## **RFS: REDUCED FRICTION SEAL** CONCRETE PIPE AND MANHOLE GASKETS







## Where To Use

- Manholes
- Wet wells
- Square pump and lift stations
- Stormwater structures
- On-site treatment structures
- Junction chambers
- Grease interceptors



#### What It Is

The RFS pre-lubricated pipe and manhole gasket is an encapsulated all rubber gasket that is filled with an internal lubricant.

The unique design also helps in reducing insertion forces, virtually eliminating any twisting of the gasket or rolling out of the joint commonly found to occur in O-ring and profile gaskets.

#### **How It Works**

- Gasket is stretched over the spigot with the tube lying flat against the spigot.
- Spigot and bell are homed with little insertion force due to the internal lubricant.
- The rolling feature fills the small annular space.

## Why It's Better

- Eliminates any external lubrication on joint or aasket.
- Installs quicker by eliminating the lubrication step.
- Easier to use around job sites because dirt and debris does not adhere to the gasket because of internal lubricant.

#### Do not hang RFS gaskets from hooks or pegs in a vertical position

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## **RFS: REDUCED FRICTION SEAL** SUBMITTAL SPECIFICATIONS

- 1. A rubber gasket shall be employed in the connection of the sanitary and/or storm pipe, manhole or box culvert to ensure a watertight connection.
- The rubber gasket shall be RFS (Reduced Friction Seal) as manufactured by Press-Seal Corporation, Fort Wayne, Indiana, or approved equal.
- The rubber gasket shall be the sole element relied on to assure a flexible watertight seal and meet ASTM C433 Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets and ASTM C1619 Standard Specification for Elastomeric Seals for Joining Concrete Structures Class E.
- 4. All gaskets shall be extruded or molded in such a manner that any cross-section will be dense, homogeneous, and free of porosity, blisters, pitting, or other imperfections. The gaskets shall be fabricated from an elastomeric material meeting the appropriate classification physical property requirements in section 7. The base polymer shall be natural rubber, synthetic rubber, or a blend of both and be 100% first run material with no recycled content.
- 5. Selection of the proper size rubber gasket for the pipe joint requirement, and installation thereof, shall be in strict conformance with the recommendations of the gasket manufacturer. Any testing shall also be conducted in strict conformance with the requirements of the gasket manufacturer.

## **Product Performance**

RFS Prelubricated Pipe Gaskets meet or exceed all requirements of the following Specifications and/or Test Methods:

- ASTM C 1619 (Classes C) Standard Specification for Elastomeric Seals for Joining Concrete Structures and CSA
- ASTM C 443 Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets
- CSA A 257.3 Gaskets for Concrete Pipe



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# RFS: REDUCED FRICTION SEAL SELECTION GUIDE

Profile Designation	Body Height "A"	Body Width "B"	Total Width "C"	Annular Space	
				Gasket	Pipe
RFS-135	0.650	0.724	1.607	0.326	0.126
	(16.5 mm)	(18.4 mm)	(40.8 mm)	(8.3 mm)	(3.2 mm)
RFS-165	0.755	0.825	1.954	0.446	0.146
	(19.2 mm)	(21.0 mm)	(49.6 mm)	(11.3 mm)	(3.7 mm)
RFS-166	0.755	0.825	1.721	0.446	0.094
	(17.2 mm)	(21.0 mm)	(43.7 mm)	(11.3mm)	(2.4 mm)
RFS-175	0.685	0.743	1.288	0.446	0.146
	(17.4 mm)	(18.9 mm)	(32.7 mm)	(11.3 mm)	(3.7 mm)
RFS-185	0.798	0.938	2.110	0.446	0.146
	(20.3 mm)	(23.8 mm)	(53.6 mm)	(11.3 mm)	(3.7 mm)
RFS-186	0.780	0.959	2.161	0.446	0.094
	(19.8 mm)	(24.4 mm)	(54.9 mm)	(11.3 mm)	(2.4 mm)
RFS-200	0.825	0.960	2.130	0.500	0.146
	(21.0 mm)	(24.4 mm)	(54.1 mm)	(12.7 mm)	(3.7 mm)
RFS-225	0.960	1.047	2.770	0.525	0.175
	(24.4 mm)	(26.6 mm)	(70.4 mm)	(13.3 mm)	(4.4 mm)





**NOTE:** 

#### DIMENSIONS ARE FOR NOMINAL MATERIAL. ACTUAL MEASUREMENTS WILL VARY WITH MANUFACTURING TOLERANCES.

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## **RFS: REDUCED FRICTION SEAL** INSTALLATION INSTRUCTIONS







- Stretch RFS Gasket onto spigot of pipe, making sure that mantle is laying smoothly toward end and that gasket body is firmly against shoulder of spigot.
- 2. Center pipe spigot and bell, and evenly and smoothly press spigot into bell. Gasket mantle will help center the pipe joint as the mantle moves into clearance space.
- Complete assembly until pipe joint is home. Mantle moves into recess behind gasket, cushioning the joint while allowing joint to deflect. Complete installation by following pipe manufacturer's recommended bedding and backfilling practices.

NOTE:

We recommend equalization of the RFS gasket on round pipe and require equalization on box, arch, and elliptical pipe.



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# **RFS: BOX CULVERT GASKET** BOX CULVERT INSTALLATION INSTRUCTIONS

- 1. The box section should be handled with extreme caution to avoid chipping of the spigot and bell. Check for and remove any loose dirt, debris or foreign material form the inside surface of the bell and gasket seat area. Bug holes or chips need to be properly repaired.
- 2. The gasket splice must be first located on the gasket. The splice area is identified with a colored stripe to aid in quickly locating. It is always placed in the middle of the bottom span on a horizontal box installation and on one of the two long spans on a vertical box. Stretch RFS prelubed gasket onto spigot with gasket body firmly against single offset step.
- 3. The gasket must always be equalized by pulling towards each corner to take up the slack and create uniform tension.
- 4. Use a preferred Press-Seal supplied (red brush on, spray or high quality) adhesive **only**.
- 5. Roll the gasket back over and onto the step of spigot. Make sure not to allow the mantel/flap to come into contact with the adhesive. Apply adhesive starting at bottom span, then side spans, then top span. Do not glue the corners. Apply 1" wide (max). Be sure the entire bottom base of the gasket is glued to the concrete surface. Roll gasket back onto the step.
- 6. To prevent the bottom span from sagging, use a board across the full length against the gasket body and clamp to the spigot until the adhesive has fully set.



 DO NOT USE ANY LUBRICANT (RFS has an internal prelubricated cavity for easier installation.







## **CAUTION:**

Press-Seal believes there are risks associated with gluing the gasket on and being exposed to the elements for an extended period of time; therefore, please discuss with your territory manager before installation.

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CONCRETE PIPE, MANHOLE & BOX CULVERT GASKETS

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