



Specialist for Pumping Technology

INNOVATION
EFFICIENCY
QUALITY



SCE

Heavy Duty, Single Stage, Overhung
API 610 Process Pump (OH2)

For more than 60 years the name Ruhrpumpen™ has been synonymous worldwide with innovation and reliability for pumping technology

Ruhrpumpen is an innovative and efficient centrifugal pump company that offers operators of Pump Systems a wide range of quality products. Ruhrpumpen is committed to worldwide excellence, with a complete range of pumps to support core markets such as Petrochemical, Oil & Gas, Power, Heavy Industry Applications, Mining and Water. Our broad product line complies with the most demanding quality standards and industry specifications such as: API, ANSI and Hydraulic Institute Standards.

Ruhrpumpen is vertically integrated with its own foundry, machine shop, pump manufacturing plants and service centers. With strategically located manufacturing plants, operating offices and service centers in many parts of the world, Ruhrpumpen truly is a global pump company which also has the strength to focus on the local necessities of each client.

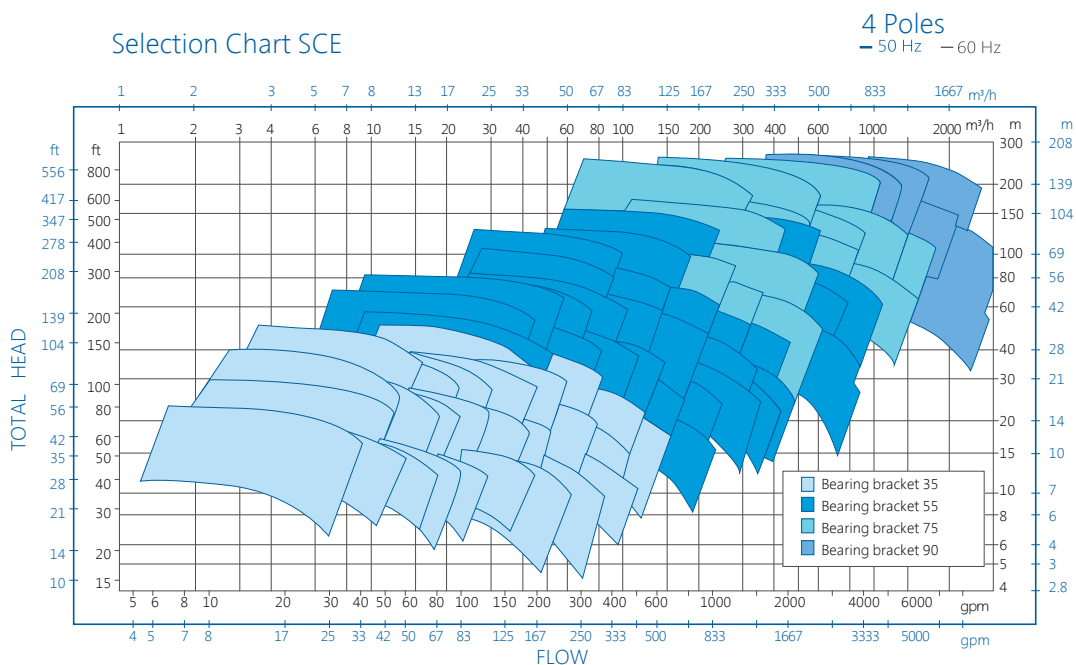
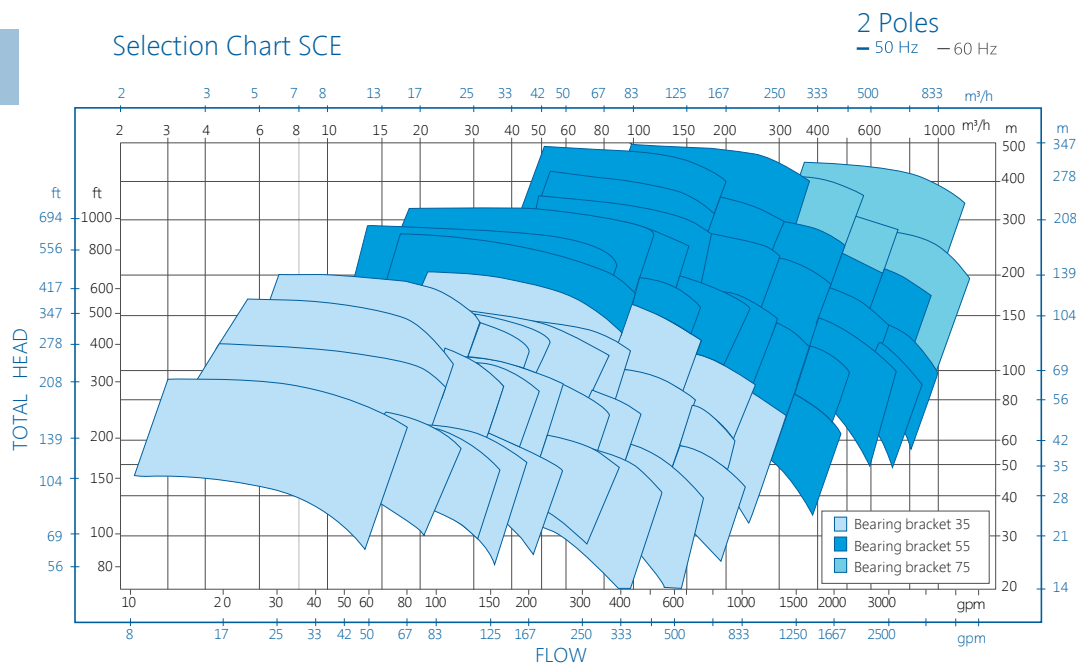
Single Stage Overhung Pumps

The SCE process pumps (OH2) are horizontally mounted, radial split case, single stage, single suction, heavy-duty centrifugal process pumps with a back-pull-out design for easy maintenance. They are designed for continuous duty, pumping various fluids, with a combination of mechanical and installation features for applications in petroleum, petrochemical, and industrial products service. The SCE pump is designed to comply with the latest editions of API 610 and API 682.

With over 130 hydraulic combinations available for the SCE pump, almost all customer requirements are covered. We have the latest engineering techniques and tools such as 3D Modeling and Finite-Element Analysis to assure our customers the best product quality.

**SCE**

Performance Range



Broad Application Range

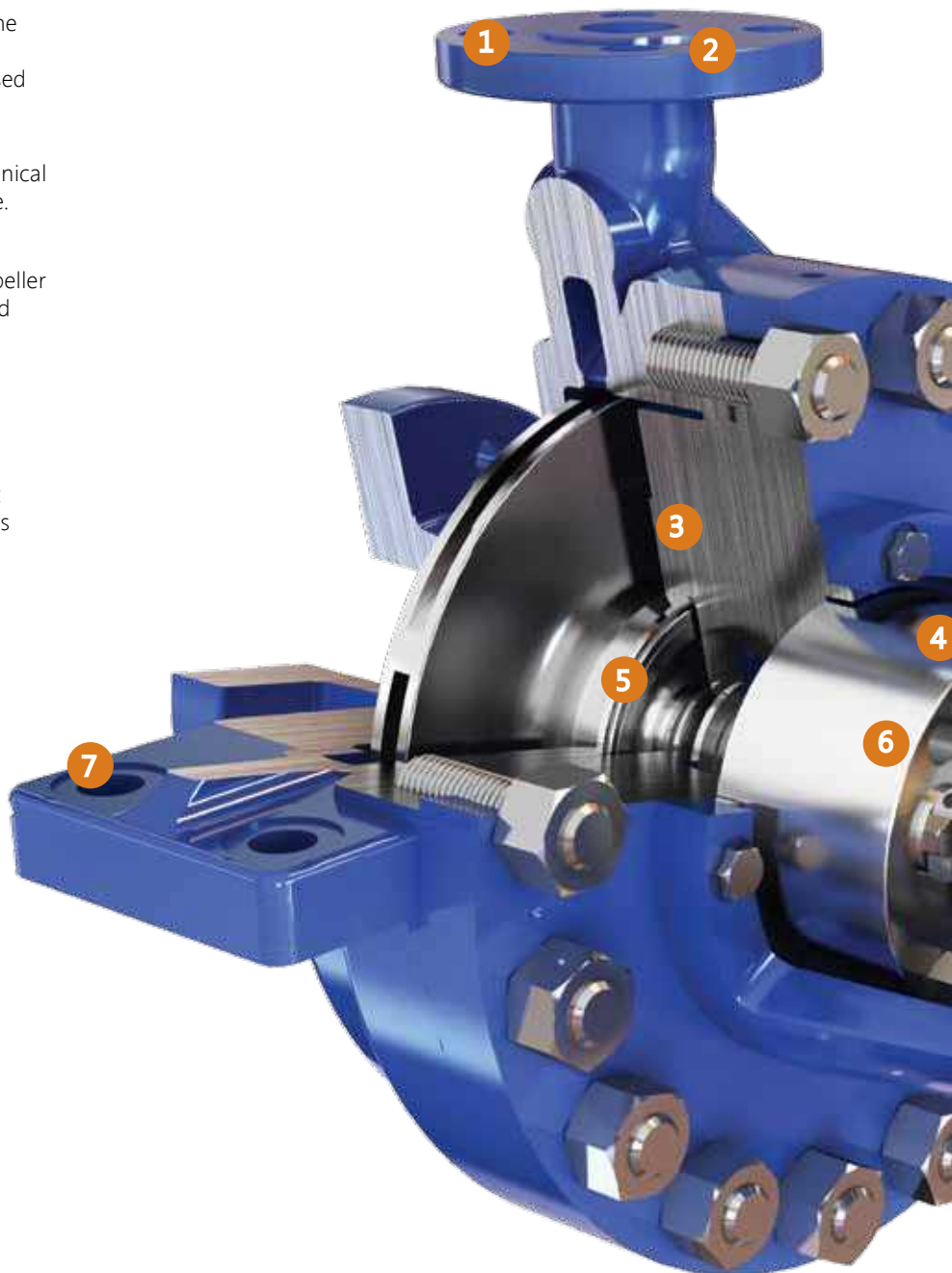
- Petroleum Refining, Production and Distribution (Pipeline)
- Petrochemical and Chemical Industry
- Gas Industry Services
- Hydrocarbon Processing
- Hot Oil Service
- Utilities
- Boiler Feed Recirculation and HRSG Recirculation
- Water
- General Industry



Characteristics

- 1 75 volute casing pump sizes for 50 and 60Hz operation. Centerline discharge nozzles from 1" to 12", in compliance with API 610, latest Edition.
- 2 Suction & Discharge Nozzles integrally cast with casing. 300# Nozzles are standard while 600# available as option.
- 3 Casing/Casing cover in metal-to-metal contact. The Non-asbestos spirally wound gasket is made of stainless steel/graphite foils and it is totally enclosed ensuring sealing without misalignment.
- 4 Lap-joint connection (registered design) to mechanical seal. Easy maintenance. Integrated orifice possible.
- 5 Full complement of renewable front and back impeller wear rings, casing and casing cover wear rings and throat bushing are standard.
- 6 Mechanical seal chamber dimensions according to API 610 and API 682.
- 7 Centerline mounted case features a back-pull-out design for easy maintenance. The casing as well as the fully welded, fabricated steel baseplate with integrated dripplate are fully compliant to API.
- 8 Available Cooling Coil in Bearing Housing for effective Oil Cooling.
- 9 Bearing Bracket designed with internal taper to prevent oil flow to mechanical seal during disassembly.
- 10 Per API 610, bearing bracket and casing cover are provided with pre-determined permanent locations to inspect vibration and oil/bearing temperatures.
- 11 Increased bearing bracket stiffness for heavy duty service, guarantees low vibration levels, ensuring safety and reliability.
- 12 Versatile labyrinth seals and bearing isolators designed to work with either oil or oil mist lubrication.
- 13 Bearing bracket is designed with effective and proven ring oil system for optimal and effective bearing lubrication.

- 14 Antifriction bearings robustly designed to provide L10 bearing life above API 610 requirements.
- 15 Bearing Bracket fins and standard fan cooling combine to reduce bearing temperature and maximum heat dissipation.



* Image for Illustration purposes not actual construction *

Description

- 16** Bearing Bracket provided with sight glass and constant level oiler for visual inspection and oil sampling.
- 17** Shaft deflection of less than 0.0011in (0.03mm) in the stuffing box area is achieved through the usage of a robust, large diameter shaft of minimum length, correct sizing of the bearings, and the use of double volutes when needed. This optimal combination ensures a lower L3/D4 ratio.
- 18** Water cooling with finned-tube insert is optional to allow the bearing bracket to maintain optimal oil/bearing temperature.

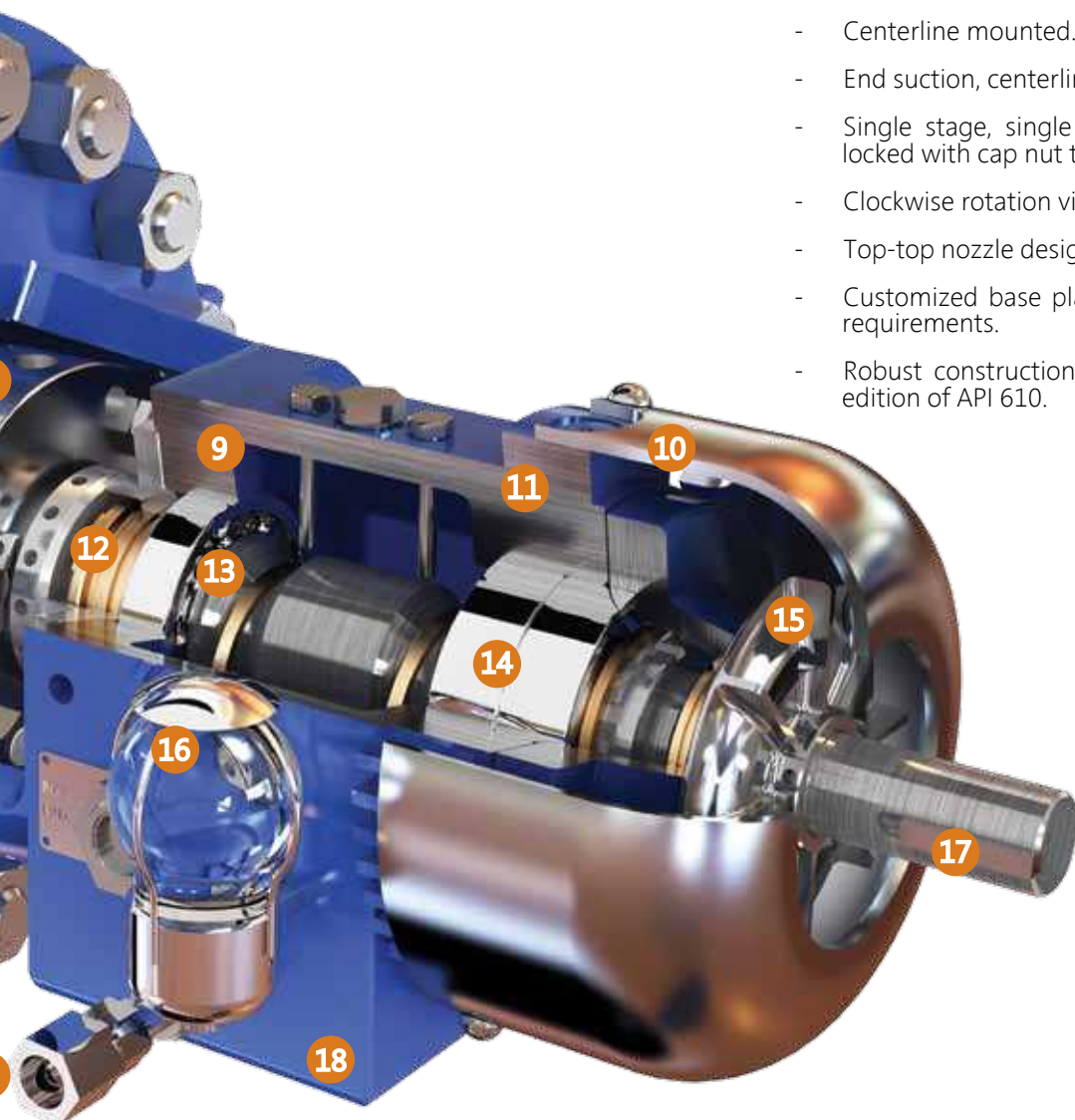
PERFORMANCE DATA

Capacity	up to 14,000 gpm	3,200 m ³ /h
Head	up to 1,575 ft	480 m
Flange size	1 to 12 in	
Pressure	up to 1,300 psi	90 bar
Temperature	-110 °F to 850 °F	-80 °C to 450 °C

Note: For pump operation outside this range, please contact a Ruhrpumpen representative

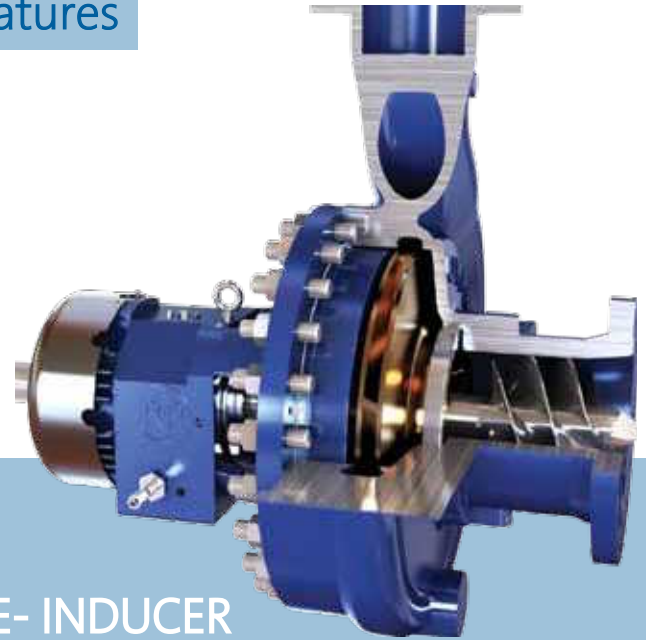
PRODUCT DESCRIPTION

- Horizontal, radially split case, heavy-duty centrifugal process pump.
- Centerline mounted.
- End suction, centerline discharge.
- Single stage, single suction, enclosed impeller (keyed and locked with cap nut to the shaft).
- Clockwise rotation viewed from the driver end.
- Top-top nozzle design available.
- Customized base plate available to meet specific customer requirements.
- Robust construction is designed to comply with the latest edition of API 610.

