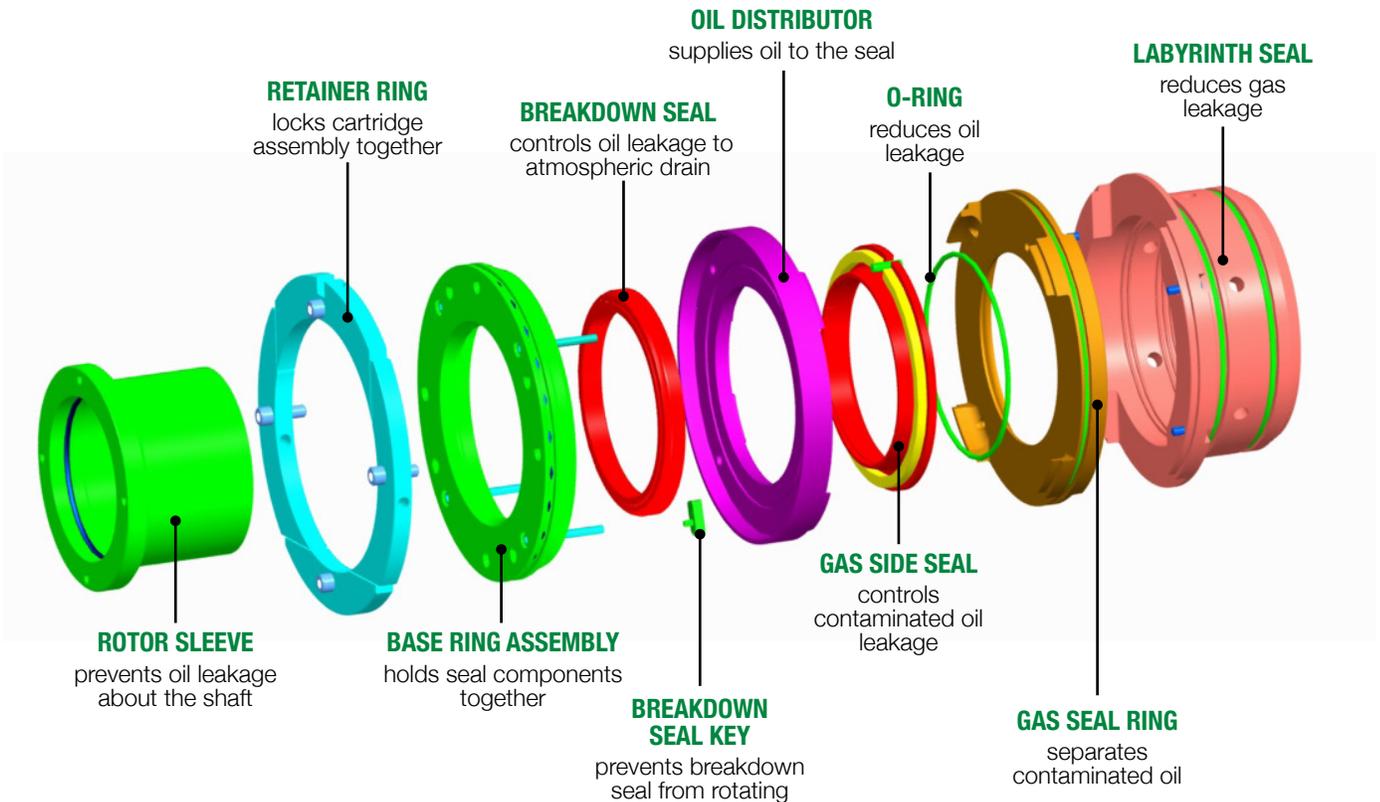




ISO-SLEEVE™ Cartridge Seal



The ISO-SLEEVE™ cartridge seal is designed for high-pressure applications (maximum 4,200 psig) where no gas leakage can be tolerated. The cartridge design reduces the time and complexity of installation and maintenance. Design features include a polyether ether ketone (PEEK) thermoplastic rub-tolerant labyrinth seal for improved chemical resistance and a gold babbitt coating on the breakdown seal and gas side seal for improved resistance to harsh sulfides and chlorides in gases.

