



*Specialist for Pumping Technology*

INNOVATION  
EFFICIENCY  
QUALITY



**SMF**

Vertical Submersible Pump

# More Than 60 Years Developing The Pumping Technology That Drives Progress

## Engineering Excellence

Ruhrpumpen is an innovative and efficient pump technology company that offers highly engineered, custom made solutions for the oil & gas, chemical, energy, nuclear, water and industrial markets.

## Working Towards Innovation

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.

## The Most Efficient And Reliable Pump Systems Worldwide

Ruhrpumpen offers a broad range of pump products that meet and exceed the requirements of the most demanding quality specifications and industry standards.

Products include:

- Single-Stage Overhung Pumps.
- Single and Multi-Stage Between Bearings Pumps.
- Vertical Multistage Pumps.
- Positive Displacement Pumps.
- Full range of industrial products.
- Submersible Pumps.
- Magnetic Drive Pumps.
- Decoking Systems.
- Packaged Systems.
- Fire Pump Systems.



## Exceeding Customer Expectations

No other pump company has the capability to adapt so quickly to their customer needs, ensuring faster response times and better customer care.

## SMF Pump

Ruhrpumpen SMF, is a vertical submersible mixed flow pump for installation in a steel tube or a concrete well, designed with recently hydraulic improvements, resulting in a better performance and lower total cost for end users. High-level fluids engineering enables a wide hydraulic coverage with a reduced number of basic designs.

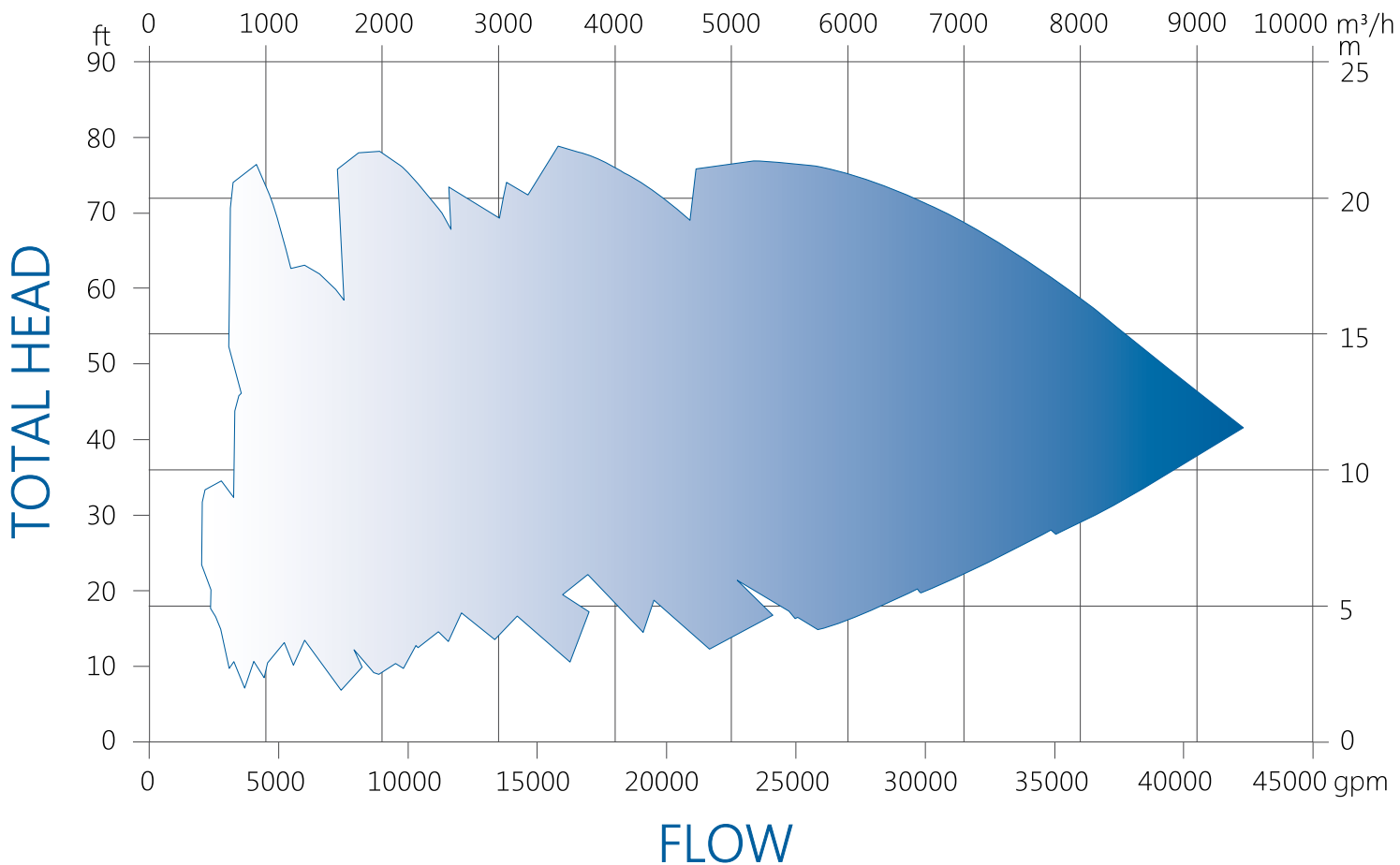
A modular design allows for interchangeability among components with other pump sizes from the same family, which is translated in lower costs for upgrades and spare parts. The typical applications for these pumps include commercial and industrial water processing.

