



*Specialist for Pumping Technology*

INNOVATION  
EFFICIENCY  
QUALITY



**CPP**

Heavy Duty, Single Stage  
ANSI Chemical Process Pump

## 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 technology company and offers operators of Pump Systems, a wide range of quality products. Ruhrpumpen is committed to global excellence with a complete range of Pumps, Fire Pump packages and related products, such as Decoking Systems and Tools to support the core markets, namely Oil & Gas, Petrochemical, Power, Heavy Industry applications, Mining and Water services. The broad product line complies with the most demanding quality specifications and go beyond stringent industry standards such as API, ANSI, Hydraulic Institute, Underwriter's Laboratories, Factory Mutual and ISO 9001.

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.

Ruhrpumpen is proud to introduce it's newest 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.

Ruhrpumpen's quality program and in-house foundry, along with the latest testing equipment, ensures that the pumps we manufacture will provide long operating life, even under the most severe conditions.

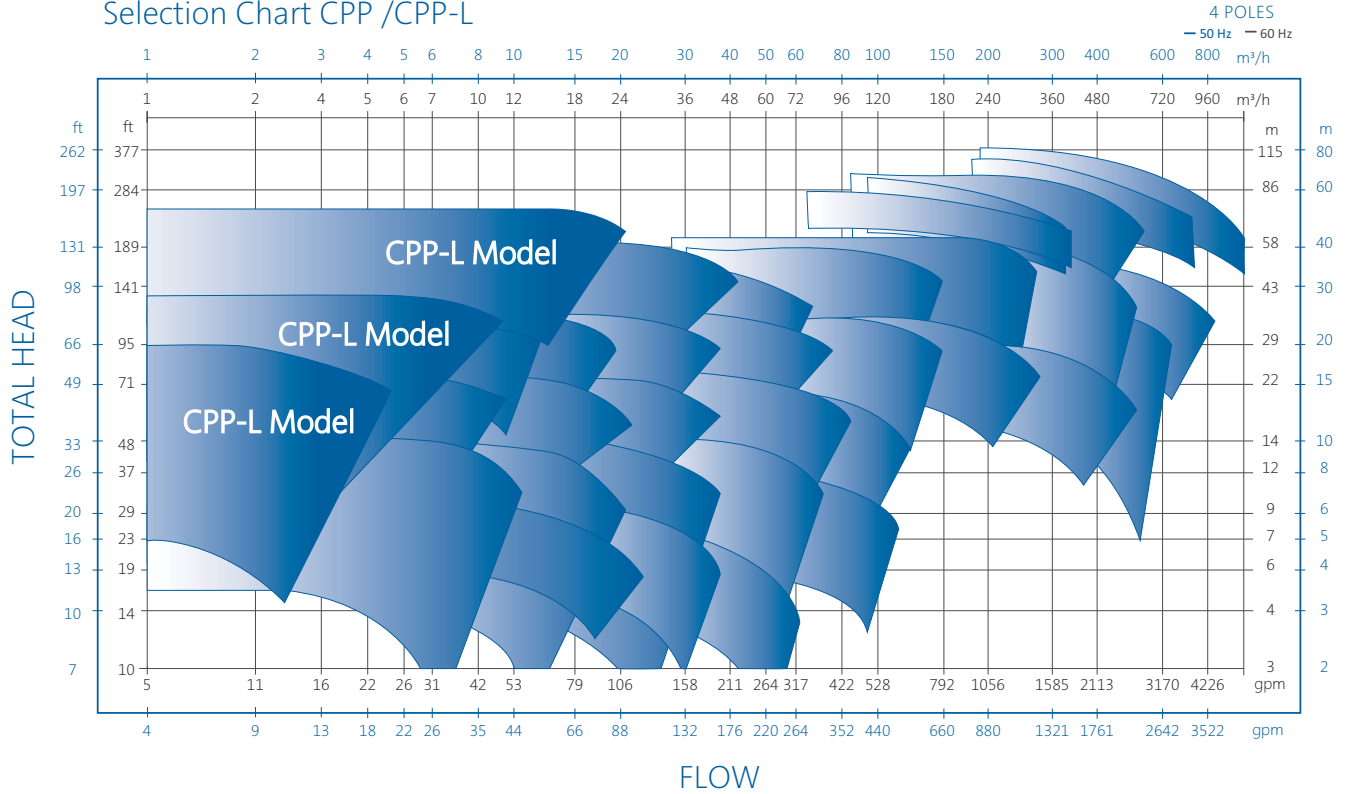


C-Frame assures  
proper alignment  
and better seal life.

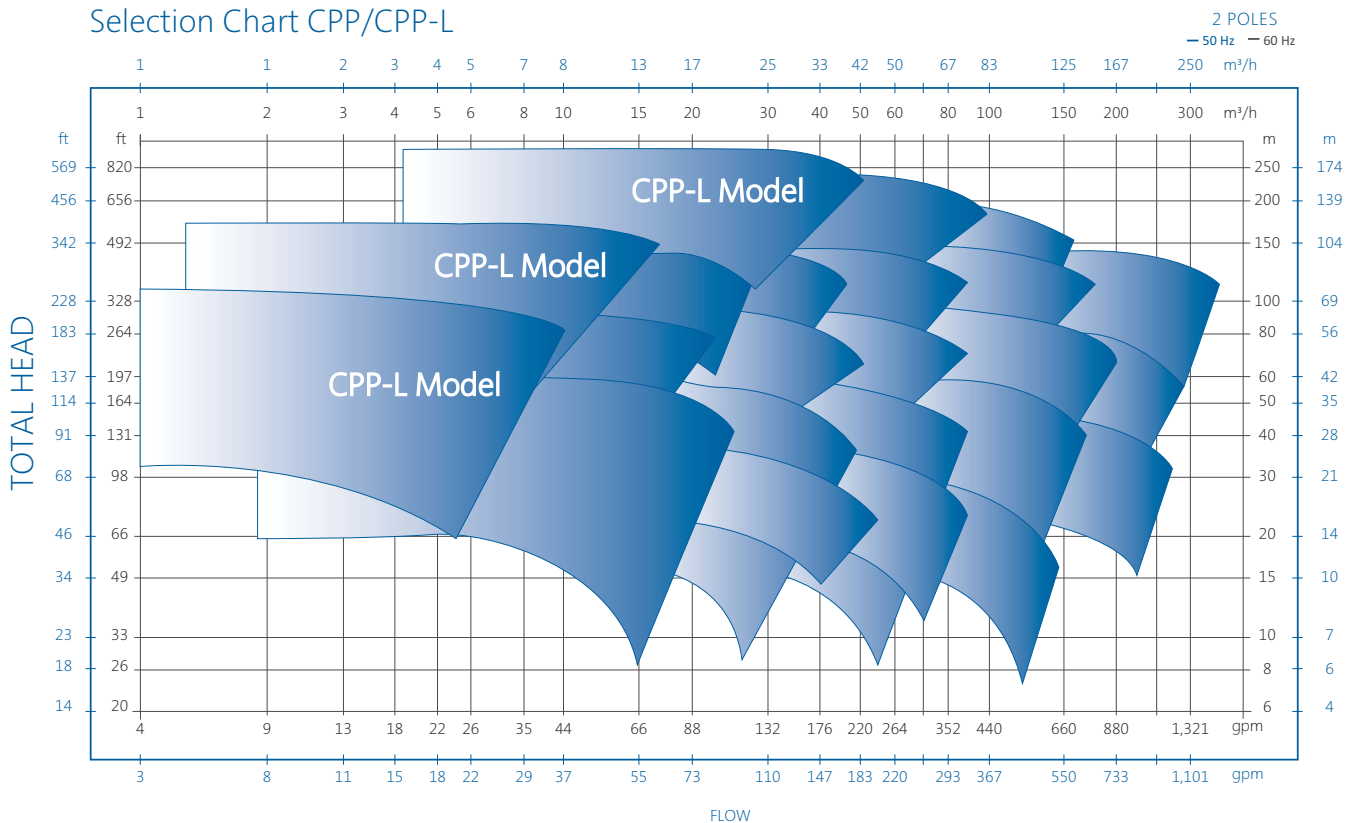
# C-FRAME

## Performance Range

Selection Chart CPP /CPP-L



Selection Chart CPP/CPP-L



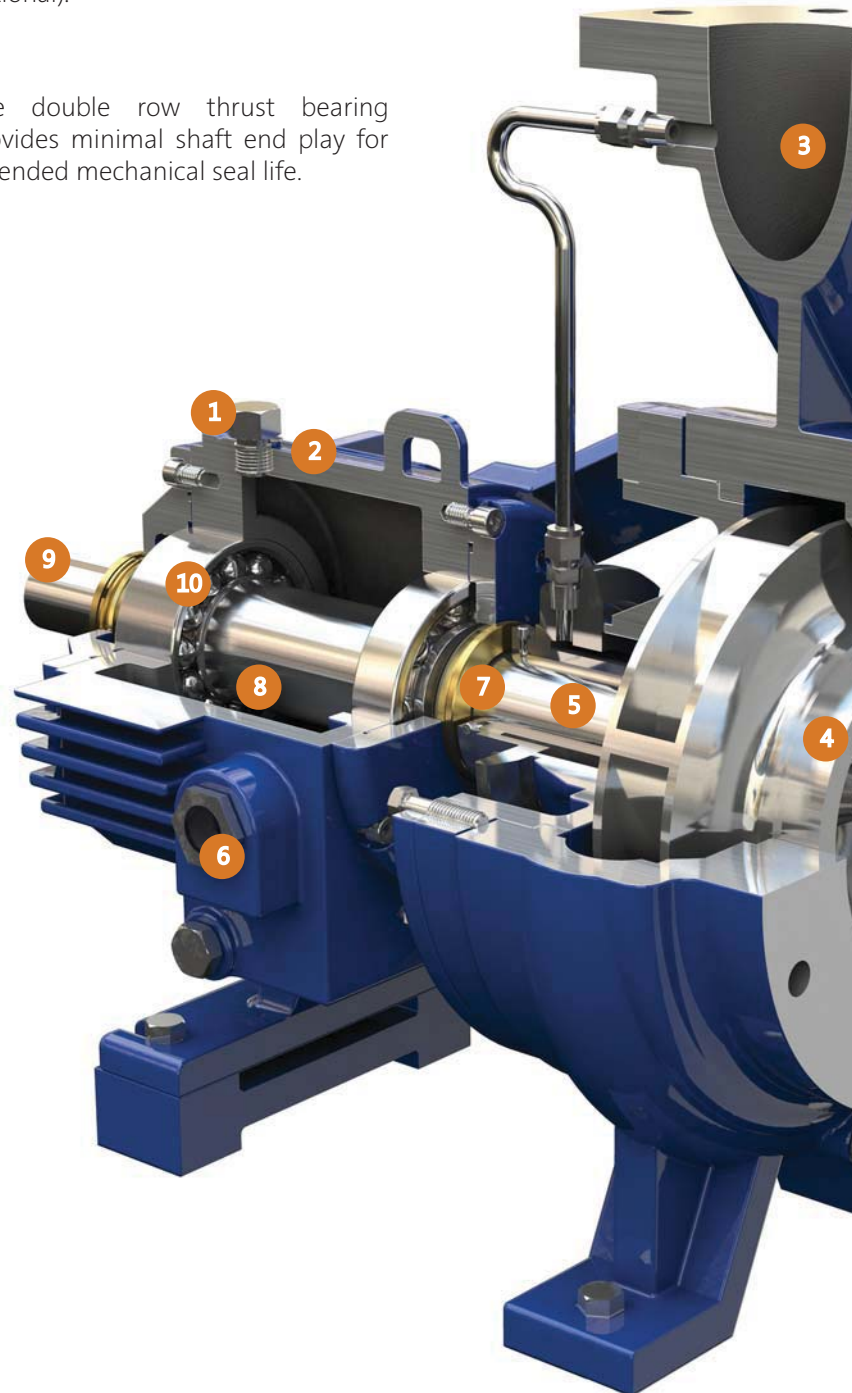


## Characteristics

- 1 Bearing vibration monitoring ports standard.
- 2 The heavy-duty power frame of the CPP incorporates an integrated fin design for additional oil cooling and heat dissipation; bearing housing heat exchanger is an available option.
- 3 ANSI 150 # or 300 # flange drilling is available based on material selection. RF or FF designs are available based on requirements.
- 4 Enclosed impeller design ensures maximum efficiency. The impeller itself is threaded and is positively locked onto shaft and sealed with an o-ring.
- 5 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.
- 6 Oversized oil sight glass mounted on both sides of the bearing unit (most sizes). Optional constant level oilers available.
- 7 Standard Inpro/Seal® bearing Isolators.
- 8 Lubrication
  - Grease/Oil Bath/Oil Mist capable without adjustments or different parts.
  - Large capacity bearing housing oil reservoir.
  - Optional finned oil cooler.

All Ruhrpumpen ANSI pumps are pe  
to ensure compliance with H

- 9 A robust 316SS solid shaft as standard for extended seal life (sleeved shaft optional).
- 10 The double row thrust bearing provides minimal shaft end play for extended mechanical seal life.



\*Sectional only applies to the CPP; the CPP-L design is not illu  
\*Images for illustration purposes, not actual co

Performance tested prior to shipment  
