.

Made using FDA compliant materials. Final articles tested to USP Class VI <87> and <88>. Materials: EPDM, Viton and Platinum cured Silicone. Sizes: 1/2", 3/4", 1", 1.5", 2", 2.5", 3" and 4" sizes. Ports: 1, 2, 3, or 4"

Protect the faces of your gauges to stop corrosion without sacrificing gauge performance. Clamp sizes from 1/2" through 3" can be placed on the face of your gauge so that caustic and acidic fluids won't come into contact with the gauge diaphragm. A thin membrane is molded in place favoring one side of the gasket ring so that the membrane is flush with the gauge face.

FlowSmart produces a large variety of screen and filtering products. Call for versatile engineering designs to solve your particulate retention needs. Clamp screen gaskets, perforated plate gaskets, and sock gaskets are made with PTFE, PolySteel, Viton, EPDM, and buna materials. Sock gaskets can be customized in length. Standard sizes range from 1" through 4". FlowSmart can also produce custom 1/2" and 3/4" sock gaskets. Ask about our patent pending dip tube screen.

Available Elastomers: Buna, EPDM, Viton, Platinum Silicone, PTFE, PolySteel® PolyScreen and perforated Plate gasket

Available Sizes: 1/2" - 8"

PolySocks Available Sizes: 1" through 4", 1/2" and 3/4" custom orders.

Perforated Plate Gasket Available Sizes: 1" through 4", 1/2" and 3/4" custom orders.



Polyshield™



Polyflex™



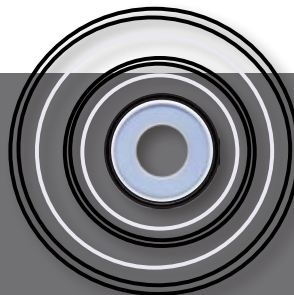
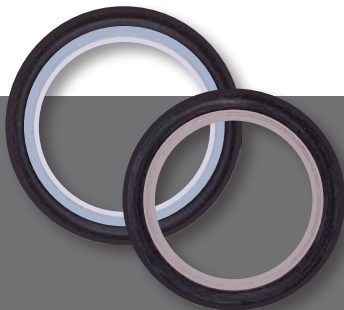
Polyenvelope™



PolyShield™ is the most flexible gasket with maximum memory and a discreet PTFE contact surface. PolyShield is predominantly comprised of Rubber with a discreet PTFE contact area. The design results in a long life gasket with uncompromised seal-ability with PTFE. Materials include PTFE with EPDM, Viton GF-600's or Platinum Silicone. Steel Shield™ is the ideal gasket for the users that prefer Stainless Steel filled PTFE compounds. FlowSmart combines the 316L Stainless Steel gasket material with an elastomer to create the only gasket comprised of that material to maintain a seal under a vacuum. Never before has a Stainless Filled PTFE material had great seal-ability and flexibility. Materials include PolySteel with EPDM, Viton GF-600's or Platinum Silicone.

PolyFlex™ also provides a composition that provides memory, flexibility with the superior chemical resistance of PTFE contact surface. If you are looking to extend chemical resistance PolyFlex provides the maximum PTFE coverage of the elastomer substrate. Providing greater life where chemicals are most aggressive. Materials include PTFE with EPDM, Viton GF-600's or Platinum Silicone. SteelFlex™ is rubber bonded to PolySteel, our stainless steel filled PTFE material. While stainless steel filled PTFE materials provide great steam resistance, that composition has lost market share to products that are more compressible and can hold a seal in vacuum application. SteelFlex is the only Stainless Filled PTFE product that addresses those issues. Materials include PolySteel with EPDM, Viton GF-600's or Platinum Silicone.

PolyEnvelope is a bonded gasket that provides a full PTFE envelope that extends from the ID to the OD of the seal. The PolyEnvelope has tremendous flexibility and memory while providing the maximum PTFE surface.



FlowSmart High Purity Solutions

Polysteel®



A 50/50 blend of PTFE and Stainless Steel Polymer that resists creep and coldflow in steam and delta T applications. The geometry of FlowSmart's PolySteel is designed and constructed for maximum sealability, providing leak proof performance. PolySteel will offer less downtime in plants.

Use PolySteel in combination with our elastomers to vastly improve memory and extend the life of your gasket. For maximum flexibility and a discreet PolySteel contact surface choose SteelShield. For a greater amount of PolySteel coverage use SteelFlex. The flexibility of both products will impress you.