Pressurized sealing oil is fed through the seal-oil inlet, where a portion of the oil is reduced to atmospheric pressure by a series of floating gold-plated breakdown seals. This oil is returned to the clean reservoir. The remainder of the oil is forced through the gas side seal, another gold-plated floating steel ring. This oil is discharged through the contaminated oil drain to be reclaimed or discarded.

Benefits

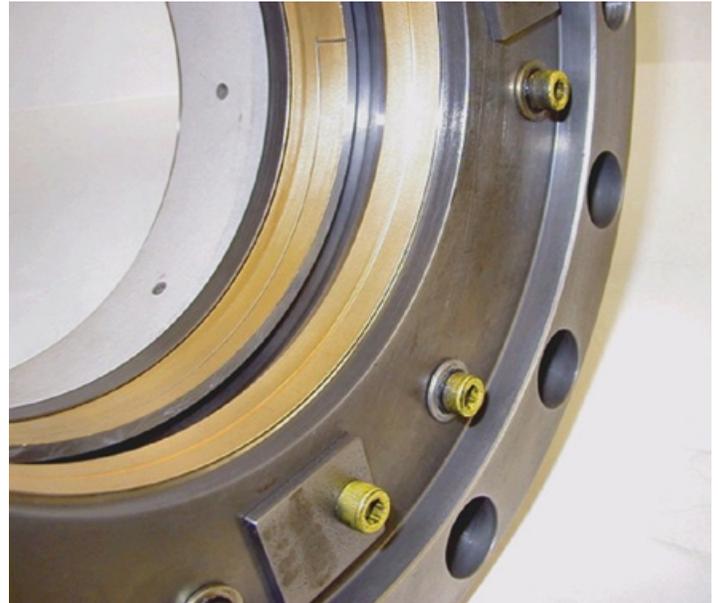
- ◆ Replaceable seal sleeve (included with the cartridge) without opening the casing and removing the rotor
- ◆ Immune to dirt or liquids in the process gas
- ◆ Allows monitoring of seal health with a sight glass and thermometer
- ◆ Provides positive damping to improve rotor dynamics
- ◆ Designed to fit the existing Elliott compressor seal cavity – rotor modifications required
- ◆ Unnecessary to vent gas to flare (requires additional modifications)

Features

- ◆ Tungsten carbide coating on the rotor sleeve to minimize wear
- ◆ Gold babbitt on the breakdown seal and gas side seal for added resistance to sulfides and chlorides
- ◆ Rub-tolerant labyrinth inboard seal made of PEEK thermoplastic for reduced buffer gas consumption and chemical resistance
- ◆ Wedge windback groove on the gas side seal to minimize contaminated oil leakage
- ◆ Optimized bushing design for improved stability

ISO-SLEEVE Cartridge Seal STANDARD Retrofit Package includes the following:

- ♦ Two cartridge ISO-SLEEVE seals
- ♦ One set of assembly / disassembly tooling
- ♦ One rotor shaft machining
- ♦ One rotor balance
- ♦ Standard Documentation Package: Revised outline drawings and updated assembly drawings and installation / removal instructions



Application	Description	ISO-CARBON® Cartridge Seal	ISO-SLEEVE™ Cartridge Seal	Dry Gas
Natural Gas	Gas cleanliness depends on where the gas is in its processing, upstream or midstream. There can be a wide range of pressures. Natural gas can be dirty and wet, but can be handled easily once purified.	✓	✓	
Wet Gas	The gas is typically dirty and close to its dew point; it can condense easily to a liquid state. Application pressures are very low. Oil seals are tolerant of dirty, hazardous gas since they use oil as a "buffer."	✓		
Hydrogen Recycle	The gas is typically dirty and close to its dew point; it can easily condense to a liquid state. Application pressures range from moderate to high. Oil seals are tolerant of dirty, hazardous gas since they use oil as a "buffer."		✓	✓*
Ethylene Refrigeration	This gas starts out as a liquid, but evaporates as it passes through an expansion valve. The vapors are then compressed for condensation. There are low inlet pressures and a high risk of product contamination. It is important to maintain a clean and oil-free process.			✓

*Often requires a booster system for startup and / or additional gas conditioning as part of the buffer gas system.



901 North Fourth Street
 Jeannette, PA 15644-1473
 Phone: 724-527-2811
 Fax: 724-600-8442
 Email: info@elliott-turbo.com
 www.elliott-turbo.com

T H E W O R L D T U R N S T O E L L I O T T



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