

NB End Suction Single-Stage Centrifugal Pump

Applications

Sulzer process pumps, series NB, are suitable for clean and solids-bearing liquids, except where risk of clogging exists due to large solids or high concentrations of fibrous material.

Series NB are suitable for most of applications within e.g. pulp and paper industry, chemical process industry, food industry, district heating, mining industry, water works etc.

Design

Smooth internal contours and the elimination of cavities at the periphery of the casing cover have virtually eliminated the risks of localised wear occurring. Generous wall thicknesses give high resistance to corrosion and erosion.

The casing cover gasket is confined, eliminating the possibility of blowing out due to the internal pressure.

The suction is protected by a casing wear ring, or wear disc in pumps fitted with semi-open impellers.

Impellers

Impellers are either closed or semi-open type.

Pumps built on Bearing Assembly Size 1 have impellers which are threaded onto the pump shaft, and a shaft sleeve sealed off with an O-ring. For pumps on the larger bearing assemblies, the impellers are normally secured to the shaft by screw(s) and a key, but threaded impellers are also available as a standard alternative for Bearing Assembly size 2 and 3.

Lantern

The heavy duty lantern with easy maintenance access connects the pump casing to the bearing assembly. The casing cover is attached to the lantern with screws to facilitate the dismantling and assembly of the rotor unit.

Bearing Assembly

The bearing assemblies are the base of our modular system.

The bearings must withstand large axial thrust and radial loads simultaneously. All bearing assemblies have angular contact ball bearings at the driven end.

The bearing life, exceed 50 000 hours. The sturdy shaft has maximum deflection of 0.05 mm at the shaft seal, thereby providing the best possible working conditions for the shaft seal.

Standard lubrication by grease with the option of oil.



Shaft seal

The Sulzer PSI cartridge for single mechanical seals is the best solution for most applications. Our pump seal integration provides perfect conditions for the seal.

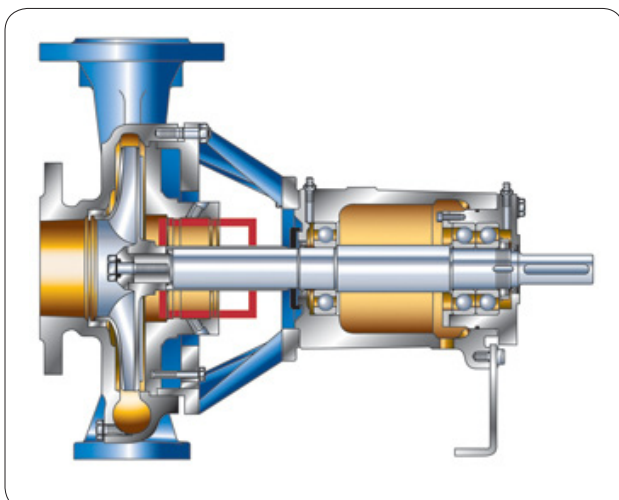
The modular design also allows any other seal solution, such as single, double or gland packing.

Properties

Flow	2-1000m ³ /h
Head	3-160 m
Temperature	Max. 190°C (for hot oil max. 280°C)
Pressure rating	PN10/PN16
Flanges	ISO 7005, PN10 alt. PN16 (BS 4504) or ANSI
Lubrication	Standard: Grease Option: Oil.
Specification	ISO 5199 "Technical specification for centrifugal pumps class II"

Your benefits

- Good Efficiencies
- Reliable
- Modular Design
- Long life
- Simplified Maintenance



Type designations

NB 80/50-26

NB Pump series

80 Inlet dia (mm)

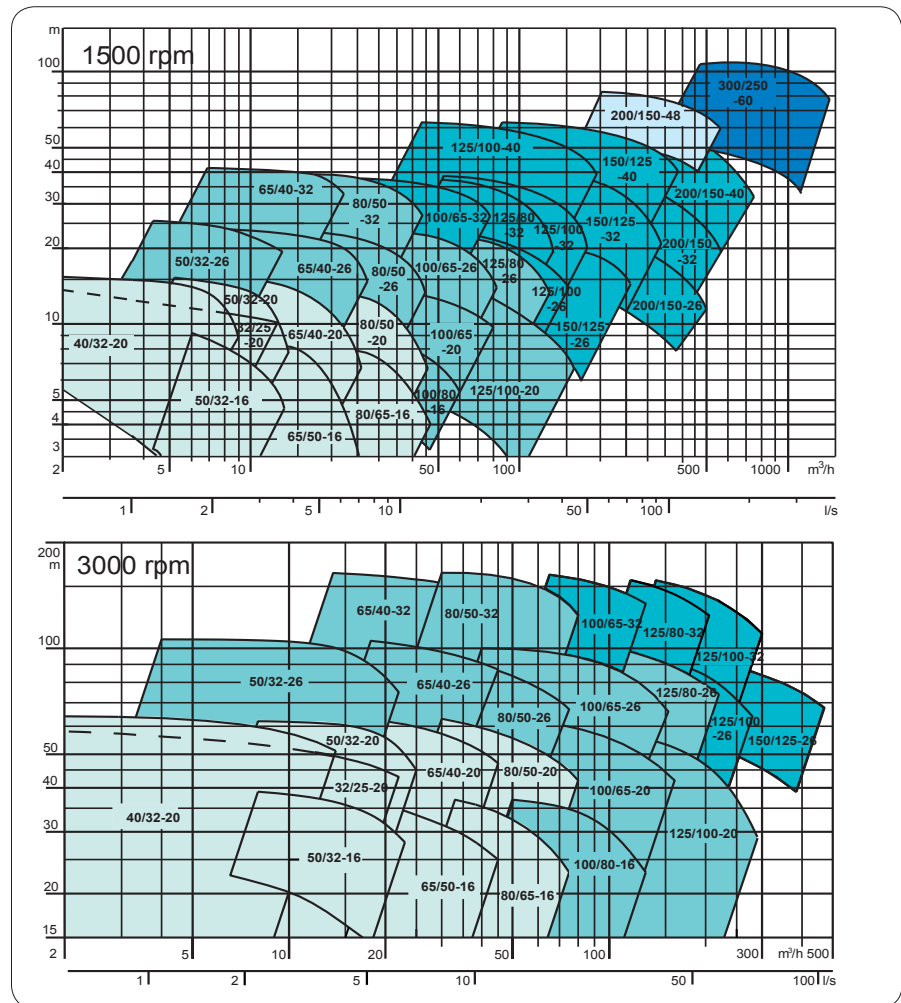
50 Outlet dia (mm)

-26 Impeller dia (cm)

Performance curves

Bearing assembly sizes

1 2 3 4 5



Material

Code	Standard mat. comb.		Material comb.						
	03 ¹⁾	26	01	08 ¹⁾	24	25	27	32	51
Pump casing Pump cover	Grey cast iron A48 CL 30 B	Aus stainl. steel ASTM A743 CF-8M	Grey cast iron A48 CL 30 B	Ductile iron A395 60-40-18	Duplex steel A890 3A	Duplex steel A890 1B	Aus stainl. steel ASTM A743 CN-7M	Nickel alloy A494 CW-12MW	Titanium B367 C-3
Impeller	Aus stainl. steel ASTM A743 CF-8M	Aus stainl. steel ASTM A743 CF-8M ²⁾	Grey cast iron A48 CL 30 B	Aus stainl. steel ASTM A743 CF-8M ²⁾	Duplex steel A890 3A	Duplex steel A890 1B	Aus stainl. steel ASTM A743 CN-7M	Nickel alloy A494 CW-12MW	Titanium B367 C-3
Shaft seal	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	Aus stainl. steel EN 1.4539	Nickel alloy Hastelloy C 276	Titanium ASTM B265 Grade 2
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

1) For semi-open impellers use material code 05 and 09. 2) Semi-open impellers in A890 3A.

Sulzer material	Scanpump material
A48 CL 30 B	EN-GLJ-200
A395 60-40-18	EN-GJS-400-18
EN 1.4057	1.4057
EN 1.4460	1.4460
A890 3A	SS2324 (Cast)
ASTM A743 CF-8M	1.4408
A890 1B	1.4517
EN 1.4539	1.4539
ASTM A743 CN-7M	1.4527
A494 CW-12MV	W2.4537 (Cast)
B367 C-3 Titanium	Titan Gr C-3 (Cast)
Hastelloy C276	W2.4819 (Wrought)
ASTM B265 Grade 2	Titanium Gr C-x (Wrought)

www.sulzer.com

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