Hygienic Sanitary Gaskets

Compression Controlled Gaskets for Aseptic Markets

Superior Performance for High Purity Processing

Parker's hygienic sanitary gaskets are patent pending designs which offer long-term sealability, excellent wear performance, complete material traceability and easy installation.

Our sanitary gaskets are designed to meet typical ASME-BPE hygienic clamp unions with a nearly flush interface (± .008"), preventing the entrapment of any media within a dead space that can lead to microbial growth and contamination. In addition, the flush interface helps prevent erosion of the elastomeric gasket that could contaminate the process stream.

The Symbol of Assurance

Product Features

- Inner seal beads provide primary point of sealing
- Extended plastic on one inch and larger sizes helps support seal beads and maintain flush interface
- Redesigned outer bead geometry maintains sealing capability without an overfill condition that would cause the material to extrude into the ID during thermal expansion
- Outer clips to align gasket to the ferrule
- Stock sizes available ½" through 6"
- Metal detectable materials available

Benefits

- Intrusion/recess of the gasket less than .008"
- Long-term sealability
- Easy part alignment during installation
- Easy part removal from the ferrule after use
- Material traceability back to the raw ingredients
- Compression on the gasket is automatically controlled by plastic carrier
- Meets all food & beverage processing requirements

Contact Information:

Parker Hannifin Corporation
Integrated Sealing Systems Division
3700 Mayflower Drive
Lynchburg, VA 24501

phone 434 846 6541
fax 434 847 2725

www.parker.com

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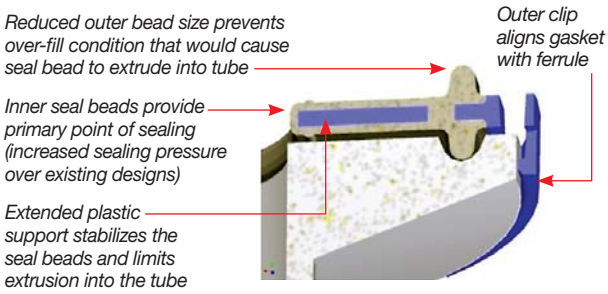
Over-Molded Rubber to Plastic Design

Parker's hygienic sanitary gasket type B design provides superior sealability, alignment and traceability.

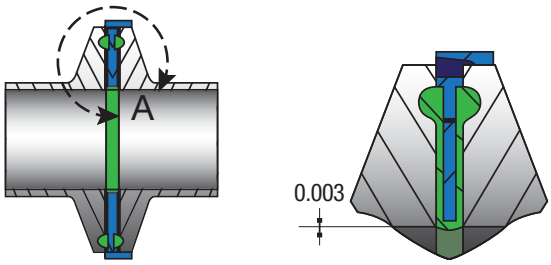


Parker Sanitary Gaskets

Testing for intrusion & sealability

Laboratory Testing for Intrusion & Sealability

During product development, Parker's sanitary gaskets were evaluated side-by-side with various industry leading sanitary gasket suppliers' products, by an independent test laboratory. In doing so, Parker confirmed its products perform better than what exists in the market today.



Test Results

After the completion of 500 steam-in-place cycles, Parker's gaskets exhibited an average of .003" of intrusion. Compared to the competitor's gaskets, Parker's ethylene propylene (EPDM) gaskets displayed:

- A minimum of 90% less intrusion
- The ability to hold pressure without having to re-torque the clamp, resulting in labor cost savings.
- The ability to disassemble the joint and remove the gasket by hand without the use of external tools, improving the safe removal of the gasket and reducing labor costs.

Intrusion Test Results			
	Minimum Recess/Intrusion Results (inches)	**Maximum Recess/Intrusion Results (inches)**	**Average Intrusion Results (inches)**
Parker EPDM Sanitary Gasket	-.001"	-.007"	-.003"
Competitor A Standard EPDM Gasket	-.034"	-.090"	-.051"
Competitor B Standard EPDM Gasket	-.034"	-.109"	-.054"
Competitor A PTFE/EPDM Envelope Gasket	-.033"	-.041"	-.037
Competitor B PTFE/EPDM Envelope Gasket	-.026"	-.039"	-.031"
Competitor C EPDM Compression Controlled Gasket	-.031"	-.060"	-.041"

BPE Intrusion Category I – Maximum intrusion/recess .025" (radial)
BPE Intrusion Category II – Maximum intrusion/recess .008" (radial)

Materials for Biopharmaceutical

Food and Beverage Applications

Parker can offer a wide range of elastomers to accommodate the various critical sealing challenges faced in the bioparmaceutical , food and beverage markets. Selecting a suitable material is critical in both industries to insure long-term sealability and zero contamination.

For these reasons, Parker only uses materials that are compliant with the following specifications to manufacture sanitary gaskets:

- FDA standard (21 CFR 177.2600)
- US Pharmacopeia (USP) Class VI
- 3-A Sanitary Standard # 18-03 and 20-25

Please contact the division for assistance in selecting materials in these situations.

Notes: Material specific data sheets available upon request.

All FDA materials listed pass the FCR Title 21 177.2600 extractable testing required for repeated use in contact with aqueous and fatty foods.

	Physical Properties							Chemical Properties							
Parker Compound	Abrasion Resistance	Compression Set Resistance	Heat Resistance	Low Temperature Resistance	Tear Resistance	Tensile Strength	Acid Resistance	Alcohol Resistance	Alkali Resistance	Soaps/Bleaches/Detergents	Sodium Hydroxide	Sodium Hypochloritte	Steam (<400°F)	Vegetable Oil	Water
E3609-70	G	G	G	E	G	G	G	E	E	E	E	E	E	F	E
EJ590-70	G	G	G	E	G	G	G	E	E	E	E	E	E	F	E
N1069-70	G	G	F	G	G	G	F	F	G	G	G	G	P	E	G
S0317-60	P	E	E	E	P	P	FG	G	E	F	E	G	F	G	G
S7387-70	P	E	E	E	P	P	FG	G	E	F	E	G	F	G	G
V1274-80	G	E	E	F	G	G	E	G	G	G	G	E	G	E	E
XV0180-02	G	E	E	F	G	G	E	G	G	G	G	E	G	E	E

(E) Excellent, (G) Good, (F) Fair, (P) Poor

Properties of Commonly Used Elastomers for Sanitary Gaskets

Parker Compound	Polymer	Hardness	Color	Temperature Range (°F)	Compliance
E3609-70	EPDM	70	Black	-70 to +250	FDA/USP VI
EJ590-70	EPDM	70	White	-70 to +250	FDA/USP VI/3-A Class III
N1069-70	NBR	70	Black	-30 to +180	FDA/3-A Class II
S0317-60	VMQ	60	Red	-100 to +450	FDA/USP VI/3-A Class IV
S7387-70	VMQ	70	Translucent	-100 to +450	USP
V1274-80	FKM	80	Black	-15 to +400	FDA/USP VI/3-A Class I
XV0180-02	FKM	80	Black	-15 to +400	FDA (metal detectable)

Material Traceability

Each sanitary gasket has a laser etched product identification on the part to allow for full traceability.

The etched identification includes codes for the material type, manufacturing date, shift, and month of production. Parker's internal rubber mixing capability ensures full traceability back to the raw ingredients used in production.

Product Offering

Parker's hygienic sanitary gaskets are offered in our E3609-70 compound, a USP Class VI, FDA and NSF approved ethylene propylene (EPDM) material; as well as fluorocarbon (FKM) and silicone (VQM) materials.

See our video by scanning this QR code on any mobile device.

Sanitary Gaskets How to Order

84 | 16 | - | 3A | - | 1 | - | B

- **Sanitary Gasket Identifier**
  - 84 – Type A, all rubber gasket design
  - 85 – Type B, over-molded rubber to plastic design
- **Tubing O.D.** in sixteenths of an inch
- **3A Certified**
- Rubber Material/Color Suffix
  - 1 Silicone/Rust
  - 2 FKM/Black
  - 3 EPDM/White
  - 4 Nitrile/Black
  - 5 Silicone / Clear
  - 6 EPDM / Black
  - 7 FKM / Black Metal Detectable
- Plastic Material/Color Suffix
  - B Blue (standard)
  - R Light Red

Parker's Hygienic Sanitary Gaskets				
Part Number	**Material Suffix**	**Plastic Color**	**Size (OD)**	**Type**
8404-	see above	na	¼"	A
8406-	see above	na	⅜"	A
8408-	see above	na	½"	A
8412-	see above	na	"	A
8416-	see above	na	1"	A
8516-	see above	see above	1"	B
8524-	see above	see above	1½"	B
8532-	see above	see above	2"	B
8540-	see above	see above	2½"	B
8548-	see above	see above	3"	B
8564-	see above	see above	4"	B
8596-	see above	see above	6"	B

The Symbol of Assurance

3-A Sanitary Standards

All of the materials configurations of the hygienic sanitary gasket line are in compliance with 3-A standard 18-03 / 20-25 requirements. Established by 3-A Sanitary Standards, Inc., the 3-A Sanitary Standards enhance product safety with a set of standards and accepted practices.

Assembly Tools

Parker's i-logic end caps, slotted sanitary clamp and i-torquer wrench ensures proper fitting torque, allows for easy gasket identification and makes end cap removal safe and easy

Consult your local distributor or division for further details.

WARNING:

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THESE PRODUCTS CAN CAUSE EQUIPMENT FAILURE OR DAMAGE, PERSONAL INJURY OR DEATH.

For safe and trouble-free use of these products, it is important that you read and follow the Parker Seal Group Product Safety Guide. This Safety Guide can be referenced and downloaded free of charge at www.parkerseals.com. It is also printed in major Seal Group product catalogs, and can be ordered by telephone without charge as Parker Publication No. PSG 5004 by calling 1-800-C-PARKER.

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