

# Hygienic Solutions

Sanitary components products that meet the most stringent standards for purity



**Rubber Fab**

a Garlock Hygienic Technologies company

# Rubber Fab's Sanitary Gasket Guidelines

## Tuf-Flex®

Tuf-Flex® is the world's first unitized gasket, setting new standards for purity, performance and flexibility. A Tuf-Flex® Gasket's contact surface is PTFE unitized to an EPDM rubber inner core. This totally bonded construction provides a PTFE gasket with the mechanical characteristics, including memory, of an elastomer gasket. Tuf-Flex® is suitable for temperatures from -29°C (-20°F) to 149 °C (300°F) and was designed to meet critical requirements in biopharmaceutical, ultra-pure water, WFI (water for injection) and difficult food and beverage processing.

## Tuf-Steel®

Tuf-Steel® is composed of a unique 50/50 blend of non-pigmented PTFE and 316L passivated and atomized stainless steel. Testing and years of documented application usage has demonstrated that Tuf-Steel® is the choice for perfect surface performance, outstanding durability and extended service life in both SIP (steam in place) and WFI (water for injection) applications. Tuf-Steel® is ideal for sanitary steam pipe connections in extreme temperatures ranging from -198°C (-320°F) to 288°C (550°F.) The superior strength of Tuf-Steel® eliminates creep and cold flow providing a leak-free seal and preventing maintenance problems and system downtime.

## GYLON BIO-PRO® PLUS

GYLON BIO-PRO® PLUS is made from our proprietary GYLON® Style 3522. GYLON® Style 3522 is a 100% restructured pure PTFE and has been proven to provide superior performance in all critical factors such as conformity, chemical compatibility, sealability and dimensional stability. The surface of GYLON BIO-PRO® PLUS is smoother than that of polished stainless steel. GYLON BIO-PRO® PLUS has a very homogeneous and dense material structure, providing an effective entry barrier for particles and microorganisms in contact with the product. Extensive laboratory tests and years of application experience have shown that GYLON BIO-PRO® PLUS can be safely used with all cleaning, neutralizing and sterilizing media, including steam, and is suitable for all process temperatures from -268°C (-450°F) to 260°C (500°F).

## GYLON BIO-PRO®

GYLON BIO-PRO® is made from our proprietary GYLON® Style 3504. GYLON® Style 3504 is a modified and restructured PTFE that has been proven to provide superior performance in all critical factors such as conformity, chemical compatibility, sealability and dimensional stability. Extensive laboratory testing and years of application experience have shown that GYLON BIO-PRO® can be safely used with all cleaning, neutralizing and sterilizing media, including steam, and at all process temperatures from -268°C (-450°F) to 260°C (500°F).

## Virgin PTFE

Virgin PTFE (Polytetrafluoroethylene) has excellent and almost universal chemical resistance and can be reliably used for temperatures from -37°C (-35°F) to 260°C (500°F). PTFE has a minimal extraction tendency and minimal absorption rate, which is why PTFE is preferred in the pharmaceutical and food industries. Virgin PTFE as a base material has poor cold flow properties and is not suitable for applications with frequent thermal cycling. For very demanding hygienic applications with frequent thermal cycling, we recommend the use of dimensionally stable materials such as Tuf-Flex®, Tuf-Steel®, GYLON BIO-PRO® PLUS and GYLON BIO-PRO®.

## Flex-Pure™ Silicone - Platinum cured

Platinum cured silicone (VMQ) is the material of choice in hygienic water systems or when harder gasket materials are not suitable due to an unavoidable flange misalignment. Gaskets made of silicone differ from other elastomers in their transparency and feel. Silicone has excellent resistance to oxygen, ozone, some solvents and synthetic- animal- and vegetable oils. The temperature spectrum of silicone ranges from -40°C (-40°F) to 232°C (450°F). Because of their natural purity, silicone gaskets are often used in the food and pharmaceutical industries.

## Flex-Pure™ FKM - Peroxide cured

FKM (fluoroelastomer, formerly FPM) has an excellent temperature resistance from -34°C (-29°F) to 204°C (399°F) and high chemical resistance. FKM has very good resistance to ozone, oxygen, mineral oils, greases and non-polar media. FKM gaskets are not suitable for use in polar solvents such as amines and ketones. FKM is suitable for a variety of applications. For very aggressive media, a PTFE quality should be considered for safety reasons.

## Flex-Pure™ EPDM - Peroxide cured

EPDM (ethylene propylene diene rubber) has a good temperature resistance from -34°C (-29°F) to 149°C (300°F) and has excellent media resistance to hot water, steam, acids and alkalis. Due to its very good resistance to steam, acids and alkalis, EPDM is compatible with most CIP (Cleaning in Place) and SIP (Sterilization in Place) media. EPDM is therefore suitable for use in sterilizable bioreactors and in many synthesis processes for active pharmaceutical ingredients. EPDM is only suitable to a very limited extent for use in media containing oil and grease and non-polar solvents.

## NBR

NBR ( Acrylnitrile Butadiene Rubber ) has a temperature resistance from -34°C (-29°F) to 93°C (199°F). NBR is suitable for use in oils and greases. NBR is not suitable for contact with concentrated acids, strongly oxidizing media and hydrocarbons. Only a few certificates and approvals are available for NBR for use in the pharmaceutical and food industries.

1 = Excellent    2 = Good    3 = Acceptable    4 = Marginal    5 = Poor    0 = Do Not Use

Gasket Comments	Continuous Steam	Intermittent Steam	Pure Water Ambient	Pure Water Hot	Process Fluids Ambient	Process Fluids Hot	Variable Temperatures	Temperature Range
<b>Tuf-Flex®</b> Very good chemical resistance and high adaptability to the sealing surface. Also suitable for frequent thermal cycling.	1	1	1	1	1	1	1	-29°C (-20°F) to 149°C (300°F)
<b>Tuf-Steel®</b> Very good chemical resistance and high dimensional stability. Also suitable for frequent thermal cycling.	1	1	1	1	1	1	1	-198°C (-320°F) to 288°C (550°F)
<b>GYLON BIO-PRO® PLUS</b> Restructured PTFE - Excellent chemical resistance, sealing capability and dimensional stability. Also suitable for frequent thermal cycling.	1	1	1	1	1	1	1	-268°C (-450°F) to 260°C (500°F)
<b>GYLON BIO-PRO®</b> Modified and restructured PTFE - Preformed and highly durable. Also suitable for frequent thermal cycling.	1	1	1	1	1	1	1	-268°C (-450°F) to 260°C (500°F)
<b>Virgin PTFE</b> Excellent chemical resistance. Not suitable for frequent thermal cycling ΔT.	1	1	1	1	1	1	3	-37°C (-35°F) to 260°C (500°F)
<b>Flex-Pure™ Silicone**</b> Platinum cured, very good chemical resistance and suitable for most steam applications.	2	2	2	2	2	2	1	-40°C (-40°F) to 232°C (450°F)
<b>Flex-Pure™ FKM**</b> Peroxide cured, good chemical resistance and suitable for most steam applications.	2	2	2	2	2	2	2	-34°C (-29°F) to 204°C (399°F)
<b>Flex-Pure™ EPDM**</b> Peroxide cured, good chemical resistance. Only suitable for low pressure steam.	3	3	3	3	3	3	3	-34°C (-29°F) to 149°C (300°F)
<b>NBR</b> Not recommended for strong acids and ozone. Limited temperature resistance.	0	0	5	5	5	5	5	-34°C (-29°F) to 93°C (199°F)

\* Application dependent.

\*\* Rubber Fab Flex-Pure™ materials are only available as Tri-Clamp® gaskets.

NOTE: Properties/applications shown throughout this brochure are typical. Your specific application should not be undertaken without independent study and evaluation for suitability.

For specific application recommendations consult Rubber Fab. Failure to select the proper sealing products could result in property damage and/or serious personal injury. Performance data published in this brochure has been developed from field testing, customer field reports and/or in-house testing. While the utmost care has been used in compiling this brochure, we assume no responsibility for errors. Specifications subject to change without notice. This edition cancels all previous issues. Subject to change without notice Rubber Fab is a registered trademark for packings, seals, gaskets, and other products of Rubber Fab.

# Detectomer®

METAL DETECTABLE and X-RAY INSPECTABLE Products



Detectomer® is a full line of Metal Detectable/X-ray Inspectable products designed to work with any existing conveyor, pipe line or free fall detection system. Detectomer® products are available in sanitary gaskets, o-rings, sanitary screens, sheet, rod, hose, tubing, extrusions, cam & groove gaskets, camlock screen gaskets, scoops, and scrapers. Detectomer® products help eliminate product recall, lower product loss and decrease the risk of components consumed in a finished product by insuring that a worn off piece of elastomer material migrating through your system will be detected and rejected by an in-line x-ray system, metal detector or removed by a mag bar. Searching for and locating fragmented component parts has traditionally been a costly, time consuming and inconclusive process.

## Materials

EPDM, FKM Fluoroelastomer, Silicone, Buna and Tuf-Steel®, UHMW, Acetal

## Products

Gaskets, Quad Rings, Heat Sealing Strips, Sheet, Extrusions, Hoses, Utensils, O-Rings

## Sheet Material

Polyurethane

# Tuf-Flex®

Unitized sanitary Tri-Clamp® gasket composed of PTFE and EPDM



Tuf-Flex®, the ultimate pharmaceutical sanitary gasket, is setting new standards for purity, performance, flexibility and is the world's first unitized gasket. A Tuf-Flex® gasket's contact surface is PTFE unitized to an EPDM rubber inner core. This totally bonded construction provides the inert, non-stick benefits of PTFE with the memory of an elastomeric gasket without fear or risk of pigmentation or spalling. Designed to meet critical requirements in biopharmaceutical, ultra-pure water, WFI (water for injection) and difficult aseptic processing applications. Tuf-Flex's® extended service life increases up-time by out performing other gaskets by eliminating costly process interruptions. Tuf-Flex® handles temperatures from -29°C (-20°F) to 149°C (300°F).

## Sizes

- » 1-1/2" to 6"
- » DN06 to DN100

## Tuf-Flex® Sheets

Thickness: 1.5 mm  
L x W: 350 mm x 350 mm sheets



Standard Gasket



Envelope Gasket



Tuf-Flex®

# Tuf-Steel®

Tri-Clamp® Gasket blended of passivated stainless steel and non-pigmented PTFE



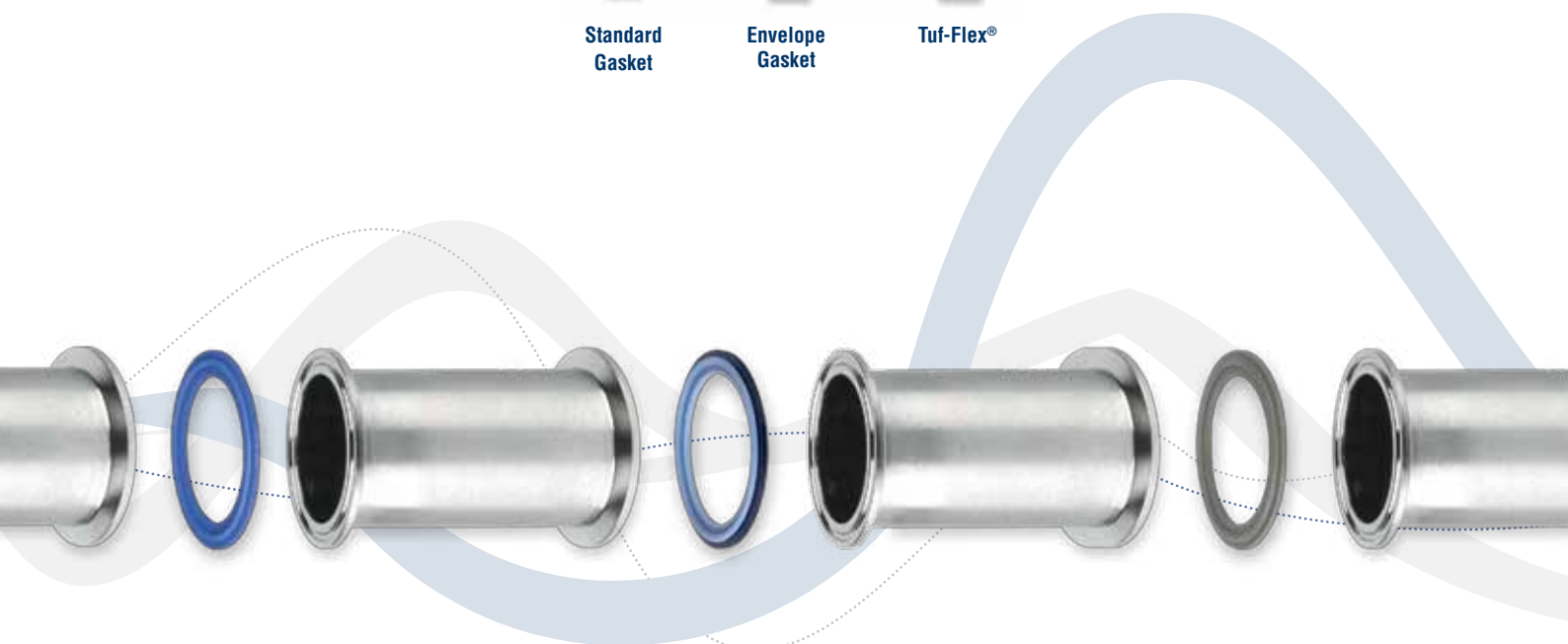
Tuf-Steel® – the original metal detectable gasket, a Rubber Fab market innovation, is composed of a unique proprietary blend of non-pigmented PTFE and 316L passivated and atomized stainless steel. Testing and years of documented application usage has demonstrated that Tuf-Steel® is the choice for perfect surface performance, outstanding durability, extended service life and increased up-time in both SIP (steam in place) and WFI (water for injection) applications. Tuf-Steel® is ideal for sanitary steam and extreme temperature processes, specifically fryer and hot oil applications, with temperatures ranging from 160°C (-320°F) up to 288°C (550°F). The superior strength of Tuf-Steel® eliminates creep and cold flow providing a leak-free seal.

## Sizes

- » 1/2" to 12"
- » DN06 to DN100
- » Type II Flanged
- » Ansi Flange 1/16" & 1/8" thick
- » 150# Flanged Screen Gaskets

## Tuf-Steel® Sheets

Thickness: 1.6 mm x 3.2 mm  
L x W: 915 mm x 915 mm sheets



# GYLON BIO-PRO® PLUS

GYLON® Style 3522 Tri-Clamp® Gasket



GYLON BIO-PRO® PLUS is a preformed gasket manufactured from GYLON® Style 3522 (translucent). This high-performance gasketing product is made of 100% pure PTFE and shows an excellent dimensional stability (no cold flow, no intrusion/ recession, no gap extrusion) and handles temperatures from -268°C (-450°F) to 260°C (500°F). Because of the excellent hygienic design of the gasket (Smooth surface, no dead-space formation, seal geometry) cleaning processes can be carried out effective and resource-efficient. GYLON BIO-PRO® PLUS meets even the strictest conformity requirements, including 3A Sanitary Standard 20-27, USP VI <87> <88>, FDA and ASME-BPE (Static Seal Performance). Each gasket is laser marked with a unique lot number by default, to ensure full and easy traceability. This makes our GYLON BIO-PRO® PLUS the gasket of choice in the Pharmaceutical industry.

## Industry standards

- » DIN 32676 Series A, B and C
- » DIN 11850 / DIN 10357
- » ISO 1127
- » ASME-BPE
- » ISO 2852
- » SMS 3019

## Sizes

- » 1/4" to 8" (Additional sizes available on request)
- » DN06 to DN200

## Products

- » Tri-Clamp® Gaskets

# GYLON BIO-PRO®

GYLON® Style 3504 Tri-Clamp® Gasket



GYLON BIO-PRO® is a preformed gasket manufactured from GYLON® Style 3504, a modified and restructured PTFE. This high-performance gasketing product shows an excellent chemical resistance and is therefore suited to handle all CIP and SIP-cleaning processes. The dimensional stability (No cold flow, no intrusion/ recession and no gap extrusion) is outstanding. GYLON BIO-PRO® handles temperatures from -268°C (-450°F) to 260°C (500°F). GYLON BIO-PRO® meets the most relevant conformity requirements, including USP VI <87> <88>, FDA and EC 1935 (European Food Contact Regulation). GYLON BIO-PRO® is the gasket of choice in the Food and Pharmaceutical industries.

## Industry standards

- » DIN 32676 Series A, B and C
- » DIN 11850 / DIN 10357
- » ISO 1127
- » ASME-BPE
- » ISO 2852
- » SMS 3019

## Sizes

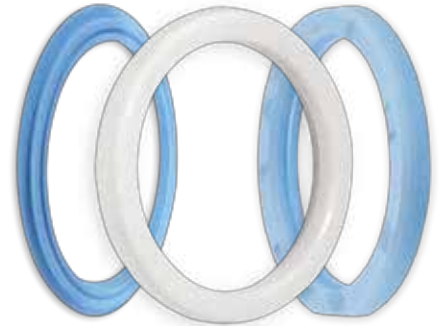
- » 1/4" to 8" (Additional sizes available on request)
- » DN06 to DN200

## Products

- » Tri-Clamp® Gaskets

# GYLON BIO-LINE®

GYLON BIO-LINE® range



The GYLON BIO-LINE® range of products also includes sealing solutions for aseptic O-ring connections, dairy screw couplings and camlock couplings. GYLON BIO-LINE® offers approved sealing materials for high temperatures and demanding processes - while at the same time entirely compliant to all major Pharma and Food regulations.

All GYLON BIO-LINE® products are available in GYLON® Style 3504 and GYLON® Style 3522 materials.

