Brush Seals:
A Proven Enhancer to Labyrinth Seal Performance

Reduce leakage and increase efficiency with the patented* brush seal design from Waukesha Bearings®.

Used in a wide variety of industrial gas turbines, steam turbines and compressors, brush seals can reduce leakage by up to 80%. The seal’s flexible, densely packed bristles bend with rotor contact to follow shaft movement with little wear and low, predictable leakage over time.

For a high-quality, long-lasting seal, rely on the experience and design expertise of Waukesha Bearings. Efficiency gains coupled with a replaceable bristle pack provide valuable savings for your critical sealing needs.

*US Patent 6,231,047

ADVANTAGES

- Proven performance
- Low-profile design
- Replaceable bristle pack
- Easy installation
- Flexible sizing
- Modular assemblies
- Labyrinth augmentation
- Custom and reverse engineering
- Quick turnaround times
BRUSH SEAL EXPERTISE

Our brush seals originated in the aerospace industry with a major brush seal innovator. Since 2008, we have built upon that innovator’s proven, high-quality product, manufacturing methods and engineering know-how to serve the needs of industrial markets around the globe.

With a growing installation list of more than 1,600 units, our brush seals are continually chosen for demanding applications.

IDEAL APPLICATIONS

- **Industrial gas turbines**: Bearing, high pressure packing (HPP) and interstage sealing
- **Steam turbines**: Low pressure (LP), intermediate pressure (IP) and high pressure (HP) packing, interstage and tip sealing
- **Compressors**: Impeller eye, interstage and balance piston sealing
- **Turbomachinery utilizing active magnetic bearing systems**

CAPABILITIES

- **Pressure**: Up to 300 psid (20 bar) per row
- **Temperature**: Up to 650°C (1,200°F)
- **Surface speed**: Up to 335 m/s (1,100 ft/sec)
- **Environments**: Air, steam, gas, refrigerants
- **Housing**: Stainless steel, Inconel, others
- **Bristles**: Haynes 25
- **Diameter**: 19 mm (0.75") to 3050 mm (120") and higher
- **Configurations**: Solid ring, split ring, segmented, cartridge, linear strip

LEAKAGE COMPARISON

Brush seals can reduce leakage by up to 80%.