

**BEDU**  
≡ POMPEN ≡

**EN 22858 RD - RG**  
**EN 25199**



closed and open impeller

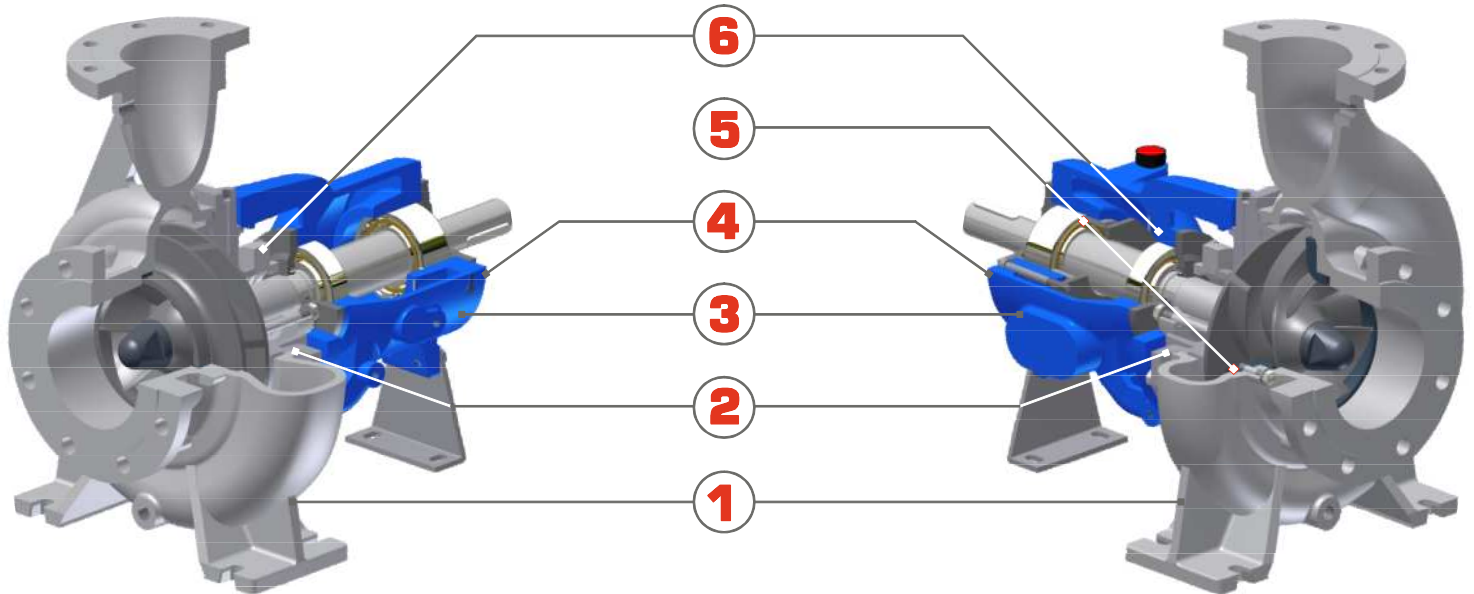
**made for your process**



## RD



## RG

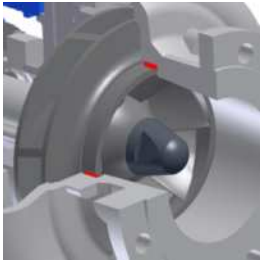


This range includes centrifugal pumps with closed impeller [RD] type and open impeller [RG] type, both unified with the hydraulic part according to the EN 22858 chemical rule and the mechanical one according to EN 25199 , which defines the max. shaft deflection, mechanical resistance and ball bearings' minimum life. The main aspects of this series are mechanical parts modularity, interchangeability, wide sealing systems' choice, but also hydraulic design interchangeability (open and closed impellers mounted on the same pump casing ) and low NPSH values. This allows to use these pumps from the easiest applications with aggressive liquids to the most difficult applications with suspended solids, high temperatures, high viscosity and specific gravity. Max. operating pressure is 16BAR, but it can reach 20 BAR, when used for not aggressive liquids.

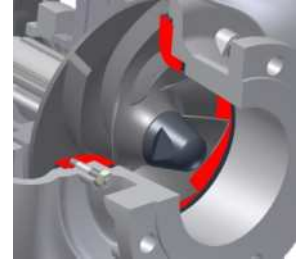


- RULES: EN 22858 - 25199 - PN 16
- MODULARITY: 3 bearing housing- shaft groups for 35 sizes.
- EFFICIENCY:
  - ↳ investment casting impellers for high efficiency.
  - ↳ open impellers have efficiency similar to closed impellers.
- FLEXIBILITY: 2 impeller types can be installed in the same casing and 14 different seals systems can be fitted in the same casing cover.
- USE: closed impellers for clean liquids, open impellers for not abrasive solids, liquids with dissolved gases and critical suction conditions.
- MATERIALS:
  - ↳ standard is AISI 316 with sleeve and seal seat in AISI 316L
  - ↳ DUPLEX with parts in SAF 2205)
  - ↳ SUPERDUPLEX with parts in SAF 2507)
  - ↳ AISI 304 L
  - ↳ AISI 904L
  - ↳ SANICRO 28
  - ↳ HASTELLOY B and C
  - ↳ CAGNM wear resistant material, 400 Brinnel hardness
  - ↳ Further ALLOYS on demand

## 1 CASING, 2 impellers



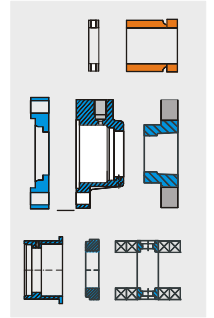
**ONLY ONE CASING EVERY SIZE.** It can be used both for closed impeller (with wearing ring) and open impeller (with replaceable wearing plate): just with a few changes the pump can be adapted to new plant and process requirements.



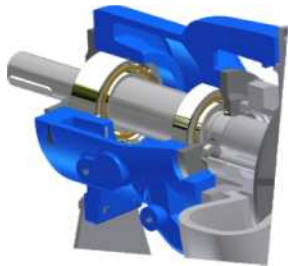
## 2 CASING COVER, 14 seal systems



**ONLY ONE CASING COVER FOR EVERY SIZE.** It can fit every seal type, brand and seal arrangement ( see section 6). The seal chamber, which is cylindrical, has diameters bigger than those suggested by the rule, to grant the best circulation of liquid. Different seal seat types can be obtained using few components, so it is always possible to change from an execution to another one: for example from single mechanical seal to double mechanical seal or packing-gland or cartridge, just replacing some components. In this way it is easy to modify the pump for new plant requirements in a fast and cheap way. Besides, this modular system allows to have in stock only few spares to cover the whole pump range.



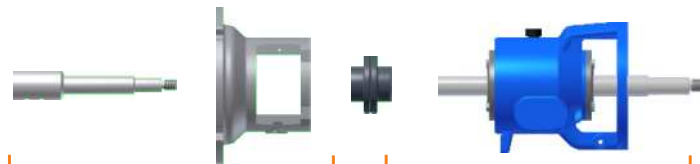
## 3 HEAVY DUTY BEARING



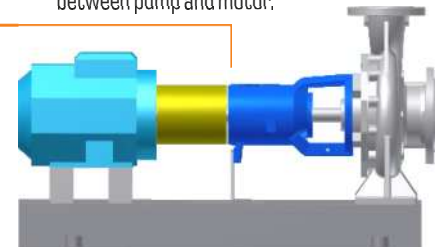
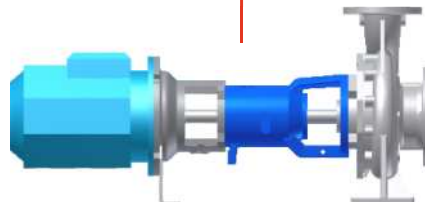
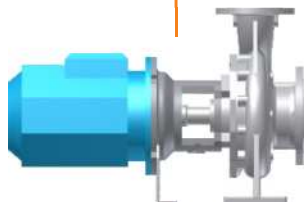
**A UNIFIED BEARING HOUSING:** The same bearing housing can be used for pumps with closed, open, channel, vortex impellers. Building according to EN 25199, which ensures shaft deflection < 0,05 mm and min. 18.000 operation hours , has been designed also to balance axial and radial loads, to reduce working temperatures. Bearing housings are suitable to seat the heavy duty execution called «HD1» with ball bearings series 7000, combined with roller bearings. The series also include bigger bearing housings to work up to 100.000 hours.

## ISO 5199 - EN 25199

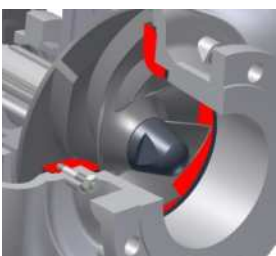
## 4 MODULAR EXECUTION



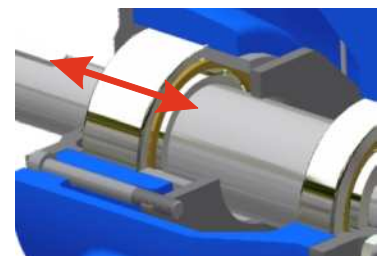
**EASY MAINTENANCE:** to build the whole pumps range (close-coupled, lantern bracket and on base plate execution) are necessary just 3 bearing housings and 6 lanterns . Oversized base-plates grant high stability; the lantern bracket execution avoids problems related to misalignment between pump and motor.



## 5 WEARING PLATE AND ADJUSTMENT



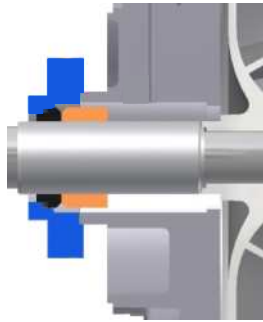
**THE REPLACEABLE WEARINGPLATE** ensures long lasting to the pump and reduces maintenance costs. Furthermore bearing housing allows **AXIAL CLEARANCES ADJUSTMENT** operating by drive side.



# 6 SEALS: one chamber, all seal systems

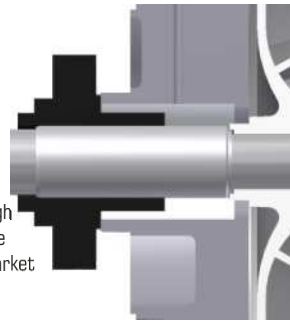
## M single seal - standard

Self lubricated single mechanical seal



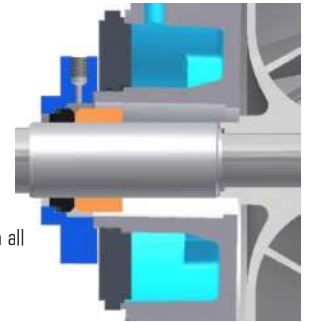
## K cartridge seal

Standard seal chamber is big enough to seat almost all the cartridges on the market



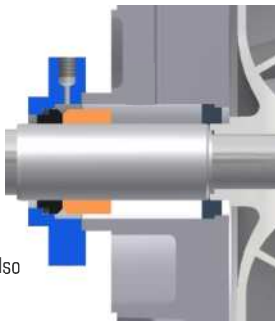
## H heating / cooling chamber

The heating or cooling chamber can be easily installed on all RD-RG pumps



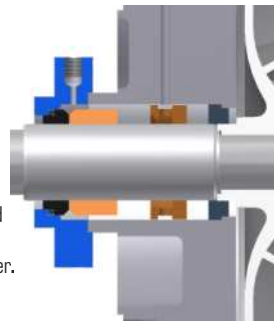
## A single seal + bottom ring

To use combined with PLAN 11 from the discharge or PLAN 32 from external circuit. Also available «E» execution without bottom ring.



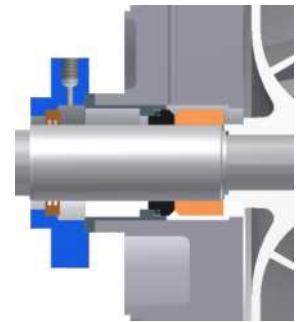
## T single seal + pumping ring + bottom ring

To use with hot or over-heated liquids and in combination with external heat exchanger. PLAN 23



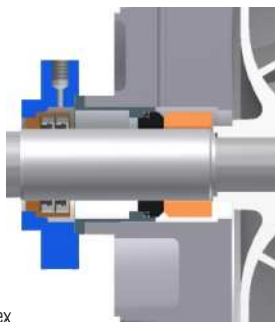
## Q single seal + quench

Quench mainly used for steam barrier



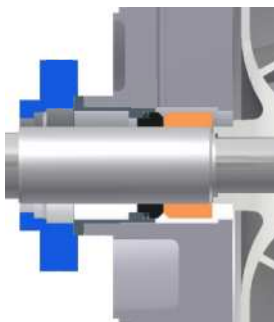
## W single seal + self lubric. lip seal quench

combined seal, for dry running without auxiliary liquids or for discontinuous flushing. Safety barrier for hazardous liquids or Atex zones.



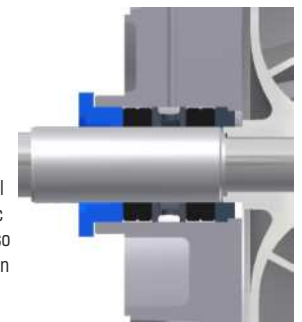
## U single seal close to the impeller

Single seal for dirty or viscous liquids. its position, close to the impeller, facilitates lubrication.



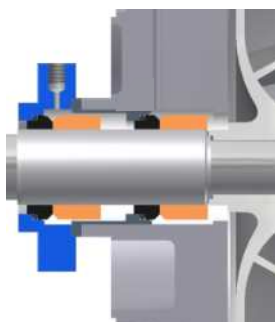
## S gland packing with hydraulic barrier

gland packing seal with barrier hydraulic ring and flushing. Also available «B» execution without ring.



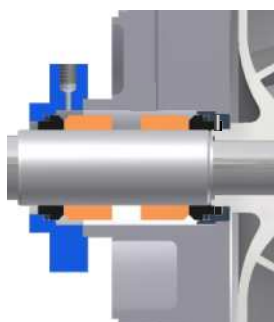
## L double tandem mechanical seal

double tandem mechanical seal. PLAN 52. Also available washing connection for the pump side seal.



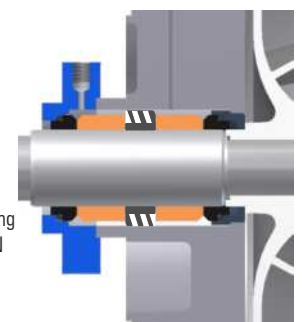
## C double back to back mechanical seal

double back to back seal. PLAN 53 - PLAN 54



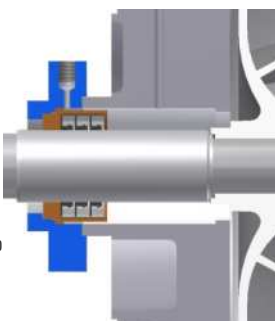
## P double back to back seal + pumping ring

double back to back seal with pumping ring. PLAN 53 - PLAN 54



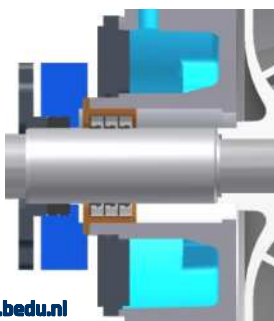
## V self lubricated lip seal

self-lubricated seal rings suitable for clean and viscous liquids. Also available on ceramized shaft sleeve.



## J lip seal + quench + heating chamb.

as «V» type, but with safety gland packing quench and heating chamber.



## + Vessels, self cooled system etc...







The logo for BEDU POMPEN is centered in a white square. It features the word "BEDU" in a large, bold, white sans-serif font. Below it, the word "POMPEN" is written in a smaller, white sans-serif font, flanked by two horizontal lines on each side.

**BEDU**  
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## made for your process

- Expert advice
- A customer-oriented organization that adapts to the requirements and wishes of your organization
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- Breakdownservice, 24 hours a day, 7 days a week
- Technical service with extensive test facilities, working from our own workplace or at your location
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- Repair, maintenance and revision

BEDU POMPEN B.V.  
Poort van Midden Gelderland Rood 10  
6666 LT HETEREN  
Nederland  
Telefoon +31 (0)88 4802 900  
E-mail [sales@bedu.eu](mailto:sales@bedu.eu)

[WWW.BEDU.NL](http://WWW.BEDU.NL)

BEDU BELGIUM B.V.B.A.  
Industriepark-West 75  
9100 SINT-NIKLAAS  
België  
Telefoon +32 (0)3 80 87 980  
E-mail [sales@bedu.eu](mailto:sales@bedu.eu)

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