## Industry standards

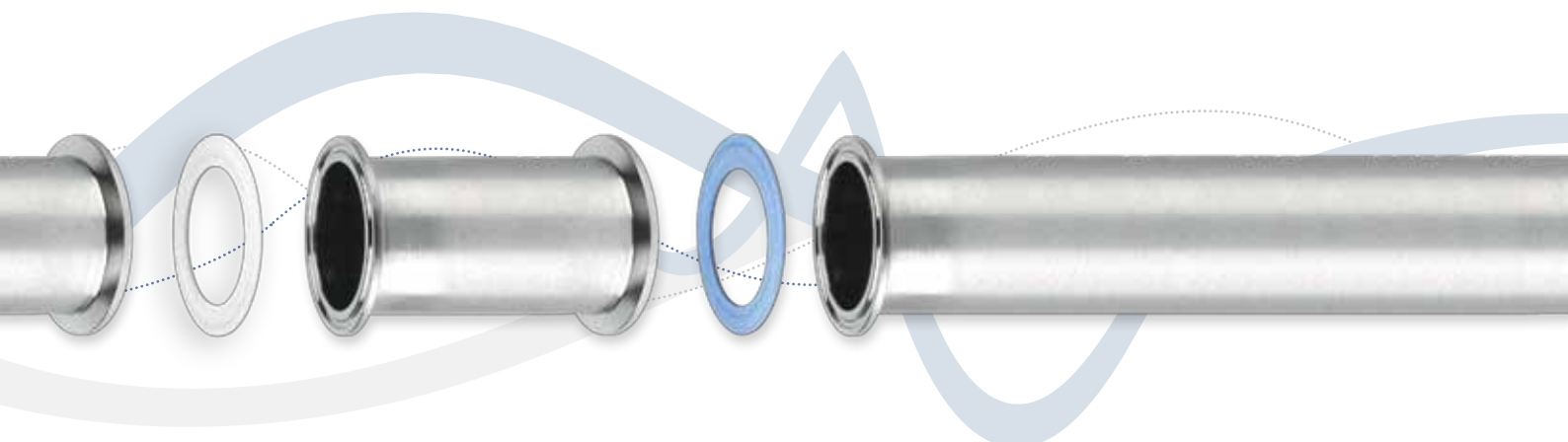
- » DIN 11864 and DIN 11853
- » DIN 11851 and SMS 1149
- » DIN EN 14420-7 and US-MIL-norm (MIL-C-27487)

## Sizes

- » All commonly required product dimensions are available (Additional sizes available on request)

## Products

- GYLON BIO-ASEPT®
  - » Aseptic O-Ring Gaskets
- GYLON BIO-ECO®
  - » Dairy Screw Coupling Gaskets
- GYLON BIO-LOK®
  - » Camlock Coupling Gaskets





# Flex-Pure™

NEW PRODUCTS

## Silicone - Platinum cured

Sanitary Tri-Clamp® gasket



Flex-Pure™ Silicone (VMQ) is platinum cured and the material of choice in hygienic fluid systems or when harder gasket materials are not suitable due to an unavoidable flange misalignment. Gaskets made of Silicone differ from other elastomers in their transparency and feel. Silicone has excellent resistance to oxygen, ozone, some solvents and synthetic-, animal- and vegetable oils. Rubber Fab's Flex-Pure™ Silicone gaskets comply with the strictest national and international food contact regulations. This makes our Flex-Pure™ Silicone the perfect choice for use in food processing systems. The temperature spectrum of Silicone ranges from -40°C (-40°F) to 232°C (450°F). Because of their natural purity, Silicone gaskets are often used in the food and pharmaceutical industries.

### Key Benefits\*\*\*

- » Laser marked by default
- » Lot number for Full and Easy Traceability
- » Material Identification
- » Excellent Dimensional Stability
- » Very low Compression Set for best Sealing Performance
- » Clean and Easy Removal of gaskets - No sticking to the flanges
- » Highest Purity of Products
- » Only peroxide and platinum curing agents
- » Low Extractable values
- » Suitable for SIP and CIP
- » Good Steam Resistance - Very low swell and minimal loss of physical properties after repeated steam cycling
- » Good Chemical Resistance - Very low swell and minimal loss of physical properties after long-term exposure to CIP media
- » Wide Temperature range

\*\*\* Material and application dependent.

# Flex-Pure™

NEW PRODUCTS

## EPDM - Peroxide cured

Sanitary Tri-Clamp® gasket



Flex-Pure™ EPDM (ethylene propylene diene rubber) gaskets are peroxide cured and have a good temperature resistance from -34°C (-29°F) to 149°C (300°F) and have excellent media resistance to hot water, steam, acids and alkalis. Our highly developed pharmaceutical grade Flex-Pure™ EPDM is compatible with CIP (Cleaning in Place) and SIP (Sterilization in Place) cleaning media. Rubber Fab has performed extensive Steam-in-Place testing on our Flex-Pure™ EPDM. After exposure to 500 SIP cycles, our Flex-Pure™ EPDM gaskets remain undamaged and do not stick to the flanges. The gaskets can be removed cleanly, without leaving any residues on the flanges. As a result, sealing connections can be maintained more easily, with less effort and much faster. Our Flex-Pure™ EPDM has excellent physical properties and high dimensional stability. The gaskets have a very good compression-set and high load- retention, ensuring the best possible sealing performance.

### Compliance\*\*\*

- » USP Class VI <87>, <88> (121°C)
- » 3A Sanitary Standard 18-03
- » FDA 21CFR177.2600 (Formulation & Extraction)
- » Simulated SIP Testing (500 Cycles) in accordance to ASME-BPE-2019 (SG-4.2 Static Seal Performance)
- » CIP Detergent (Alkaline and Acid) exposure testing
- » EC 1935/2004 (Food Contact Regulation)
- » GB 4806.11-2016 and GB 9658-2016 (Chinese National Food Safety Standard)
- » Manufactured in compliance with FDA 21CFR174.5 (cGMP)
- » Manufactured in compliance with EC 2023/2006 (GMP)
- » Manufactured in compliance with GB 31603-2015 (GMP)
- » ADI free (EMEA 410/01)

# Flex-Pure™

NEW PRODUCTS

## FKM - Peroxide cured

Sanitary Tri-Clamp® gasket



Flex-Pure™ FKM (fluoroelastomer, formerly FPM) gaskets are peroxide cured and have an excellent temperature resistance from -34°C (-29°F) to 204°C (399°F) and high chemical resistance. FKM has very good resistance to ozone, oxygen, mineral oils, greases and non-polar media. Our Flex-Pure™ FKM is compatible with CIP (Cleaning in Place) and SIP (Sterilization in Place) cleaning media. Rubber Fab has performed extensive Steam-in-Place testing on our Flex-Pure™ FKM. After exposure to 500 SIP cycles, our Flex-Pure™ FKM gaskets remain undamaged and do not stick to the flanges. The gaskets can be removed cleanly, without leaving any residues on the flanges. As a result, sealing connections can be maintained more easily, with less effort and much faster.

### Industry Standards\*\*\*

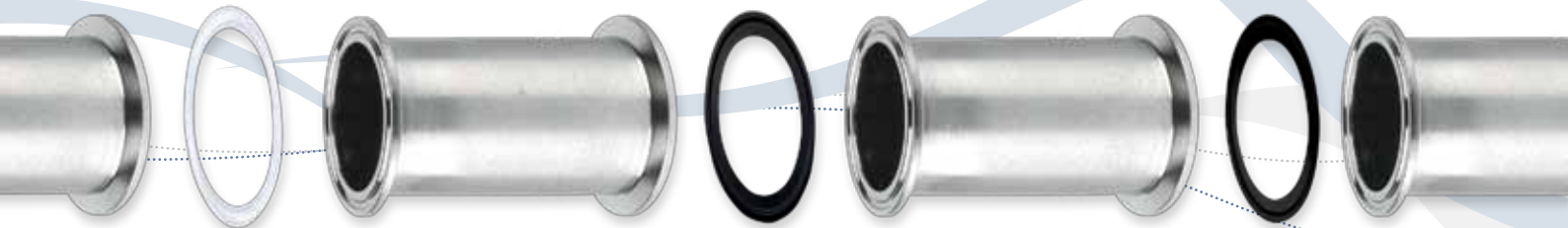
- » DIN 32676 Series A, B and C
- » DIN 11850 / DIN 10357
- » ISO 1127
- » ASME-BPE

### Sizes

- » 1/4" to 12"
- » DN06 to DN200



All Flex-Pure™ gaskets from Rubber Fab are laser marked by default. The marking includes the lot number and the material name for full and easy traceability.



# Smart Gasket®

Thermocouple gasket for validation



The Rubber Fab Smart Gasket® value is proven when validating sterility in a high-purity pharmaceutical system. The Smart Gasket® Thermocouple Gasket obtains the critical thermal mapping information needed during the validation process. They can meter fluids in your process system using a peristaltic pump or withdraw samples through our lure lock valve or syringe. The Smart Gasket® requires a specifically designed thermocouple clamp but easily installs in any standard sanitary Tri-Clamp® connection.

## Materials

EPDM, FKM Fluoroelastomer and Platinum Silicone

## Sizes

1/2" to 4"

## Ports

1 - 4 ports

## Accessories

- » Thermocouple Clamp with 1 - 4 ports
- » Sampling/Injection Tube
- » Hole Plug
- » Stopcock
- » Teflon Coated Wire Probe
- » Kapton Coated Wire Probe
- » Thermometer
- » Extension Lead - 3 ft & 6 ft
- » Temperature Probes

# Biological Indicator Orifice Plates & Spore Trap

In-line validation gasket



Spore Trap

Biological Indicator

Rubber Fab's Biological Indicator and Spore Trap gaskets are used to validate the sporicidal effect of in-line sterilization processes. For this purpose, our Spore Trap gaskets are designed to accommodate spore challenge test strips. Our Biological Indicator gaskets permit either top loading or in-line positioning of a fully self-contained biological indicator. Feel secure knowing that our Biological Indicator and Spore Trap gaskets securely retain and accurately expose the test strips/indicator. This way the test strips/indicator will not be lost downstream in the process and can be easily retrieved at any time. Biological Indicator and Spore Trap gaskets are optionally available with one thermocouple port.

Both our Biological Indicator and Spore Trap gaskets require specifically designed thermocouple clamps but easily install in any standard Tri-Clamp® connection.

## Materials

Biological Indicator: Platinum Silicone

Spore Trap: Platinum Silicone, EPDM and FKM

## Sizes

Biological Indicator: 3/4" to 2"

Spore Trap: 1 1/2" to 4"

## Ports

Biological Indicator and Spore Trap gaskets are optionally available with 1 Port.

Flow reducing and self draining



Our innovative Orifice Plate line includes a complete selection of solid 316L Stainless Steel, in standard or tabbed Tri-Clamp® styles that can be custom drilled with an eccentric or concentric bore. Vertical styles, which are funnel shaped for optimal vertical drainage, are also available. Steam trap mini orifice plates are an alternative to standard steam trap technology.

Tabs help to acknowledge that an orifice plate is "in-line" and can be laser engraved to indicate the hole diameter, gasket size or user specified information. This is a major safety consideration! Rubber Fab's Orifice Plates can enhance your system's performance, adjust flow rates, balance back flow and equalize back pressure during SIP procedures; achievable benefits while maintaining sanitary conditions.

## Materials

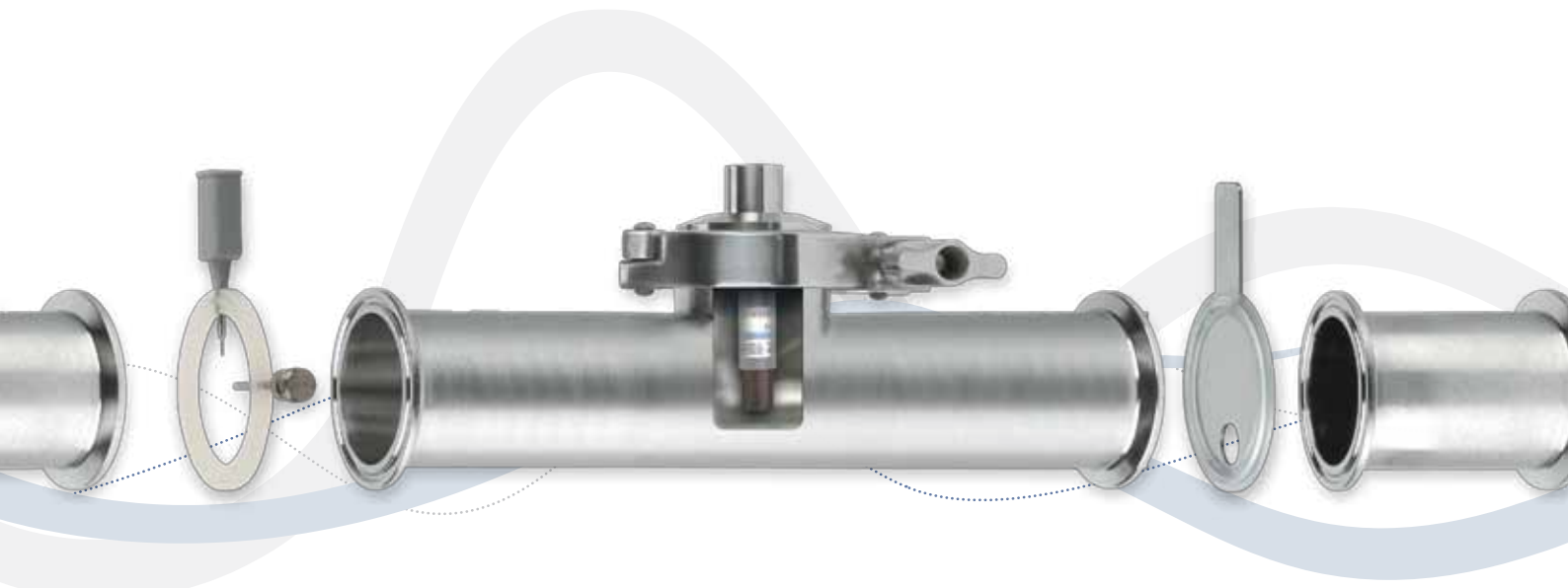
PTFE, Tuf-Steel®, EPDM, FKM Fluoroelastomer, Silicone, and Buna (Elastomer replacement gaskets are available)

## Sizes

1/2" to 8" (Platinum Silicone 8" not available)

## Services

- » Electropolishing
- » Passivation
- » Laser Engraving
- » Slotted Clamps for Tabbed style orifice plates



# Screen Gaskets

Fluid filtration to protect product and equipment



Rubber Fab's fluid filtration screen gaskets provide the most comprehensive range of stainless steel mesh and filter cloth. These gaskets provide particulate elimination to protect fill and finish sterile products, spray balls and spray nozzles. You can choose a screen gasket in a USP Class VI elastomer or Fluoroelastomer and are available in a variety of mesh sizes including 10 micron through 4 mesh. Custom screens are also available.

## Materials

PTFE, Tuf-Steel®, EPDM, FKM Fluoroelastomer, Silicone, and Buna

## Sizes

1/2" to 8" (Platinum Silicone 8" not available)  
Consult factory for custom meshes

## Services

- » Electropolishing
- » Passivation
- » Laser Engraving

# Sock Screens

Fluid filtration gaskets with greater particle capacity

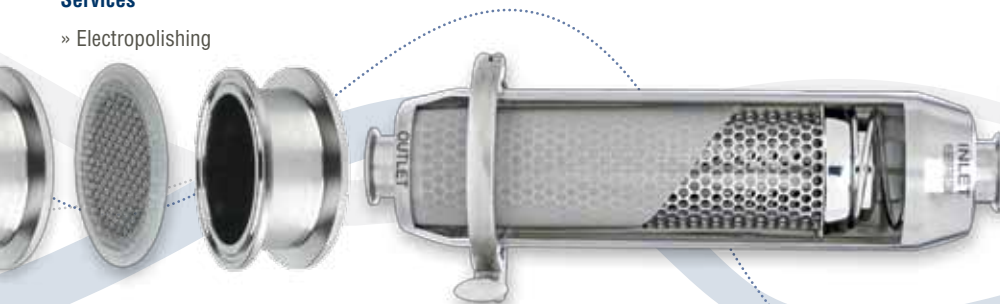
The extended sock shaped mesh gasket offers up to five times more open area for more soil collection capability than conventional screens. They provide greater flow for situations where a large amount of particulates are involved. Available in 10 mesh to 325 mesh with standard 10 & 16 mesh in stock.

## Materials

EPDM, FKM Fluoroelastomer, Silicone, Buna, Tuf-Steel®

## Services

- » Electropolishing



# Inline Strainers & Overscreens

Maximum installation flexibility, sanitary construction and flow



Today's processing pipe lines require strainers with an increased capacity to meet production needs of state-of-the-art food, beverage and pharmaceutical manufacturing facilities. Rubber Fab's sanitary strainers and overscreens protect valuable processing equipment and have been specifically designed to meet the most stringent process requirements. Our sanitary strainer products are manufactured using 316L stainless steel and are designed for maximum installation flexibility, sanitary construction, and unrestricted flow.

## Configurations

Inline sanitary strainers, hi-capacity sanitary strainers, side inlet sanitary strainers and custom fabricated sanitary strainers, wire mesh overscreens, hygienic overscreens, wedge wire, disposable filter socks, wire and mesh basket liners, 10 mesh to 200 mesh overscreen.

# Gauge Guard Isolator Gasket

Protect measuring equipment from process media

By combining a Rubber Fab sanitary gasket with a thin membrane, the Isolator Gasket isolates CIP and corrosive solutions from instrumentation without affecting performance, a necessary and cost-effective step in assuring long life and accurate results.