Available Sizes: 1/4" through 12" gasket sizes. GRQ Clamps



GRQ Clamps®



The industries most thoroughly engineered sanitary clamp will reduce leaking and extend your gasket life on all connections. Featuring a geometry that locates the energy imparted on the ferrules to the inside diameter of the gasket face. Resulting in drastically improved sealing efficiency with a consistent load placed

360 degrees around the seal face.



More space with discreet contact surface places the energy at the inside diameter of the

seal face. The reinforced Cast hinge plate emphasizes precision seating of the clamp aiding in locating the clamping pressure.

1/2" through 12" clamps in all tube and schedule 5 and 10 pipe sizes are available including 5" and 34 mm, Din 10, 15 and 20.



Polyorifice™ Plate Gaskets



FlowSmart brings you Innovations that are essential for Orifice Plate gasket needs combined with our pedigree of polymers bonded to plates with 10 ra or better finishes. With the advent of the RIGHT ANGLE TAB Gasket and PTFE ORIFICE PLATE Gaskets that are actually bonded to the metal meet processing needs like never before. LEARN THE FACTS THAT ARE IMPORTANT in bonded PTFE and PolySteel Orifice Plates Only FlowSmart bonds our PTFE and Stainless Filled PTFE "PolySteel" to the Stainless Steel Plates. The other brand traps the plate between the gasket, which creates a cavity at the PTFE to metal contact surface. FlowSmart has developed an innovative process to actually bond to the plate. Carefully scrutinize the competitors product and you'll see the bacteria entrapment areas.

Right Angle Tab Orifice Plates

No special clamp required! The exclusive RIGHT ANGLE TAB GASKET design from FlowSmart allows users to know where an orifice plate is in a line and information can be etched on the tab. All of these benefits are achieved without the need for an expensive slotted clamp. The Right Angle Tabbed Orifice Plate gasket works with standard clamps.

Available Elastomers: Buna, EPDM, Viton, Platinum Silicone, PTFE, PolySteel® Screen and perforated Plate gasket Available Sizes: 1/2" - 8"

Polyconnect® Gaskets



FlowSmart continues to evolve the comprehensive gasket design that offers hands free assembly, compression control and color coding by developing innovative slide in-place technology that enables the benefits of a flange without the need to spread the piping for installation. PolyConnect offers compression limiting with a steam resistant elastomer combined with the best performing EPDM utilized in the pharmaceutical and biotech industries. We feature the versatile Viton GF-600s and Platinum Cured Silicone.

We have the longest life ever realized in studies where FlowSmart combines our engineered plastic and rubber compounds. Achieve a seamless connection in a clamp that meets the BPE intrusion class.

All the best gasket features in a single gasket.

- Slides in place to align and install hands free.
- Color code for batch protection.
- Stops over-compression of seal preventing intrusion.



Compounds With Engineered Pedigree



FlowSmart's foundation is built on compounds with the newest architecture that are formulated to provide longer life and most consistent performance. We don't offer "standard gaskets" as our competitors call them.

All of our gaskets feature engineered geometries, engineered polymers and larger ID's specified to meet most stringent BPE specifications. Proof of our product integrity is proven by the gasket life studies that we have outperformed in every case. FlowSmart's detailed traceability program ensures that we avoid the catastrophic gasket failures realize by the other "standard gaskets" sold by others.

Available Engineered Polymer Products:
Buna, EPDM, Viton A, Viton GF-600s, PTFE, Peroxide-Cured Silicone, Platinum Cured Silicone, PolySteel, AmeFlex-PolyFlex, PolyEnvelope, PolyShield

Available Sizes: 1/4" - 12"



