



*Specialist for Pumping Technology*



**SHD**

**Single stage, end suction, solids handling 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 that offers operators of Pump Systems and 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 goes beyond stringent industry standards such as API, ANSI, Hydraulic Institute, Underwriter's Laboratories, Factory Mutual and ISO 9001.

Ruhrpumpen is a vertically integrated company 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 is truly a global pump company which also has the strength to focus on the local necessities of each client.

## SHD Solids Handling Pump

Ruhrpumpen solids handling centrifugal pumps combine advanced engineering techniques and craftsmanship with low initial cost.

Our state-of-the-art, compact design provides the superior performance required to meet the widest possible range of service conditions encountered by industry and municipalities.

Ruhrpumpen offers a complete line of solids handling

pumps for both horizontal and vertical applications.

These pumps are capable of pumping liquids with solids from 3" to 6" in diameter.

Applications include water, waste water, sewage, pulp and paper, mining, and many other industrial and municipal applications, in either single or parallel operation.

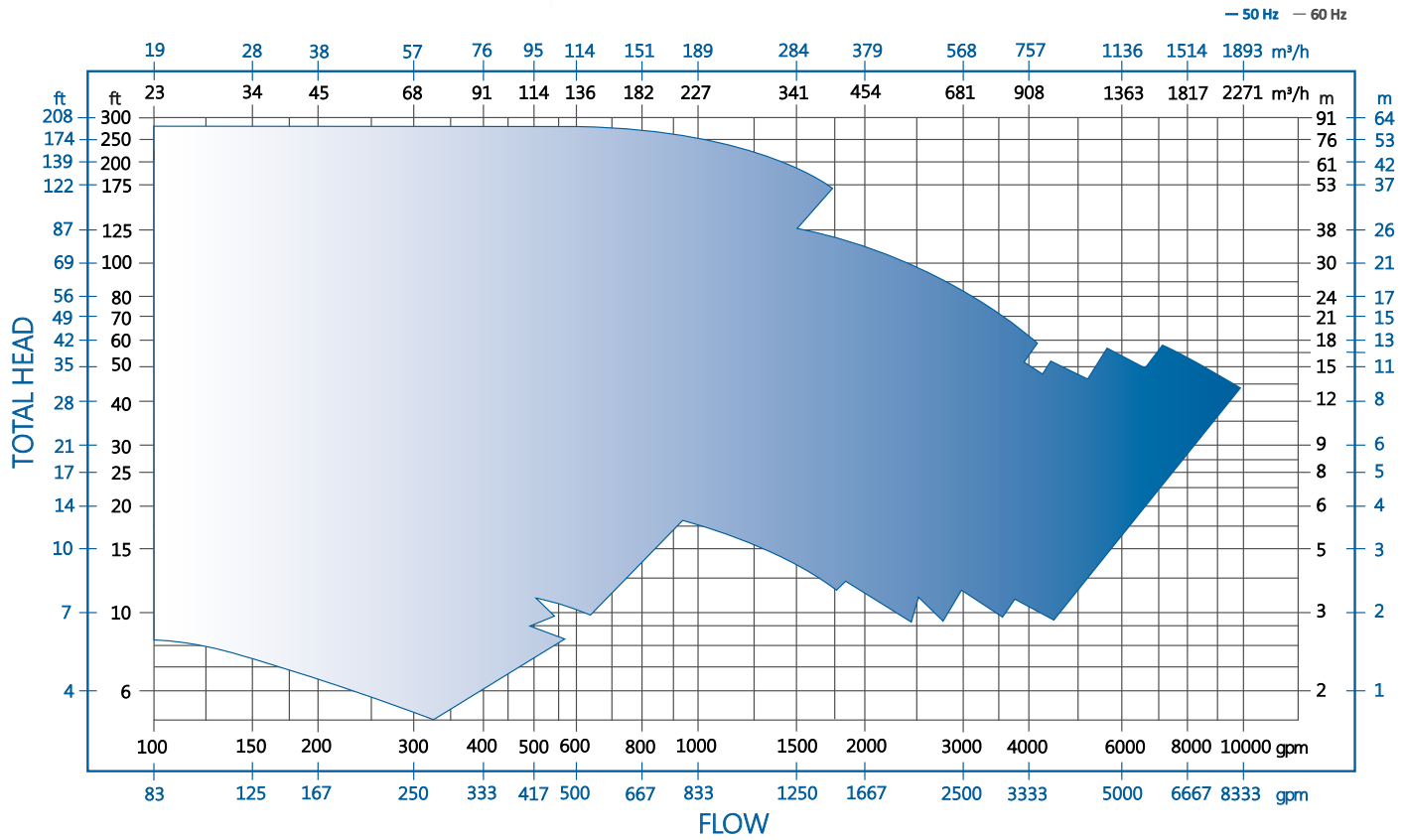
### SHD

Horizontal position with pump and driver mounted on a common base and a flexible coupling



