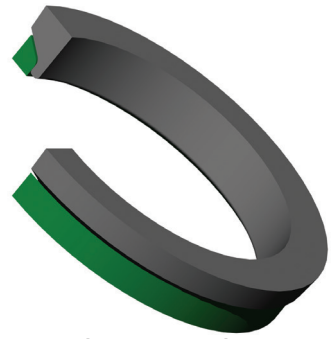
RSR™ Seal

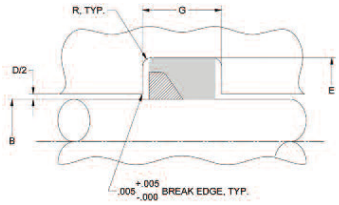
High-Pressure “Dry Rod” Seals



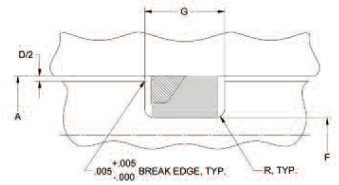
RSR™ Piston Seal

RSR™ Rod Seal

Gland Dimensions



Rod



Piston

Unique Shape Means Superior Performance

Greene Tweed’s RSR™ rod or piston seal features a specially engineered elastomer profile that provides exceptional “dry rod” sealing under dynamic conditions. The RSR’s™ endless, trapezoidal, wedge-shaped backup ring has an exceptionally wide shear section to ensure excellent resistance to extrusion. In addition, the backup ring’s shape generates a force vector under pressure, thereby eliminating the extrusion gap. The result: very low leakage and fewer sealing problems.

The RSR™ seal excels in brake applications where the trapezoidal shape provides a natural pull back on the brake piston, therefore making piston design less complicated.

Features and Benefits

- Combination of elastomer and backup ring design ensures excellent resistance to extrusion and elastomer nibbling
- Specially designed elastomer heel provides pull back in some dynamic applications, making the seal perfect for brake applications
- Provides exceptional dry rod sealing in dynamic applications, resulting in extremely tight leakage control

Applications

- High-performance utility actuators
- Door actuators
- Thrust reverser systems applications

RSR™ Configurations

RSR™ seals are available in standard, zero, one, and two backup gland sizes per MIL-G-5514/AS4716.

Contact Us

Greene Tweed
Kulpsville, PA, USA

Tel: +1.215.256.9521
Fax: +1.215.256.0189

Statements and recommendations in this publication are based on our experience and knowledge of typical applications of this product and shall not constitute a guarantee of performance nor modify or alter our standard warranty applicable to such products.

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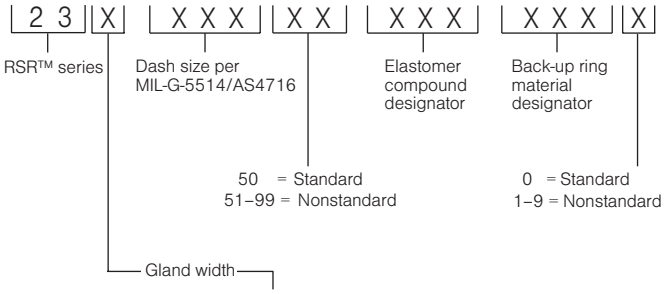
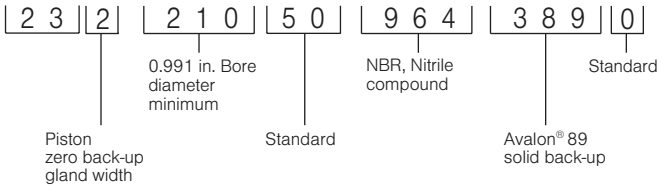
RSR™ Part Numbering System

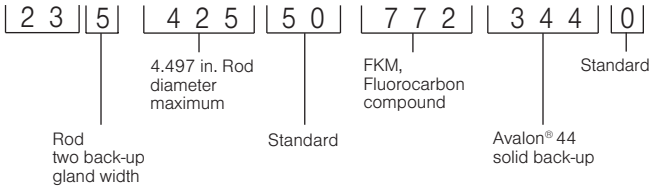
The part numbering system requires the use of the material designator tables found in the next column. For nonstandard designs, contact Greene Tweed engineering.



Rod	Piston	Gland Width
1	2	Zero back-up gland width
3	4	One back-up gland width
5	6	Two back-up gland width

Part Numbering Examples





Contact your local Greene Tweed representative for specific recommendations to suit higher performance requirements.

Material Designator Tables

Code	Elastomer Compound
160	NBR, Nitrile
161	NBR, Nitrile
410	FVMQ, Fluorosilicone
731	FKM, Fluorocarbon
772	FKM, Fluorocarbon
952	EPM, Ethylene Propylene
954	EPDM, Ethylene Propylene
964	NBR, Nitrile
965	HNBR, Hydrogenated Nitrile

Split	Solid	Back-Up Material
042	043	Avalon® 07
016	019	Avalon® 09
044	344	Avalon® 44
073	069	Avalon® 50
057	357	Avalon® 57
079	379	Avalon® 69
089	389	Avalon® 89

See Greene Tweed Surface Finish guidelines.

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