Chemical Compatibility Polymer Reference Guide

CHARACTERISTICS	Flow Smart Polymer						
	Nitrile Elastomer	Fluoro-Elastomer	Platinum Cured Silicone Elastomer	Peroxide Cured silicone Elastomer	Ethylene-Propylene Diene Monomer	PolyTetra Fluoro Ethylene	Poly Steel Polymer
ASTM D-1418 Designation	NBR	FKM	VMQ	VMQ	EPDM	PTFE	PTFE/316L
Common Trade Names	Buna-N	Viton Fluorel	Silastic Elastosil	Silastic Elastosil	Dutral Nordel	Teflon	
Typical Hygienic Industry Designate	U	SFY	RXPX	X	EPDM	G	GTS
Hygienic Color Code	RED	Yellow & White	Remains Clear	Pink	Green X3	Remains White	Remains Grey
Specific Gravity (Polymer)	1	1.8	1.1	1.1	0.85	2.13	2.25
Hardness Shore A Durometer (s)	30 - 95	80 OR 75	80 OR 70	70	70	55-Shore D	65-Shore D
Maximum Tensile (P.S.I.)	3000	2000	1200	1200	2500	4000	4600
Heat Resistance intermittent	240Deg F	410Deg F	580Deg F	540Deg F	300Deg F	450Deg F	578Deg F
Continuous	210Deg F	380Deg F	490Deg F	460Deg F	260Deg F	400Deg F	526Deg F
Low Temperature Resistance	-65	-20	-85	-95	-70	-350	-370
Abrasion Resistance	G	G	F	F	F	F	F
Ozone Resistance	NR	E	E	E	E	E	E
Radiation (Gamma) Resistance	G	F	F	F	E	E	E
Recovery after Distortion	G	G	G	G	F-G	NR	F
Tear Resistance HOT	F	F	F	F	F	E	E
Tear Resistance COLD	F	F	F	F	G	E	E
Acids, Dilute	G	E	G	G	G	E	E
Alkalies	G	G	E	E	E	E	E
Alcohol, Glycols	E	G	E	E	E	E	E
Animal Oils & Fats	E	E	G	G	F	E	E
Soaps, Bleaches, Detergents	F-G	G	F	F	E	E	E
Steam	F	F	G	G	E	G	E
Vegetable Oil	E	E	E	E	G	E	E
Water	G	E	F	F	E	E	E

CODE :

E = Excellent F = Fair

G = Good NR = Not Recommended

Quick Reference Guide



Polysteel®



GRQ Clamps®



Polyorifice™ Plate Gaskets



Polyscreen®



Polyconnect® Gaskets



Engineered Compounds



Polysource
Clamp And Gasket
Assembly



Gauge Guard™
Isolator



Polyenvelope™



Polysield™



Polyflex™

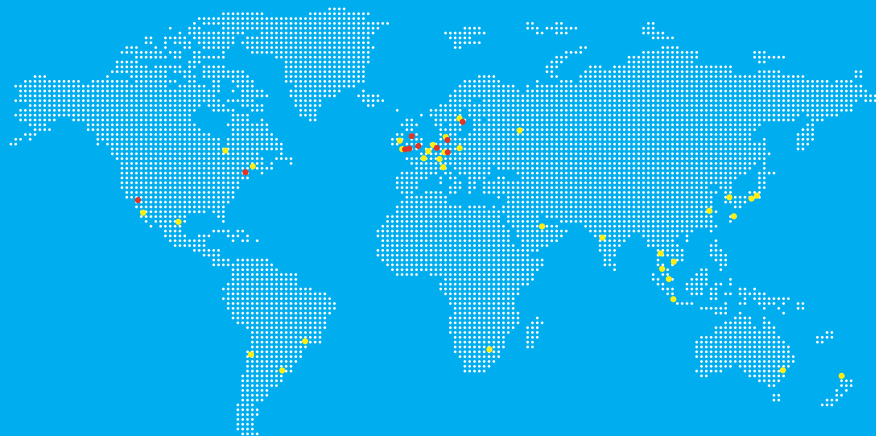


Fluid Technology Group

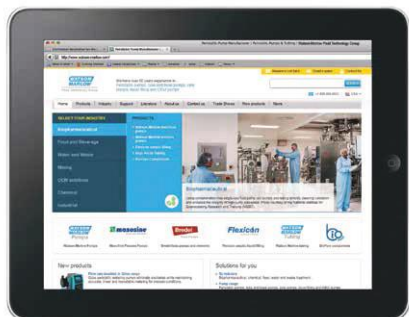
A Spirax-Sarco Engineering Company

Watson-Marlow Fluid Technology Group has eight world-class factories supported by direct sales operations in 30 countries and distributors in more than 50 countries. For contact details visit our website:

www.wmftg.com



Watson-Marlow Bredel Alitea Flexicon MasoSine BioPure ASEPCO FlowSmart Aflex



Watson-Marlow online

Our engineers around the world can help you choose the perfect pump, tubing, connector and valve for your needs.

More information? Our brochures are on our website: www.wmftg.com

Watson-Marlow... Innovation in Full Flow

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