

Vertical In-line Double Suction Centrifugal Pump

CSV SERİSİ



TECHNICAL MANUAL



CSV Series

Duble Suction Vertical In-line Centrifugal Pump

General Information



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Fields of Application

- As ballast pump in ships,
- Cooling water pumping,
- As general service pump,
- Water supply

Design

CSV series pumps are double suction, vertical in-line centrifugal pumps. There are two ball bearings with grease lubricated. Shaft seal is provided with a mechanical seal.

The pump has a high efficiency. By being decreased NPSH (Net Positive Suction Head) thanks to design of double suction, high suction values are provided.

With electrical motor in accordance with IEC, DIN, VDE and TSE standards, using option with frequency converter, high efficiency, safety operating and ease of maintenance.

Standard Material Properties and Options

Casing: GG25, (Optional GGG40, bronze, stainless steel)

Impeller: Brass MS 58 (Optional stainless steel)

Wearing Ring: Bronze (Optional stainless steel)

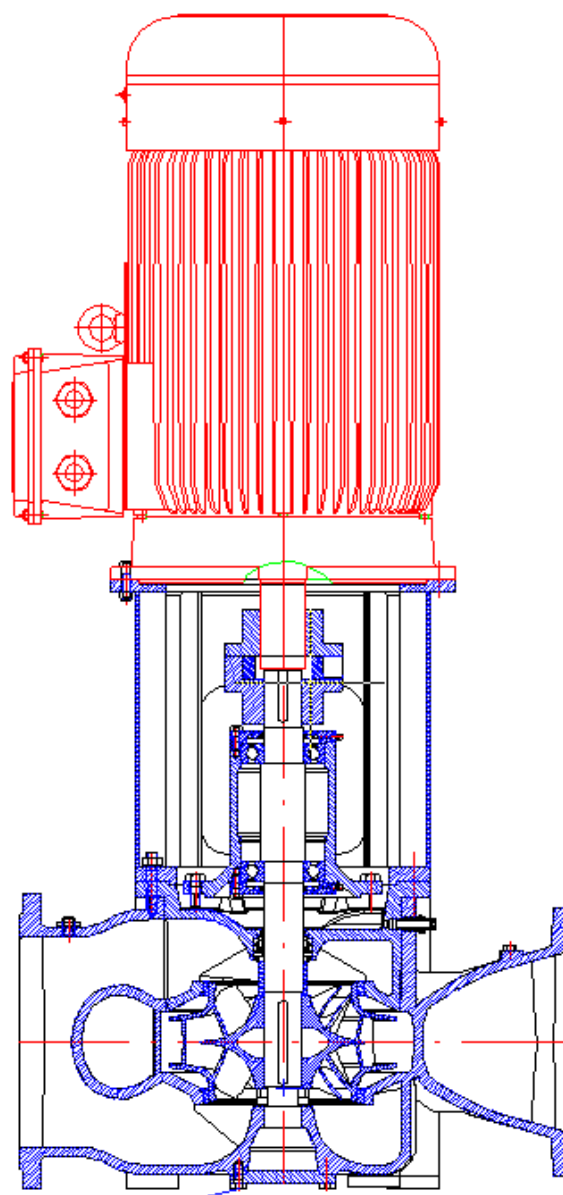
Pump Shaft: AISI 420

Seal: Mechanical seal

Technical Data

- | | |
|----------------------|--------------------------------|
| • Capacity Range | : 400 – 2200 m ³ /h |
| • Head Range | : 10 – 60 m |
| • Operating Pressure | : 10 bar |
| • Speed Range | : 730 – 1800 rpm |
| • Suction Flange | : DN 300-400 (PN 10) |
| • Discharge Flange | : DN 250-350 (PN 10) |
| • Liquid Temperature | : 80 °C |

Sectional Drawing



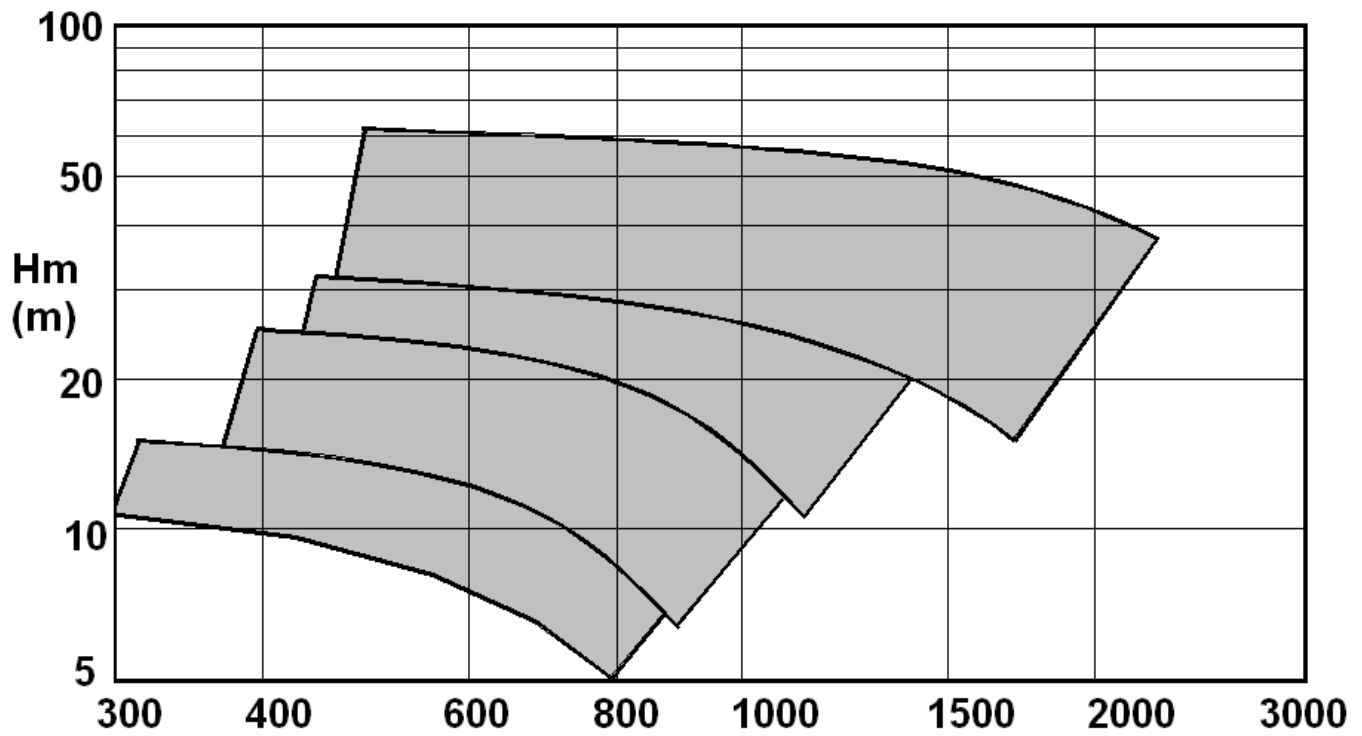
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Performance Range



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ATEX Description



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ATEX Codification

ATEX -95

 II 2G /D c Tx (85 °C – 200 °C)

Equipment Groups (Annex I of Directive 94/9/EC)							
Group I (mines, mine gas and dust)		Group II (other explosive atmospheres gas/dust)					
Category M 1	Category M 2	Category 1		Category 2		Category 3	
		G (gas) (Zone 0)	D (dust) (Zone 20)	G (gas) (Zone 1)	D (dust) (Zone 21)	G (gas) (Zone 2)	D (dust) (Zone 22)
For equipment providing a very high level of protection when endangered by an explosive atmosphere	For equipment providing a high level of protection when likely to be endangered by an explosive atmosphere	For equipment providing a very high level of protection when used in areas where an explosive atmosphere is very likely to occur		For equipment providing a high level of protection when used in areas where an explosive atmosphere is likely to occur		For equipment providing a normal level of protection when used in areas where an explosive atmosphere is less likely to occur	

TEMPERATURE CLASS		
Temperature class required by the area classification	Ignition temperature of gas or vapor	Allowable temperature classes of equipment
T1	> 450 °C	T1 - T6
T2	> 300 °C	T2 - T6
T3	> 200 °C	T3 - T6
T4	> 135 °C	T4 - T6
T5	> 100 °C	T5 - T6
T6	> 85 °C	T6

Code	Description
II	The Usage in other non-mining explosive atmospheres
2	2. Category: High level of protection
G	For potentially explosive environments due to gases or vapors
T	Temperature class
X	ATEX Marking of the motor manufacturer



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