



### Product Description

1. Balanced
2. Cartridge design
3. Dependent of direction of rotation
4. Integrated pumping device
5. Multiple springs
6. Single seal
7. Stationary spring loaded unit
8. Shrink-fitted seal face

### Technical Features

1. Deformation-optimized seal for highest pressure levels
2. Economical due to standardized inner components
3. High flexibility due to adaption of the connection parts to the pump seal chamber
4. Insensitive to shaft deflections due to stationary design
5. Optimum heat dissipation due to integrated pumping device and optimized seat design
6. Only small number of components
7. Pre-assembled unit for quick and easy installation

### Typical Industrial Applications

Amines  
 Caustic soda  
 Chemical industry  
 Crude oil  
 Crystallizing media  
 Crude oil feed pumps  
 Hot water  
 Injection pumps  
 Multi-phase pumps  
 Oil and gas industry  
 Process water  
 Refining technology  
 Sour water

### Performance Capabilities

Sizes:  $d1^* =$  Upto 250 mm (Upto 10.000")  
 Pressure:  $p_1 = 150$  bar (2, 175 PSI)  
 Temperature:  $t = 300^\circ\text{C}$  (572°F)  
 Speed = 60 m/s (197 ft/s)  
 Permissible axial movement:  $\pm 3$  mm

### Standards

API 682 / ISO 21049

### Materials

Seal face: SiC-C-Si silicon impregnated carbon (Q3), Carbon graphite antimony impregnated (A)  
 Seat: Silicon carbide (Q)  
 Secondary seals: FKM (V), EPDM (E), FFKM (K)  
 Springs: Hastelloy® C-4 (M)  
 Metal parts: CrNiMo steel (G), Duplex (G1), Super Duplex (G4), Titanium (T2), Hastelloy® C-4 (M)

### Design Variations

**BB10HD-FV** Same design as BB10HD-PV but with pumping screw

# Serie BB10HD-PV / BB10HD-FV