

Howden's revolutionary shaft seals

Ensuring longevity for your screw compressor



40,000
screw compressor
installed base



160+
years of OEM
expertise



40,000
hours of compressor
run time



100+
countries



6000+
employees

As an Original Equipment Manufacturer (OEM), Howden, a Chart Industries Company, provides a lifelong aftercare service, from supplying original spare parts to providing expert maintenance services and engineering trouble-shooting, all backed by comprehensive records.

OEM certified spares are the only way to maintain original levels of efficiency, performance and reliability

The Howden KSN screw compressor seal is the most significant product improvement we have made in the last decade. As part of our continuous improvement strategy, a design review was carried out.

The review focussed on the seal drive arrangement and seal face geometry. Vigorous in-house testing program commenced to pressurise the seals well in excess of normal site duty conditions. The KSN shaft seal is a combination of new materials and design characteristics being applied to our existing seal arrangement and is totally interchangeable with previously installed seals. The seals are produced and manufactured globally.

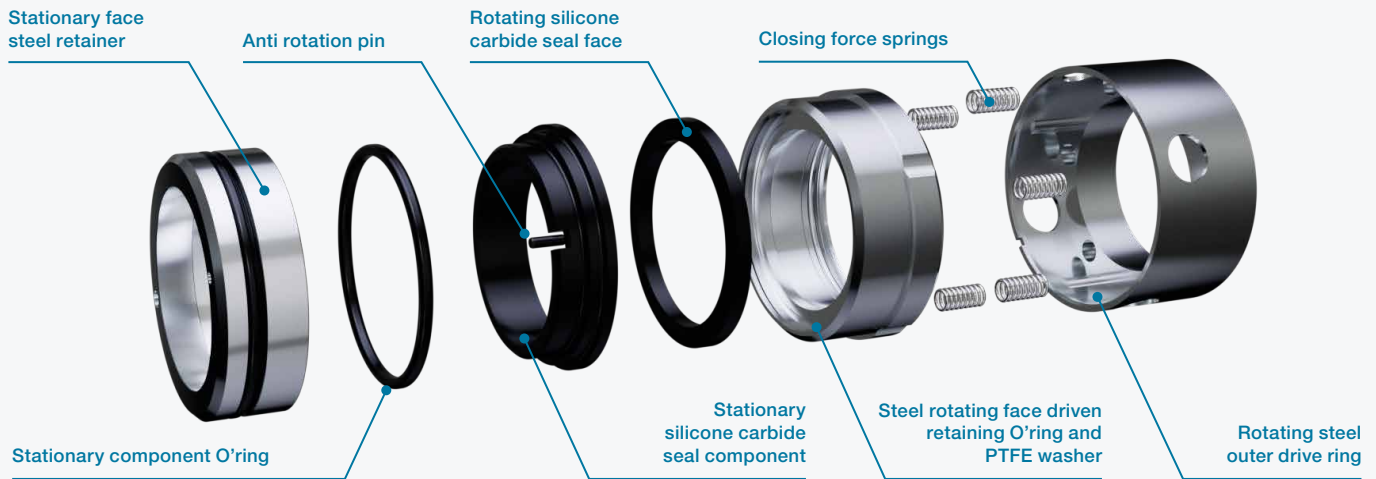
The KSN design is readily available on the Howden WRV and XRV compressors types.

Howden now have over five years of field proven KSN seals, which increases the unit performance and reliability. Screw compressors with the KSN seal design can achieve a run time of more than 40,000 hours - saving our customers money and reducing unscheduled downtime.

The improved seal design has resulted in no leakages being reported and operational feedback continues to be exceptional.

The design changes relate to the main seal face drive now being transmitted via steel components to reduce component wear, and improved seal face flatness to improve fluid film retention.

These improvements combined with the design features have resulted in a seal that operates incident free for a minimum of two years, and with proper operation, inspection and maintenance will last much longer.



Seal features

Silicon Carbide Material faces providing:

– Avoidance of face blistering | Improved wear resistance | Greater temperature range

Steel retention components on both sealing faces to reduce drive wear with outer retainer

Balanced spring forces to ensure correct closing pressures

Direct drive from compressor component (no shaft drive contact)

Stationary seat O-ring cushioned for greater alignment flexibility

Perfluoroelastomer O-rings (FFKM) fitted to 163 and 204 shaft seals



Key benefits

Reduced maintenance costs – Longer seal life

Improved reliability – Reduced unplanned maintenance

Environmentally friendly – No leakage of harmful gases



To ensure the seals are easily identifiable we have changed the part number prefix to KSN from KS, the part numbers for standard seals are:

WRV and XRV 163 models (All Marks) = KSN163

WRV204 (Marks 1 to 4) = KSN204-2/3/4

WRV204 (Mark 5) = KSN204-5

WRV204 (Mark 6) and XRV204 (All marks) = KSN204

WRV255 (Marks 1 to 5) = KSN255-4

WRV255 (Mark 6) = KSN255-6

WRV321 (Marks 1 to 5) = KSN321-4

WRV321 (Mark 6) = KSN321-6

WRV365 (All Marks) = KSN365

Seal fitting procedures are available and supplied with each spare seal, as well as bespoke seal fitting training which can also be offered upon request.

For further information contact our team today:

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Howden
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