



Specialist for Pumping Technology

INNOVATION
EFFICIENCY
QUALITY



VTP
Vertical Turbine 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 pump system operators a wide range of quality products. We are committed to worldwide excellence with a complete range of pumps to support core markets which are 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.

VTP pumps are normally designed to operate in wells or sumps. The bowl assembly consists of a suction case or bell, one or more series cases, impeller assemblies, and a discharge case. The number of stages (impellers) supplied is determined by the head requirements of the system. The pump bowl assembly is positioned in the sump or well at a depth to provide the proper intake configuration.

Qualified specialists in all departments ensure that the pumps and equipment from our facilities are able to operate under the most arduous conditions.

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

Ruhrpumpen helps it's customers save money on existing pumps with Synergetic Retrofit®

The operating costs of pumps, in relation to the service life, are considerably higher than the initial investment. Realizing savings on existing pumps means looking at operational efficiency and differential head.

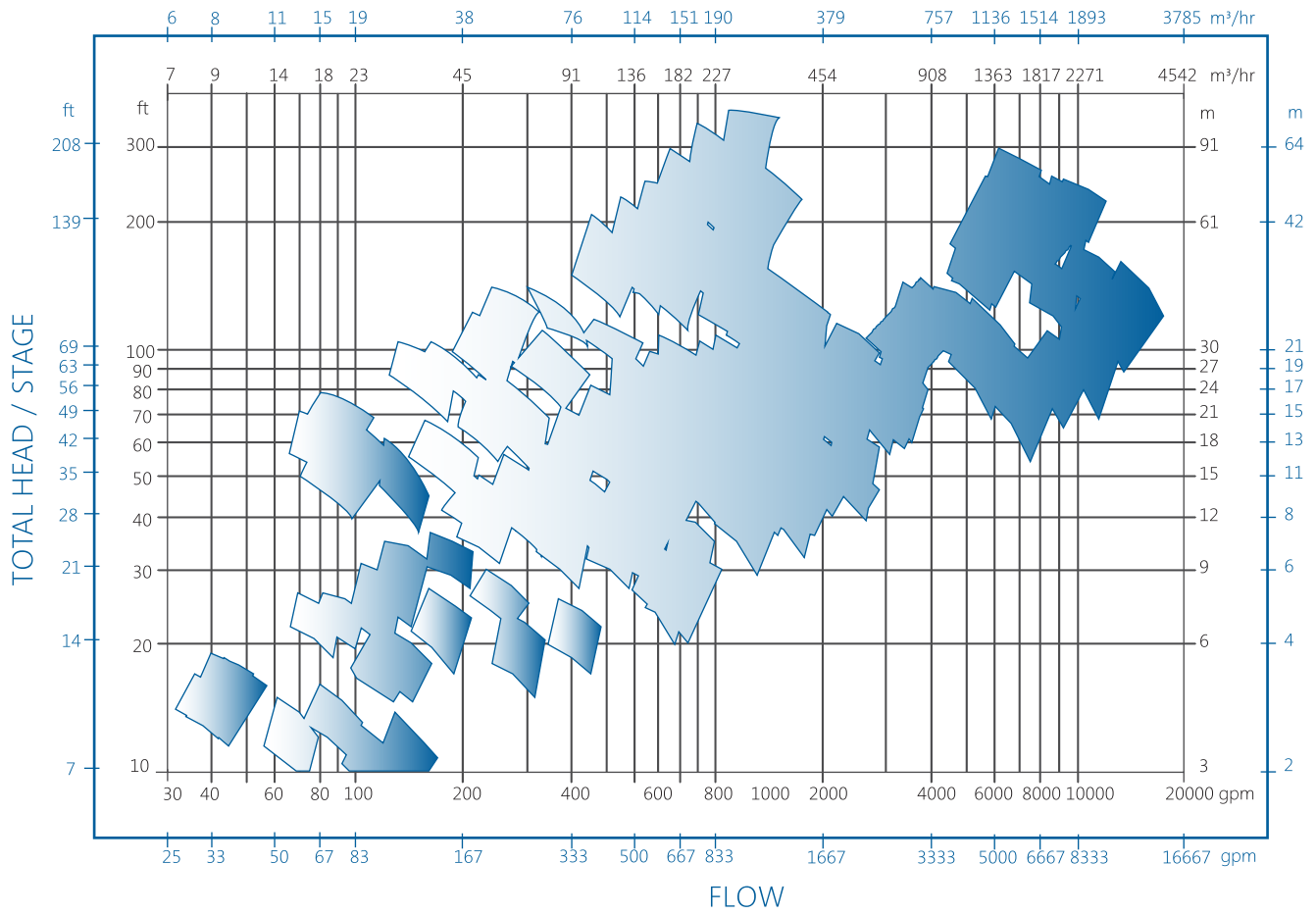
Besides the more common mechanical retrofits, Ruhrpumpen also offers power retrofits to improve operations and save money on energy. This might be necessary when pump operating conditions have been changed, if we have excessive wearing clearances or there might even be new (better) techniques in the market. Ruhrpumpen developed the Synergetic Retrofit® method to adapt existing pump installations to new operating conditions, improve efficiency and save power by replacing old impellers and wear rings.

This particular form of retrofitting and overhauling can be rewarding not only for pumps with high power but also for lower power pumps where many pumps of the same size are in an installation.



Selection Chart VTP

Various Poles
 — 50 Hz — 60 Hz

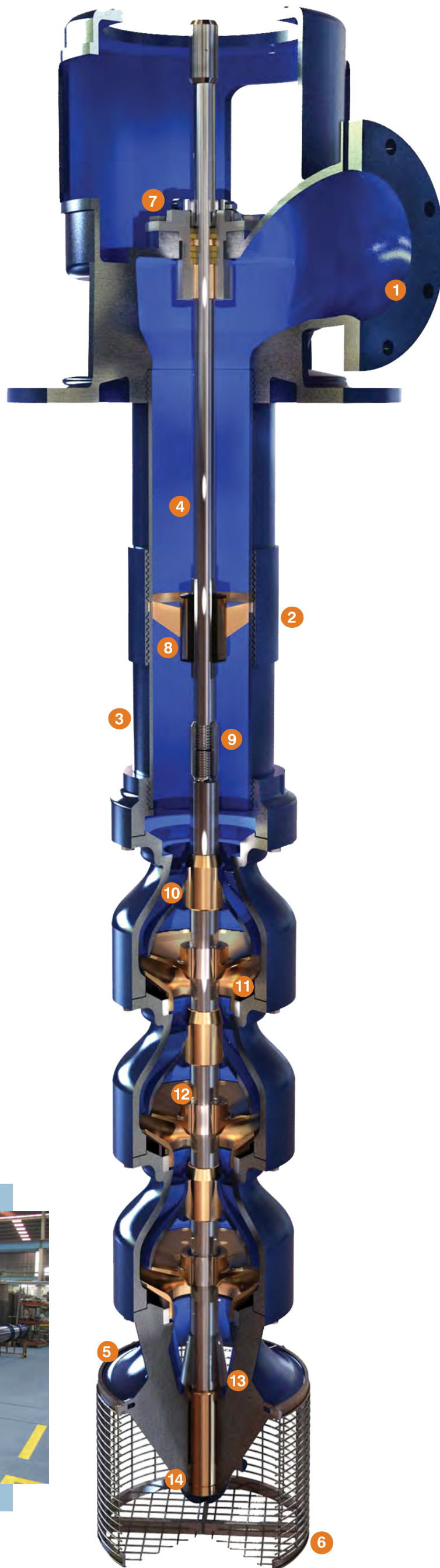


Ruhrpumpen Water
 Pumps
 City of Brantford
 (Ontario, Canada)



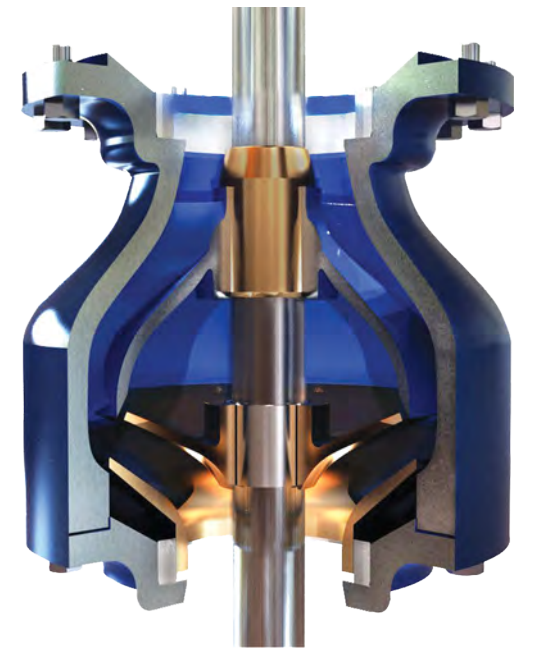
Characteristics

- 1 Discharge head provides support for entire pump and column assembly as well as the driver. Available in cast iron, fabricated steel or a variety of optional materials.
- 2 Columns are flanged or threaded and are available as product lubricated or with enclosing tubes for oil or water flushed lubrication.
- 3 Column assemblies are manufactured to assure accurate fit and are available in a variety of materials and coatings.
- 4 Line shafts are turned, ground, and polished carbon steel with ends faced and threaded. Other materials available for special applications.
- 5 The suction bell is cast iron with integral straightening vanes to prevent turbulence. Other materials available for special applications. The suction case is provided for deep well pump applications.
- 6 Basket or conical strainer (optional) prevents entry of foreign objects into pump suction.
- 7 Machined stuffing box with bushing to maintain proper shaft alignment.
- 8 Bearings are standard in bronze and are also available in a variety of other materials to meet client needs.
- 9 Shaft couplings bored and threaded from precision forged steel bar.
- 10 Sleeve bearings operate in conjunction with pump shaft to provide proper alignment and maintain hydraulic clearances.
- 11 Enclosed impellers are designed for long life and high efficiency. Each is precision machined and balanced for vibration free operation. Semi-open impellers available on certain models
- 12 Standard tapered collets secure impeller to pump shaft.
- 13 The sand collar prevents grit from entering the suction bell bearing.
- 14 With the grease plug the suction bell is permanently grease packed which ensures trouble-free life.



The open lineshaft construction allows the lineshaft bearings to be lubricated by pumped liquid.

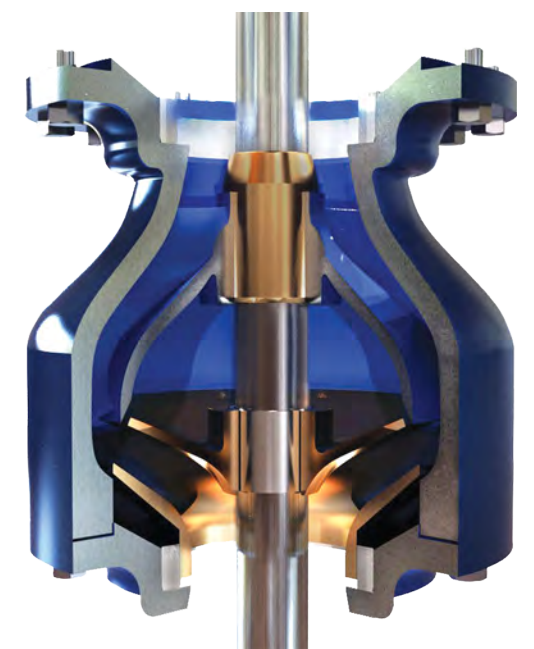
Optional is the prelubrication system prior to the start-up of pump.



Standard cast iron bowl construction provides maximum wear resistance and reduced friction.



Enclosed impeller design maintains high efficiency and eliminates critical field adjustments required with semi-open or open impeller construction.



Optional construction features include bowl and impeller wear rings for extended impeller life. Keyed impellers for ease of disassembly and thrust balancing to put less strain on the driver assembly.



Below Ground Discharge

When using a fabricated discharge design, the Ruhrpumpen pumps are also available with the discharge located underground.

Description

PRODUCT DESCRIPTION

- Multi-stage vertical centrifugal pumps with diffuser type bowl.
- Collet mounted Semi-Open / enclosed impellers.
- Counter clockwise rotation viewed from coupling end.
- Product or oil lubricated.
- Oversized bowl shaft sizing for longer life.
- API 610 latest edition construction available. API pump type VS1.
- Basket or conical strainer (optional), according to pump requirements.
- Epoxy coated bowls.
- The VTP can be supplied with submersible motor (optional).

BROAD APPLICATION RANGE

- Deep Well
- Irrigation
- Sump
- Condensate
- Can pump requirements
- Fire service
- Municipal
- Industrial

PERFORMANCE DATA

Capacity	Q up to 13,636 m ³ /h	to 60,000 U.S. gpm
Head	H 762 m	to 2500 Feet
Pressure	74 bars	to 1080 psig
Temperature	121 °C	250 °F

The performance is not limited, if you need to operate your pump outside this range, please contact us for more information.

AVAILABLE FOR FIRE SERVICE

Ruhrpumpen's vertical turbine fire pumps are listed by Underwriter's Laboratories Inc and approved by Factory Mutual.

- NFPA-20
- UL-448
- FM-1312
- Special design available on request



SUBMERSIBLE VTP PUMPS

Ruhrpumpen offers submersible pumps for applications such as:

- High temperature wells
- Wells with limited diameter
- Projects where appearance prohibits surface installation
- Agricultural irrigation
- Deep-well de-watering
- City water supplies and large construction sites
- Others