## Materials

Platinum Silicone, PTFE, FKM and EPDM

## Sizes

1/2" to 2"

Consult Factory for sizes per material

# Gauge Guard Protector

Protect your equipment when moving, storing or autoclaving

The Gauge Guard Isolator and Protector Gaskets protect expensive gauge diaphragms and instruments from damage. When moving, storing or being autoclaved, the Gauge Guard Protector protects the gauge's fragile diaphragm from damage. The easy attach ring slips effortlessly onto the gauge keeping the Gauge Guard Protector ready for use.

## Materials

Platinum Silicone

## Sizes

3/4" to 2"





# Torque-Rite®

Compression control without additional torque tools



Torque-Rite® allows you to control compression and expansion while maintaining constant inch/pounds force insuring a Perfect Surface I.D. Torque-Rite® eliminates sanitary problems associated with over- or under-tightening a gasket. When tightened, the Torque-Rite's® self-limiting internal mechanism will make an audible "click" signaling the user that they have reached proper inch/pounds force. If further tightening is attempted, there will be more "clicks" but no additional application of force on the gasket. Because Torque-Rite® does not require any special tools or training, exact torque is reached faster and on the first try!

## Configurations

- » 3,5 Nm (30 in/lbs) and 4,5 Nm (40 in/lbs) for all elastomers and Tuf-Flex®
- » 5,5 Nm (50 in/lbs) for PTFE, PTFE Envelope and Tuf-Steel®

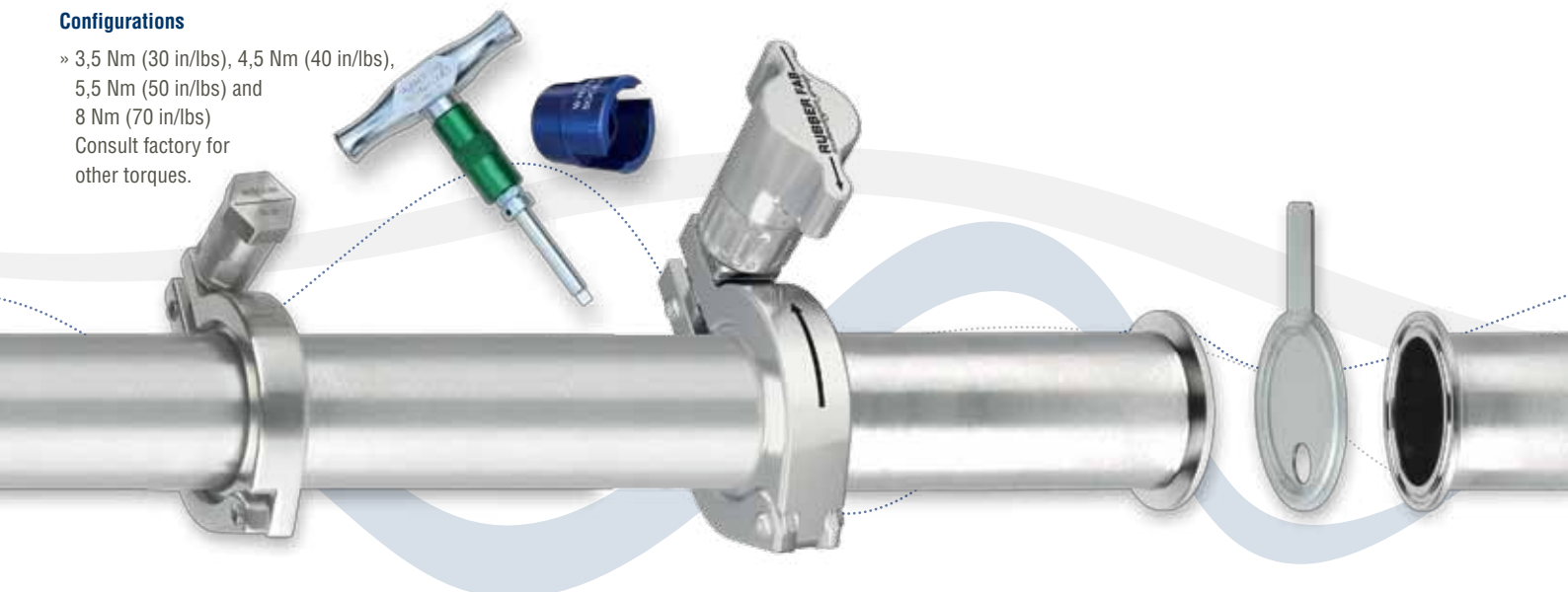
# Torque Tee

Aid for Clamp Installation & Removal

Rubber Fab's Torque Tee and universal torque socket are designed to aid in clamp installation & removal. Available with a family of components, the Torque Tee handle creates effective tightening leverage & aids in reaching tight spaces.

## Configurations

- » 3,5 Nm (30 in/lbs), 4,5 Nm (40 in/lbs), 5,5 Nm (50 in/lbs) and 8 Nm (70 in/lbs)
- Consult factory for other torques.



# Smart Clamp™

The "Half-Turn" Sanitary Smart Clamp™



Rubber Fab's Smart Clamp™ - the one-piece, completely unitized Smart Clamp™ - is the next generation of sanitary hinge clamps. The Smart Clamp™ features a half-turn installation process that allows multiple compression settings for sanitary gaskets and prevents over or under tightening of gaskets. Smart Clamp™ allows faster installation and offers an extended service life of gaskets. The result is increased equipment uptime and ergonomic installation. Smart Clamp™ ensures even pressure distribution to the gasket and increased long-term sealability. Smart Clamp™ incorporates a threadless system that minimizes the risk of soil and bacterial entrapment. During installation the clamp hinge and locking arm will not collapse which makes the Smart Clamp™ very user-friendly and allows an easy installation with no additional tools required. Smart Clamp™ is manufactured in 304 Stainless Steel.

## Sizes

1/2" to 6"

# Services

What really sets Rubber Fab apart

Time is money. Don't waste valuable time searching for sanitary components in your process line. "Identify" your system components using one of Rubber Fab's System Identification products.



## Laser Engraved Products & Bar Coding

Laser Engraved Products & Bar Coded Collars present a sharp legible way to insure process line identification and batch traceability. Include your company name, application-specific information such as serial numbers or maintenance codes, and more. Use etched collars to communicate critical information. Part numbers, sizes, service dates, and usage recommendations are just a few examples.

## Tabbed Orifice Plate Gaskets

Tabs protrude from clamp and can be laser etched for easy line identification.

## Note

Consult factory for spacing and size limitations on all etched products.



# Pharma Hoses



## RFPFA-EU (PFA Lined Hose)

- » Smoothbore PFA Lined Hose with synthetic plies and embedded stainless steel helix wire



## RFRT-EU (FEP Lined Hose)

- » FEP Lined Hose reinforced with synthetic textile plies and embedded stainless steel helix wire

Rubber Fab's European Hose Range offers a wide product portfolio of hoses for the pharmaceutical industry. Various materials, such as Platinum Cured Silicone, PFA, Technopolymer or FEP characterize our range and make it so versatile for the most diverse applications in the pharmaceutical industry. The hoses have a smooth surface on the inside and are therefore easy to clean and very flexible. In addition, the hoses are characterized by a high degree of purity. The new product range of Pharma Hoses covers common compliance requirements such as USP Class VI, FDA, 3A, ADI Free and the EC 1935 as well as EC 2023 (GMP) and others.

### Materials and HOSES

- » Platinum Cured Silicone – RFSV-EU
- » Platinum Cured Silicone – RFSB-EU
- » PFA – RFPFA-EU
- » Technopolymer – RFTAS-EU
- » FEP – RFRT-EU
- » FEP – RFRTHP-EU

### Sizes and Lengths

- » Most common Inner Diameter sizes 1/2" to 4"
- » Maximum lengths vary between the hose types
- » Contact Factory for more details

# Food & Beverage Hoses



## RFFB-EU (Nitrile Rubber Lined Hose)

- » NBR Lined Hose reinforced with synthetic cord plies and embedded synthetic helix wire



## RFFDABR-EU (Butyl Rubber Lined Hose)

- » BIIR Lined Hose reinforced with synthetic cord plies and embedded stainless steel helix wire

Rubber Fab's Food & Beverage European Hose Range covers many areas and applications in the food and beverage as well as in the dairy production. This product range meets the most common compliance requirements such as USP Class VI, FDA, 3A, ADI Free and the EC 1935 as well as EC 2023 (GMP) and others. The tubes are all sterilizable and are available fully assembled and ready for use. The outer layer of the hose is a cover layer, which makes the hose less sensitive to external influences even in difficult environments. In addition, the Rubber Fab marking tape makes the hose easily and quickly identifiable since the hose type and compliance is illustrated on it.

### Materials and Hoses

- » EPDM – RFFDAE-EU
- » BIIR – RFFDABOC-EU
- » BIIR – RFFDABR-EU
- » BIIR – RFFDAC-EU
- » BIIR – RFFDAEOC-EU
- » NBR – RFFDA-EU
- » NBR – RFFB-EU

### Sizes and Lengths

- » Most common Inner Diameter sizes 1/2" to 4"
- » Maximum lengths vary between the hose types
- » Contact Factory for more details

# Services & Accessories

### Pressure Testing

Rubber Fab has the capability to pressure test hose and assemblies for you if needed. This service is upon request.



### Crimping

Rubber Fab's hose fabrication team offers 360° radial crimping to our sanitary hose for a positive lock that enables the assembly to be used to the maximum working pressure of their particular hose style and size without pulling off or blowing off.



### Sterilization, Autoclaving, Gamma-Irradiation

Rubber Fab offers also Gamma Irradiation of the hoses as well as autoclaving and sterilization. These additional steps ensure that you can integrate the hoses directly into highly sensitive processes.



# Fittings



### Fittings Available Upon Request also Fully Assembled with Hose

Here at Rubber Fab we offer you a wide range of fittings in different standards and sizes. These fittings are available upon request. The fittings can be then directly assembled to the hose, which makes it ready for use. A 3.1 Certificate is available upon request too.

### Standards Available

- » Dairy Couplings according to DIN 11851
- » Tri-Clamp® Couplings according to DIN EN 32676
  - » DIN 11850 / DIN 10357
  - » ISO 1127
  - » ISO 2852
  - » SMS 3019
  - » ASME-BPE
  - » BS 4825-3



# Certificates

Rubber Fab Gasketing Materials meet the following standards\*\*\*\*

- » 3-A Sanitary Standards 18-03 and 20-27
- » Animal Derived Ingredients Free (EMEA 410/01)
- » FDA 21 CFR 177.1550 and 177.2600
- » FDA 21 CFR174.5 (cGMP)
- » USP Class VI <87>, <88>
- » USP <31>, <281>, <661>
- » ASME-BPE Standards
- » European Food Contact Regulation
  - » EC 1935/2004
  - » EC 10/2011
  - » EC 2023/2006
- » Chinese National Food Safety Standard
  - » GB 4806.1-2016
  - » GB 4806.11-2016
  - » GB 9685-2016
  - » GB 4806.7-2016
  - » GB 31603-2015
- » NSF 61 Standard
- » 62. BfR
- » Plasticizer free
- » TA-Luft incl. blow-out proof

\*\*\*\* Conformity to the listed standards and regulations is product and material dependent. Please consult Rubber Fab for your detailed conformity requirements.

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EZTest® is a registered trademark of SGM Biotech, Inc.  
Tri-Clamp® is a registered trademark of The Ladish Company.

# Member

Rubber Fab is a member of



ISPE



# Rubber Fab

a Garlock Hygienic Technologies company

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GROUP

A GARLOCK  
HYGIENIC  
TECHNOLOGIES  
COMPANY

European Warehouse – Aseptic Group  
Parc du Puy d’Or-539 Allée des Frênes  
69760 Limonest - France

Office: +33 (0)4 72 52 02 40  
rubberfab.europe@rubberfab.com

[rubberfab.com](http://rubberfab.com)