



*Specialist for Pumping Technology*

INNOVATION  
EFFICIENCY  
QUALITY



# Split Case

Double Volute, Horizontal  
Axially Split Case Pumps

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.

## Split Case Pump

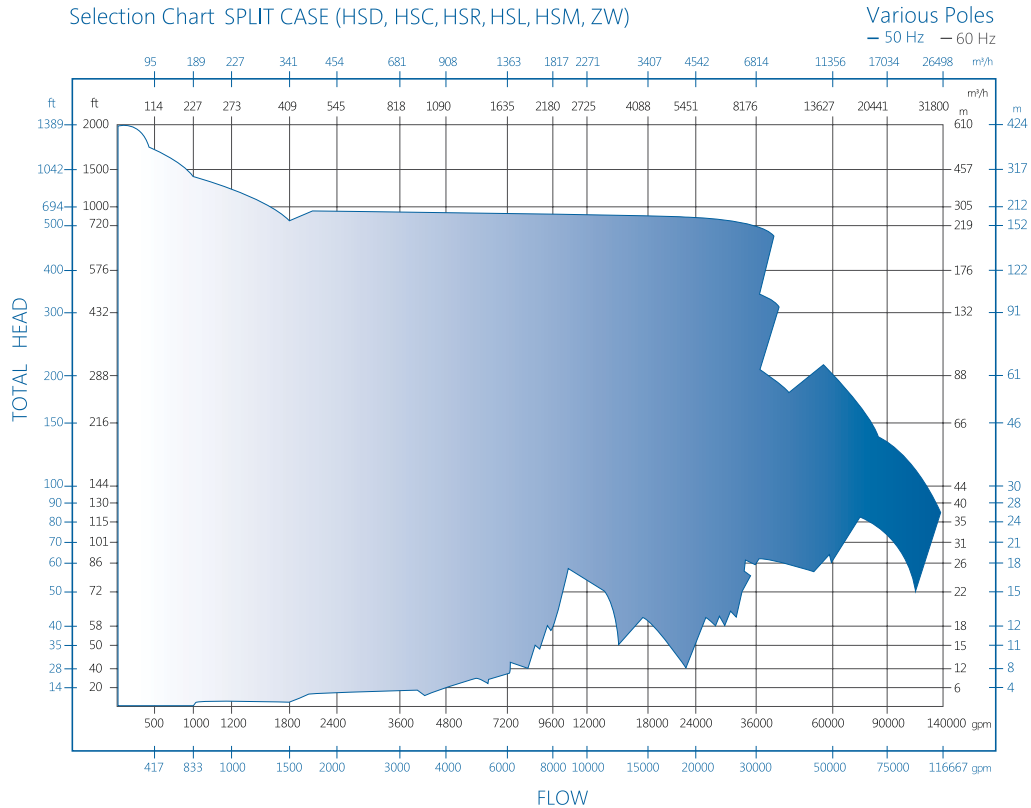
The Ruhrpumpen HS/ZW pumps are single- or multi-stage, double suction, double volute, axially split case pumps. The suction and discharge nozzles are integrally cast in the lower half of the casing and on the same horizontal centerline. The nozzle configuration is side/side.

Intensive research and development ensures that the products of Ruhrpumpen are continuously improved to meet the latest technical requirements. Instant availability of spare parts, together with first class service, ensures customers that they have selected the right partner.

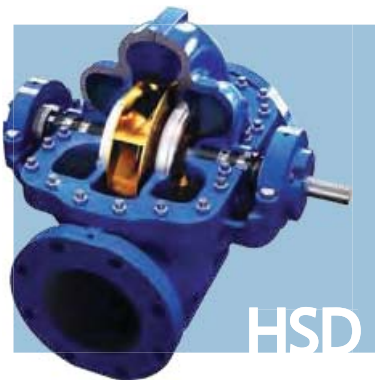


# Horizontal Split Case

## Performance Range



## Complete Range of Split Case Pumps



With this complete range of Horizontal Split Case Pumps and our depth of expertise in pump engineering, Ruhrpumpen can truly offer a solution to every customer. The table below provides an overview.