The installation of high-tech sensing electronics ensures a reliable performance during operation.

### Performance Range

### Selection Chart SMF

4-14 POLES



### Characteristics



- 1** MIXED FLOW IMPELLER. Impeller options for multiple purposes.
- 2** DRY RUNNING. Three-phase induction motor with squirrel cage rotor and winding protection.
- 3** HUMIDITY PROBE. In the oil chamber for early indication of inspection, based on the water- to-oil ratio.
- 4** COLLECTION CHAMBER . With a float switch located underneath the lower bearings.
- 5** SHAFT SEALING. By two mechanical seals.
- 6** DOUBLE ROW THRUST BEARINGS. Grease lubricated and free of maintenance.
- 7** WATER TIGHT. Encapsulated terminal housing.
- 8** WATER TIGHT. Replaceable cable inlet.
- 9** THE PUMP. Is placed via an O-Ring and without any fixing devices on a machined, conical supporting and centering ring.

-Images for illustration purposes not actual construction.

### PERFORMANCE DATA

Capacity	up to 9,000 m <sup>3</sup> /h	40,000 U.S. gpm
Head	up to 20 m	65 ft
Pressure	up to 10 bar	150 psig
Temperature	0 °C to 150 °C	300 °F
Speed	500-1800 RPM	

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

### MATERIALS

- Motor shaft: Carbon Steel and 12%Cr.
- Pump and motor castings: Cast Iron & Ductile Iron.
- Impeller: Cast Iron and 12% Chrome.

### DESCRIPTION

- Semi Open impellers
- Self centering by its own weight
- Submersible motor
- Clockwise Rotation
- Easy to install
- Large solid handling
- Self cooled induction motor
- Provided with submersible cable

### APPLICATIONS

- Water Works
- Irrigation and Drainage
- Power Stations
- Cooling Water Circuits

### OPTIONAL FEATURES

- Control Cabinets engineered to customer Specifications.
- Temperature monitoring of bearings via PT100.
- Discharge steel tube.



## Other Ruhrpumpen Products



Specialist for Pumping Technology

### ANSI Horizontal Process Pump



CPP - Single Stage end suction horizontal centrifugal pump, enclosed impeller, radially split casing with flanged connections. Petrochemical, Oil & Gas, Steel Industry, Automotive, Food Processing, Power Generation, Pharmaceuticals, Water Treatment, General Process.

### 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, Automotive.

### Vertical In-Line Pump Rigid Coupled Pump



IVP - Split-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.

### 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.

## RUHRPUMPEN PLANTS

- USA, Tulsa & Orland
- MEXICO, Monterrey
- BRAZIL, Rio De Janeiro
- ARGENTINA, Buenos Aires
- GERMANY, Witten
- EGYPT, Suez
- INDIA, Chennai
- CHINA, Changzhou
- UK, Lancing
- RUSSIA, Moscow

More Information:

