



Ring section design pump

TYPE HPH

Suitable for slightly polluted, chemically neutral or aggressive liquids.

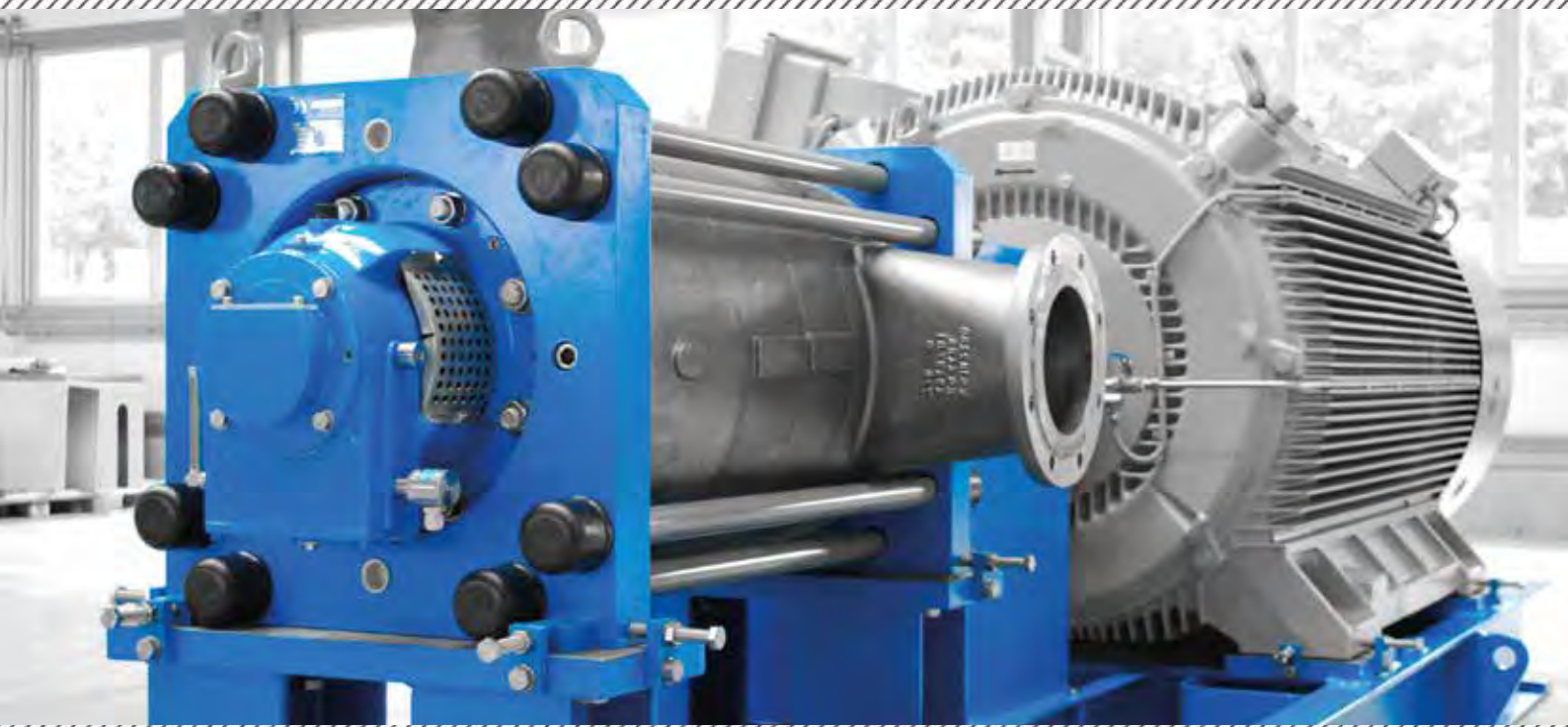


HPH Design

Multistage centrifugal pump in ring-section design.

- Pump inlet: axial or radial with flanges positioned at 90° increments
- Discharge flange: radial positioned at 90° increments
- Replaceable rings in composite material to maintain best efficiency and reliability
- Shaft sealing by stuffing box or mechanical seal
- Axial thrust compensation by balancing discs, piston or combination of both
- Easy replacement of all wearing parts
- Tailormade solutions available:
 - ▶ **Pump dimensions can be adapted to customer requirements**
- Impellers are fixed by fitting key (e.g. backflushing) possible
- Replaceable Impeller wear rings available
- Pump with one or two connective shaft ends
- Impellers and diffusers are cast by using ceramic moulds to get highest surface quality for outstanding hydraulic performance





Fields of Application

Handling of clean or slightly polluted, chemically neutral or aggressive liquids.

- Pressure boosting systems in industrial process
- Water supply, and water treatment
- Seawater desalination
- Condensate production
- Boiler feed systems
- Hot water applications
- Petrochemical applications
- Water Injection

Materials

Carefully selected depending on the application and adapted to the respective conditions.

DÜCHTING PUMPEN offers improved corrosion resistant materials like SUPER DUPLEX stainless steel with Pitting Resistance Equivalent numbers above 40.

Technical Data

Pump Size:	DN 80 to DN 300 (3" to 12")
max. Pressure:	100 bar (1450 PSI)
max. Flow:	3500 m³/h (15400 gpm)
Total head:	up to 1100 m (3600 ft)
Rotating Speed:	up to 3600 rpm



Diffusor

With reduced impact losses due to CFD optimized flow channels.

Impeller

Design in consideration of optimal specific speed. Cast in ceramic moulds for best surface quality. Different impeller sets available for every pump size.

Wear Rings

Replaceable wear rings in composite material to maintain best efficiency and reliability.

Axial suction Branch available

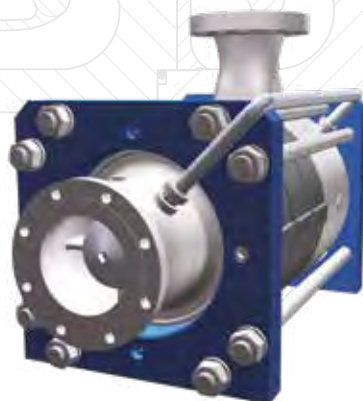
In horizontal orientation for constant inlet velocities and reducing suction pressure requirements.

Liquid lubricated plain bearing

Plain bearing eliminates second mechanical seal (for axial inlet).

Bearings

Supplied with oil-lubricated anti-friction bearings or plain bearings for long-life performance.

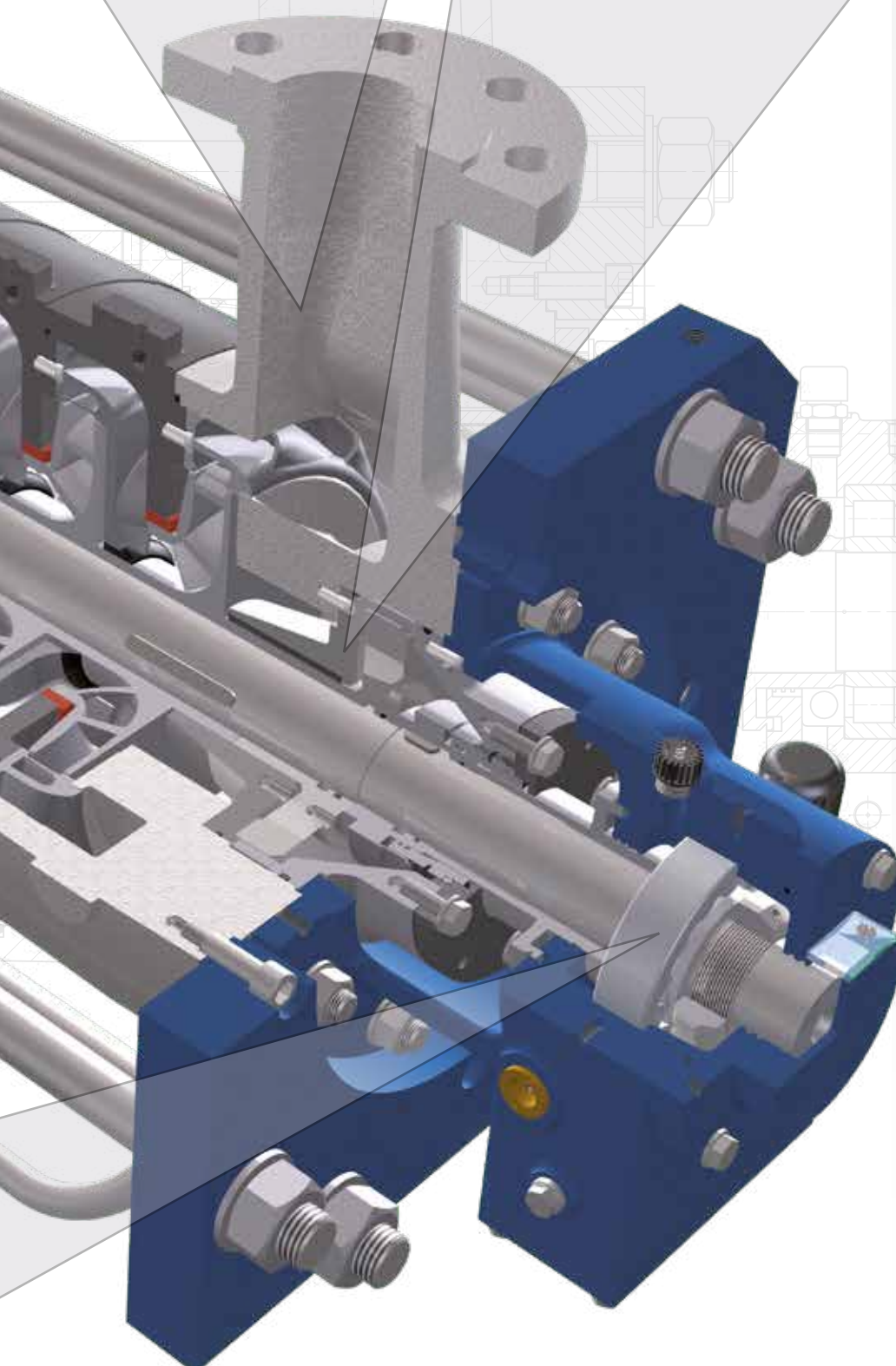


Discharge Casing

Optimized by numerical calculations to achieve best outflow conditions.

Balancing Device

Axial thrust compensation by balancing discs, piston or combination of both.





Multistage pump

TYPE HPE

Suitable for slightly polluted, chemically neutral or aggressive liquids.



HPE Design

Multistage centrifugal pump in ring-section design.

- Center-line or foot-mounted casings available
- Wear rings in composite material (carbon fiber filled PEEK) for smaller clearances while maintaining the same reliability and best efficiency
- Intermediate discharge flange available
- Available with anti-friction or plain bearings, forced lubrication possible
- Jacket or shaft seal cooling possible
- Tailormade solutions available:
 - ▶ **Pump dimensions can be adapted to customer requirements**
- Shaft sealing by stuffing box or mechanical seal
- Axial thrust handled by balance disk or piston
- Easy replacement of all wear parts





Fields of Application

Handling of clean or slightly polluted, chemically neutral or aggressive liquids.

- Pressure boosting systems in industrial process
- Water supply or water injection
- Condensate production
- Boiler feed systems
- Hot water applications
- Descaling in steel plants
- Oil & Gas - Applications (handling formation water)

Materials

Available in almost any metal from cast iron to SUPER DUPLEX stainless steel.

The materials are carefully selected depending on the application, the pumped liquid and the combinations of materials adapted to the respective conditions of use.

Technical Data

Pump Size:	DN 50 to DN 300 (2" to 12")
max. Pressure:	250 bar (3600 PSI)
max. Flow:	3500 m³/h (15400 gpm)
Total head:	up to 2200 m (7218 ft)
Rotating Speed:	up to 3600 rpm



Discharge Casing

Optimized by numerical calculations to achieve best outflow conditions.

Diffusor

With reduced impact losses due to CFD optimized flow channels.

Balancing Device

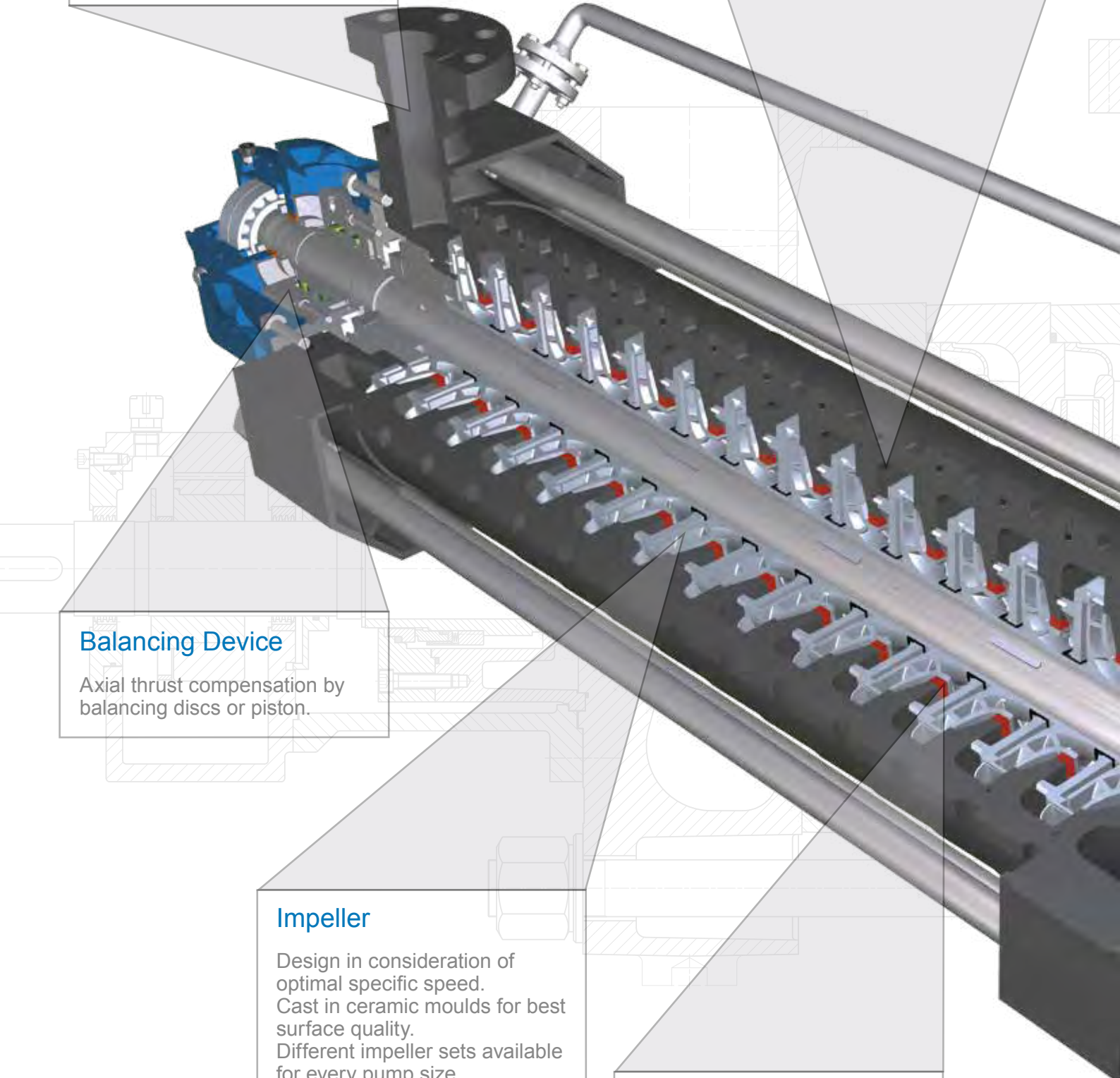
Axial thrust compensation by balancing discs or piston.

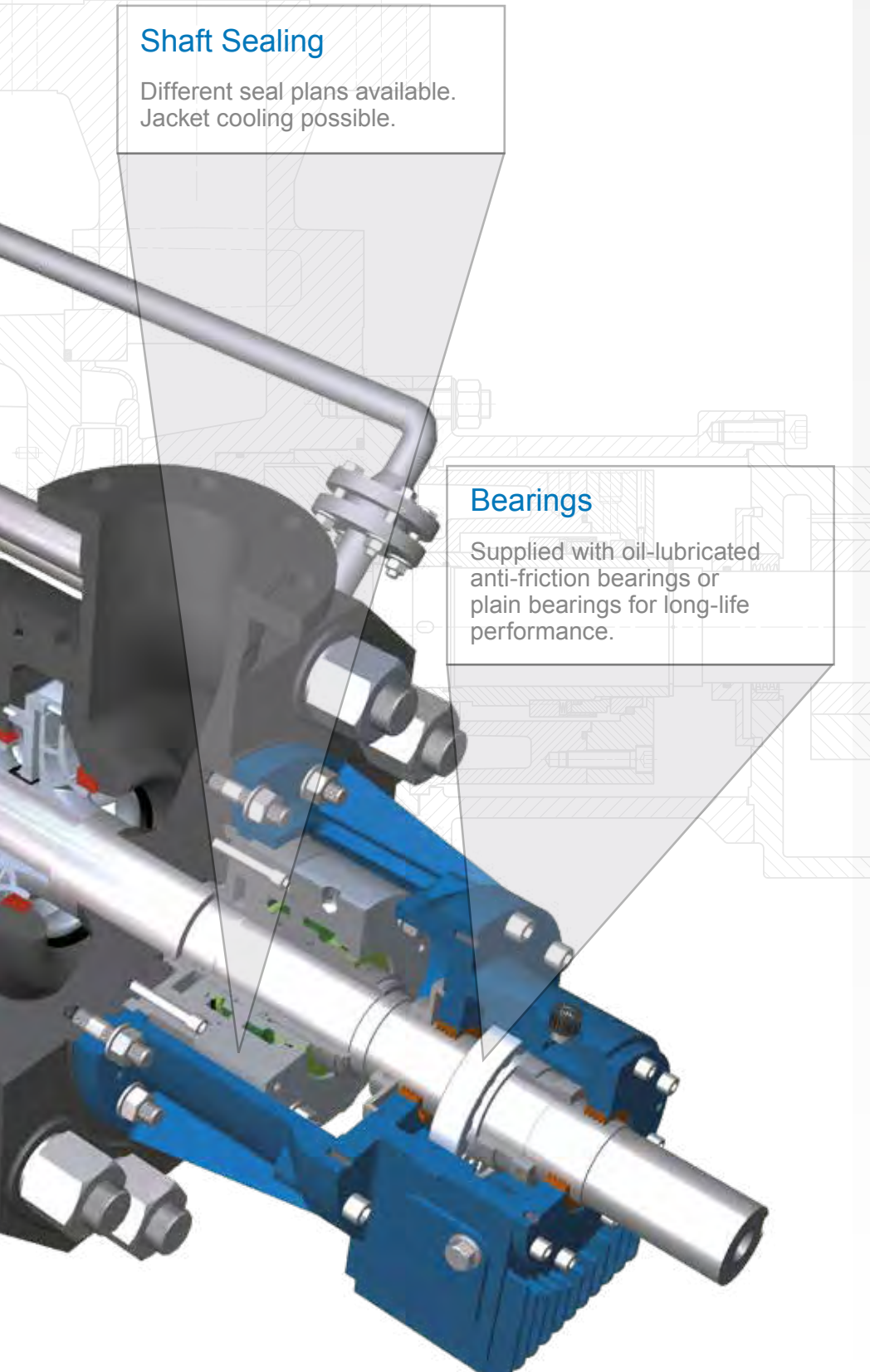
Impeller

Design in consideration of optimal specific speed.
Cast in ceramic moulds for best surface quality.
Different impeller sets available for every pump size.

Wear Rings

Replaceable rings in composite material to maintain best efficiency and reliability.



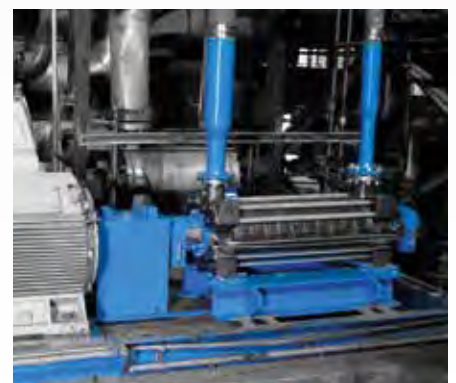


Shaft Sealing

Different seal plans available.
Jacket cooling possible.

Bearings

Supplied with oil-lubricated anti-friction bearings or plain bearings for long-life performance.





Multistage pump

TYPE HPXL

Handles liquids with up to 10% solids.



HPXL Design

Multistage centrifugal pump in ring-section design.

- Flanges positioned at 90 ° increments
- Shaft sealing by stuffing box or mechanical seal
- Axial thrust compensation by individually balanced impellers
- Designed for 4-pole speed
- Reduced life-cycle costs
- Grease or oil-lubrication anti-friction bearings available
- Tailormade solutions available:
 - ▶ Pump dimensions can be adapted to customer requirements
 - ▶ Single or double inlet suction casing available
 - ▶ Discharge flanges available on intermediate stage casings
 - ▶ Drive from one or both shaft ends possible
- Closed impellers with spatially curved vanes
- Impeller fixed with fitting key





Fields of Application

Handling of contaminated, chemically neutral or aggressive liquids with up to 10% solids.

- Main water drainage in mining
- In addition to drainage and mine weather cooling in mining
- Pressure boosting systems in industrial processes
- Water supply and water treatment plants
- Condensate production
- Mineral industry
- Oil & Gas Applications

Technical Data

Pump Size:	DN 32 to DN 300 (1 1/4" to 12")
max. Pressure:	40 bar (580 PSI)
max. Flow:	2500 m³/h (11000 gpm)
Total head:	up to 400 m (1300 ft)
Rotating Speed:	up to 3600 rpm

Materials

Available in almost any metal from cast iron to SUPER DUPLEX stainless steel.

The materials are carefully selected depending on the application, the pumped liquid and the combinations of materials adapted to the respective conditions of use.



Suction Casing

Advanced design for constant inlet velocities.

Bearings

Grease or oil-lubricated anti-friction bearings for long-life performance.

Wear Rings

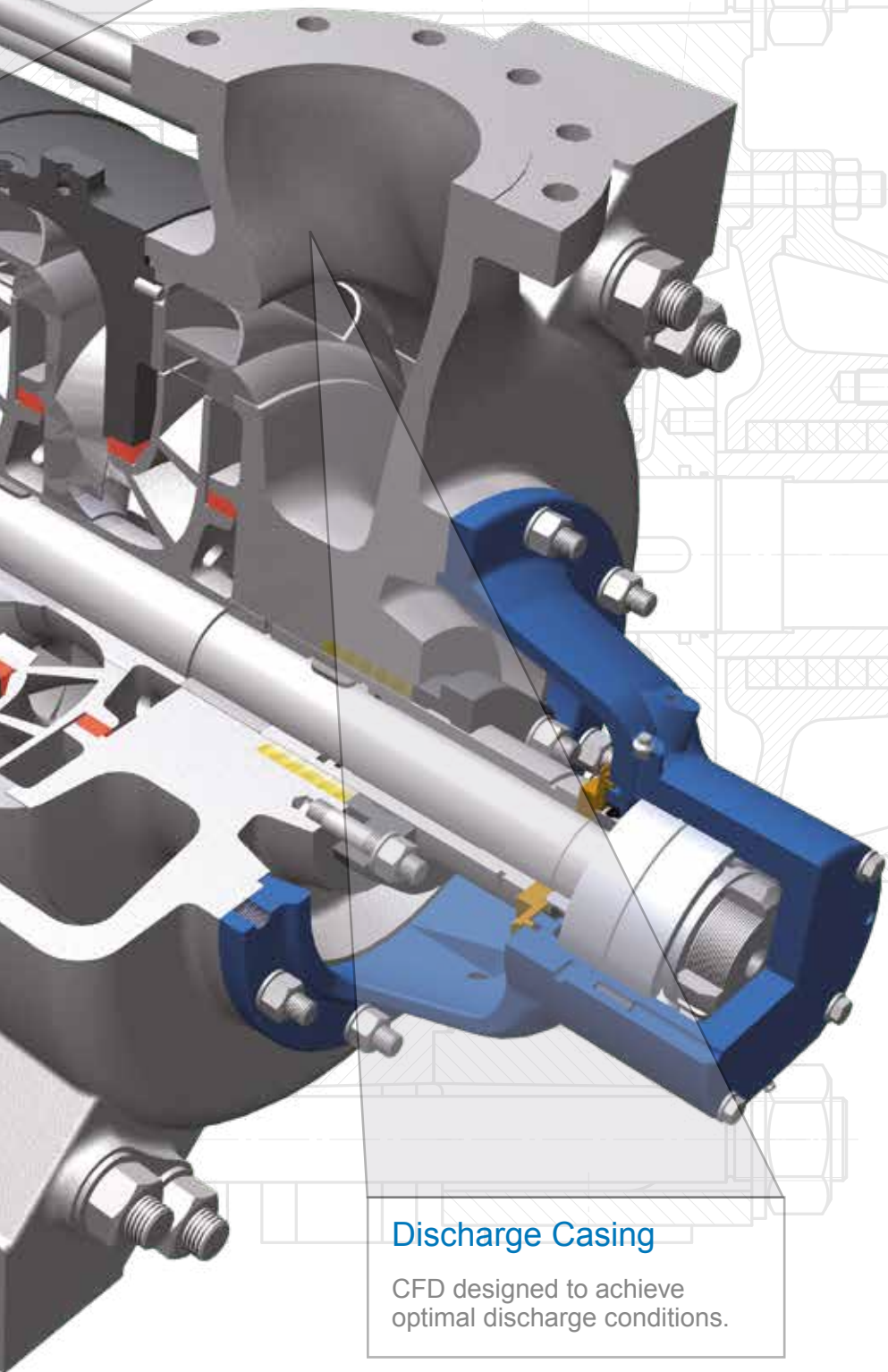
Replaceable rings in composite material to maintain best efficiency and reliability.