### Ruhrpumpen Horizontal Split Case Pumps

Pump type	Capacity		Head	
	Metric	U.S. Standard	Metric	U.S. Standard
HSD	Up to 1,590 m <sup>3</sup> /h	7,000 U.S. gpm	168 m	550 ft
HSC	Up to 31,800 m <sup>3</sup> /h	140,000 U.S. gpm	168 m	550 ft
HSR	Up to 2,050 m <sup>3</sup> /h	9,000 U.S. gpm	155 m	500 ft
HSL	Up to 500 m <sup>3</sup> /h	2,200 U.S. gpm	155 m	500 ft
HSM	Up to 454 m <sup>3</sup> /h	2,000 U.S. gpm	670 m	2,200 ft
ZW	Up to 9,000 m <sup>3</sup> /h	40,000 U.S. gpm	340 m	1,115 ft



## Characteristics

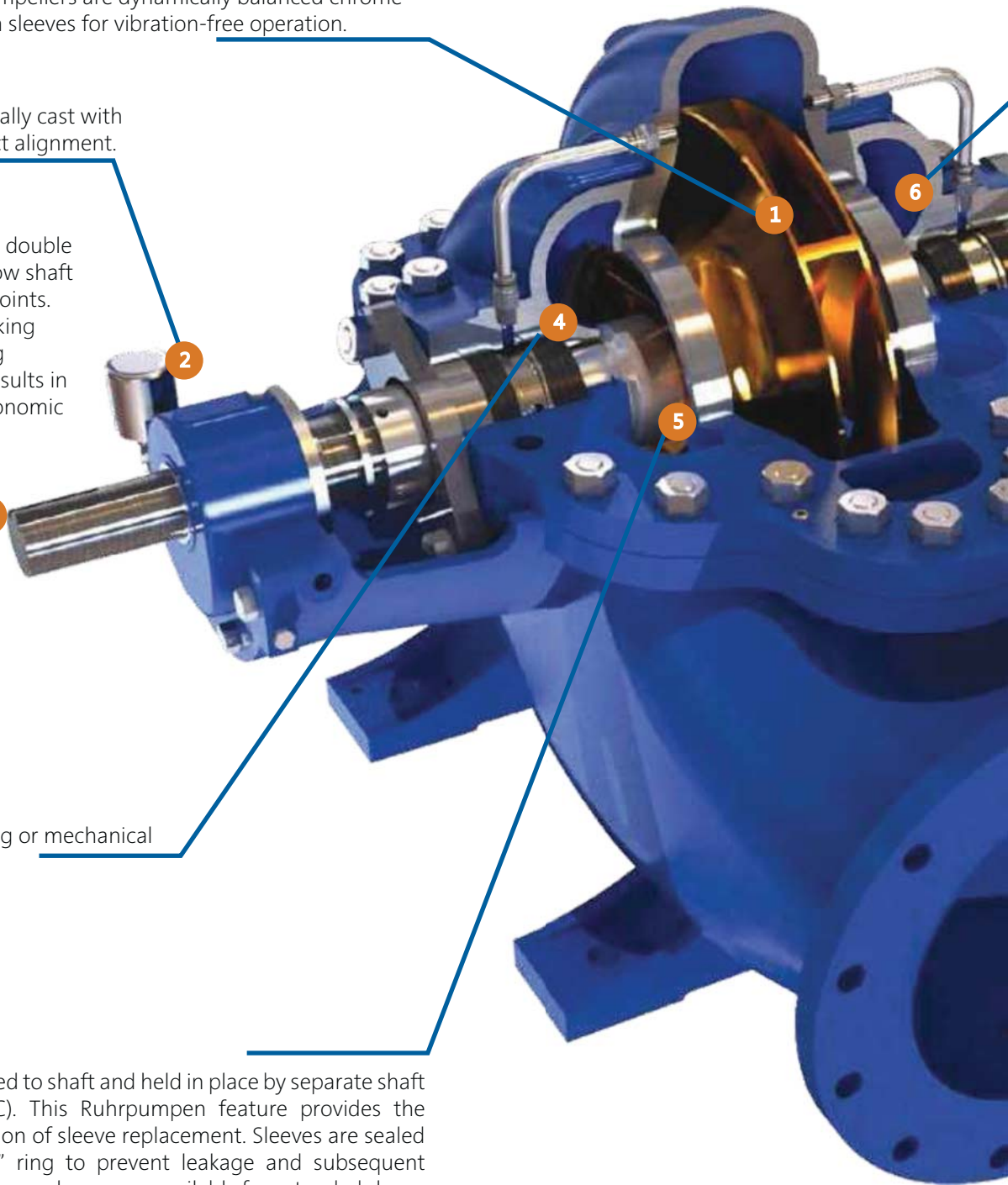
**1** All impellers are dynamically balanced chrome with sleeves for vibration-free operation.

