

BASIC PRINCIPLES AND PUMP TYPES

## GRUNDFOS PUMP TYPES





# What are the main pump types we produce?

Most Grundfos pumps are centrifugal pumps of the rotational variety, but we also offer membrane pumps for dosing & disinfection applications. The main types are:

- Norm pumps
- Split-case pumps
- Hermetically sealed circulator pumps
- Sanitary pumps
- Wastewater pumps
- Immersible pumps
- Borehole pumps
- Single-stage pumps
- Multi-stage pumps
- Dosing pumps





### Norm pumps

#### Benefits

- Built-in dimensions and performance according to international standards
- Large performance area with many variants
- Available in cast iron and stainless steel, even with bronze impellers
- Easy to maintain & service

Applications
Water supply; industrial
pressure boosting & liquid
transfer; HVAC; irrigation



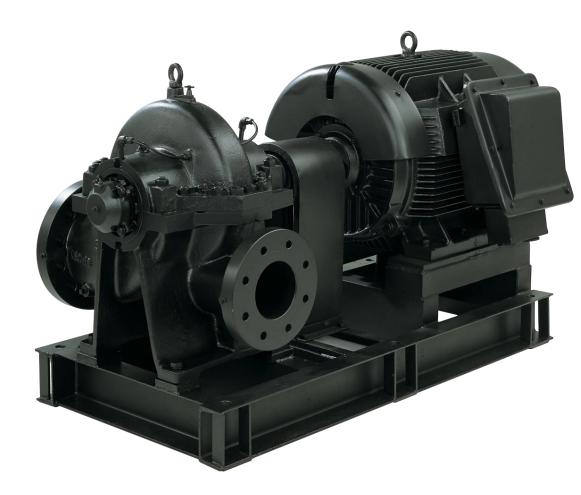


### **Split-case pumps**

#### Benefits

- Easy service and maintenance
- Low lifecycle costs
- Large performance area

Applications
Water distribution; irrigation; air conditioning & cooling systems; boiler feed



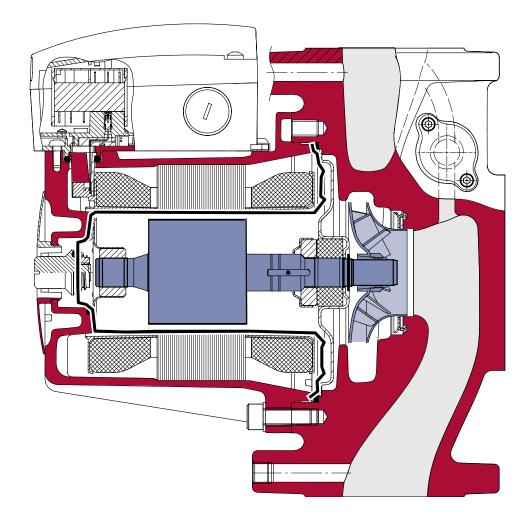


### Hermetically sealed circulators

#### Benefits

- Energy efficiency
- No noise
- Very long service life
- Many automatic and manual adjustment options

Applications
Liquid circulation in heating
systems; circulation of hot
tap water; circulation in airconditioning systems





### **Sanitary pumps**

#### Benefits

- Hygienic design
- All polished stainless steel
- Large range for most applications

Applications
Food and beverages – both
thin and highly viscous
liquids





### Wastewater pumps

#### Benefits

- Solids handling capability
- Dry and submersible installation
- Easy removal of pump from installation thanks to automatic coupling system

Applications
Wastewater pumping station
and treatment plants; raw
water intake; de-watering





### Immersible pumps

#### Benefits

- Able to pump chips from machining process
- Adaptable build-in length
- Large number of variants with many different materials and sealing solutions

Applications
Cooling; lubrication and
filtration in machine tools;
condensate transfer;
industrial washing machines





### **Borehole pumps**

#### Benefits

- Underground installation in bore hole
- High efficiency
- Different stainless steel and cast iron materials
- Large performance area

Applications
Groundwater supply for
drinking water, irrigation and
groundwater lowering;
mining; fountains



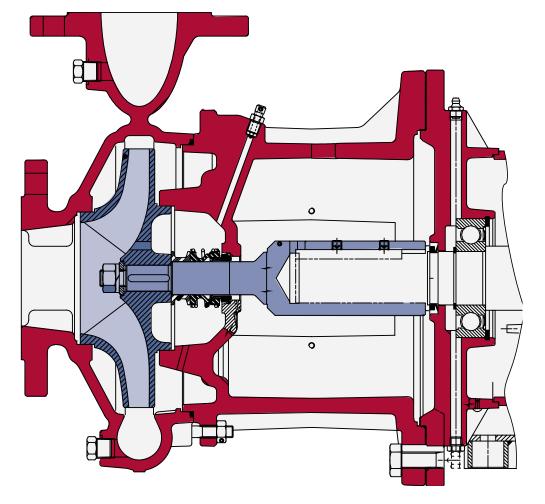


### Single-stage pumps

#### Benefits

- Large performance area with many variants
- Available in cast iron and stainless steel, even with bronze impellers
- Easy to maintain and service
- Usable in high and low temperatures

Applications
Water supply; industrial
pressure boosting & liquid
transfer; HVAC; irrigation



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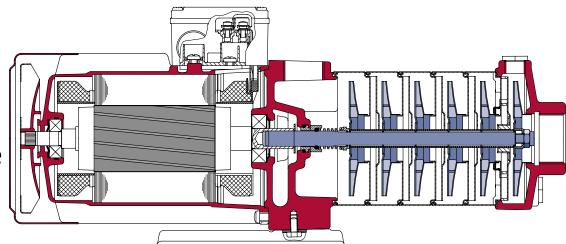


### Multi-stage pumps

#### Benefits

- Huge number of customised solutions for industrial applications
- Lots of product variants
- High efficiency and low lifecycle costs
- Easy service & maintenance

Applications
Most industrial applications
with no hygienic requirements;
heating; cooling; mining;
machine tool; irrigation





### Dosing (membrane) pumps

#### Benefits

- High-precision pumping saves chemical
- Resistant to chemicals
- Compact and efficient
- Wide performance area per pump (large turndown ratio)

# Applications Dosing and of

Dosing and disinfection systems in the pulp and paper, textiles, food and beverage, industrial process water and waste industries