Impeller

Optimized design for specific speed. Cast in ceramic moulds for highest surface quality. High efficiencies achieved by different impeller sets for each pump size.

Diffusor

CFD optimized flow channels resulting in reduced impact losses.



Discharge Casing

CFD designed to achieve optimal discharge conditions.

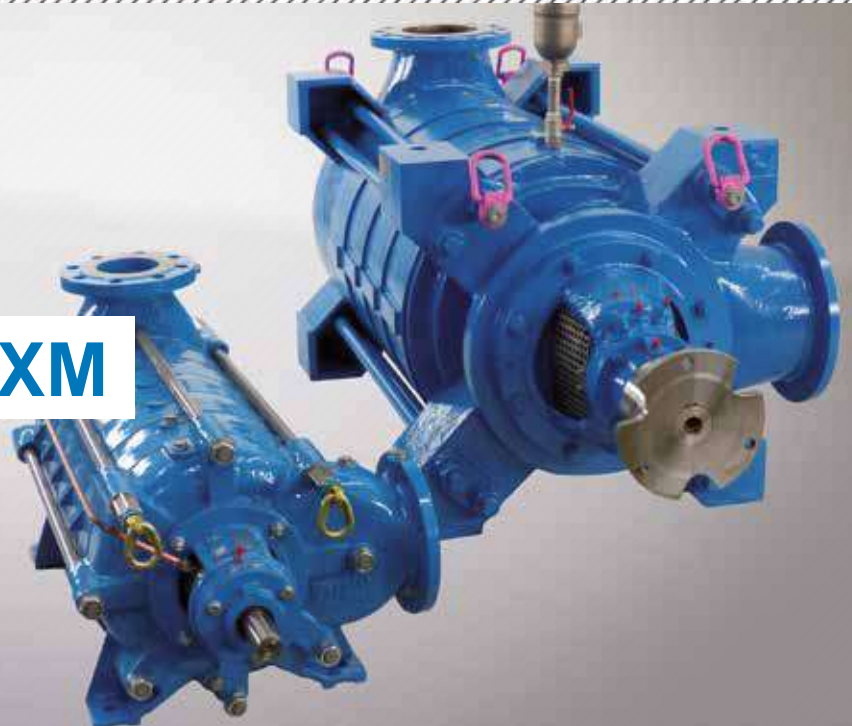




Multistage pump types

TYPE HPXU & HPXM

Handles liquids with up to 10% solids.

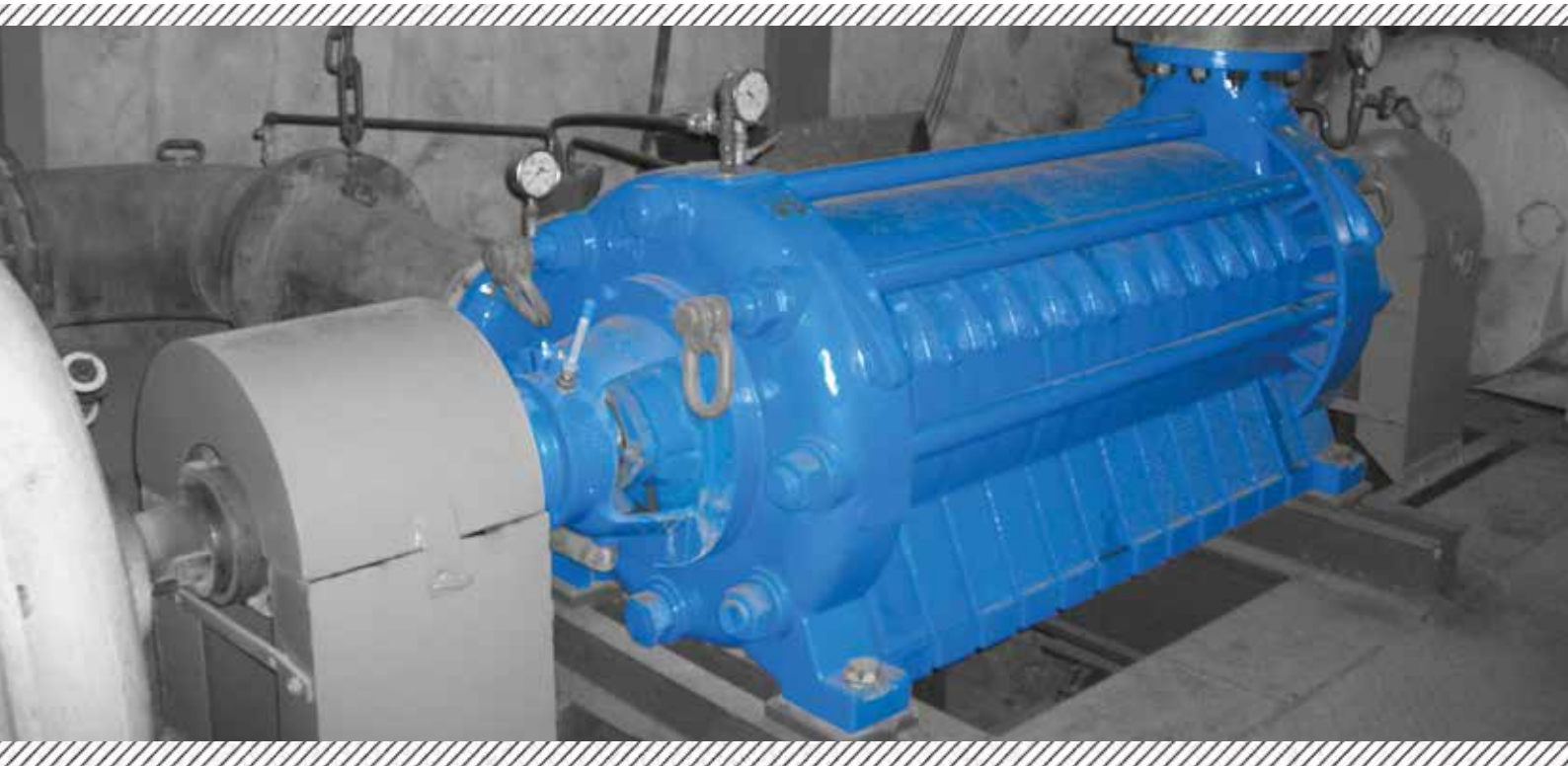


HPXU & HPXM Design

Multistage centrifugal pump in ring-section design.

- Flanges positioned at 90° increments
- Shaft sealing by stuffing box or mechanical seal
- Axial thrust compensation by balancing device with optical or digital wear indicator for optimized maintenance control
- Designed for 4-pole speed
- Reduced life-cycle costs
- Grease or oil lubrication anti-friction bearings available
- Tailormade solutions available:
 - ▶ Pump dimensions can be adapted to customer requirements
 - ▶ Single or double inlet suction casing available
 - ▶ Discharge flanges available on intermediate stage casings
 - ▶ Drive from one or both shaft ends possible
- Closed impeller with spatially curved vanes
- Impeller fixed with fitting key





Fields of Application

Handling of contaminated, chemically neutral or aggressive liquids with up to 10% solids.

- Main water drainage in mining
- Drainage and mine weather cooling in mining
- Pressure boosting systems in industrial processes
- Water supply and water treatment plants
- Condensate production
- Mineral industry
- Oil & Gas - Applications (handling formation water)

Technical Data

Pump Size:	DN 40 to DN 400 (1 1/2" to 16")
max. Pressure:	160 bar (2300 PSI)
max. Flow:	3250 m³/h (15000 gpm)
Total head:	up to 1200 m (3940 ft)
Rotating Speed:	up to 3600 rpm

Materials

Available in almost any metal from cast iron to SUPER DUPLEX stainless steel.

The materials are carefully selected depending on the application, the pumped liquid and the combinations of materials adapted to the respective conditions of use.



Bearings

Grease or oil-lubricated anti-friction bearings for long-life performance.

Wear Rings

Replaceable rings in composite material to maintain best efficiency and reliability.

Suction Casing

Advanced design for optimized inlet velocities.

Impeller

Optimized design for specific speed. Cast in ceramic moulds for highest surface quality. High efficiencies achieved by different impeller sets for each pump size.

Diffusor

CFD optimized flow channels resulting in reduced impact losses.

Discharge Casing

CFD designed to achieve optimal discharge conditions.

Balancing Device

Axial thrust compensation by balancing discs or piston.

