



ACGT™-HP & ACGTL™-HP RINGS

Aerospace Contoured Capped GT/Aerospace Capped GTL Seals

VERSATILE DESIGN SPANS EXTRUSION GAPS

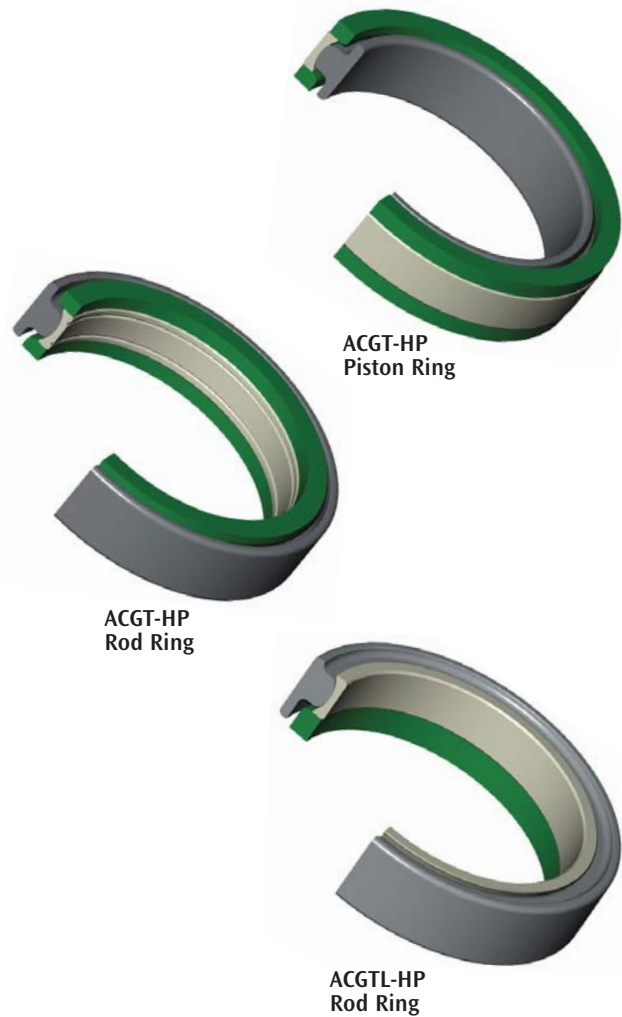
With Greene, Tweed's ACGT™-HP/ACGTL™-HP seals extrusion gaps and high pressures are no longer a challenge. The ACGT-HP is a bidirectional design while the ACGTL-HP is designed for unidirectional applications.

Both variations are extremely versatile and developed for highly efficient sealing performance in a variety of environmental conditions. They are engineered to handle a broad range of temperature extremes and fluid media, as well as larger standard clearance gaps. These geometries have been successfully tested in landing gear as well as other critical applications.

The newly designed cap-to-elastomer interface creates a larger contact area for more uniform load distribution over the entire circumferential length of the cap thus enhancing seal performance. A critical part of the seal's outstanding performance is the division of the sealing and anti-extrusion components. Because the functionality of the components is separated, material selection can be targeted specifically for particular application requirements (e.g., modulus, shear strength and friction), allowing for the optimal sealing solution to be achieved.

FEATURES & BENEFITS

- Avalon® materials in cap elements provide low friction and extend service life over elastomer contact seals such as O-rings
- Hydromechanically activated anti-extrusion rings provide effective extrusion-resistance protection in both high- and low-pressure environments resulting in longer seal life
- Designed for use in existing MIL-G5514/AS4716 glands; AS4832 are also available



APPLICATIONS

- Landing gear shock struts
- Heavy duty utility actuators
- Long stroke actuators (e.g., door actuators, retract actuators)
- Extremely long life, high-pressure systems
- Flight control actuators

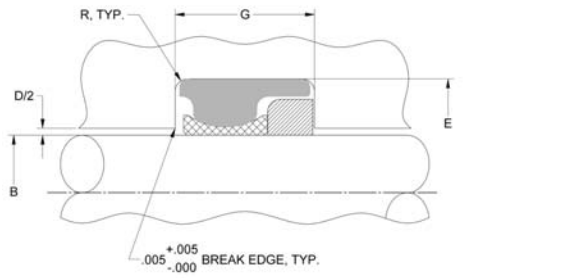


ACGTL™-HP/ACGT™-HP CONFIGURATIONS

Gland Dimensions

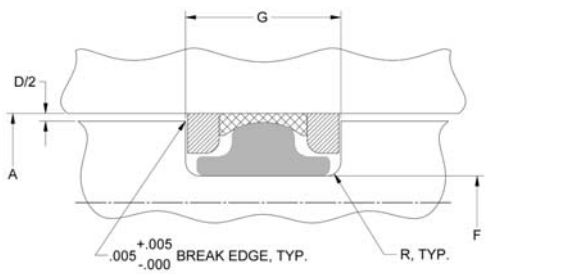
The ACGTL™-HP is a single-acting, unidirectional seal for applications such as long life/high-pressure utility and flight control actuators along with landing gear systems.

ACGTL-HP Rod



The ACGT™-HP is a double-acting, bidirectional seal especially suited to long-stroke, high-speed applications such as heavy duty utility and flight control actuators as well as landing gear systems.

ACGT-HP Piston

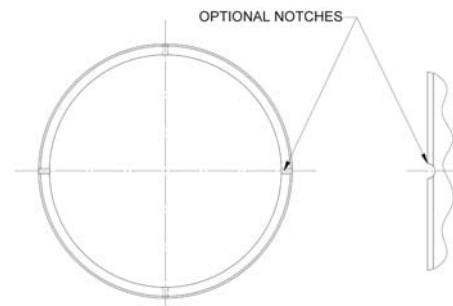


ACGTL-HP/ACGT-HP OPTIONS

Notches—Blow By Protection

Both piston and rod type ACGTL-HP/ACGT-HP rings can be supplied with notches for blow by protection, in accordance with SAE AIR 1243.

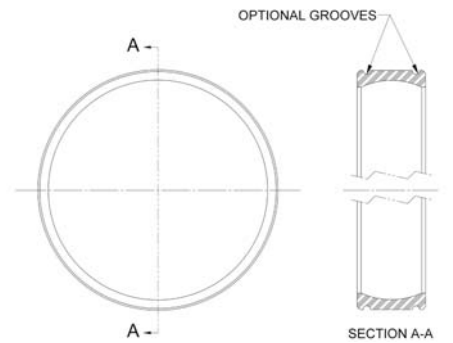
Notches



Circumferential Grooves

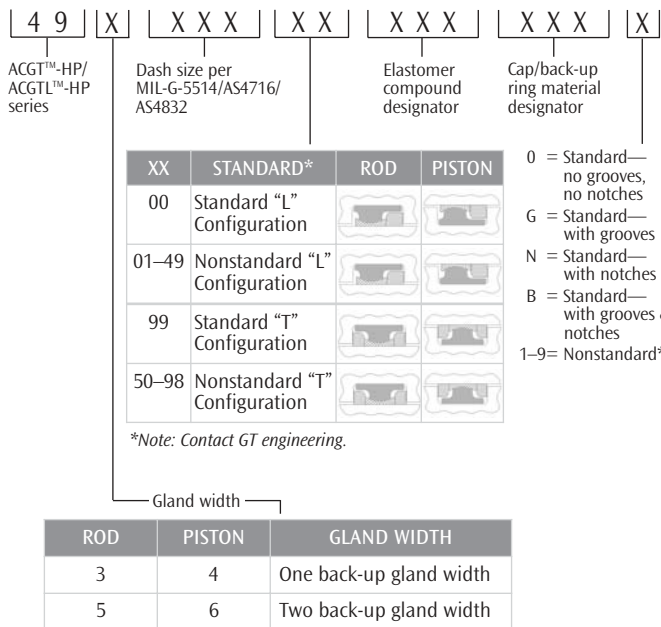
Circumferential grooves can be added to the ACGTL-HP/ACGT-HP rings to provide better dynamic sealing (except for smaller -0XX sizes). The grooves will retain lubricant that enhances start-up performance by releasing lubricant to the sliding surfaces as the surface moves.

Grooves

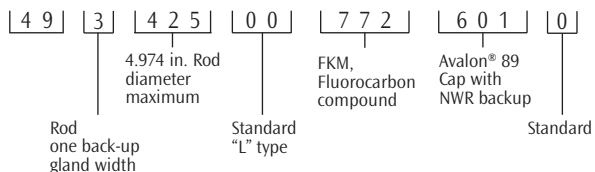


PART NUMBERING SYSTEM

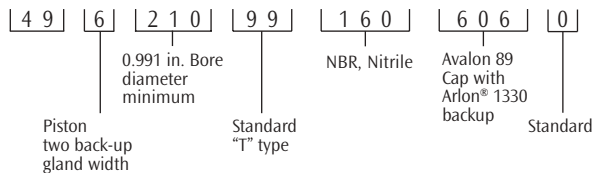
The part numbering system requires the use of the material designator tables found on the next page. For nonstandard designs contact GT engineering.



Part Numbering Examples—Rod Type ACGTL-HP



Part Numbering Examples—Piston Type ACGT-HP



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



Contact Us

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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.

Material Designator Tables

CODE	ELASTOMER COMPOUND
160	NBR, Nitrile
161	NBR, Nitrile
409	FVMQ, Fluorosilicone
731	FKM, Fluorocarbon
772	FKM, Fluorocarbon
952	EPM, Ethylene Propylene
954	EPDM, Ethylene Propylene
964	NBR, Nitrile

CODE	CAP/BACK-UP MATERIAL
116	Avalon 09 Cap/Arlon 1330 Backup
120	Avalon 09 Cap/NWR Backup
601	Avalon 89 Cap/NWR Backup
605	Avalon 50 Cap/Arlon 1330 Backup
606	Avalon 89 Cap/Arlon 1330 Backup
608	Avalon 89 Cap/Avalon 69 Backup

Note: All back-up rings are scarf cut. For solid back-up rings contact GT engineering.

See GT Surface Finish guidelines.