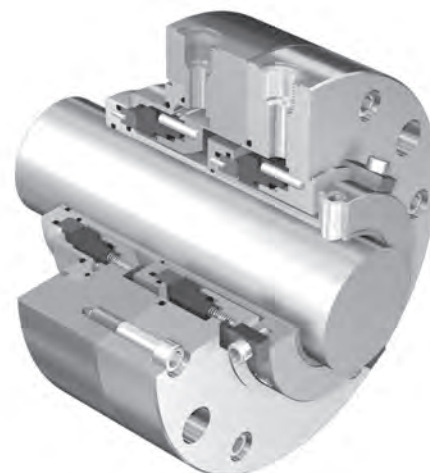
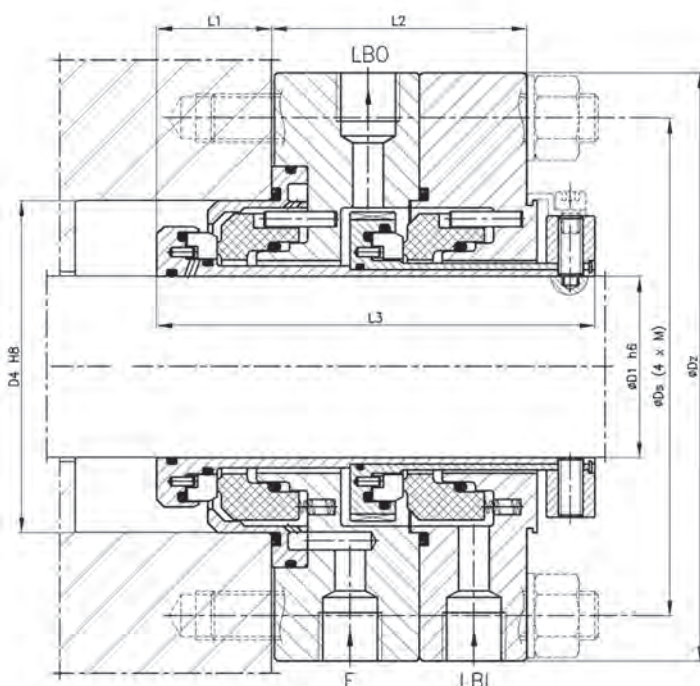


- Double compact (cartridge) mechanical seal
- Multi-spring, balanced, dependent on the direction of shaft rotation
- Design according to EN ISO 21049 (API 682): type A, category 2 or 3, arrangement 2 or 3, configuration 2CW-CW or 3CW-FB

Operating limits*		
Speed	$v_{max}$	15 m/s
Temperature*		Pressure
$t_{max} = -40 \div 80 \text{ } ^\circ\text{C}$		$p_{max} = 3.5 \text{ MPa}$
$t_{max} = 80 \div 130 \text{ } ^\circ\text{C}$		$p_{max} = 3.1 \text{ MPa}$
$t_{max} = 130 \div 180 \text{ } ^\circ\text{C}$		$p_{max} = 2.8 \text{ MPa}$
$t_{max} = 180 \div 250 \text{ } ^\circ\text{C}$		$p_{max} = 2.2 \text{ MPa}$

\* - see note on page 3.



## Features

- compact construction, it fits also into smaller pump stuffing boxes
- high operating safety, the seal eliminates explosion hazards by having a tandem seal arrangement what restricts the emission of volatile substances into the atmosphere
- high resistance to deformation that could be caused by high pressure and high temperature, greater sealing ring durability thanks to additional cooling
- forced circulation of quench (cooling) fluid in accordance with API 682 Plan 54
- low friction due to the optimal form of main sealing rings
- possibility to monitor the seals working conditions by quench fluid control
- the seal connections enable to build the working arrangements with auxiliary installations according to API 682 Plan 11/52, 11/53, 12/52, 12/53
- the pump does not stop working also after a failure of the main seal
- easy assembly and disassembly of the mechanical seal

## Application

BPD is a universal mechanical seal designed especially for pump installations for the fluid hydrocarbons with small density and high pressure occurring in the refineries, in the petrochemical and chemical industries. This mechanical seal is intended for the following mediums: propane-butane, ethanol, acetone, cumene, ethylenic hydrocarbons (olefins  $C_nH_{2n}$ ), with high purity and having no abrasive particles.

The mechanical seal BPD can seal also pure chemical substances, some organic acids and heavy hydrocarbons.

The mechanical seals type BPD eliminate hazardous emissions of process medium into the atmosphere by using a tandem seal arrangement according to API 682 type 2 with cooling – separating installation and quench thermosiphon vessel.

## Materials

Part	Code
Rotating ring	A, Q, U
Stationary ring	Q, U
Secondary, flexible seals	E, V, K
Spring	M
Other metal parts	G, M

## Dimensions (mm)

D1	D4	Ds	Dz	L1	L2	L3	M
40	90	125	160	38	76,5	135	12
50	100	140	180	38	84,5	145	16
60	120	160	200	38	84,5	145	16
70	130	170	210	38	84,5	145	16
80	140	180	220	38	84,5	145	16
90	160	205	245	38	84,5	145	20
100	170	215	255	40	84,5	150	20
110	180	225	265	40	84,5	150	20

Other dimensions are available as an option. Please contact ANGA.