

# HIGH PURITY SOLUTIONS



## POLYSOURCE

### Clamp and Gasket Assembly



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.

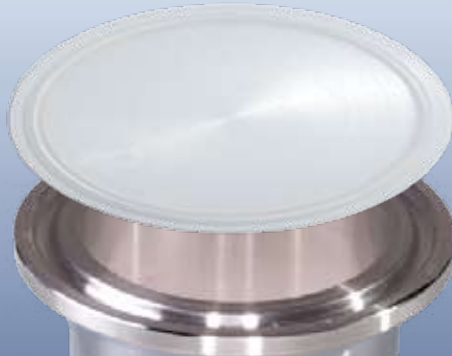
Made using FDA compliant and 3A tested materials. Final articles tested to USP Class VI <87> and <88>.

Materials: EPDM, Viton and Platinum cure Silicone. Sizes: 1/2", 3/4", 1", 1.5", 2", 2.5", 3" and 4" sizes. Ports: 1, 2, 3, or 4"



## POLYGAUGE™

### ISOLATOR



Protect the faces of your gauges to stop corrosion without sacrificing gauge performance. Clamp sizes from 1/2" through 2" 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.



## AMERIFLEX

### GASKETS™



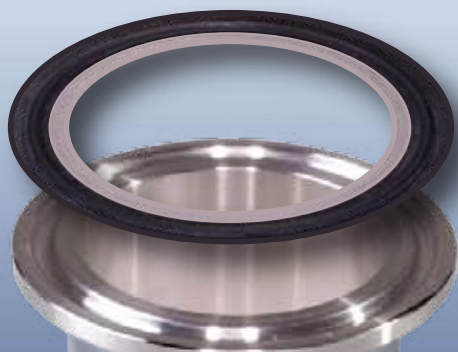
FlowSmart is proud to offer the only line of PTFE bonded to Rubber products made in America. PTFE bonded gaskets offer the best of all Worlds, a PTFE surface with the compressibility and memory of an elastomer. PTFE and Stainless Filled PTFE have excellent chemical resistance and with our innovative gaskets they now have superior sealing characteristics. The combination of rubber and PTFE create a the most compressible PTFE sanitary gaskets products ever. AmeriFlex™ products seal with greater efficiency, extending gasket life, even achieving and maintaining seal performance under vacuum. Seal-ability provided by the elastomer and an inert contact surface makes AmeriFlex™ are the most versatile gaskets. So plants can standardize on the right AmeriFlex Gasket™ for every connection in the plant.

AmeriFlex™ is available in three configurations PolyShield™, PolyFlex™ and PolyEnvelope™.





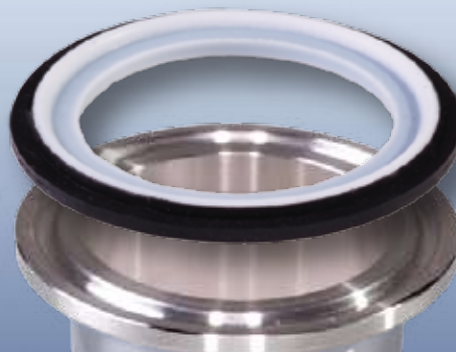
## POLYSHIELD™



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.



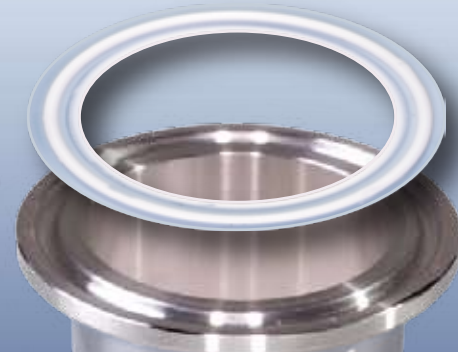
## POLYFLEX™



PolyFlex™ also provides a composition that provides memory, flexibility and 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.