Lead and Flow requirements.

## CPP PERFORMANCE DATA

Capacity	5,000 U.S. gpm	up to 1,135 m <sup>3</sup> /h
Head	770 ft	up to 235 m
Pressure	375 psig	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 m <sup>3</sup> /h
Head	920 ft	up to 281 m
Pressure	400 psig	up to 27.5 bar
Temperature	700 °F	up to 371 °C
Dis Flange Size	1 to 1.5 in	

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

## MATERIALS OF CONSTRUCTION

Ruhrpumpen's CPP pump is designed in many standard materials such as:

- Ductile Iron / Stainless Steel (CF8M)
- Stainless Steel (CF8M)
- Duplex (CD4MCu)
- We cover a large range of material options to satisfy every need, please contact us for more information.

## Description

### PRODUCT DESCRIPTION

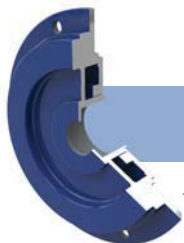
- Single stage horizontal centrifugal pump.
- Radially split casing with flanged connections.
- Horizontal end suction and vertical discharge on the center line. Enclosed impeller, clockwise rotation (viewed from coupling end).
- Outstanding L<sup>3</sup>/D<sup>4</sup> deflection index.
- Foot mounted.
- Oil lubricated.
- ANSI B 73.1 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.
- New CPP-L Low Flow, High Head design models available.
- 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

## High Temperature Options



### Cooling Jacket

- Designed to control seal's temperature .



### Cooling Coil

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

## Introducing our new CPP-L, Low Flow, High Head Models

### CPP-L DESCRIPTION

- 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.
- Complies with the ANSI B 73.1 Standard, this pump can be used to replace existing equipment without any problem. There will be no need for piping or base changes.

### CPP-L IMPELLER



### LOW FLOW, RADIAL VANE IMPELLER FOR THE CPP-L

- 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

- 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 utilizes external impeller adjustment to restore pump efficiency and reduce downtime.
- Optional Cooling Jacket for high temperature case covers.





## Other Ruhrpumpen Products



### End Suction Fire Pumps

Our End Suction Fire Pumps are according to ANSI design and are listed by Factory Mutual.

- NFPA-20
- UL-448
- FM-1319

-Fire pump units and package systems available upon request  
The CPP is also available as a Jockey Pump.



### Sump Pump

Vertical arrangement, single suction, single stage.

Applications:  
Water, Hydrocarbons and Chemical solutions.



### Single Stage Horizontal Pump

Overhung, radially split, flanged connectors, enclosed impeller, mechanical seal

Applications:  
Municipal, General Industry, Irrigation, Fire Service and Pressure Equipments.



### Vertical Turbine Pump








Multi-stage vertical, centrifugal pump with diffuser type bowl.

Applications:  
Deep Well & Irrigation, Sumps, Fire Service, Municipal and Industrial.





## RUHRPUMPEN PLANTS

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

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Represented by:

