

## TECHNICAL INFORMATION

# Static Seals | Rectangular back-up ring Internal Sealing type, uncut (BU) and cut (BG)

### Description

Back-up rings have no intended sealing function. Instead, as their name indicates, they are protective and supporting elements made from extrusion-resistant materials which generally have a rectangular cross-section. They are installed in a groove together with an elastomer sealing element, preferably with a corresponding O-ring in static applications.

Due to the tight fit of the Back-up ring in the housing, they prevent extrusion of the pressurized elastomeric sealing element into the sealing gap.

Typical application examples are: injection moulding machines, machine tools, presses, excavators, agricultural machines and valves for hydraulic circuits.

Type BU has a rectangular cross-section and is made of PTFE. It's used both static and dynamic and reciprocating and rotating movements are both possible.

On top of the BU features the BG type has a cut angle of 30° or 45° and is preferred for installations in a closed grooves where uncut back-up rings are not suitable.

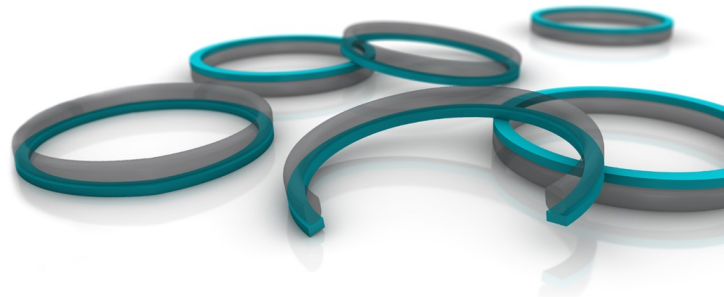
### Advantages

- Use of O-rings in high-pressure applications
- Use of O-ring materials with a low hardness
- Compensation of radial sealing gaps
- Use for internal and external sealing applications
- Reciprocating and rotating movement possible
- Compensation for large temperature fluctuations
- Static and dynamic applications



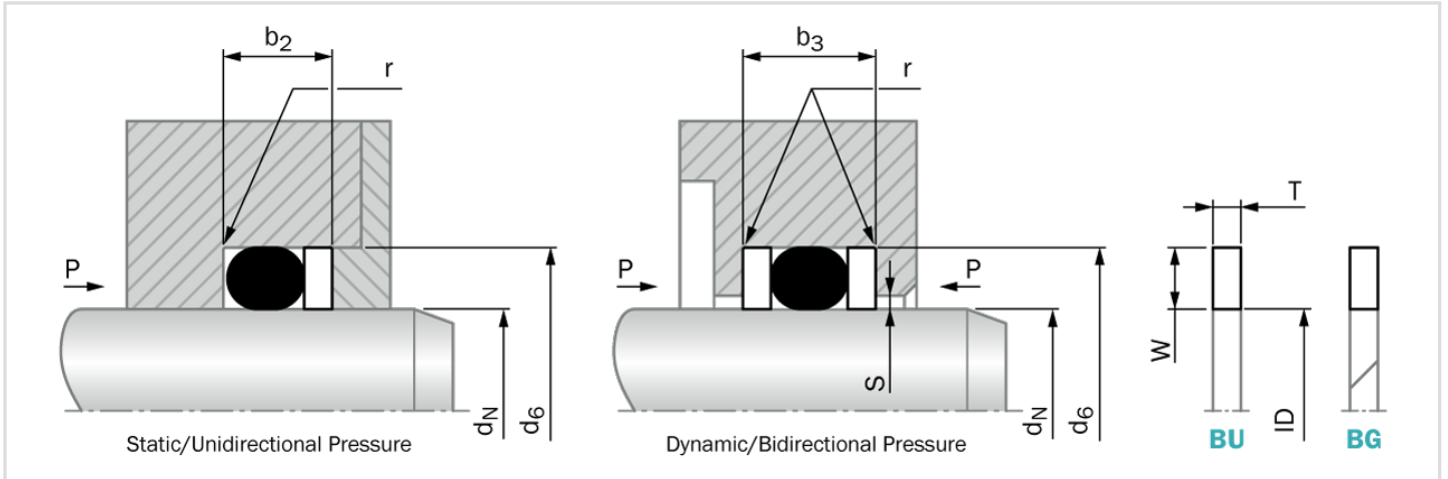
### Technical Data

Static applications	: Up to approximately 250 MPa (depending on back-up ring material and sealing gap)
Dynamic applications	: Reciprocating up to approximately 40 MPa Oscillating / slowly rotating up to approximately 15 MPa
Speed	: Reciprocating or rotating up to approximately 2 m/s (depending on the material)
Temperature	: -200 °C to +260 °C (depending on the material)



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### Important Note

Installation suggestions, material recommendations, parameters and further data provided are always subject to the particular field of use and the application in which the seal is intended to be used, in particular the interaction of the seal with other components of the application. Therefore they neither constitute an agreement on the legal and factual nature nor a guarantee of quality. Technical changes and errors remain reserved.