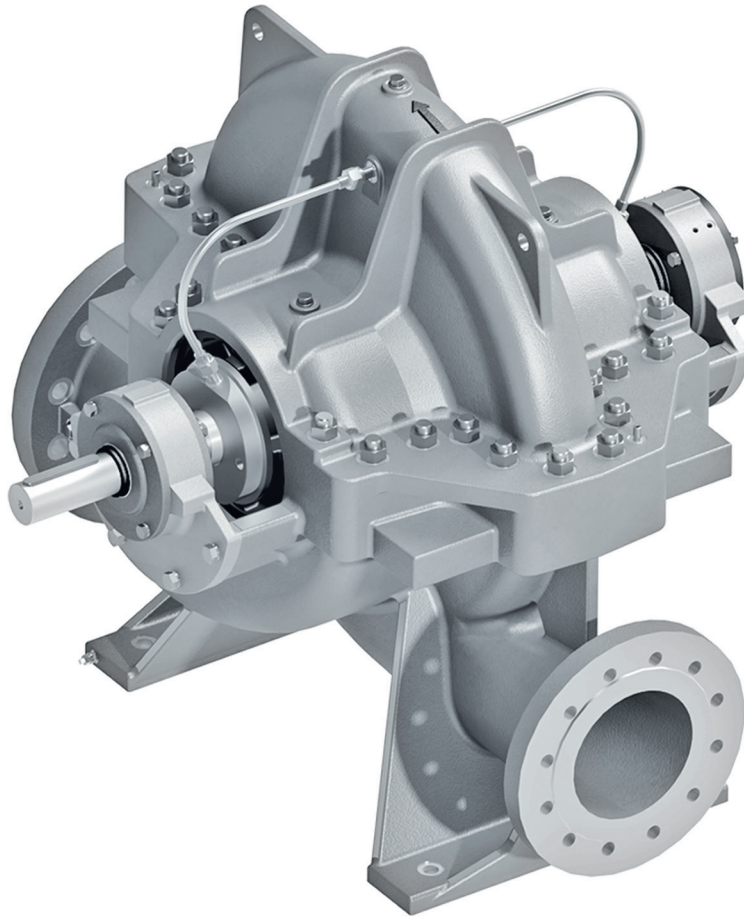


AXIALLY SPLIT, ONE-STAGE, BETWEEN-BEARINGS PUMPS

50/60 Hz



- High reliability and efficiency
- Wide range of material options
- Excellent suction capability due to low NPSH
- Simple installation and maintenance

Range of Applications

Over 45 models range and a variety of applicable materials in a combination with at least two interchangeable impellers available for one casing size allow application of the ZMD pumps in a wide range of industries:

- Oil & Gas
- Chemical & Petrochemical Industry
- Nuclear & Thermal Power
- Water Supply & Treatment
- Agriculture & Irrigation
- Firefighting, Desalination, Shipbuilding

Design

- New series of the single-stage pumps with axially split volute casing and double-suction radial impeller
- Designed by the latest requirements to energy consumption and reliability
- Hydraulics is engineered using contemporary 3D modeling methods
- High degree of unification of the main parts for different pump models reduces significantly the cost of their maintenance
- ZMDV – as vertical standard option possible. Vertical installation also protects the electric motor in the event of accidental flooding the machinery room
- The ZMD pumps can operate in parallel installation and with variable speed drives

Shaft Seal

Application of gland seal, single and double mechanical seal of a standard cartridge type design is equally possible.

Designation

Pump installation: **ZMD V-250 / 660 A - G/B - MS - G**

ZMD – Horizontal;
ZMD V – Vertical

Discharge nozzle diameter, mm

Impeller diameter (rounded), mm

Type of impeller (A, B)

Casing / Impeller materials

Type of shaft sealing
(MS – single acting mechanical seal,
DMS – double acting mechanical seal,
GS – gland sealing)

Type of bearing lubrication (G – grease, OB – oil bath)

Operating Data

- Nozzle size (mm) from 125 to 800 mm
- Capacity from 80 up to 10 000 m³/h
- Head from 5 up to 200 m
- Pressure design up to 25 bar
- Speed up to 3000 rpm
- Operating temperature up to 150 °C

Materials

Pumped media	Casing and impeller materials	Sealing type
Water and similar liquids temperature: + 1 ... + 105 °C, up to +150 °C optionally	Cast Iron, Ductile Cast Iron Carbon Steel, Stainless Steel	Gland seal, Single mechanical seal
Oil & petroleum products temperature: + 1 ... + 105 °C density: 700 ... 1050 kg/m ³ viscosity: 300 cSt	Carbon Steel, Stainless Steel, Duplex Stainless Steel	Single mechanical seal, Double mechanical seal of a cartridge type
Chemically active liquids pH: 1 ... 11 temperature: + 1 ... + 85 °C	Stainless Steel, Duplex Stainless Steel	Single mechanical seal, Double mechanical seal of a cartridge type

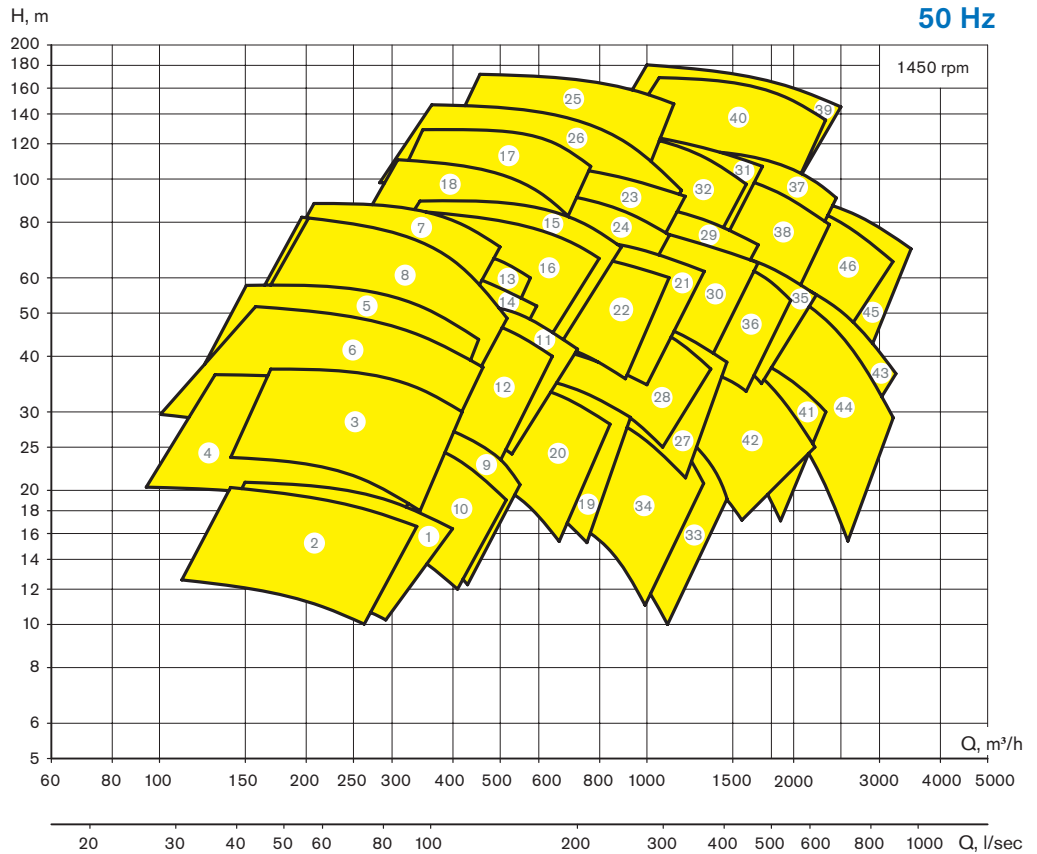


Performance Range

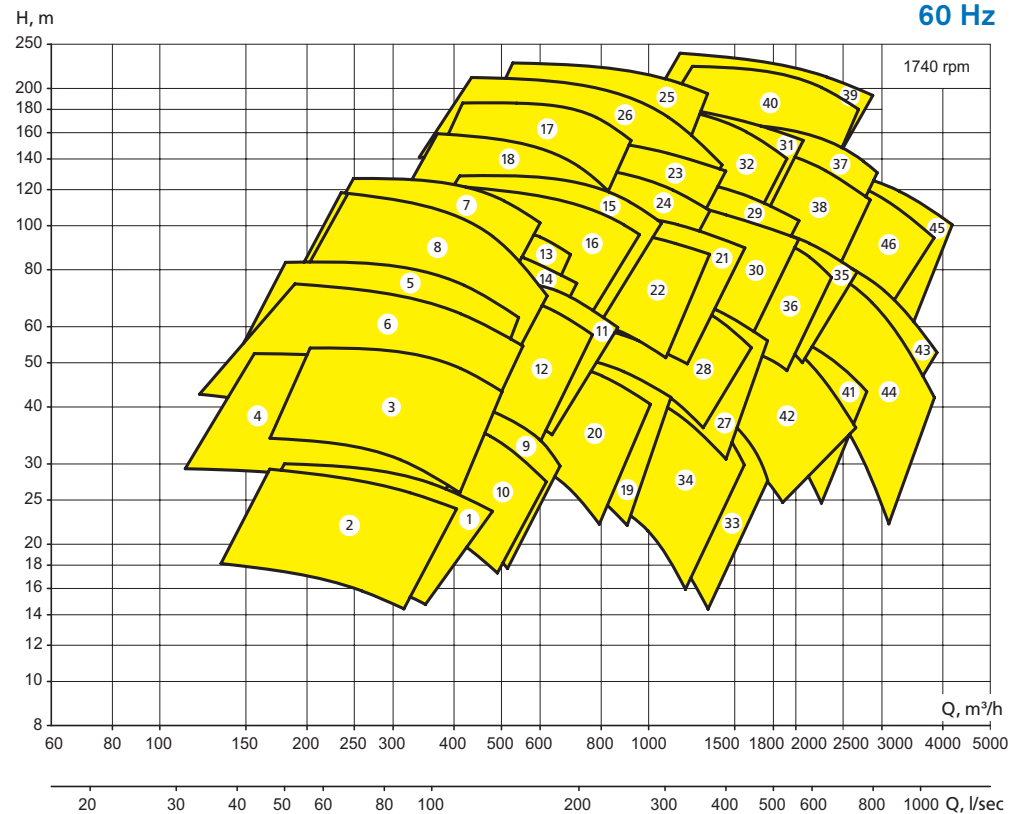
- 1 - 125-250A
- 2 - 125-250B
- 3 - 125-320A
- 4 - 125-320B
- 5 - 125-400A
- 6 - 125-400B
- 7 - 125-480A
- 8 - 125-480B
- 9 - 150-290A
- 10 - 150-290B
- 11 - 150-380A
- 12 - 150-380B
- 13 - 150-450A
- 14 - 150-450B
- 15 - 200-500A
- 16 - 200-500B
- 17 - 150-560A
- 18 - 150-560B
- 19 - 200-340A
- 20 - 200-340B
- 21 - 200-450A
- 22 - 200-450B
- 23 - 200-560A
- 24 - 200-560B
- 25 - 200-660A
- 26 - 200-660B
- 27 - 250-400A
- 28 - 250-400B
- 29 - 250-510A
- 30 - 250-510B
- 31 - 250-630A
- 32 - 250-630B
- 33 - 300-340A
- 34 - 300-340B
- 35 - 300-460A
- 36 - 300-460B
- 37 - 300-580A
- 38 - 300-580B
- 39 - 300-720A
- 40 - 300-720B
- 41 - 350-390A
- 42 - 350-390B
- 43 - 350-450A
- 44 - 350-450B
- 45 - 350-530A
- 46 - 350-530B

PUMPS UP TO 3500 m³/h

50 Hz



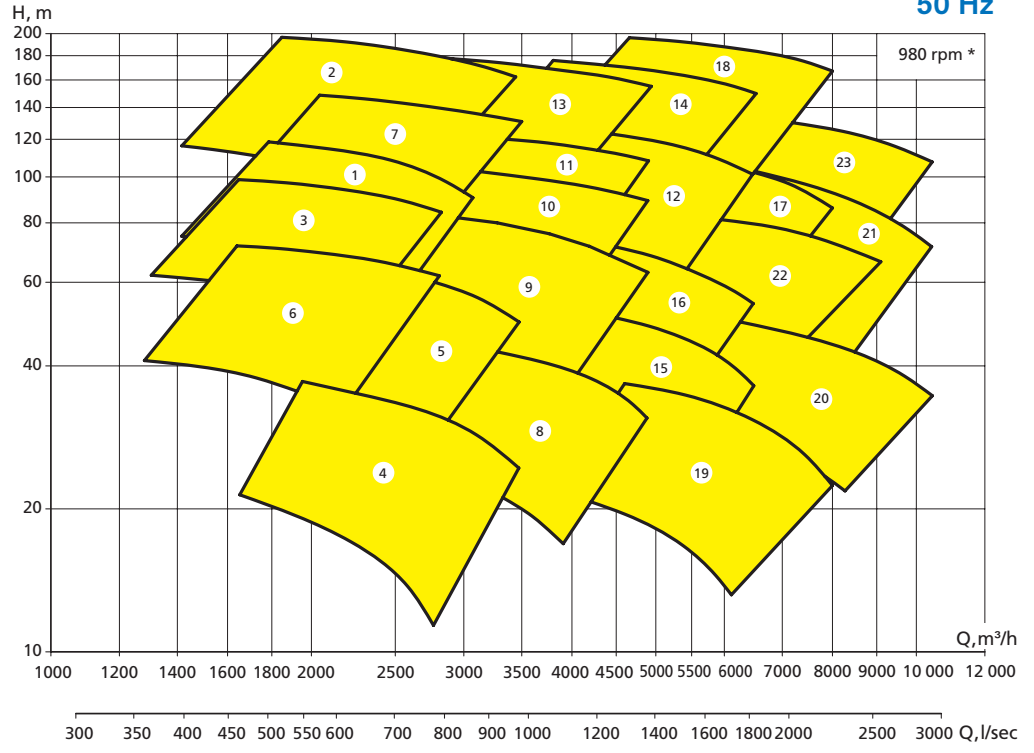
60 Hz



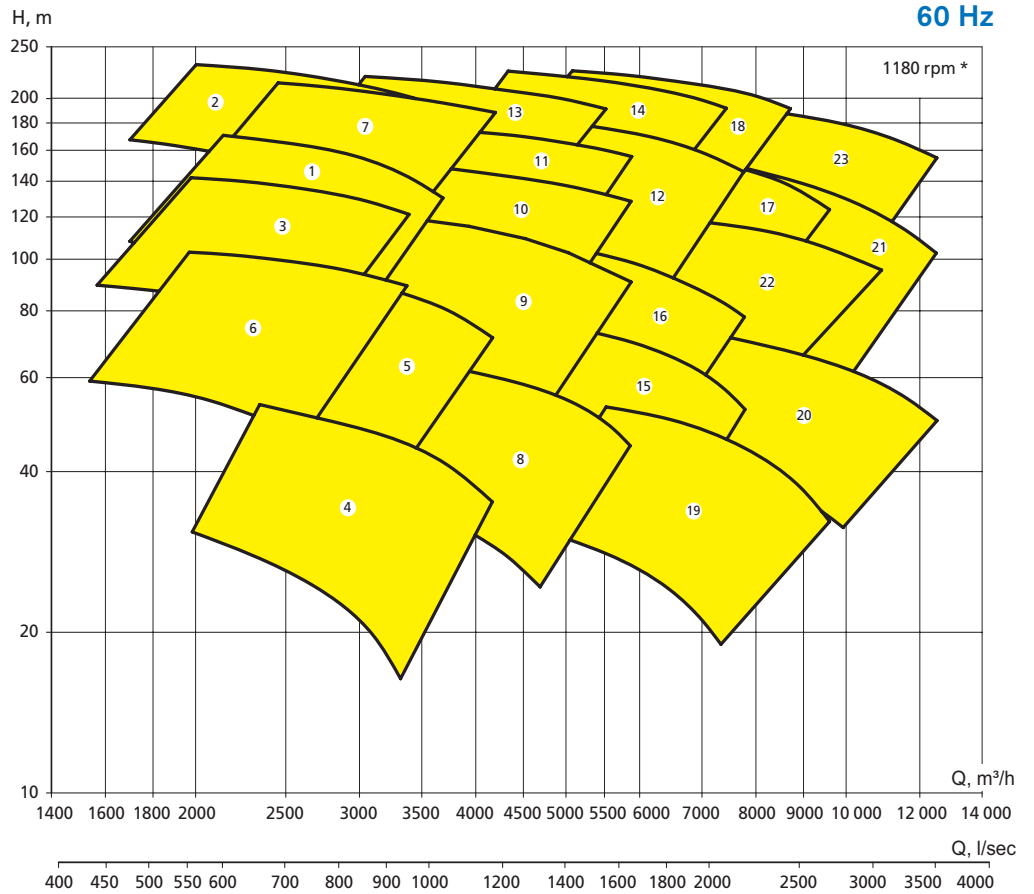
PUMPS FROM 3500 TO 10000 m³/h

50 Hz

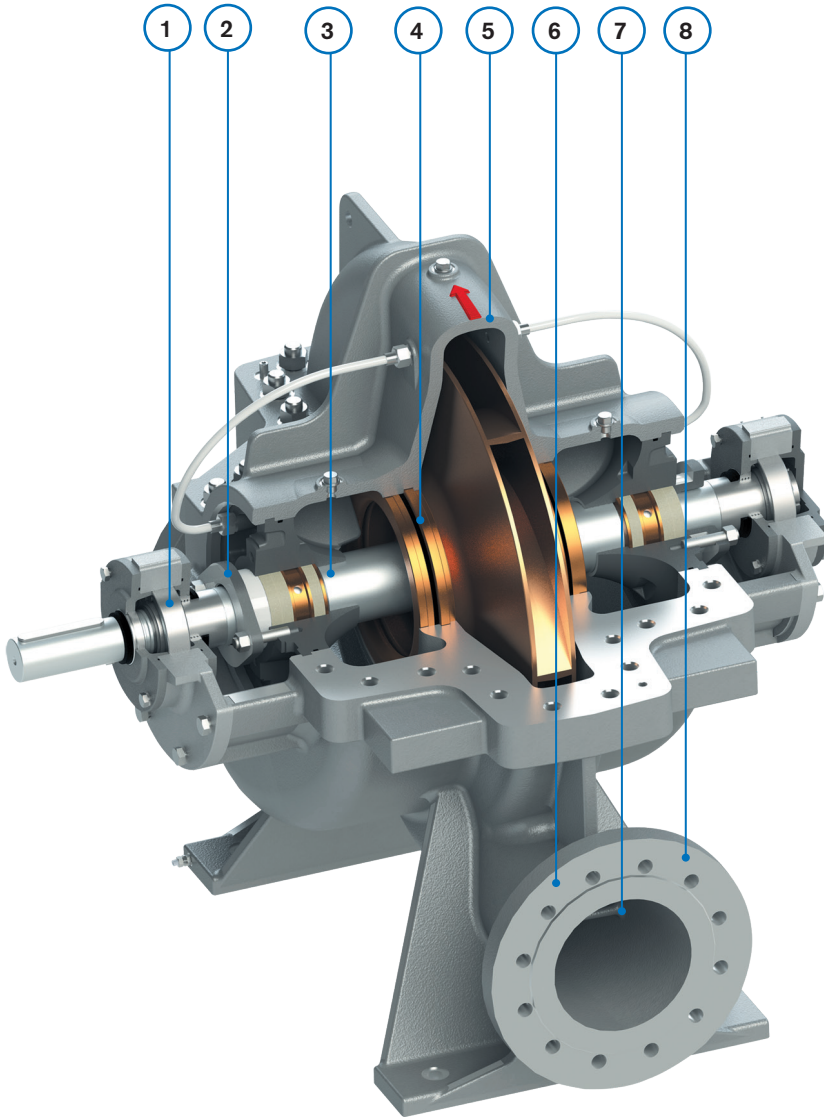
- 1 - 350-580
- 2 - 350-725
- 3 - 350-800
- 4 - 400-520
- 5 - 400-660
- 6 - 400-700
- 7 - 400-990
- 8 - 500-580
- 9 - 500-735
- 10 - 500-825
- 11 - 500-875A
- 12 - 500-875B
- 13 - 500-1050
- 14 - 500-1070
- 15 - 600-635
- 16 - 600-720
- 17 - 600-870
- 18 - 600-1135
- 19 - 700-700
- 20 - 700-780
- 21 - 700-850
- 22 - 700-1000A
- 23 - 700-1000B



60 Hz



Design Features



1. Standard or heavy duty bearings with reduced distance between
2. Gland seal or single/double mechanical seal
3. Shaft is completely isolated from the pumped liquid
4. Version with replaceable impeller's wearing rings
5. New hydraulics for better performance
6. Inline-type suction & discharge nozzles
7. Double volute casing for low radial load
8. DIN, ANSI, ISO design flanges

The casing cover is sealed by a liquid sealant



■ ZMDV – vertical version

Bearings

Bearing service life is over 100 000 hours

Lubrication options:

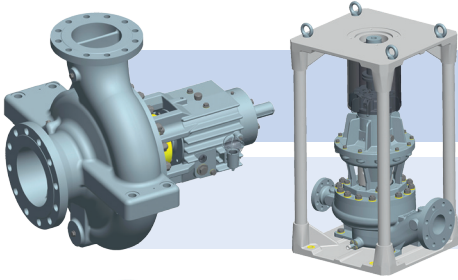
- grease lubrication
- oil bath lubrication including version with oil cooler

Shaft Seal

- Gland seal
- Single-acting, unbalanced mechanical seal for operating pressure < 16 bar
- Balanced mechanical seal for operating pressure > 16 bar
- Double-acting mechanical seal of a cartridge type

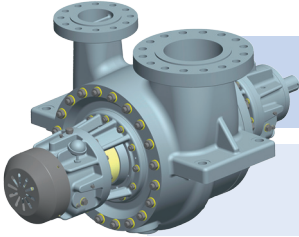


PROCESS PUMPS | API 610



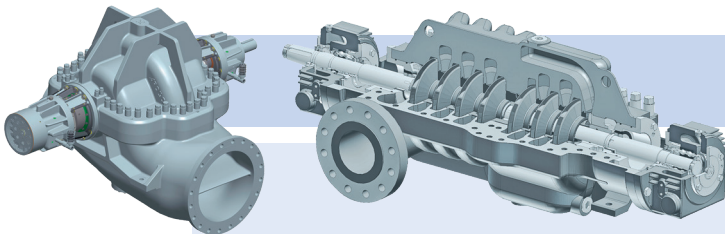
Single stage pumps: **OH1, OH2, OH3**

■ KRH ■ KRHA ■ KRHL ■ KRP / KRPH ■ KRI / KRIL



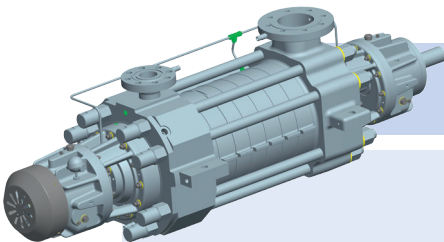
Single and two-stage between bearings pumps: **BB2**

■ ZPR ■ ZPRA ■ KGR / KGRD



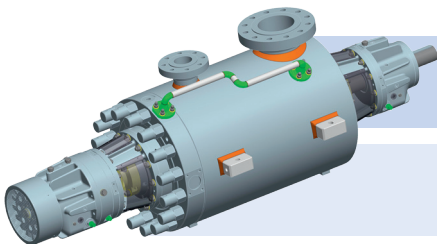
Axial split between bearings pumps: **BB1, BB3**

■ ZMK ■ ZMKV ■ AMG



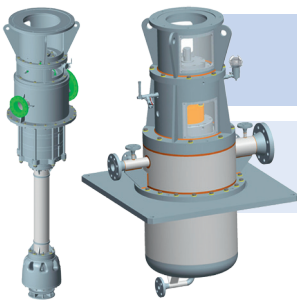
Multistage high-pressure pumps, ring sections type: **BB4**

■ HP ■ GP „back-to-back“ ■ GMHD



Multistage high-pressure barrel pumps: **BB5**

■ TL ■ TG „back-to-back“ ■ TGDX



Single and multistage, vertical pumps: **VS1, VS4, VS6**

■ HPTV ■ HPV ■ HPVX ■ GSTV ■ GDTV ■ GDV

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