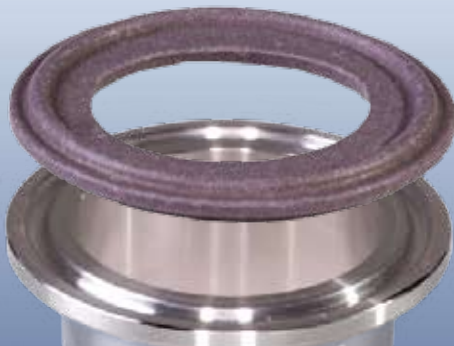
## POLYENVELOPE™



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.



## 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 in 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"



## POLYSCREEN™ and Filtering Products



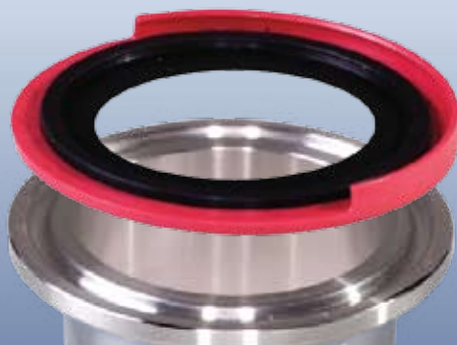
FlowSmart produces a large variety of screen and filtering products. Call for versatile engineering designs to solve your particulate retention needs. Clamp screen gaskets, perforated plate gaskets, and sock gaskets are made with PTFE, PolySteel, Viton, EPDM, and buna materials. Sock gaskets can be customized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



## POLYCONNECT® GASKETS



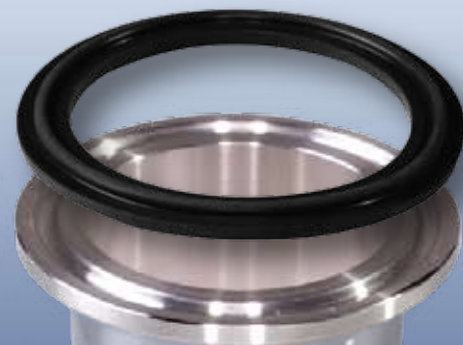
FlowSmart continues to evolve the comprehensive gasket design that offers hands free assembly, compression control and color coding by developing innovative slide in-place technology that enables the benefits of a flange without the need to spread the piping for installation. PolyConnect offers compression 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 realized the longest life ever realized in studies where FlowSmart combines our engineered plastic and rubber compounds. Realize a seamless connection in a clamp connection 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"



## SMART TUBES™



### The difference is clear!

FlowSmart also doesn't have "standard packaging". We have developed engineered SmartTubes that are sized to carefully fit our gaskets so that they stack perfectly on top of each other. Accurate stacking prevents potato chipping that occurs when gasket lay unevenly on top of each other, causing mis-shaping the seal.

SmartTubes are also safe for cleanrooms as they won't particulate. They offer a window to see the quantity and type of gasket in the tube.

Smart Tubes come with gaskets in sizes up to 3".

## LASER ETCHED GASKETS



FlowSmart takes great pride in our lot trace-ability program. We offer laser etched gaskets to ensure that every gasket has lot traceability before, during and after installation. Our gasket is not just laser etched, FlowSmart's etched gaskets also include a USP class VI tested white marking that makes the lot number stand out clearly.

## POLYSMART TOOL MATS™



FlowSmart tool mats provide operators to assemble and disassemble process components while keeping tools and parts clean from floor contact. Our tool mats have "UP" molded on the mat to ensure that the top surface of the mats are not compromised by touching the plant floor. Through holes are located so that mats are hung on standard mat hangers.

## COLORED POLYMER PRODUCTS



FlowSmart produces color PTFE, Buna, EPDM, Viton and PolyDetect materials to enable plants to separate process areas, products and identify PMO programs. Choose the colors of your choice for any polymer.



# FlowSmart Food and Dairy Products

## All Products available in Poly Detectable Material

Identify costly and risky contaminants by detecting the fragments of the Polymers in your plant by using PolyDetect materials. The inclusion of rust free metal into our engineered polymers enables plants to avoid shipping your food and dairy product before your finished product is package and shipped to the customer. Lowering costly and potentially embarrassing product recall.

The possibilities are endless as FlowSmart produces clamp gaskets, Schedule V, I-Lines, Bevel Seat, John Perry, Q-Line, Screen gaskets, Orifice Plate gaskets, Balls for Check Valves and o-rings. Many color choices are available.

FlowSmart has developed a cost efficient process that makes detectable gaskets affordable NOW! Save with FlowSmart on both your initial investment and product loss with our PolyDetect products.

### TR Seats



Save money on FlowSmart TR Stem seats made in PTFE, TFM, Blue PTFE and PolyDetect TFM.

Optional materials include PolySteel, PolyDetect and Blue PTFE. Bevel Seat gaskets Are available in buna, EPDM, Viton, Platinum Cured Silicone, Teflon and PolySteel. A variety of colors and PolyDetect materials are also available.

Our sizes range from 1" to 4" sizes.

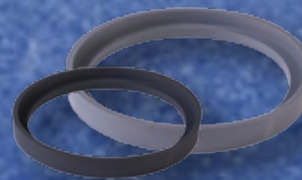
### Balls



FlowSmart takes pride in our superior finish in all of our Check Ball products. We feature PolySteel and PolyDetect materials in our balls that fit Tri-Clover, Waukesha and all other manufacturers check valves. Standard materials include Buna, EPDM, Viton, Nylon, Red PolyDetect Buna and PolySteel. Call us for custom colors and other PolyDetect compounds.

Standard sizes are 1-1/2, 2, 2-1/2", and 3". Custom products made in all sizes.

### John R. Perry



Available polymers include PolyDetect, Buna, EPDM, Viton, Teflon and PolySteel. Sizes are 1-1/2" through 6".

I-Line-FlowSmart molds all sizes of our elastomeric I-Line gaskets providing a discreet seal point that is critical in establishing and maintaining an effective seal as compared to the flat type gasket geometry.

Available polymers include PolyDetect, Buna, EPDM, Viton, Teflon and PolySteel. Sizes are 1" through 6".

### Flanged Gaskets



Available polymers include PolyDetect, Buna, EPDM, Viton, Teflon and PolySteel. Sizes are 1-1/2" through 6".

I-Line-FlowSmart molds all sizes of our elastomeric I-Line gaskets providing a discreet seal point that is critical in establishing and maintaining an effective seal as compared to the flat type gasket geometry.

Available polymers include PolyDetect, Buna, EPDM, Viton, Teflon and PolySteel. Sizes are 1" through 6".

### O-Rings



O-rings that fit Waukesha and Tri-Clover pumps and valves

Buna, EPDM, Viton and PolyDetect elastomer o-rings are available for Tri-Clover and Waukesha components.

### Q-Line



FlowSmart produces Q-Line gaskets using all of our polymers including buna, EPDM, Viton, Platinum Cured Silicone, Teflon and PolySteel. A variety of colors and PolyDetect materials are also available.

Our sizes range from 1" to 4" sizes.

### I-Line



FlowSmart molds all sizes of our elastomeric I-Line gaskets providing a discreet seal point that is critical in establishing and maintaining an effective seal as compared to the flat type gasket geometry.

Available polymers include PolyDetect, Buna, EPDM, Viton, Teflon and PolySteel. Sizes are 1" through 6".

### PolySock



PolySock Gaskets improve your particulate removal capabilities by extending your screen surface area.

PolySocks are available in 3/4" through 4" gasket sizes in standard lengths of 1" and 6". Custom lengths are available to more than 90" long.

# Chemical Compatibility Polymer Reference Guide

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
<b>CHARACTERISTICS</b>							
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, G = Good, F = Fair, NR = Not Recommended



FLOW SMART INC.

103 Davis Drive.

Seaford, DE 19973

phone: 302-536-6388 fax: 302-628-9032

email: solutions@flowsmartinc.com

www.flowsmartinc.com