# Selection Chart

SHD / 2 Poles



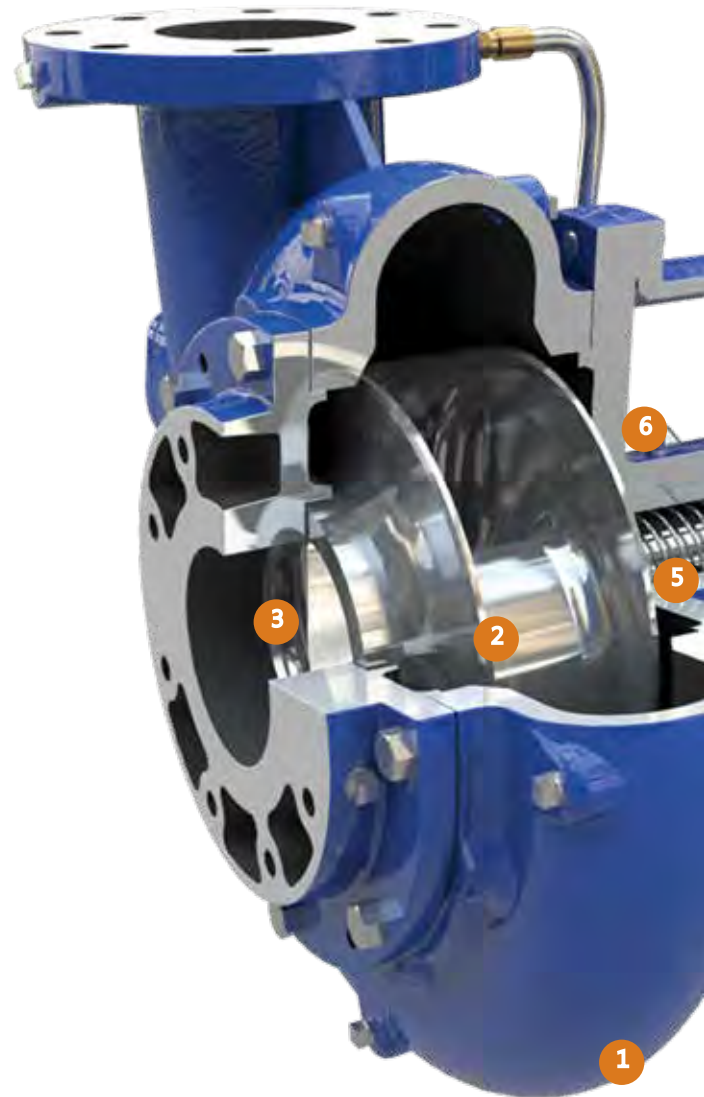
## SHD

Vertical position driven with a standard vertical driver and a flexible coupling

## Characteristics

- 1 CASING.**  
End suction volute design with large passageways to provide unobstructed flow of the pumped liquid.
- 2 IMPELLER.**  
Fully enclosed, solids handling type, cast in one piece, machined, and balanced to the shaft. Includes pumping vanes on the back of the shroud to prevent accumulation of solids behind the impeller and to reduce pressure at the packing box cover. Impeller is keyed to the shaft and securely fastened with self-locking impeller screw.
- 3 WEARING RINGS.**  
Renewable type wearing rings are available for the impeller and suction cover, individually or as set. Easily replaced to provide inexpensive renewal of wearing parts and maintain maximum pump efficiency.
- 4 SHAFT.**  
Made of high strength steel, precision ground and polished; of large shaft diameter and short bearing span for maximum loads with minimal deflection.
- 5 SHAFT SLEEVE.**  
Renewable type shaft sleeve protects the shaft against corrosion and wear; extends through gland for maximum shaft protection. Sleeve is keyed to the shaft and locked in position by the impeller hub. Gasketed seal between sleeve and impeller hub prevents liquid entry under the sleeve.
- 6 STUFFING BOX.**  
Heavy, one-piece casting with rabbeted flange for positive alignment. Extra deep to include five rings of packing and lantern ring. Split gland provides easy access to the packing. May be grease lubricated or water sealed. Mechanical seals are available in lieu of standard packing as an optional extra.
- 7 FRAME.**  
One-piece high strength cast iron, the frame is precision-bored and machined with a registered fit to assure positive alignment of the rotating assembly.

- 8 BEARINGS.**  
Grease lubricated precision ball bearings are extra large and thoroughly protected against dirt and moisture. Cartridge mounted double-row angular contact outboard bearing carries the radial load and any unbalanced thrust load. Inboard radial bearing is pressed on the shaft and floats axially in a precision-bored housing.
- 9 MECHANICAL SEAL.**  
Double seal, sleeve mounted for external flush or by-pass lubrication.



## SHD PERFORMANCE DATA

Capacity	up to 2,271 m <sup>3</sup> /h	10,000 U.S. gpm
Head	up to 116 m	380 ft
Pressure	up to 10 bar	150 psig
Temperature	0 °C to 50 °C	32 °F to 122 °F

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



## DESCRIPTION

- End suction, one stage
- Vertical or horizontal mounting
- Clockwise rotation viewed from coupling end
- ANSI Flanged nozzles Class 125
- Enclosed, solid handling, non clog impeller, hydraulically balanced

## BENEFITS

- Back pull-out
- Positive alignment
- Optimum efficiency
- Choice of rotation
- Other materials of construction available
- Packing or mechanical seal can be used
- Compact design
- Solids handling up to 6 inches in diameter

## APPLICATIONS

- Sanitary Wastes
- Industrial Wastes
- Treatment Wastes
- Storm Water
- Process Wastes
- Pollution Control
- Cannery Wastes
- Meat Process Wastes

# SINGLE STAGE, END SUCTION, SOLIDS HANDLING PUMP

## Optional Features

- Vertical position driven through a universal joint type flexible drive shaft
- Horizontal position with pump and driver mounted on a common base and a flexible coupling
- Vertical position driven with a standard vertical driver and a flexible coupling
- Counterclockwise viewed from coupling end
- Different nozzles positions available – Top Horizontal, Top Vertical, centerline suction inlet
- Mechanical seal can be fitted if required
- Oil lubrication



**Vertical Flexible Mounting**

**Horizontal Mounting**



**Vertical Mounting, Vertical Driver**



## Materials of Construction

SHD pump is available in the following materials:

- Cast Iron
- Bronze
- Steel
- 12% Chrome
- Stainless Steel



## Other Ruhrpumpen Products



### 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.



### Vertical In-Line Pump Flexible 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.



### Submersible Sewage Pump

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

General Industry, Commercial, Irrigation, Farming, Landscaping.



### 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.



### 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.



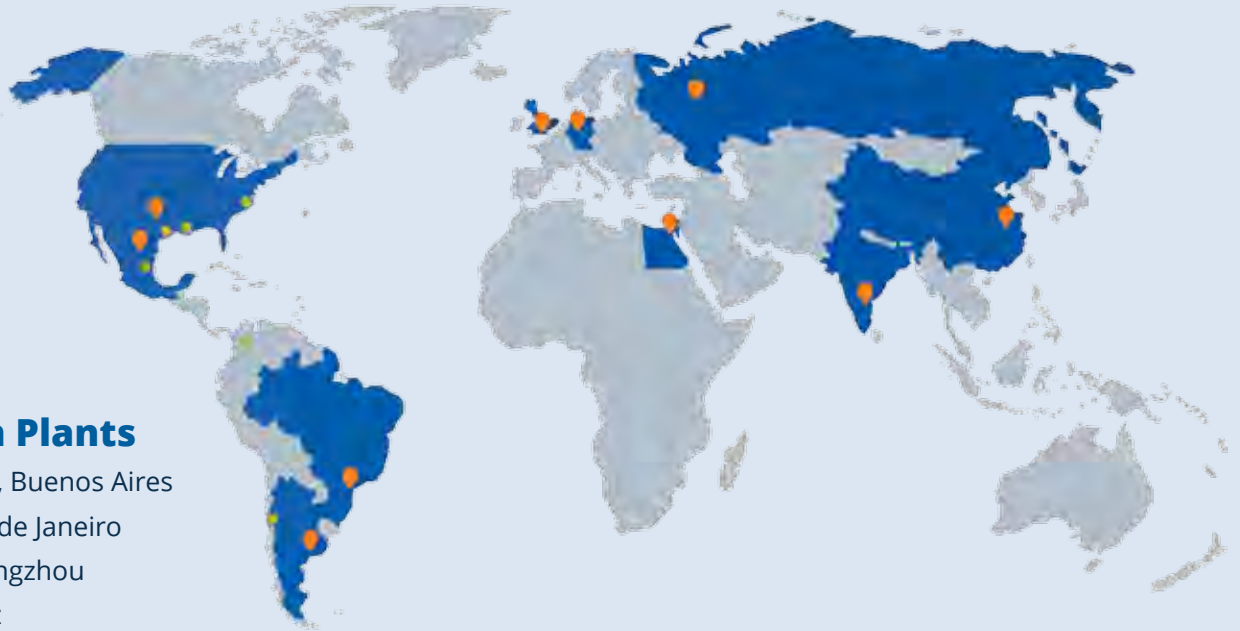
### Horizontal Split Case Pump Single Stage

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.


## +65 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
-  RUSSIA, Moscow
-  UK, Lancing
-  USA, Tulsa

-  Manufacturing plant & service center
-  Service center