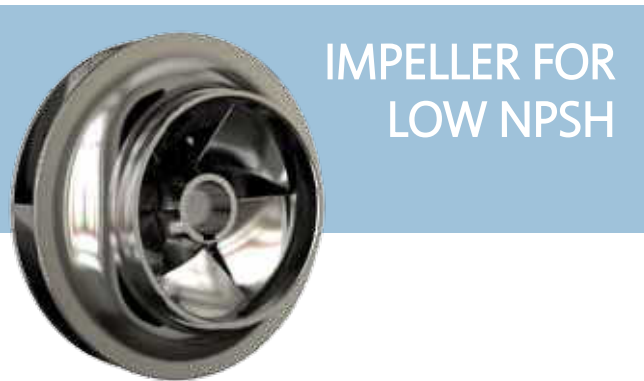


Special Configurations and Optional Features

- For low flow applications.
- For medium pressure.
- For high pressure applications up to 1,300 psi (90 bar).
- In case of low NPSH available values, the installation of an inducer is possible.
- Coke Crusher configuration also available.
- Water cooling for bearing bracket if needed.
- Heat flinger. Dissipates shaft-conducted heat.
- Different impeller types
 - A – For low NPSH (standard)
 - B – For higher flow
- Pure/purge oil mist lubrication available.
- Flushed Wear Rings and Non Metallic Wear Rings for abrasive services available.



SCE- INDUCER



IMPELLER FOR
LOW NPSH

Other Benefits

- Our centerline discharge nozzle is designed to withstand higher piping loads than other discharge designs.
- Balancing holes in impeller reduce axial thrust.
- Longer bearing life due to the lower axial thrust.
- Solutions for high suction pressure services.
- We have over 130 hydraulic combinations to cover almost all of our customer's requirements.
- Available in a wide range of materials (A8, C6, D1, D2, S1, S5, S6, S8, T1, T2).
- Back-pull-out design for easy maintenance.



Synergetic Retrofit®

Ruhrpumpen offers besides the more common mechanical retrofits, also Power retrofits (including impellers) to improve operations and save money on energy. This might be necessary when pump operating conditions have been changed, if we have excessive wear ring clearances or there might even be new (better) techniques in the market. Ask your Ruhrpumpen representative for more information.

Other Ruhrpumpen Products



Vertical Circulator and Mixed Flow pump

Open, semi-open and closed impellers available. Optimum hydraulic coverage, integral bearing retainer, above or below ground discharge, space saving construction. Engineered to customer specifications.

Power Generation, Cooling Tower, Water Services, Waste Treatment Plants, Sump Drainage and Industrial Service.



Multi-stage Axially Split Casing Pump

Near-centerline mounted, double volute casing, single or double suction, radial, enclosed impeller. Heavy duty process design according to API 610 latest edition (Type BB3)

Fluid Injection, Oil Fields and Terminals, Water, Crude Oil and Oil Product Pipelines and Power Plants.



Horizontal Process Pumps Two Stage

Radially split, horizontal center line mounted centrifugal pump. Single suction, radial, closed impeller. Heavy duty process design according to API 610 latest edition (Type BB2).

Refineries, Oil Fields, Reverse Osmosis, Chemical and Petrochemical Plants.



Vertical Barrel Pump

Low NPSH "Shockless Entry" first stage impeller (single or double suction), Single or multi-stage. Heavy duty process design according to API 610 latest edition (Type VS6).








Condensate, Power Plants, Municipal, Hydrocarbons, Pipeline and Refineries.



With every project you can count on **QUALITY, SERVICE, EXPERTISE, INNOVATION** and **COMPETITIVENESS**.
Because we have a commitment to each customer, the community, and the world.
We are Ruhrpumpen, the specialist for pumping technology!



RUHRPUMPEN PLANTS

-  GERMANY, Witten
-  USA, Tulsa & Orland
-  MEXICO, Monterrey
-  EGYPT, Cairo
-  INDIA, Chennai
-  BRAZIL, Rio de Janeiro
-  ARGENTINA, Buenos Aires

More Information:

