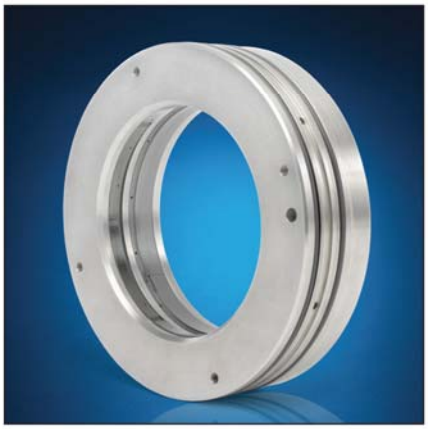
Stein Seal® Company
Film Riding Circumferential Seal (FRCS)



FRCS Seal Assembly

Exploded View

Runner

The Stein Seal Company has developed an innovative, patented, Film Riding (Dry Gas) Circumferential (Ring) Seal (FRCS). The FRCS seal utilizes carbon rings that ride on a film of gas resulting in an infinite wear life in theory. The FRCS has no carbide components to crack or shatter since the design incorporates a hard coated ductile metal runner. The FRCS design is inherently more compact than a dry gas face seal with the carbon ring having a smaller radial profile. This feature allows the FRCS to fit in a small radial and axial envelope that reduces the complexity of a retrofit labyrinth or bushing seal without modifying the compressor case. The FRCS is easily adaptable for retrofits by combining several seal rings and multiple injections of process compatible gasses and educators to complement process purity.

The FRCS provides a simpler and less expensive sealing solution because high pressure seal rings are far less complicated and less prone to problems inherent in dry gas face seal technology. The system cost is reduced since the seal is simplified and reliability increased. For low pressure applications the seal support system can be minimized or fixed to eliminate PC and FC devices dramatically reducing cost.

With over 55 years of seal design and manufacturing for the industrial and aerospace markets Stein Seal Company has the experience to solve your sealing problems. Stein Seal provides sealing solutions to meet customer needs. To discuss a specific application or for more information please contact the Stein Seal Company directly.

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Film Riding Circumferential Seal (FRCS)

Performance Capabilities:

Pressures: In excess of 300 PSIG (21 BARG)

Temperature: -4°F to 600°F (-20°C to 315°C)

Speed: Up to 330 FPS (100 MPS)

Shaft Size: Up to 12 in. (305 mm)

Features:

Provides longer seal life

Reduces cost

No dynamic secondary seals to harden or experience explosive decompression

Reduces thrust loads on overhung compressors

For either primary seal or high pressure barrier seal application

Reduces contamination issues

Reduces bearing span and rotor weight

Reduces influence on rotor dynamics

All specifications, instrumentation and capabilities subject to change without notice.

For More Information Contact:

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