RUHRPUMPEN

Specialist for Pumping Technology

CPP

Single Stage, End Suction, ANSI Process Pump (Enclosed Impeller)

+75 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 Instiute (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

360°

Ruhrpumpen is your single source supplier

- Original Equipment
- Spare parts
- Installation and startup support
- Repair and maintenance
- Engineering, training an 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

CPP ANSI Chemical Process Pump

The CPP line is designed to meet or exceed ANSI B 73.1 specifications. All CPP pumps are designed around a single, basic hydraulic and mechanical design concept which ensures efficiencies across a wide spectrum of operating conditions, unparallel application flexibility and superior interchangeability.

This rugged process pump is designed to operate dependably and even in the toughest industrial applications.

The CPP line features 35 sizes to precisely meet service conditions within a wide range of hydraulic parameters including low flow high head parameters. The line was also designed to accommodate many different optional features such as wear rings on casing and impeller or water jackets for stuffing boxes and bearing housings.

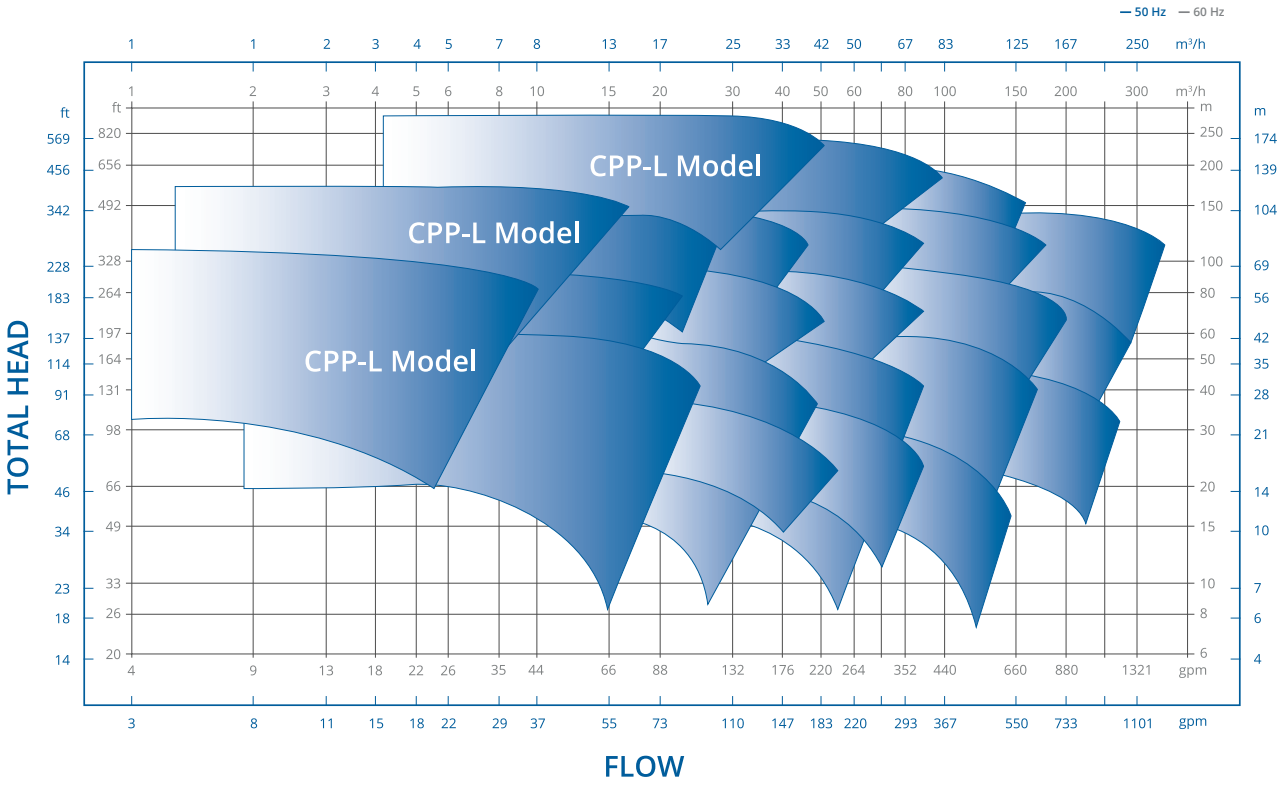
CPP-L

Low Flow, High Head Model

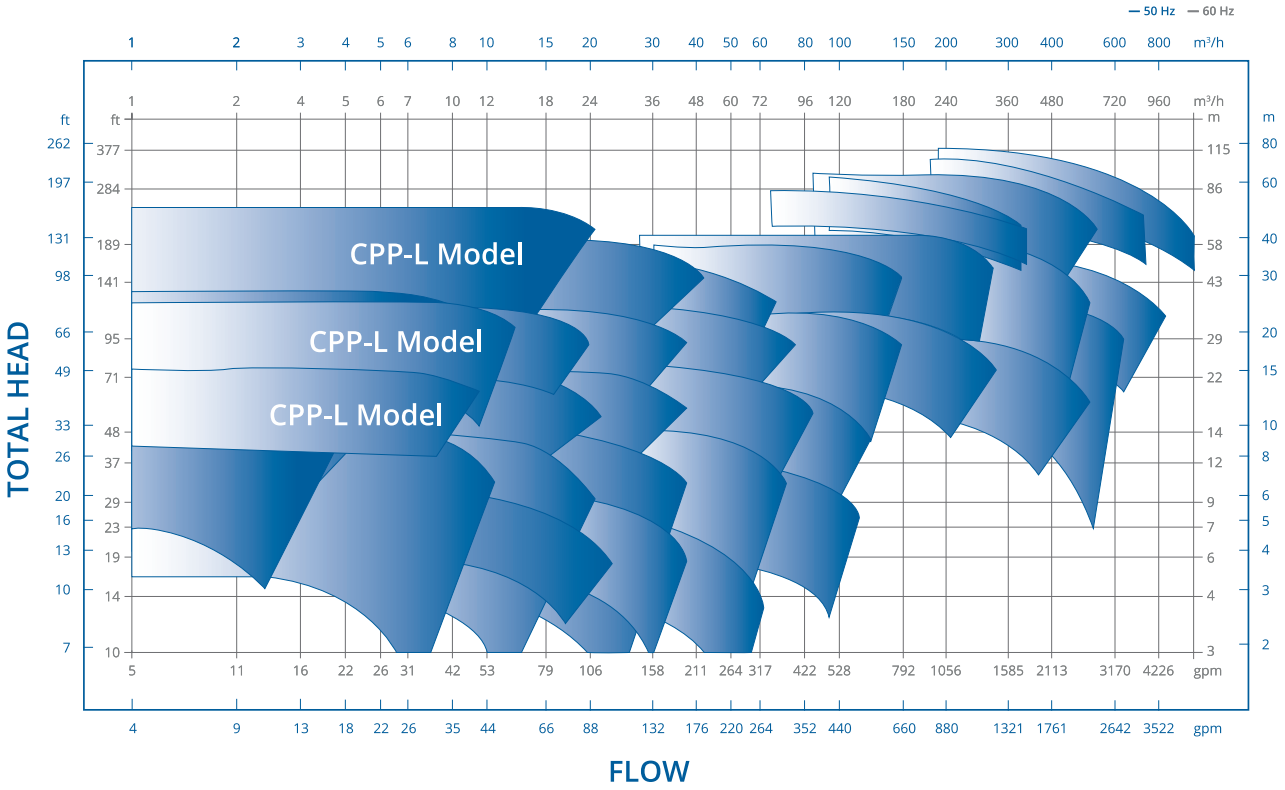
Ruhrpumpen offers its CPP-L Low Flow, High Head pump model. It's radial vane impellers are specially designed to reduce the thrust load and seal chamber pressure normally associated with low flow application and it also complies with the ANSI B 73.1 Standard.

Performance Range

CPP / CPP-L 2 Poles



CPP / CPP-L 4 Poles



Characteristics

1 Bearing vibration monitoring ports standard.

2 The double row thrust bearing provides minimal shaft end play for extended mechanical seal life.

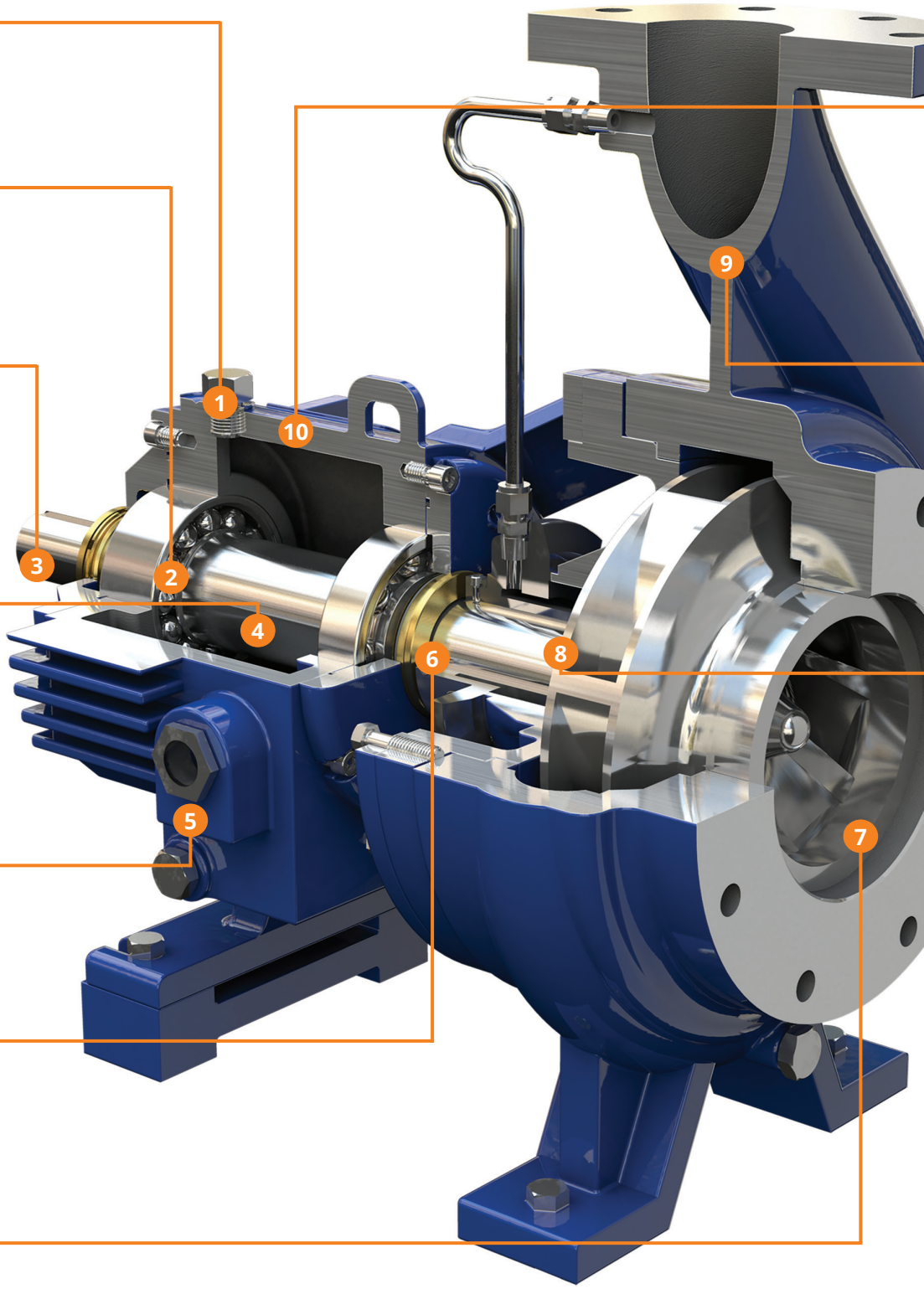
3 A robust 316SS solid shaft as standard for extended seal life (sleeved shaft optional).

4 **Lubrication**
- Grease/Oil Bath/Oil Mist capable without adjustments or different parts
- Large capacity bearing housing oil reservoir
- Optional finned oil cooler

5 Oversized oil sight glass mounted on both sides of the bearing unit (most sizes). Optional constant level oilers available.

6 Labyrinth bearing to protector oil or grease contamination.

7 Enclosed impeller design ensures maximum efficiency. The impeller itself is threaded and is positively locked onto shaft and sealed with an o-ring.



Images for general arrangement use only, not certified for construction.

10 The heavy-duty power frame of the CPP incorporates an integrated fin design for additional oil cooling and heat dissipation; a bearing housing heat exchanger is available as an option.

9 ANSI 150 # or 300 # flange drilling is available based on material selection. RF or FF designs are available based on requirements.

8 A large bore stuffing box design is standard for better cooling and circulating to the seal faces. Stuffing box cover for packing or mechanical seal applications, inside or outside, double or single, balanced or unbalanced seals, with any required gland connections.

CPP PERFORMANCE DATA

Capacity	5,000 U.S. gpm	up to 1,135 m³/h
Head	up to 770 ft	up to 235 m
Pressure	up to 375 psi	up to 26 bar
Temperature	50°F to 600°F	45°C to 315°C
Dis. Flange Size	1 to 8 in	

CPP-L PERFORMANCE DATA

Capacity	210 U.S. gpm	up to 48 m³/h
Head	up to 920 ft	up to 281 m
Pressure	up to 400 psi	up to 27.5 bar
Temperature	up to 700°F	up to 371°C
Dis. Flange Size	1 to 1.5 in	

Notes:

For pump operations outside this range, please contact a Ruhrpumpen Representative.

DESCRIPTION

Single stage, horizontal centrifugal pump

- Radially split casing with flanged connections.
- Horizontal end suction and vertical discharge on the center line.
- Enclosed impeller, clockwise rotation (viewed from coupling end).
- Outstanding L3/D4 deflection index.
- Foot mounted.
- Oil lubricated.
- ANSI B73.1 Standard.
- "Back pull-out" design allows pump disassembly without disturbing pipe connections.
- Standard or large bore stuffing boxes are available for packing, single, or double seals.
- All ANSI flush plans are offered, as needed, in a variety of configurations.
- C-Frame option is also available.
- Optional cooling jacket and cooling coil for high temperature applications.

BROAD APPLICATION RANGE

The Ruhrpumpen CPP is designed for a wide range of industrial, chemical process and municipal applications such as, but not limited to:

- Petrochemical
- Oil & Gas
- Steel Industry
- Automotive
- Agriculture
- Tank Farm
- Pulp and Paper
- Chemical
- Semiconductor
- Food Processing
- Power Generation
- Pharmaceuticals
- Water Treatment
- Paper Stock
- Pipeline
- General Industries
- Textile
- Mining

MATERIALS OF CONSTRUCTION

Ruhrpumpen CPP pump is available in many materials such as:

- Ductile Iron / Stainless Steel (CF8M)
- Stainless Steel (CF8M)
- Duplex (CD4MCu)
- Alloy 20 (C7NM)

We cover a large range of material options to satisfy every need, please contact us for more information.

More CPP models

CPP-L,
Low Flow, High Head Model

The CPP-L is the low flow option of the CPP product line, designed to fill the gap on the low flow side of the CPP range map. With low flow applications, it is important to reduce the radial load and potential shaft deflection issues. Ruhrpumpen's radial vane impeller and concentric pump casing for the CPP-L are specifically designed to reduce these issues at low flow or throttled operating conditions. The radial vane impeller with balance holes also reduces seal chamber pressures. This will lead to increased seal and bearing life and less unplanned system downtime.

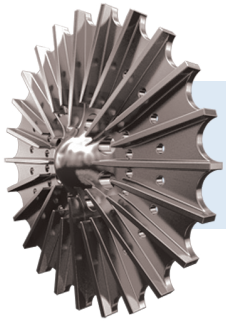
CPP-L

Design Features

CPP-L utilizes external impeller adjustment to restore pump efficiency and reduce downtime.

Complies with ANSI B73.1 Standard, this pump can be used to replace existing equipment without any problem. There will be no need for piping or base changes.

Ruhrpumpen's CPP-L series is designed with a circular concentric casing together with a radial vane impeller to minimize shaft deflection and reduce excessive radial loads and thus prolonging bearing and seal life.



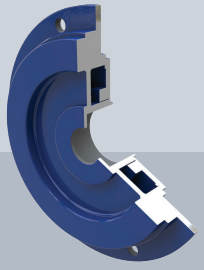
CPP-L IMPELLER

High Temperature Options for CPP and CPP-L

Cooling options

Cooling Jacket

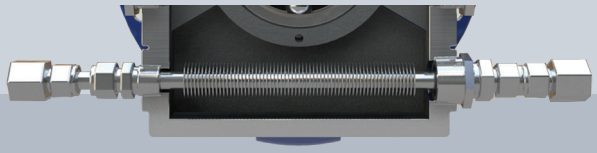
Designed to control seal's temperature.



Cooling Jacket

Cooling Coil

Cools oil with minimum cooling water, ideal for oil temperatures up to 350°F (177°C).



Cooling Coil

Other Ruhrpumen Products

ANSI Vertical In-Line Close Coupled Pump

IIL - Back pull-out design, CI/SS impeller, packing box cover, casing-flanged suction, front wear rings, manual vent plug.

Chemical, Petrochemical, Petroleum, Coal, Fiber, Pulp and Paper, Food and Beverage, Pharmaceutical Fats and Oils, Soap, Paint, and Automotive.

Vertical Turbine Pump

VTP - Multistage vertical centrifugal pump with diffuser type bowl, semi-open / enclosed impellers, cast iron bowls, counterclockwise rotation viewed from coupling end.

Deep well and Irrigation, Cooling Tower, Sump, Condensate, Can Pump requirements.

Vertical In-Line Pump Rigid Coupled Pump

IVP - Rigid-coupling, flanged suction and discharge on common centerline, up to 350 psi, fully enclosed, impeller with hydraulic balance which prevents vibration, radially splitcase.

Fire Service, Air Conditioning Systems, Condensed Water, Ice Water, Service Water, Ocean Water, Building Water Supply Systems.

Sump Pump

VSP - Single Stage single suction vertical centrifugal pump, volute type case, flanged and threaded discharge, cast iron casing, flexible coupling.

Sump Drainage, Flood Control, Air Wash Systems, Power Plants, Chemical Industry, Municipal Systems, Water Treatment, Process Plants, Sewage Lift Stations.

Submersible Sewage Pump

NE - Cast Iron body, multipurpose pump, double mechanical seal, discharge nozzle up to 6", semi-open impeller.

General Industry, Commercial, Irrigation, Farming, Landscaping.

Horizontal Split Case Pump Single Stage

HSD - Single stage double suction horizontal centrifugal pump, foot mounted, oil or grease lubricated bearings.

Dewatering, Mining, Water, Fire service, Cooling Towers, Municipal, Oil Process, Petrochemical, Sugar Industry, Paper Industry, Pipeline, Power Generation.

+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