

# BE End Suction Single-Stage Centrifugal Pump

**SULZER**

60 Hz

## Applications

Sulzer process pumps, series BE, is specially designed for pulp and paper applications, e.g. - paper, tissue and board machines, chemical-, mechanical- and recycled fibre lines, chemical recovery as well as effluent treatment plant etc.

They are also very well suited for general industry and wastewater applications.

## Design

The BE series includes 39 pump sizes and is built on a modular design, which offer high interchangeability, simplified service and a low number of spare parts. This means that low maintenance costs can be obtained.

## Pump casing

Rugged BE pump construction creates longterm, wear resistance. The generous wall thickness and the casing's smooth, pocket-free interior protect against erosion and corrosion.

## Impeller

The impellers can handle almost any suspensions and a huge range of slurries. The pumps are available with semi-open impellers. A new hydraulic design for semi-open impellers features large free passages. The sturdy construction ensures high wear resistance, resists corrosion and reduces sensitivity to foreign objects.

When the BE pumps is used as medium sized fan- or dilution pumps, ESDF impellers, special low pulsations impellers are used.

For some sizes vortex impellers can also be selected. These impellers have an improved vane design offering clogless and trouble-free operation.

A hexagonal shaft secures the impeller fixing, giving stable operation conditions and long MTBF (Mean Time Between Failure).

## Wear disc

The wear disc is replaceable and can be easily adjusted from the pump casing's front. This makes it easy to maintain high efficiency over the entire lifetime of the pump and ensures shorter MTTR (Mean Time To Repair). The sealing of the pump casing has also been improved.



## Shaft

The shafts are sturdy, with a deflection of less than 0.05 mm at the seal areas under normal running conditions. All shafts are protected by a replaceable sleeve in stainless steel or higher quality alloys.

## Shaft seals

The alternatives include single and double mechanical seals, gland packing and dynamic seals, with a variety of material to suit every application.

## Bearing assembly

The bearing assembly of a BE pump features a sturdy design that ensures long MTBF, long pump lifetime and low maintenance costs. Six different bearing sizes cover all pump in the series, and all bearings have angular contact ball bearings at the driven end.

Standard bearing assemblies are lubricated with grease, though oil is also an option. On oil-lubricated bearing assemblies, two inspection eyes are standard. This makes it easy to inspect the bearing assembly from both sides.

## Your benefits

- **Large energy savings.** Improved hydraulic design creates greater efficiency in each individual pump minimising the average power consumption.
- **Total reliability.** Robust design, secure impeller fastening and sturdy bearing assembly ensure long pump lifetime. Better performance coverage for better runnability gives exceptional MTBF.
- **Simplified service.** Smart pump design with maintenance-reducing features. Modular construction with few parts to service and store.

## Properties

### Capacity

20-6500 m<sup>3</sup>/h (90-28700US-gpm)

### Head

5-160m (16-527 ft)

### Temperature

Max. 190°C (375°C)  
(with grease lubrication)

### Pressure rating

PN6/PN10/PN16

### Flanges

ISO 7005 PN10-PN16  
(BS 4504-ANSI 150-JIS  
10K-16K)

### Lubrication

Grease; oil as option

### Specification

ISO 5199 "Technical spec.  
for centrifugal pumps class II"

### Dimension

For applicable sizes acc. to  
ISO 2858 except "g" dimension.

## Type designations

### BE 315-1025

**BE** Pump series

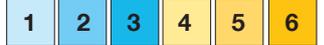
**3** Bearing assembly size

**15** Suction size (cm), DN1

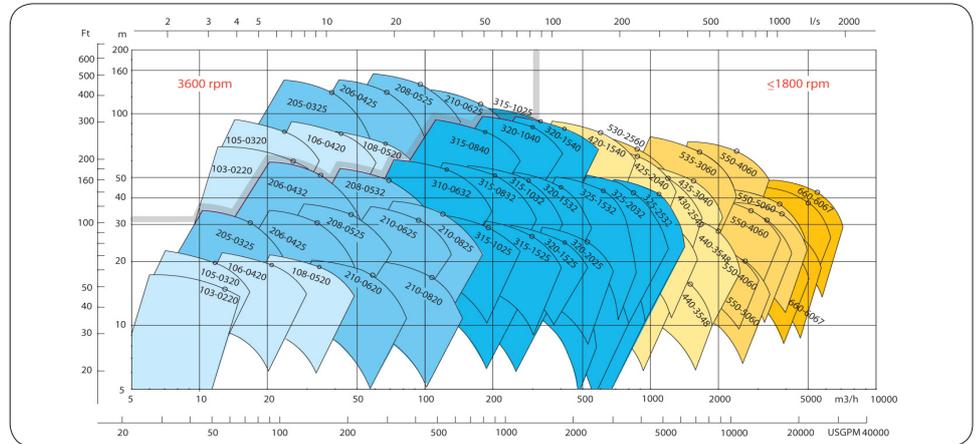
**10** Discharge size (cm), DN2

**25** Impeller size (cm)

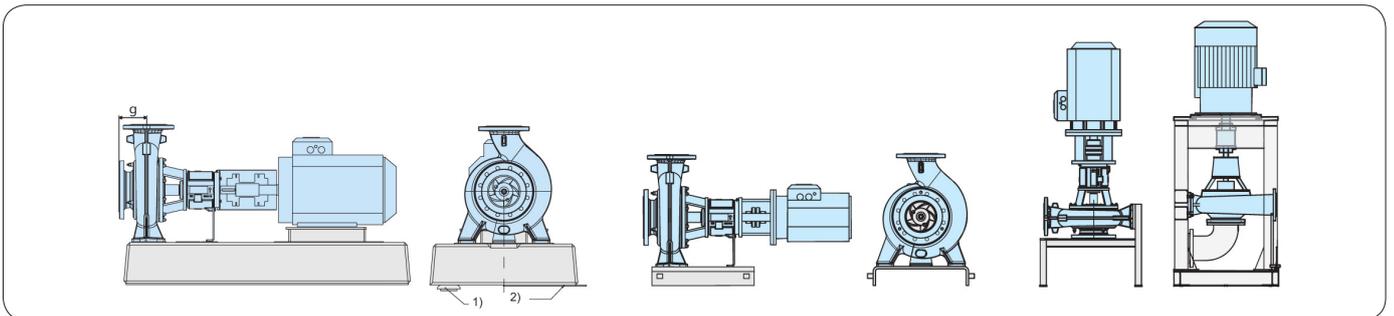
### Bearing assembly sizes



## Performance curves



## Installation versions, executions



Baseframes are also available. Options; 1) Levelling pads, 2) Rubber mat

## Material

Code	Standard material combinations			Material combinations									
	03	05	24	08	09	21	23	25	26	27	28	30	32
Pump casing	Grey cast iron A48 CL 30 B	Grey cast iron A48 CL 30 B	Duplex steel A890 3A	Ductile iron A395 60-40-18	Ductile iron A395 60-40-18	Stainl. steel S2399	Duplex steel A890 3A	Duplex steel A890 1B	Aus. stainl. steel ASTM 743 CF-8M	Aus. stainl. steel ASTM 743 CN-7M	Duplex steel A890 4A	Super duplex steel A890 5A	Nickel alloy A494 CW-12MW
Casing cover	Ductile iron A395 60-40-18	Ductile iron A395 60-40-18	Aus. stainl. steel ASTM 743 CF-8M	Ductile iron A395 60-40-18	Ductile iron A395 60-40-18	Stainl. steel S2399	Aus. stainl. steel ASTM 743 CF-8M	Aus. stainl. steel ASTM 743 CN-7M	Aus. stainl. steel ASTM 743 CF-8M	Aus. stainl. steel ASTM 743 CN-7M	Duplex steel A890 4A	Super duplex steel A890 5A	Nickel alloy A494 CW-12MW
Wear disc	Grey cast iron A48 CL 30 B	Duplex steel A890 3A	Duplex steel A890 3A	Ductile iron A395 60-40-18	Duplex steel A890 3A	Stainl. steel S2399	Stainl. steel S2399	Duplex steel A890 1B	Aus. stainl. steel ASTM 743 CF-8M	Aus. stainl. steel ASTM 743 CN-7M	Duplex steel A890 4A	Super duplex steel A890 5A	Nickel alloy A494 CW-12MW
Impeller	Duplex steel A890 3A	Duplex steel A890 3A	Duplex steel A890 3A	Duplex steel A890 3A	Duplex steel A890 3A	Stainl. steel S2399	Stainl. steel S2399	Duplex steel A890 1B	Aus. stainl. steel ASTM 743 CF-8M	Aus. stainl. steel ASTM 743 CN-7M	Duplex steel A890 4A	Super duplex steel A890 5A	Nickel alloy A494 CW-12MW
Shaft	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460
Shaft sleeve	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Duplex steel EN 1.4460	Aus. stainl. steel EN 1.4539	Duplex steel EN 1.4460	Aus. stainl. steel EN 1.4539	Duplex steel EN 1.4462	Super austenitic EN 1.4547	Nickel alloy Hastelloy C 276

[www.sulzer.com](http://www.sulzer.com)

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