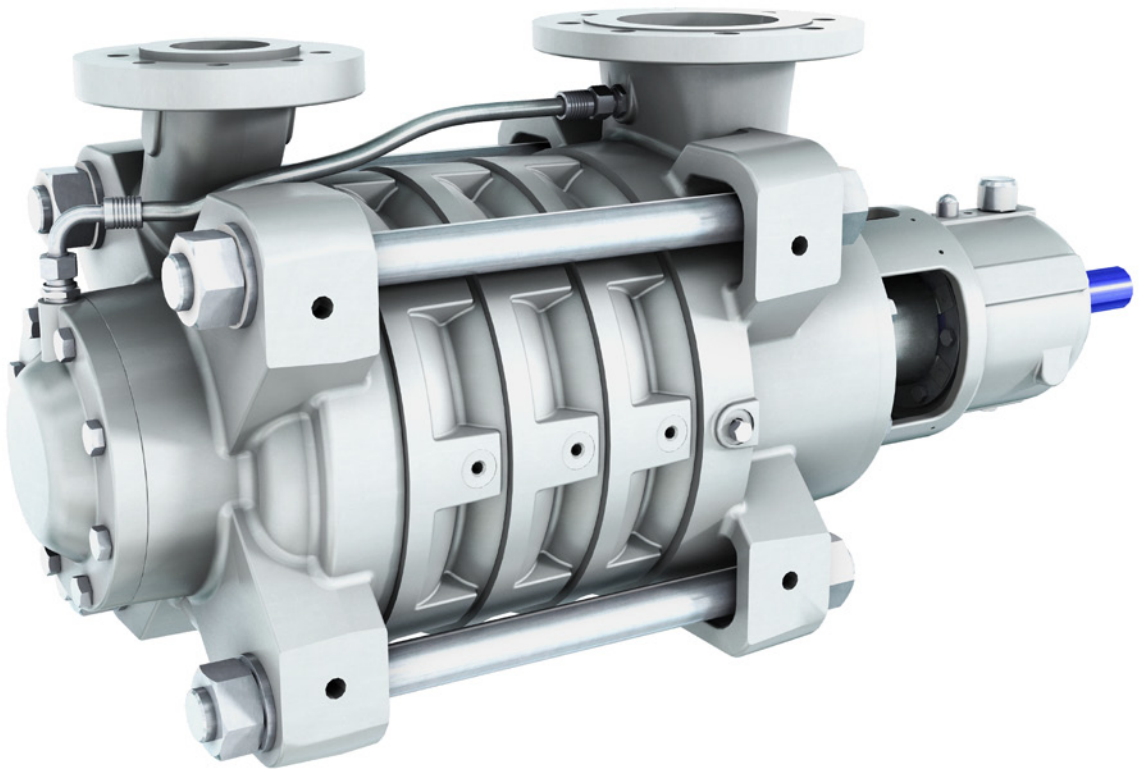


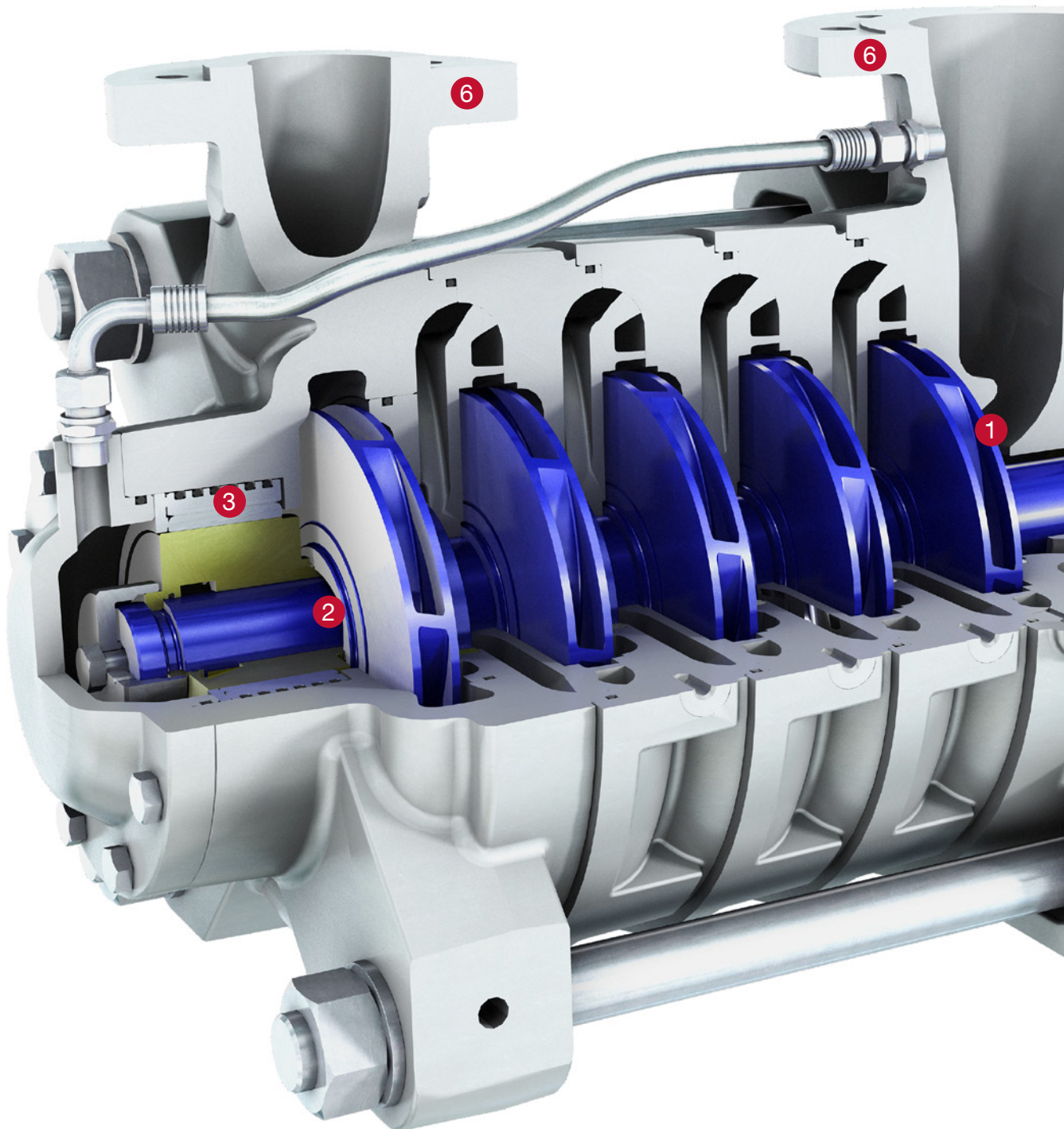
## **MBN Medium Pressure Stage Casing Pump**



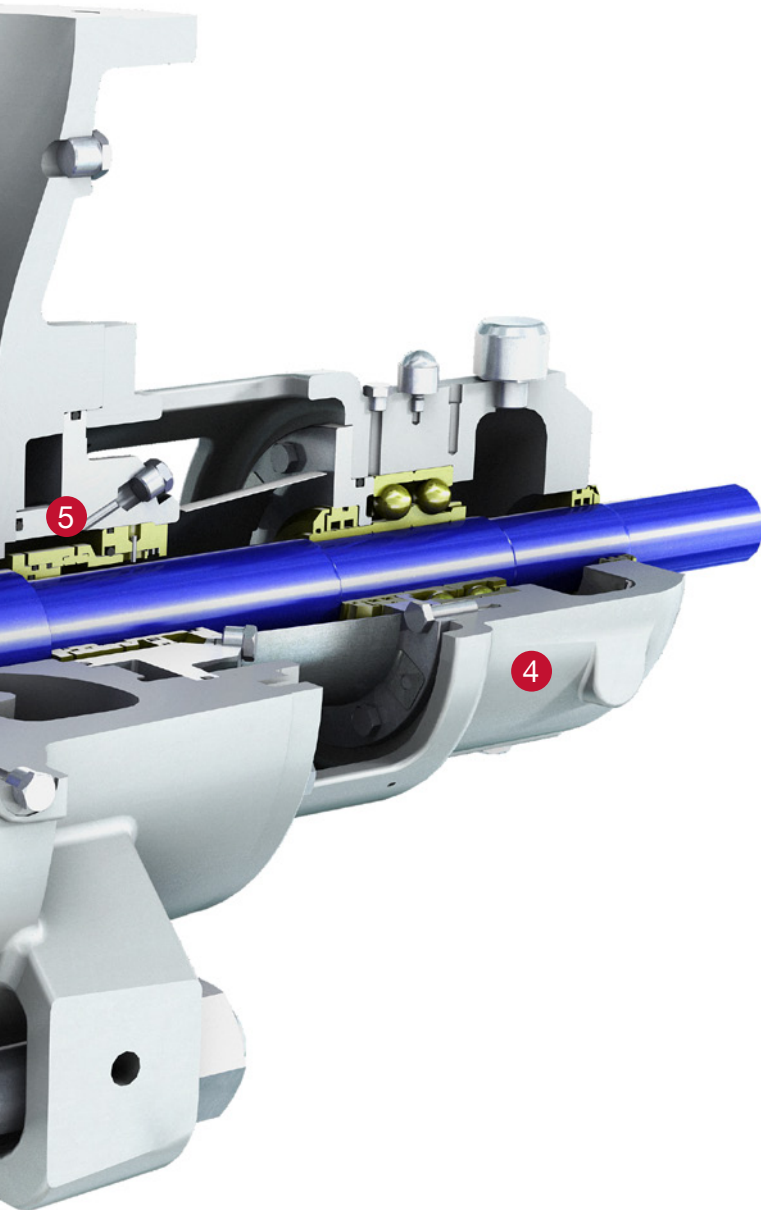
## Main Applications

The MBN pumps are horizontal, radially split, ring section pumps with a modular design. They are suitable for pumping clean or slightly polluted, hot or cold, chemically neutral or aggressive liquids. They fulfill all requirements wherever a robust pump for high pressure applications is needed, such as:

- Boiler feed duties in industrial power applications up to 180°C
- Condensate service in power stations and industrial plants
- Feed pumps in desalination by reverse osmosis
- Shower water in paper mills
- High pressure water in general industry



# Features and Benefits



## 1 Impellers

- Special suction impeller for low Net Positive Suction Head required (NPSHr)
- High quality investment cast impellers and stage casings for better efficiency
- Polygon impeller mounting allows fast and easy mounting of the impeller on the shaft, maintains straightness of the shaft, decreases deflection and stress points and eliminates the need of standard keyed design

## 2 Mechanical design

- Keyless polygon shaft torque transmission to the impellers
- Split ring fixing for impeller stack to accommodate thermal expansion
- Innovative journal bearing design for better internal alignment and lubrication

## 3 Hydraulic balance

- By means of balance drum
- Product lubricated radial bearing located at Non-Drive End (NDE)

## 4 Bearing unit

- Double row ball radial and thrust bearing located at Drive End (DE)
- 4 bearing units serve 6 hydraulics
- Same bearing housing for both oil and grease lubrication
- Increased oil sump for better heat dissipation
- Constant level oiler maintains optimum oil level

## 5 Shaft sealing

- Shaft sealing only required on the low pressure suction side
- Separate seal chamber enables the seal type to be changed without having to replace the suction casing
- Mechanical seal (single and double), dynamic seal and gland packing are available
- Shaft seal can be serviced without disassembling the pump

## 6 Flange connection options

- Different suction and discharge flange orientation (left-up-right) allows individual customer flexibility during installation and simplifies piping design

# MBN Medium Pressure Stage Casing Pump



Oil and gas



Hydrocarbon processing



Power generation



Pulp and paper



General industry



Chemical processing

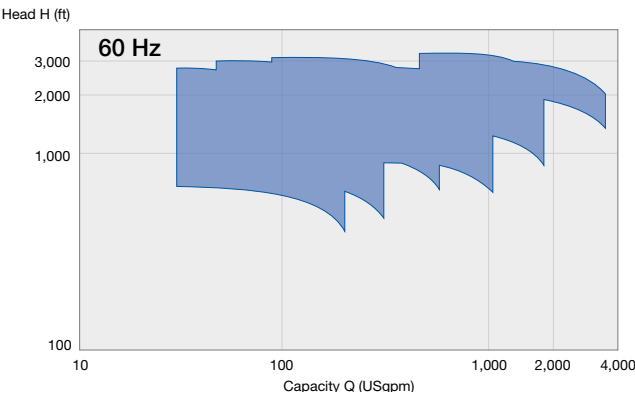
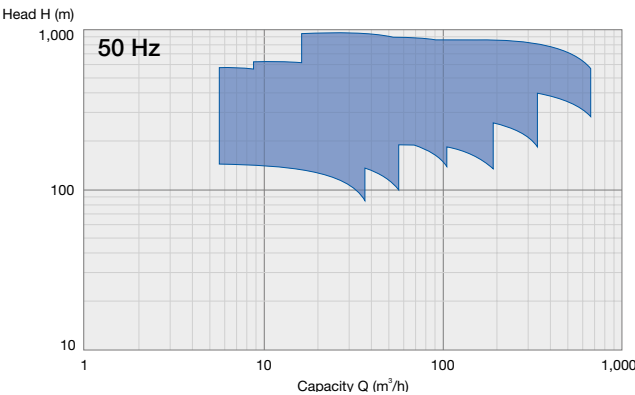


Water and wastewater

## Operating data

50 Hz	Pump sizes	60 Hz
up to 150 mm		up to 6 in
up to 700 m <sup>3</sup> /h	Capacities	up to 3,080 USgpm
up to 900 m	Heads	up to 2,950 ft
up to 100 bar	Pressures	up to 1,450 psi
up to 180°C	Temperatures	up to 356°F

## Performance ranges



## Materials

Pump part	Material
Suction, stage and discharge casing	Chromium steel, Duplex, Superduplex
Shaft seal housing	Chromium steel, Duplex, Superduplex
Impeller and stationary wear rings	Chromium steel, Duplex, Superduplex
Shaft and shaft sleeves	Duplex, Superduplex
Bearing bracket	Cast iron



## We Do What We Say

### Customer partnership

- We are **reliable partners**
- We provide a **high level of service**
- We **make our customers more competitive**



### Committed people

- We drive **accountability**
- We are **open and transparent**
- We are **team players**



### Operational excellence

- We **focus on results**
- We take **initiative** and work within **established processes**
- We **act safely**



## A Global Specialist at Your Doorstep

Sulzer serves clients worldwide through a network of over 150 production and service sites and has a strong footprint in emerging markets.



- Sulzer headquarters,  
Winterthur, Switzerland



[www.sulzer.com](http://www.sulzer.com)

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