

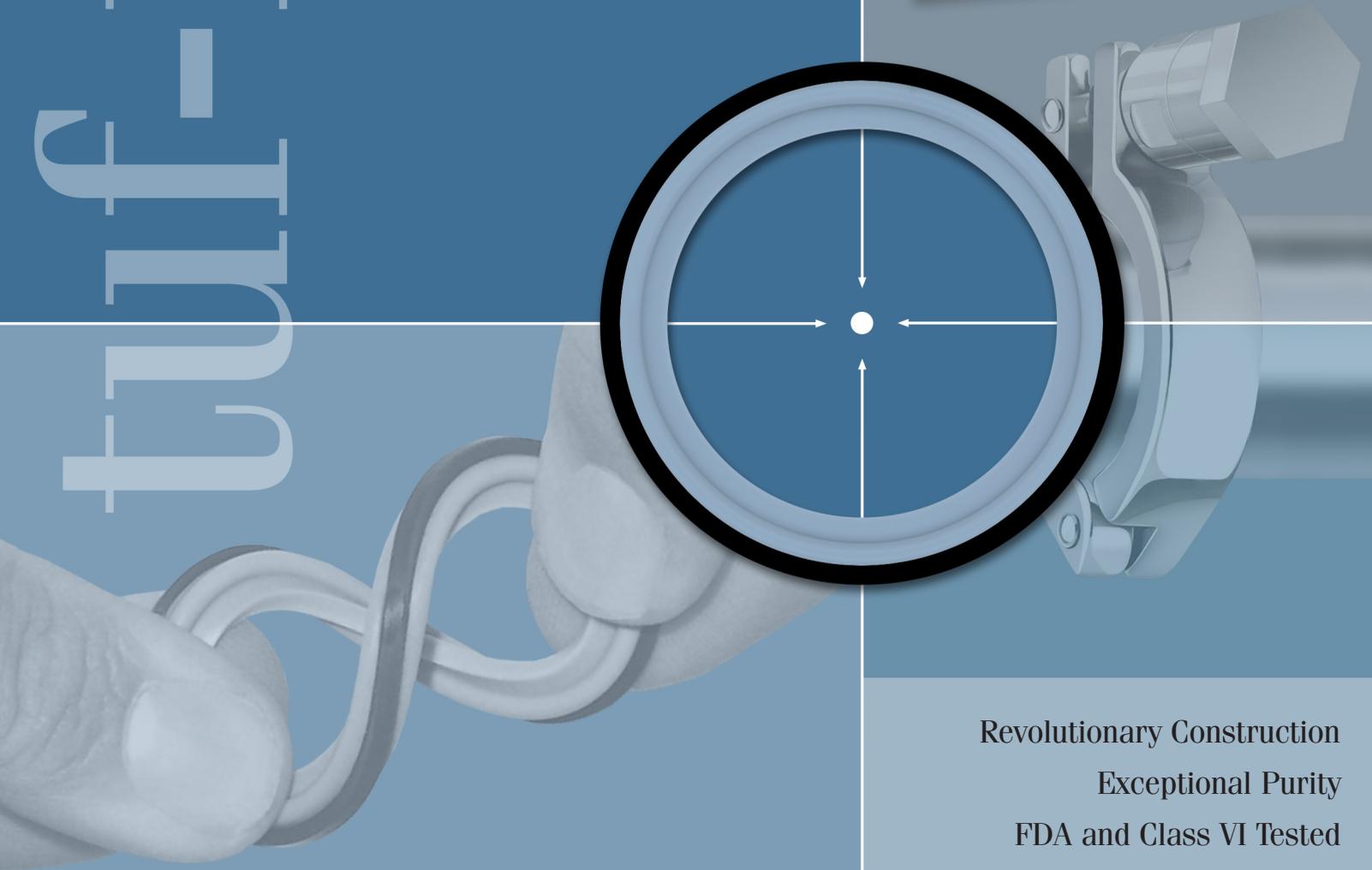
tuf-flex

Rubber Fab Technologies Group's

TUF-FLEX[®]

The Ultimate in
Gasket Performance

Will Not Impart Taste or Odor!
No Cross Flavor Contamination.



Revolutionary Construction

Exceptional Purity

FDA and Class VI Tested

Superior Performance

Extended Up-Time

3A Certified

Animal Derived Ingredient Free



RUBBER FAB
technologies group

TUF-FLEX®

Introducing a Technologically Advanced Sanitary Gasket

Tuf-Flex®, the revolutionary sanitary gasket from Rubber Fab Technologies Group, a revolutionary unitized gasket setting new standards for purity, performance and flexibility. Designed to meet critical requirements in pharmaceutical, biotechnology, ultra-pure water, and WFI (water-for-injection) applications. And because Tuf-Flex® will not impart taste or odor with flavor change, it provides the ultimate gasket performance for food and beverage processing, Tuf-Flex® outperforms other sanitary hygienic seals and increases uptime by helping eliminate costly process interruptions.

Performance Based on a Revolutionary Composition

A Tuf-Flex® sanitary gasket's contact surface is a layer of PTFE unitized to an EPDM rubber inner core. This totally bonded construction provides an exceptionally pure and incredibly flexible seal.

By unitizing the elastomer with a layer of PTFE, Tuf-Flex® will perform like an elastomer with the chemically inert characteristics of a PTFE sanitary gasket.

Product Purity Without Changeout

With standard CIP cleaning, Tuf-Flex® sanitary gaskets will NOT impart taste or odor. Because there's no cross flavor contamination, Tuf-Flex® increases processing uptime by minimizing need for changeout.



High Performance With Exceptional Purity

Because its elastomer core is protected by a unitized layer of PTFE, a Tuf-Flex® sanitary gasket will not release elastomer extractables or particulates eliminating spalling. The result is an exceptionally maintained sanitary tubing I.D. with minimal I.D. invasiveness or system contamination.

Achieve Higher Results Under SIP/CIP Conditions

- Uniting the flexibility of an elastomer with the inert chemical resistance of PTFE
- Seats perfectly
- Excellent chemical resistance
- Minimal thermal expansion
- Exceptional flexibility

Tuf-Flex® Is Ultra-Pure

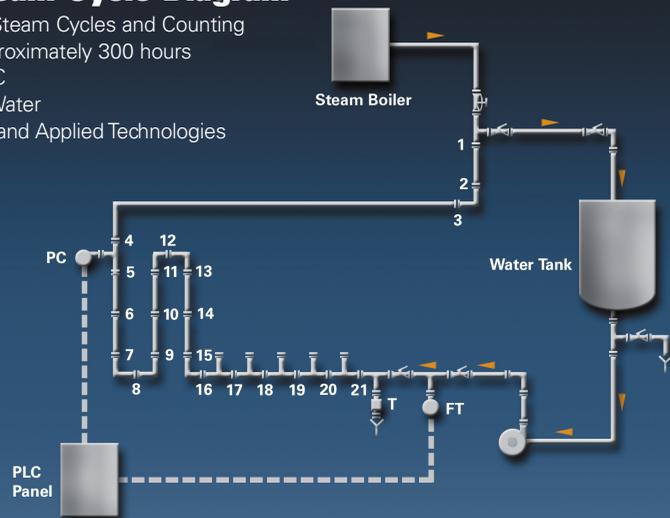
- Will not impart taste or odor – no cross flavor contamination
- No extractables, TOCs or particulates to contaminate product stream
- No-pigment
- Minimal gasket I.D. invasion
- Exceptional cleanability response
- Non-stick surfaces

Tuf-Flex® Prevents Process Interruptions

- Perfect cleanability
- Outstanding service life
- Reusable
- Extended uptime
- Maintains seal @ 30 in./lbs.
- Temperature Range: -20°F to 400°F

Steam Cycle Diagram

50 Steam Cycles and Counting
Approximately 300 hours
90°C
DI Water
Holland Applied Technologies



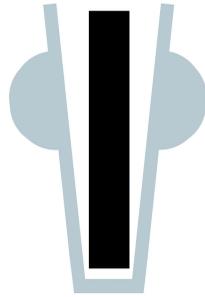
TUF-FLEX® Sanitary Gasket Life Study

Product	Material	Durometer Before	Durometer After	I.D. Dia. Before	I.D. Dia. After
TUF-FLEX®	PTFE	92	94	1.406	1.39
TUF-FLEX®	EPDM	92	95	1.406	1.366

Type I and Type III Envelope Gaskets vs TUF-FLEX®



A Solid PTFE Type I gasket is guaranteed to fail in SIP conditions. They will creep, cold flow and leak at ΔT.



The Envelope gasket construction provides inconsistent results between the two materials. It will also creep, cold flow and leak over time.



The PTFE unitized elastomer in a Tuf-Flex® gasket will maintain I.D.

Ansi-Flex 150# Ansi Flange Gasket

An Ansi-Flex 150# Ansi Flange 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 with **exceptional steam resistance**. An Ansi-Flex 150# Ansi Flange Gasket is ideal for applications, such as **PVC piping and glass lining piping**, where low seating stress is required. The Ansi-Flex 150# Ansi Flange Gasket has **superior and extended service life** over standard flange gaskets. Achieve higher performance under SIP/CIP conditions.



AVAILABLE SIZES:

1/2" – 12"

Consult factory for sizes over 12"

ALSO AVAILABLE:

Ansi-Flange in 1/8" thick Tuf-Steel® material

PART NUMBER	PIPE SIZE	OD	ID	THK.	C	D	PCD	# HOLES	E
FF-AF-E-050-150#-.197	1/2"	3.386	0.708	0.197	1.181	-	2.362	(4) .630	1.654
FF-AF-E-075-150#-.197	3/4"	3.78	0.866	0.197	1.181	1.654	2.756	(4) .630	2.047
FF-AF-E-100-150#-.197	1"	4.134	1.142	0.197	1.456	1.968	3.11	(4) .630	2.362
FF-AF-E-125-150#-.197	1-1/4"	4.528	1.496	0.197	1.811	2.323	3.504	(4) .630	2.756
FF-AF-E-150-150#-.197	1-1/2"	4.921	1.693	0.197	2.087	2.677	3.858	(4) .630	3.11
FF-AF-E-200-150#-.197	2"	5.906	2.126	0.197	2.52	3.268	4.764	(4) .748	3.898
FF-AF-E-250-150#-.197	2-1/2"	6.89	2.716	0.197	3.189	3.976	5.512	(4) .748	4.646
FF-AF-E-300-150#-.197	3"	7.402	3.15	0.197	3.622	4.409	5.984	(4) .748	5.118
FF-AF-E-400-150#-.197	4"	8.898	4.055	0.197	4.882	5.827	7.48	(8) .748	6.614
FF-AF-E-500-150#-.197	5"	9.921	5.079	0.197	5.906	6.85	8.504	(8) .866	7.48
FF-AF-E-600-150#-.197	6"	10.906	6.024	0.197	6.772	7.717	9.488	(8) .866	8.346
FF-AF-E-800-150#-.197	8"	13.386	7.874	0.197	8.74	9.685	11.732	(8) .866	10.68
FF-AF-E-1000-150#-.197	10"	15.906	10	0.236	10.866	11.811	14.252	(12) .984	12.992
FF-AF-E-1200-150#-.197	12"	18.898	12.007	0.236	13.189	14.37	17.007	(12) .984	15.748

TUF-FLEX®... The Ultimate in Gasket Performance

1/2"	A42MPGR-TF-050-E
3/4"	A42MPGR-TF-075-E
1"	A40MPGR-TF-100-E
1-1/2"	A40MPGR-TF-150-E
2"	A40MPGR-TF-200-E
2-1/2"	A40MPGR-TF-250-E
3"	A40MPGR-TF-300-E
4"	A40MPGR-TF-400-E
6"	A40MPGR-TF-600-E

IDF: (International Dairy Fitting)

1"	IDF-TF-E-100
1-1/2"	IDF-TF-E-150
2"	IDF-TF-E-200
2-1/2"	IDF-TF-E-250
3"	IDF-TF-E-300
4"	IDF-TF-E-400



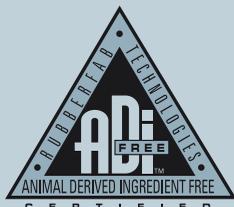
Specify Tuf-Flex®, the Ultimate in Sanitary Gasket Performance

- Combines the **flexibility** of an elastomer with the **inert chemical resistance** of PTFE
- **Totally unitized**, perfectly sealed
- Excellent **chemical resistance**
- **Increases uptime**
- Minimal thermal expansion
- Outstanding service life
- **Outstanding purity** – no extractables, TOCs or particulates
- Minimal gasket intrusion into the I.D.
- **Non-stick surfaces**
- **No pigments**
- Easy cleanability
- Also available in 150# Ansi-Flex and IDF-Flex

Tuf-Flex Meets Stringent Standards

- U.S. Pharmacopeia Class VI Certification
- Cytotoxicity Criteria
- Title 21 CFR 177.2600 and 177.1550
- 3-A Certified
- USDA Sanitary Standards
- Current Good Manufacturing Practices (CGMP)
- ASME-BPE Standards
- Animal Derived Ingredient Free

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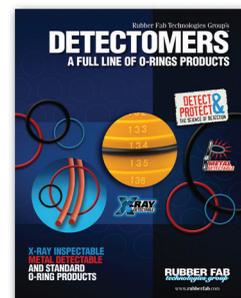
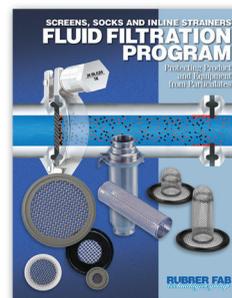
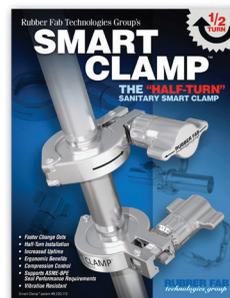
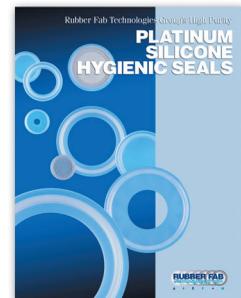
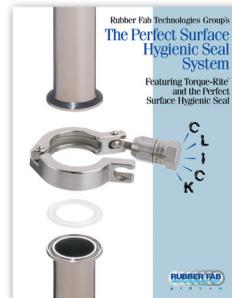
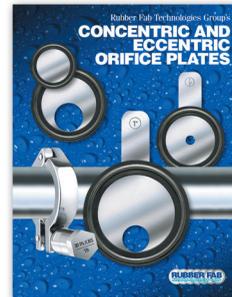
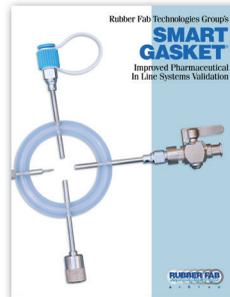
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Rubber Fab Technologies Group, a Material Science Company, is a leading innovator of high quality sanitary gaskets, hose assemblies, valve, pump and filler machine components in a wide range of high purity elastomer materials. For additional information, contact Rubber Fab at 973-579-2959 or visit us at www.rubberfab.com.

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