

**Begemann®**

**Gabbioneta Pumps™**

Heavy Duty Process Pumps

**BS Range**

## **BEGEMANN®** **Centrifugal Process Pumps**

### **BS Series: Close coupled vertical in-line single-stage overhung pump (OH5)**

The BEGEMANN® BS range is a single entry, vertical inline, close coupled pump, compliant with the latest API 610 edition and designed to BS4082 Class R. The compact vertical in-line design reduces the need for a heavy fabricated baseplate reducing installation costs and saving space on site. The Trillium BEGEMANN® brand has been supplying pumps to the API and petrochemical industries for over 40 years.

#### **Wear Rings**

Renewable front and back wear rings on casing and impeller reduce consumable spare parts costs.

#### **Casing and Cover Sealing**

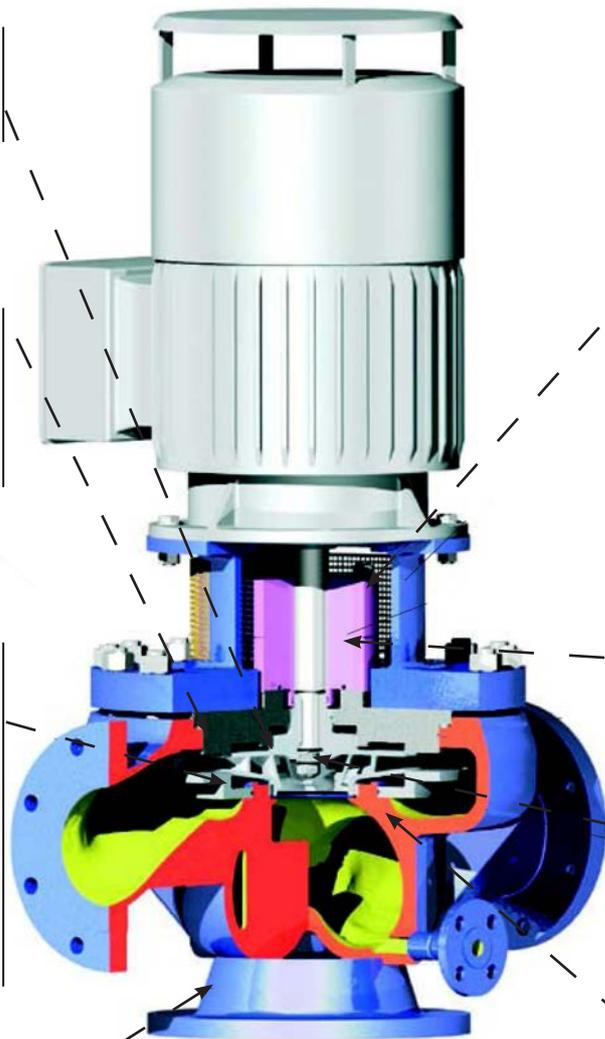
A flexitallic compressed spiral wound gasket ensures a tight and secure metal to metal sealing between casing and cover.

#### **Machined Diffuser Technology**

The computer designed and machined diffuser reduces virtually all hydraulic radial forces and limits shaft deflection at any flow, ensuring an increased motor bearing and mechanical seal life, longer MTBF's and reduced operating costs. It provides improved lower NPSH-R values and ensures a maximum efficiency at the rated duty point.

#### **Compact Construction**

The vertical in-line design requires minimum floor space reducing installation costs, simplifying piping installations. The compact design minimises the number of rotating parts, reducing stock holding and spare parts.



#### **Close Coupled Configuration**

No flexible coupling, thus easy to assemble in the field without additional alignment required, reduced maintenance and down time.

Robust engineered motor pedestal for maximum motor support ensuring low vibration levels and greater accessibility.

#### **API 682 Cartridge Seals**

Single or dual API 682 cartridge type mechanical seals fitted as a standard. The seal chamber is an integrated design allowing for optimum seal cavity design and flushing of seals.

#### **Isolated Dry Shaft**

The impeller nut is positively locked with a screw and sealed by means of an o-ring ensuring that the shaft is totally protected from the pumped liquid.

#### **Customised Engineered Solution**

With the computer designed diffuser and impeller combination, an optimised performance curve and high efficiency for specific rated duties is achieved.

## Specification

### Applications

- Offshore platforms and FPSO vessels
- Petrochemical & refinery processes
- Hydrocarbon transfer and feed
- Fuel transfer
- Jetty loading and unloading
- Booster pumps
- Skid mounted assemblies
- Tank farms

### Technical Data

- Capacity : Up to 500 m<sup>3</sup>/h
- Differential head : Up to 300 mlc
- Temperature : -40°C up to +250°C
- Flange drilling : ANSI B16.5 Class 300 RF
- Frequency : 50 & 60 Hz
- Working pressure : up to 64 bar

### Sealing Options

- API 682 single or dual cartridge mechanical seals
- Seal support systems and vessels mounted on extended or separate leveling plate

### Pump Materials

- API tables S-1, S-5, A-8, D-1, D-2
- Other materials on request

### Options

- Rigid-shaft coupling (OH4) to use standard vertical shaft electric motors
- Fully jacketed design
- Standard or extended leveling plate
- Customized engineered hydraulics

### Pump Rotation

- Counter clockwise viewed from the drive end



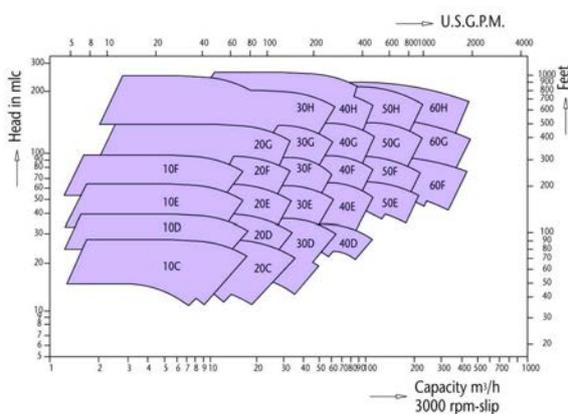
The BEGEMANN® BS range of API 610, latest edition (OHS) vertical in-line close coupled centrifugal pumps has been engineered and designed to meet the ever stringent requirements of refinery, oil & gas, petrochemical and offshore industries. The diffuser design ensures low vibration and shaft deflection over the complete operating region of the pump increasing both seal and bearing life and providing trouble free operation and reducing operating costs.

The robust pump configuration ensures that the pressure and nozzle loading required by API 610 are met.

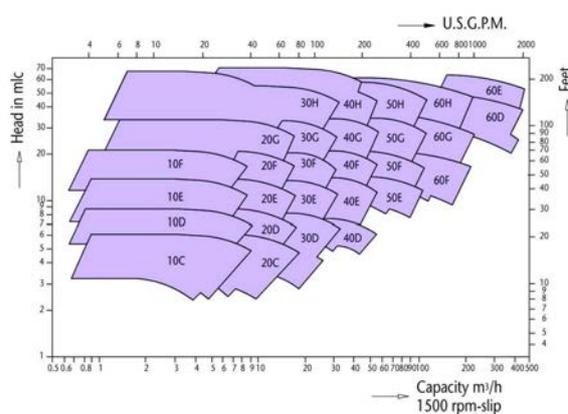
The end user is offered a technical alternative to the conventional overhung process pumps, saving installation costs and utilizing less space on site.

## BS Vertical close coupled operating range

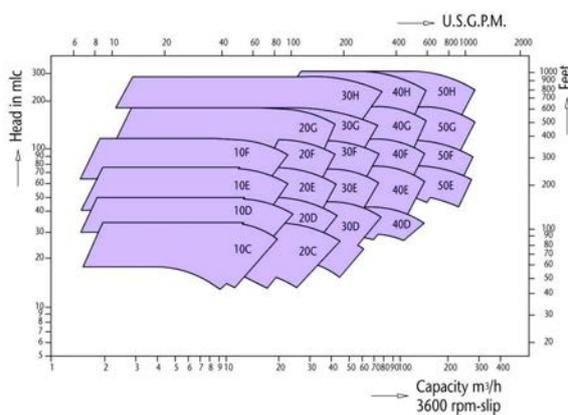
Family curves 50 cycles/3000 RPM



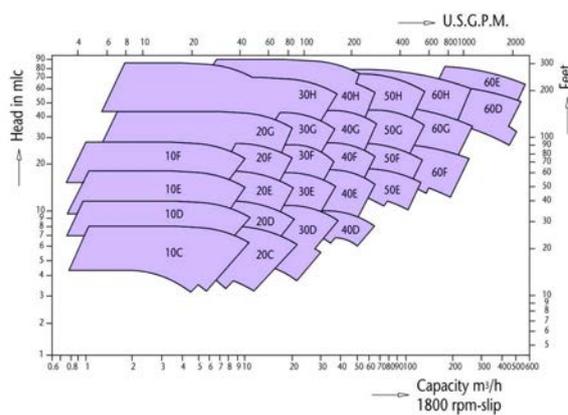
Family curves 50 cycles/1500 RPM



Family curves 60 cycles/3600 RPM



Family curves 60 cycles/1800 RPM



## Trillium: Reliably innovative

Trillium delivers innovative products. Trillium utilizes the well-proven “lean production system”. This single flow, lean manufacturing process with dedicated production units means less wastage and greater efficiency, enabling us to provide the highest standard pumps and components.



## Designed to simplify maintenance and reduce whole life costs

The Trillium BEGEMANN® PUMPS are designed to make maintenance straight-forward, minimize operation costs and increase product life span.

The OHS range is developed with the latest 3D computer aided design technology. This design application is integrated with our manufacturing operation as well as supplier and customer systems. It enables us to speed up product configuration, reduce the number of parts and optimize performance. A thorough analysis of the market requirements has resulted in a more effective pump, which is easier to maintain, has a lower whole life cost with increased life span.





**Trillium Pumps Italy S.r.l.**  
**Società Unipersonale**

Gaetana Agnesi 1, 20834 Nova Milanese (MB), Italy  
T: +39 0362 17331; Fax: +39 0362 1733209; E: [gabbioneta.sales@trilliumflow.com](mailto:gabbioneta.sales@trilliumflow.com)

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