BCD sealing ring
Sealing standards redefined
Production processes are networks. Success requires that people and machines work together in unison.

Anyone who is integrated into the day-to-day production process interacts with technology, knows the pulse of the machines, their language, as well as their requirements and needs. Products made by HOERBIGER are more than state-of-the-art. As a HOERBIGER customer, you have the technological edge that allows you to always stay several steps ahead of the market. Efficiency, precision and durability are a part of HOERBIGER products, just as reliability and flexibility are hallmarks of HOERBIGER services. HOERBIGER Experience is the ideal approach when it comes to a reliable, long-lasting partnership on an equal footing.
Long service life with minimal leakage

The innovative segment structure of BCD sealing rings is sleeker than conventional designs, allowing shorter cylinders and smaller compressors. This brings many advantages: The design saves both materials and space.

Friction, and hence energy dissipation, of the single BCD ring is considerably lower than for designs featuring multiple rings. The segmented configuration ensures excellent sealing and long service life. BCD rings run for longer between maintenance intervals, and downtime due to premature wear is eliminated.

This is how the BCD rings works

- The BCD ring rings seals the piston rod of a double-acting cylinder to avoid gas leaks.
- The Balanced Cap Design (BCD) uses a pressure balancing grove to reduce the contact force.
- Combining two rings into one eliminates the peg and the reliability problems associated with traditional two-ring designs.

Why HOERBIGER BCD sealing rings?

- Significantly reduced leakage: boosts efficiency and promotes the protection of the environment.
- Low frictional resistance: saves energy and eliminates the need for water cooling.
- Reduced wear: increases reliability and service life.
- Sleek design: allows shorter compressors.
- Ring replacement without piston removal: simplifies maintenance.

1. Sealing in radial and axial direction by “cap” elements
2. Major contribution to sealing against rod by primary segments which also compensate wear
The advantages of the BCD ring at a glance:

- Reduced packing length enables compressor designs with smaller cylinder length and thus lower production costs
- BCD rings enable less complex packings without water cooling
- Highest sealing efficiency, with 70% leakage reduction
- Helps operators meeting stringent emission standards and reduce gas losses
- Lower friction reduces packing box power losses by up to 50% and enables the piston to run cooler and longer
- Reduce the risk of unforeseen maintenance interventions (in hazardous areas) and unplanned production stops
- Highest quality standards in manufacturing and leakage prevention

Based on the long history and expertise, HOERBIGER provides unmatched engineering support worldwide.

Technical data of the BCD ring

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
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<tbody>
<tr>
<td>Piston rod diameter:</td>
<td>20 mm (0.78 inches) to 140 mm (5.51 inches)</td>
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<tr>
<td>Pressure range:</td>
<td>3 – 250 bar</td>
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<tr>
<td>Available material grades:</td>
<td>All HY material grades available</td>
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<tr>
<td>Fields of application (extract):</td>
<td></td>
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<tr>
<td>Process gas:</td>
<td>Refining, Petrochemical industry, Chemical industry</td>
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<tr>
<td>Oil and gas:</td>
<td>Gas lift and re-injection, Gas storage, LNG Terminal, Gas gathering, Gas transportation, CNG</td>
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<tr>
<td>Industrial gases:</td>
<td>Syngas (Hydrogen, Carbon Oxide), Air separation (Oxygen, Nitrogen), Specific gases (Argon, Helium,…)</td>
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<tr>
<td>Food industry:</td>
<td>PET bottle-blowing, Industrial air</td>
</tr>
<tr>
<td>Power generation:</td>
<td>Cogeneration, Combined heat and power plant, Biogas</td>
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HOERBIGER is active throughout the world as a leading player in the fields of compression technology, drive technology and hydraulics. In 2017, its 7,300 employees achieved sales of 1.173 billion euros. The HOERBIGER brand is synonymous with components and services providing high customer value in compressors, industrial engines and turbines, automotive drivetrains, and multifaceted mechanical engineering applications. HOERBIGER industrial safety and explosion mitigation solutions save lives and equipment. We set standards.

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