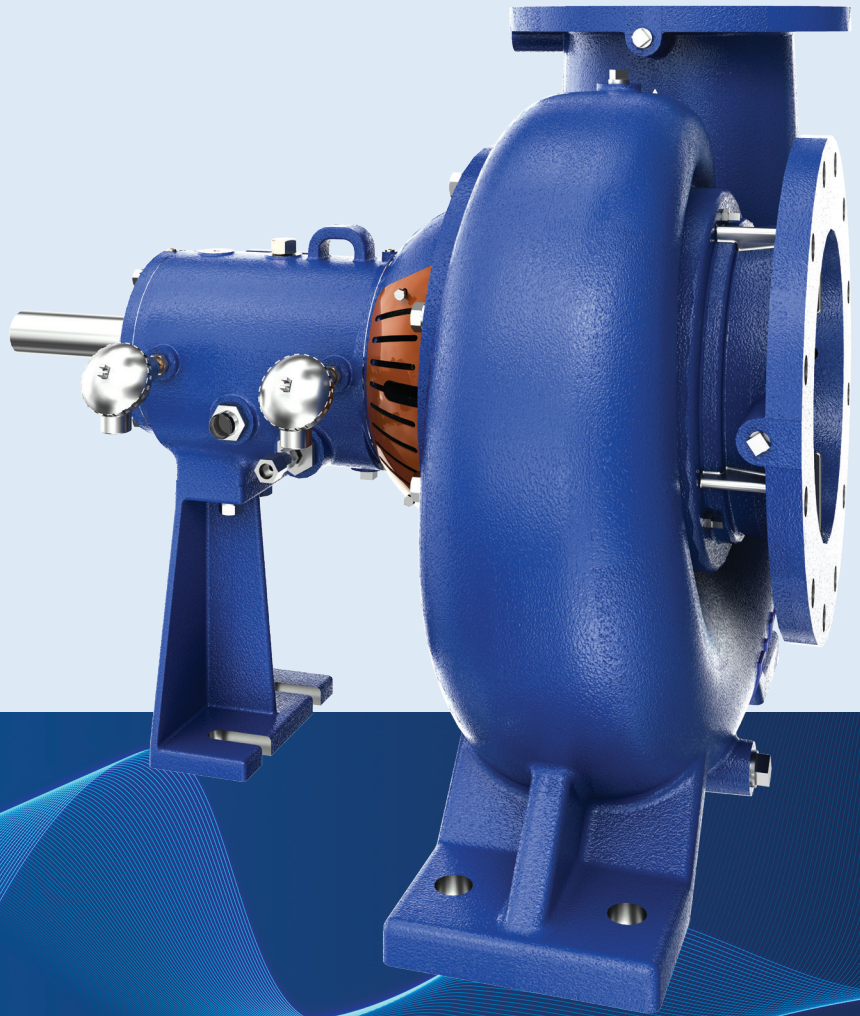




*Specialist for Pumping Technology*



# CRP-X

**Single Stage End Suction Pump  
Desalination Market**

# CRP-X

## Single Stage End Suction Pump

### +70 years developing the pumping technology that drives progress

Ruhrpumpen is an innovative and efficient pump technology company that offers highly engineered, custom made solutions for oil & gas, chemical processing, power generation, industrial applications and water.

Implementation of cutting-edge technology and world-class engineering, combined with our unique vertically integrated structure, allows Ruhrpumpen to design complex technical solutions, creating the most robust and powerful pump systems in the marketplace.

Our broad product line complies with the most demanding quality standards and industry specifications such as **American Petroleum Institute (API)**, **American National Standards Institute (ANSI)**, **Underwriter's Laboratories (UL)**, **Factory Mutual (FM)**, **National Fire Protection Association (NFPA)**, **ISO** and **Hydraulic Institute**.

#### Products Include:

- Single stage overhung pumps
- Vertical in-line pumps
- Single and multi-stage between bearing pumps
- Multi-stage vertical pumps
- Reciprocating plunger pumps
- Sealless magnetic drive pumps
- Fire protection systems
- Pitot tube pumps
- Hydraulic decoking systems
- Horizontal pumping systems



#### Ruhrpumpen is your single source supplier

- Original Equipment
- Spare parts
- Installation and startup support
- Repair and maintenance
- Engineering, training and consulting
- Reverse engineering

#### Benefits of our pumps

- Proven reliability
- High efficiency designs ensure lowest operating cost
- Robust design allows for long system life with minimal maintenance
- Optimized total cost of ownership

### CRP-X Pump

The CRPX pump is designed to meet DIN EN ISO 7001 and ASME B16.5-2009 specifications and directive 94/9/EG (ATEX 100).

All CRPX pumps are designed with a state-of-the-art hydraulic design and optimized mechanical concept. This ensures efficiencies across a wide spectrum of operating conditions, unmatched application flexibility and superior interchangeability. This rugged centrifugal pump is designed to operate dependably for long periods of time, even in the toughest industrial applications.

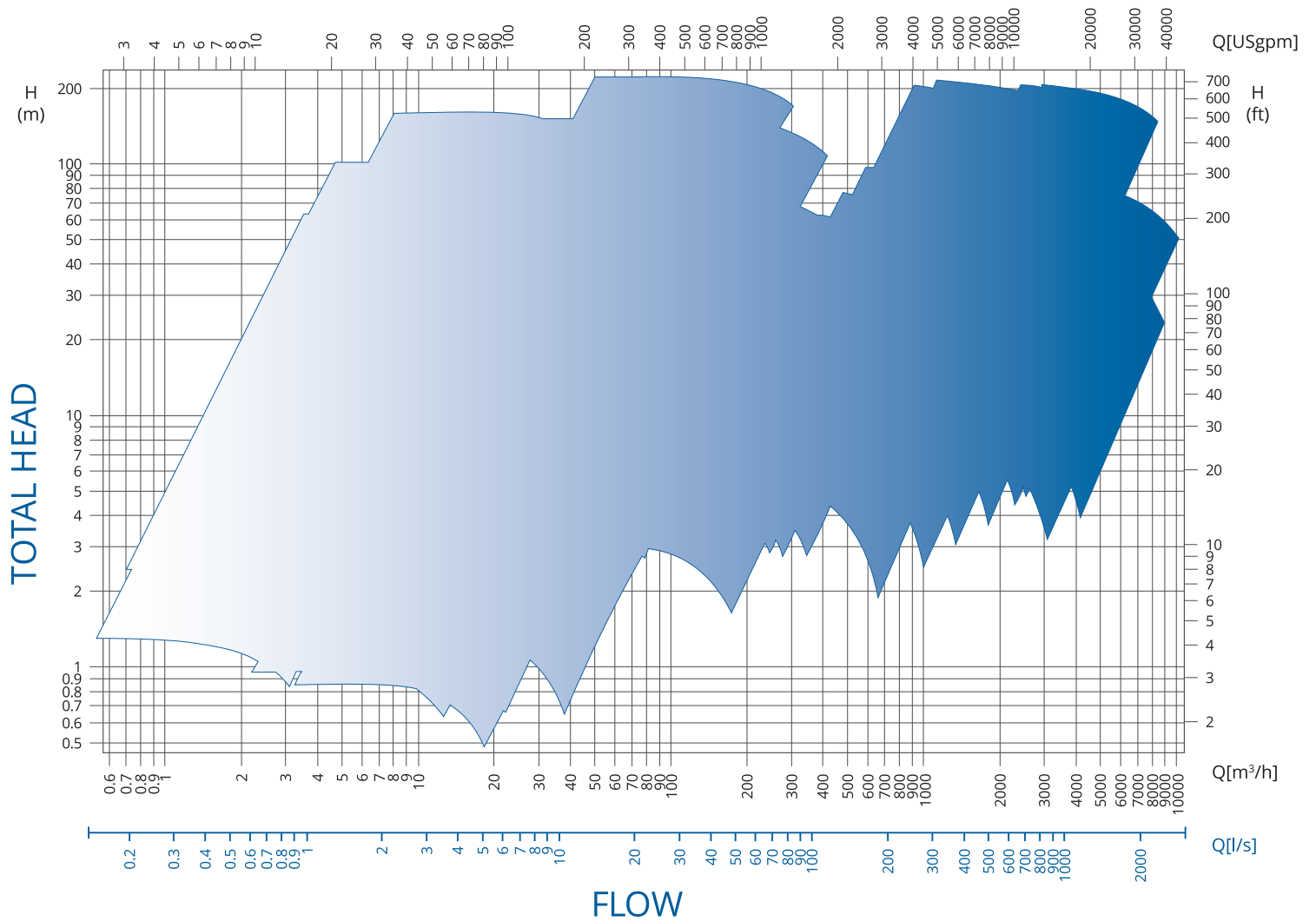
The CRPX line features more than 80 sizes to precisely meet service conditions within the preferred hydraulic region. Different optional features are available such as wear rings and instrumentation on the bearing housings.

Ruhrpumpen's quality program and in-house Foundry, along with the latest testing equipment, ensures that our pumps will provide long operating life.



# Performance Range

## SELECTION CHART CRP-X OH1



### Back Pull-Out Configuration Design



# CRP-X

## Single Stage End Suction Pump

### Characteristics

#### LANTERN

Cast in ductile iron and FEA optimized under the toughest conditions. It unifies and strengthens the main components as a single strong unit.

#### VENT PLUG

Vent Plug as standard. Vent filter with oil mist lubrication available as option.

#### BEARING HOUSING

Cast Iron and split to the Lantern to obtain only 5 sizes to enhance the interchangeability. Oil sump and oil mist lubrication available, with optional instrumentation.

#### BEARINGS

The double row angular contact and the single row roller bearings provide a minimal life of 40,000 hrs.

#### SHAFT

Duplex material for high torque capacity and optimized shaft diameters to reduce the Mechanical Seal cost, guaranteeing 50 microns of maximum shaft deflection at seal faces in the toughest conditions.

#### BEARING PROTECTORS

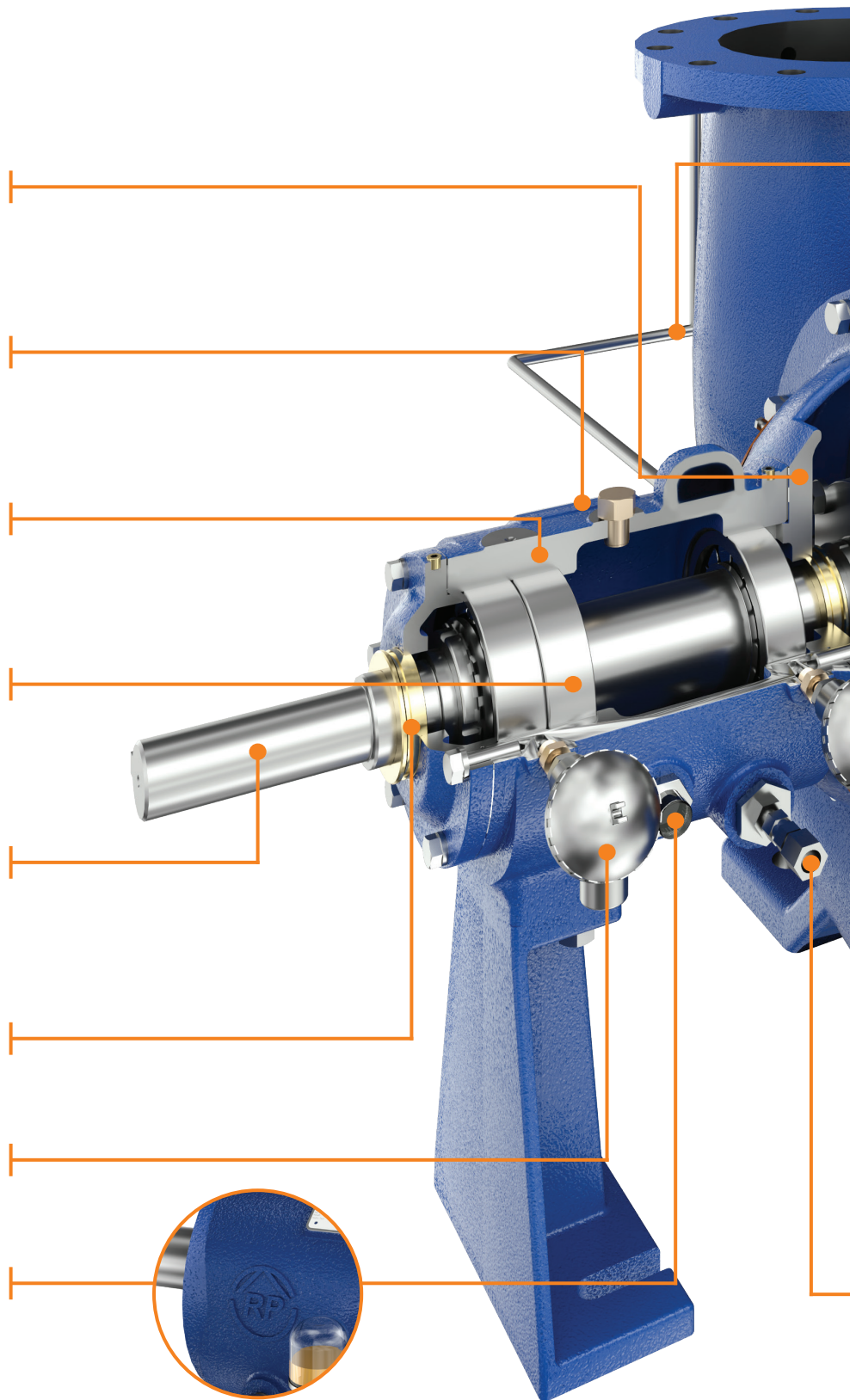
Magnetic seals to enhance the performance. Labyrinth seals also available.

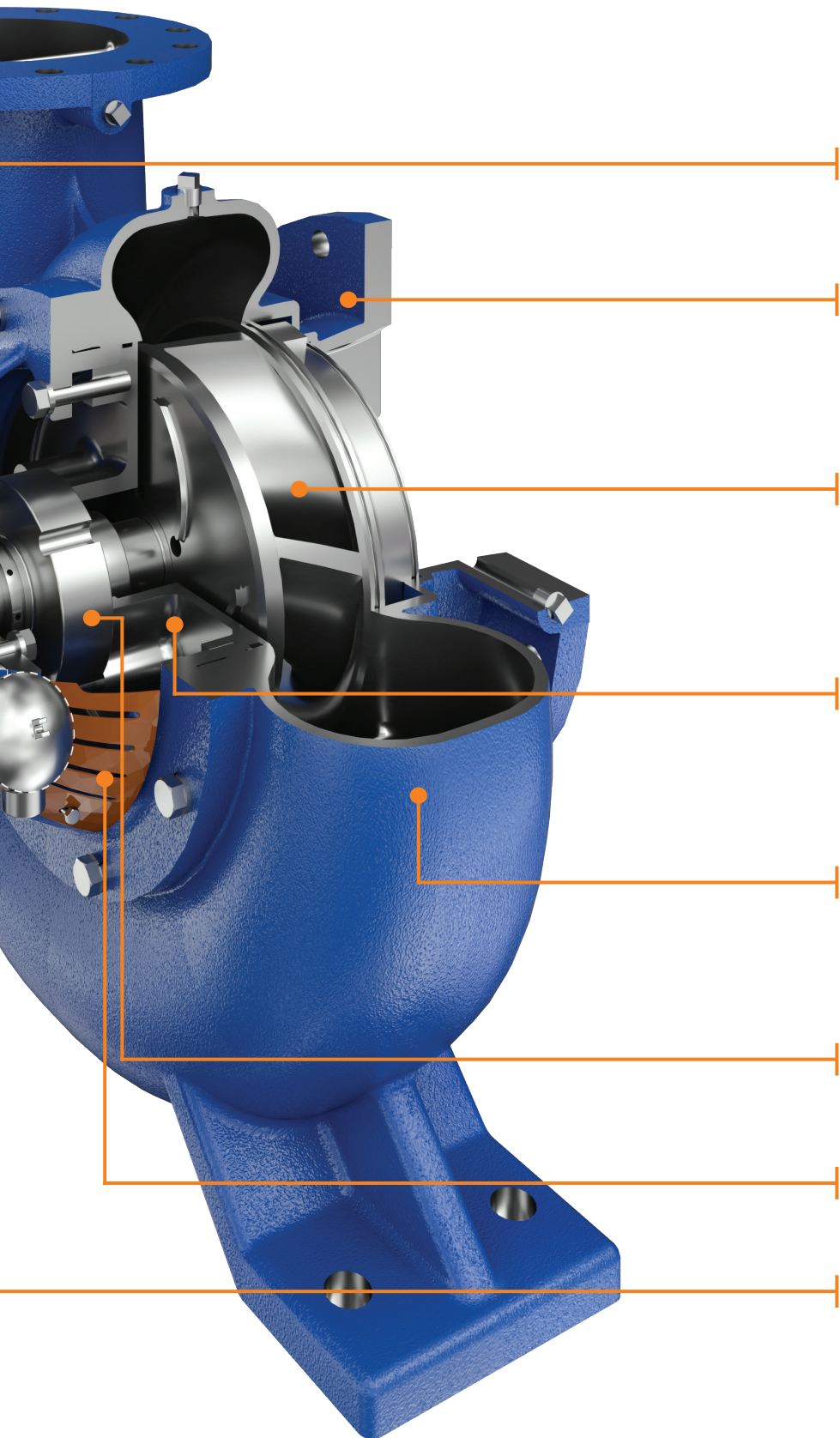
#### RTD

Threaded temperature sensors on both bearings available as option.

#### OIL SIGHT

Clear and durable oil sight on one side of the bearing housing. Constant Level Oilers available as an option.





**TUBING**

Lubricates the mechanical seal to reduce heat and friction between seal faces.

**FLANGES**

ISO PN16, PN25 and PN 110 flange drilling as well as ASME CL 150, CL 300 and CL 600 are available.

**IMPELLER**

Enclosed impeller design with expeller vanes ensures maximum efficiency. The impeller itself is keyed to support backwards rotation. Semi-open impeller with Wear Plate is used for high specific speed for optimal performance.

**CASE COVER**

For single or double mechanical seals and flat machined face to precisely control the clearance with the expeller vanes.

**CASING**

Tangential discharge to improve the hydraulic efficiency, optimized for Duplex construction and withstand one time API-610 Forces and Moments. Double volutes to reduce radial thrust.

**MECHANICAL SEAL**

Single cartridge as standard in C/SiC construction and according to API 682 Cat 1.

**SEAL GUARD**

Protect stuffing box components, especially the mechanical seal.

**COOLING COIL**

Connected to a water line as optional for high temperature applications.

# CRP-X

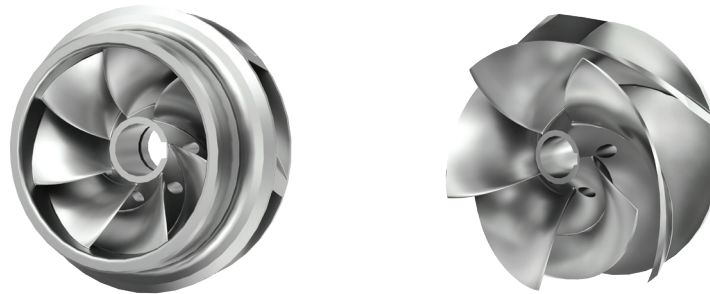
## Single Stage End Suction Pump

### Design Features

#### DESCRIPTION

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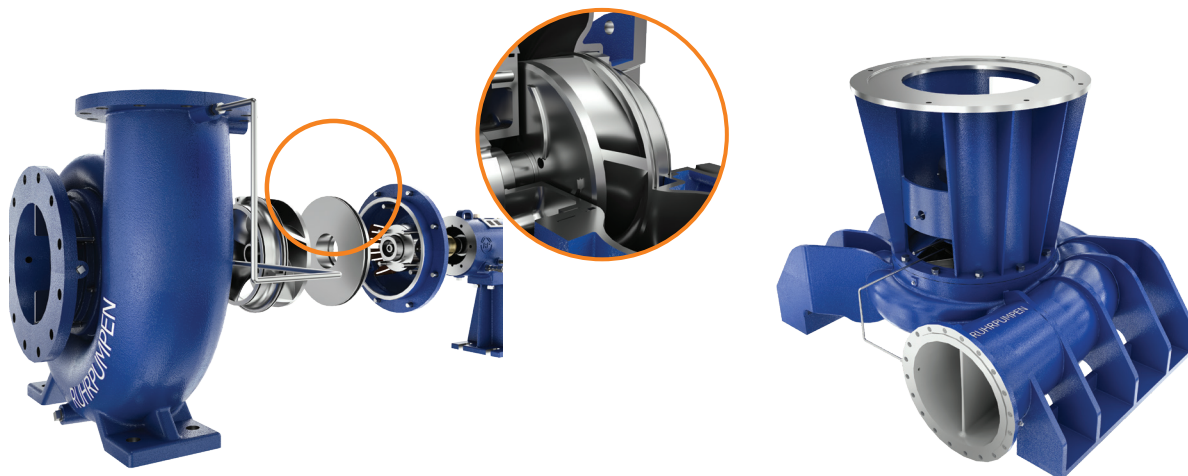
- Radially split case with tangential discharge and clockwise rotations (view from coupling end).
- Enclosed impellers.
- Semi-open impeller.



#### BENEFITS

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- CFD-optimized hydraulic designs to achieve state-of-the-art Efficiencies.
- Back Pull-Out design for ease of maintenance, allows removal of pump assembly without disturbing casing flange connections.
- Axially adjusted wear plate for semi-open impellers.
- Very competitive weights in the market.
- Possibility to adjust the design and materials to different markets.
- Possibility to adapt the design in vertical configuration.



## OPTIONAL FEATURES

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- Case and Impeller wear rings.
- Double mechanical seals acc. to API 682 Cat 1.
- Constant Level Oiler.
- Cooling Coil for high temperature applications.
- Oil mist lubrication.
- The number of vanes and the type of impellers vary according to the pump's needs to ensure best efficiency.



## MATERIALS OF CONSTRUCTION

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- Duplex A890 Gr. 3A (CD6MN).
- Super Duplex A890 Gr. 5A (CE3MN).












## +75 years creating the pumping technology that moves our world

Ruhrpumpen is an innovative and efficient pump technology company that offers highly-engineered and standard pumping solutions for the oil & gas, power generation, industrial, water and chemical markets. We offer a broad range of centrifugal and reciprocating pumps that meet and exceed the requirements of the most demanding quality specifications and industry standards such as API, ANSI, UL, FM, ISO and Hydraulic Institute.



### Ruhrpumpen Plants

-  ARGENTINA, Buenos Aires
-  BRAZIL, Rio de Janeiro
-  CHINA, Changzhou
-  EGYPT, Suez
-  GERMANY, Witten
-  INDIA, Chennai
-  MEXICO, Monterrey
-  UK, Lancing
-  USA, Tulsa

-  Manufacturing plant & service center
-  Service center