**2** Bearing brackets are integrally cast with the casing to ensure perfect alignment.

**3** A rigid shaft combined with double - volute casing - results in low shaft deflection at all operating points. Low deflection reduces packing wear, ring wear and bearing loading, which ultimately results in sustained efficiency and economic operation.

**4** Stuffing box option. Packing or mechanical seals can be furnished..

**5** Shaft sleeve is keyed to shaft and held in place by separate shaft nut (HSR and HSC). This Ruhrpumpen feature provides the greatest simplification of sleeve replacement. Sleeves are sealed to shaft by an "O" ring to prevent leakage and subsequent erosion. 11-13% chrome sleeves are available for extended sleeve life on packing.



## Description

### PERFORMANCE DATA HORIZONTAL SPLIT CASE SINGLE STAGE

Capacity	up to 31,800 m <sup>3</sup> /h	140,000 U.S. gpm
Head	up to 340 m	1,115 feet
Pressure	up to 27 bar	298 psi
Temperature	10°C to 150 °C	50 °F to 300 °F

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

### PRODUCT DESCRIPTION

- Single or multi-stage horizontal centrifugal pump.
- Horizontally split case, single volute, double volute (some HSC sizes), minimizes thrust loads and allow operation over a wide range of capacities.
- Flanged connections.
- Enclosed impellers, double suction provides hydraulic balance eliminating axial thrust.
- Clockwise or counter clockwise rotation.
- Oil lubrication bearings.
- Stuffing box allows mechanical seal.
- Horizontal or vertical mounting arrangements available.
- Foot mounted.

### BROAD APPLICATION RANGE

The Ruhrpumpen Split Case Pumps are designed for a wide range of Industrial, Chemical Process and Municipal Applications such as:

- Cooling towers
- Municipal
- Oil process
- Dewatering
- Mining
- Water
- Petrochemical
- Sugar Industry
- Paper Industry
- Fire Service
- Pipeline
- Power Generation

All HS/ZW pumps can be mounted vertically or horizontally, depending on the requirements of the customer.

6 Casing wear rings are standard and replaceable on all pumps.

7 Interchangeable line and thrust bearings (conservatively rated at 100,000 hours "plus" bearing life) guarantee maximum life at minimum maintenance cost. Either oil or grease lubrication available.

8 Suction and discharge connections all on the same center line for piping ease.

9 Smaller discharge diameter reduces the cost of piping and valves, allowing more compact installation.



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## Ruhrpumpen Horizontal Split Cases available for Fire Service



Our fire pumps are listed by Underwriter's Laboratories Inc and approved by Factory Mutual.

- NFPA-20
- UL-448
- FM-1311
- Special design available upon request.

## Horizontal Split Case Multi-stage

From our Industrial Line, the HSM pump is a split case heavy-duty process pump. Unlike our other split case pumps, the HSM type is a two- or four-stage pump which allows higher pressure applications such as Petrochemical, Chemical, Industrial, Boiler Feed or Power Plants Applications.



# HSM



## Other Ruhrpumpen Prodcuts



### ANSI Horizontal Process Pump

Single-stage, radially split casing with flanged connections, enclosed impeller, foot mounted. Petrochemical, Oil & Gas, Steel Industry, Automotive, Power Generation, Water Treatment, Pharmaceutical and General Process.



### Multi-Stage, Axially Split Casing Pump

Axially split, horizontal multi-stage, centrifugal pump, near-centerline mounted, single suction, radial, closed impeller (API Type BB3). Oil Fields and Terminals, Water Pipelines, Fluid Injection and High Pressure Services.



### Vertical Turbine Pump

Multi-stage vertical, centrifugal pump with diffuser type bowl. Deep Well & Irrigation, Sumps, Fire Service, Municipal, Industrial and Condensate.



### Vertical Inline Process Pump






Radially split, vertical in-line centrifugal pump; heavy-duty process design according to API 610 latest edition (Type OH3 / OH5). Petroleum Refining / Distribution, Chemical Applications and Petrochemical.



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:

