

Stainless Steel Submersible Pumps

*Energy efficient*

**Lubi**

**PUMPS • MOTORS**

ISO 9001 Company



Pumping Solution

**50 Hz**

## INTRODUCTION

The Lubi J & W series Stainless steel submersible pumps are designed for 4" (DN 100 mm), 6" (DN 150 mm), 8" (DN 200mm) and 10" (DN 250 mm) bore well pumps applications.

They are available from 0.37 to 4 kW for single phase and from 0.37 to 185 kW for three phase power supply.

These pumps are constructed completely out of stainless steel AISI 304 (AISI 316 are also available on request).

Pumps are designed and sized for connection to the motor according to NEMA standards up to 8" motor joining.

All pumps are equipped with built-in non-return valve.

These pumps are available in two basic impellers design.

### Radial flow impellers

- 4" pumps: W1A, W2A, W3A, W5A
- 6" pumps: J6, J9, J12, J17, J17A, J20, J24, J13H, J16H, J18H

### Mixed flow impellers

- 4" pumps: W8A, W14A
- 6" pumps: W10, W15, W17, W30, W46, W60
- 8" pumps: W77, W95
- 10" pumps: W125, W160, W215.

**Connection:** Screwed pipe connection with BSP thread as standard. (NPT thread pipe connection are available on request).

## APPLICATIONS

- Water supply
- Irrigation
- Civil
- Industrial
- Fire fighting

## FEATURES AND BENEFITS

- All pumps feature complete fabricated stainless steel AISI 304 construction.
- All pumps are equipped with water lubricated rubber wear rings and bush bearings to work well with sand, found in well water.
- These pumps offers higher pumping efficiency due to state-of-the-art computerized hydraulic design and usage of stainless steel sheet metal which offers a very low co-efficient of friction. This significantly reduces energy consumption.
- These pump can withstand harsh, abrasive and corrosive environment due to their construction in high grade AISI 304 stainless steel.
- All pumps are equipped with reliable non-return valve to prevent back flow and reduces water hammer when the pump is stopped.

## OPERATING CONDITIONS

Flow range	: Max. 18.8 m³/h (for 4" pump) Max. 78 m³/h (for 6" pump) Max. 123.8 m³/h (for 8" pump) Max. 280 m³/h (for 10" pump)
Head range	: Max. 547 metres (for 4" pump) Max. 750 metres (for 6" pump) Max. 423 metres (for 8" pump) Max. 505 metres (for 10" pump)
Liquid temperature	: 0°C to +45°C
Installation depth	: 350 metres
Maximum sand content:	50 g/m³

## MOTOR

Motor type	: Submersible rewindable motor
Ratings	: 1 phase - 0.37 to 4 kW, : 3 phase - 0.37 to 185 kW
Rated speed	: 2900 rpm
Enclosure class	: IP 68
Insulation class	: F (Oil Filled motors)
Nominal voltages	: 1 phase 220 V, 230 V (Tolerance +6% / -10%) 3 phase 380 V, 400 V, 415 V
Supply frequency	: 50 Hz
Ambient temperature	: +45°C
Water pH	: 6.5 - 8
Duty / Rating	: S1 / Continuous
Direction of rotation	: Clockwise as seen from the pump coupling side.
Maximum submerged depth	: 300 metres (4") 250 metres (6") 200 metres (8") 200 metres (10")

## PUMPED LIQUIDS

Pumps are designed for pumping clear and cold water that is free of air and gasses, thin, non-aggressive and non-explosive liquids without solid particles or fibers.

Decreased pump performance and life expectancy can occur if the water is not cold and clear or contains air and/or gasses.

The maximum sand content of the water must not exceed 50 g/m³. Higher sand content will increase the risk of blockage and reduce the pump life.

When pumping liquids with a density higher than that of water, motors with correspondingly higher outputs must be used.

## DESIGN FEATURES

### Non-return valve

All pumps are equipped with a reliable non-return valve which prevents back flow in connection with pump stoppage.

Furthermore, the short closing time of the non-return valve means that the risk of destructive water hammer is reduced to a minimum.

The valve casing is designed for optimum hydraulic properties, to minimize the pressure loss across the valve and thus contributes to the high efficiency of the pump.

### Bearings with sand channels

All bearings are water-lubricated and have a squared shape enabling sand particles, if any, to leave the pump together with the pumped liquid.

### Stop ring

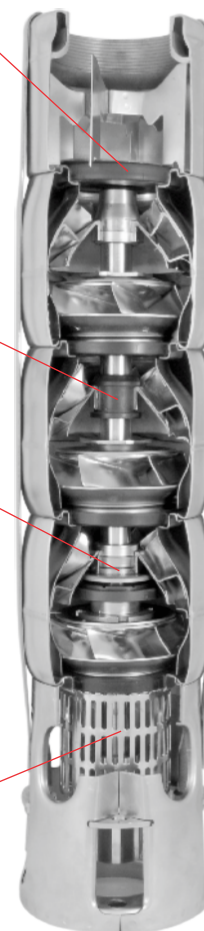
The stop ring prevents damage to the pump during transport and in case of up-thrust in connection with start-up.

The stop ring, which is designed as a thrust bearing, limits axial movements of the pump shaft.

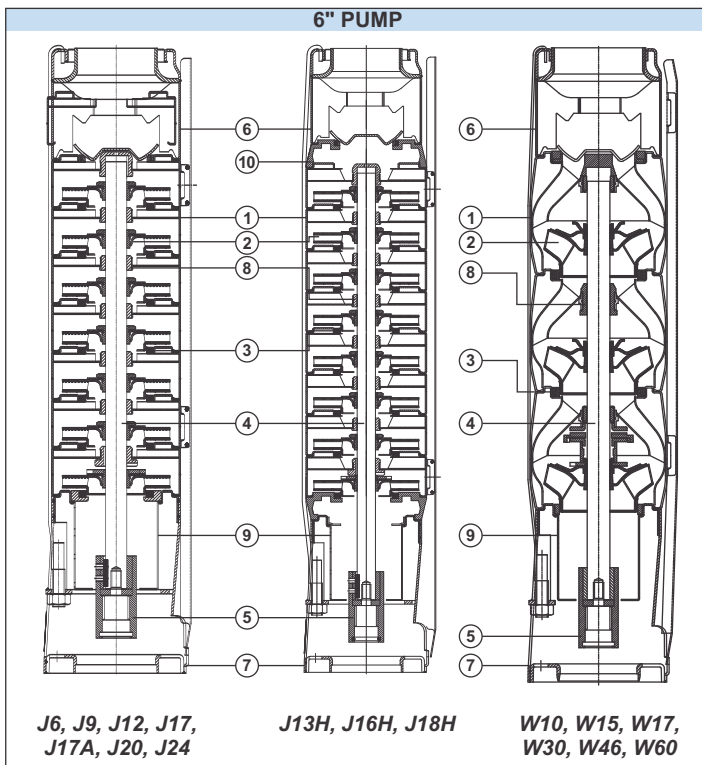
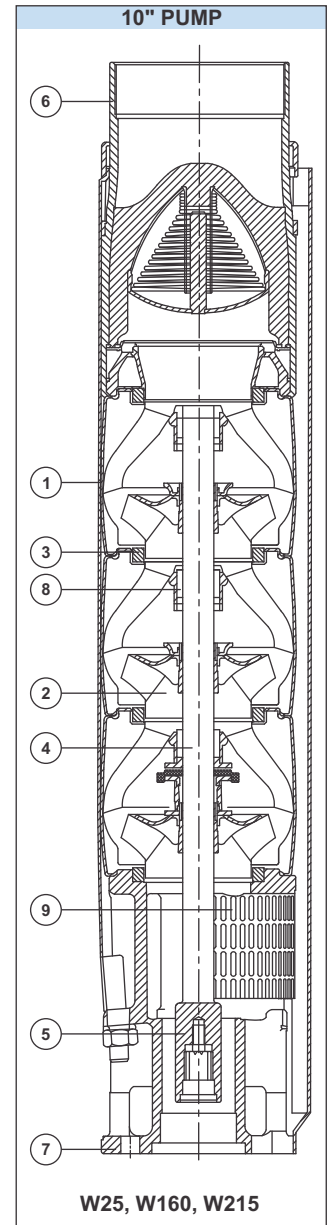
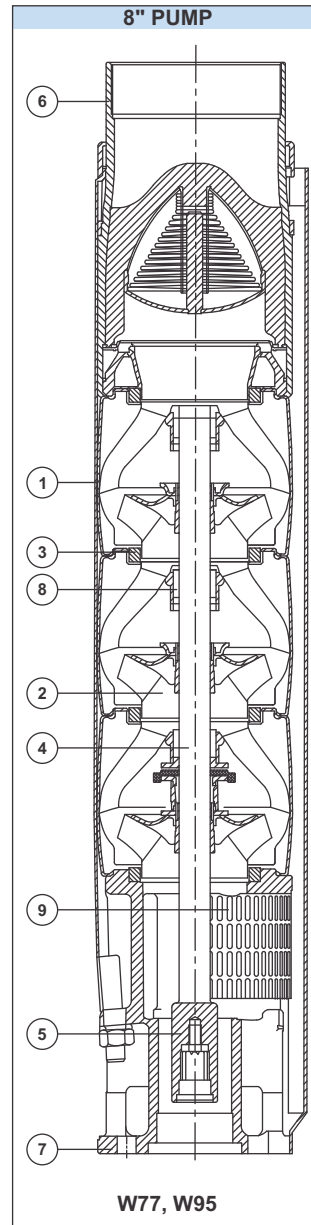
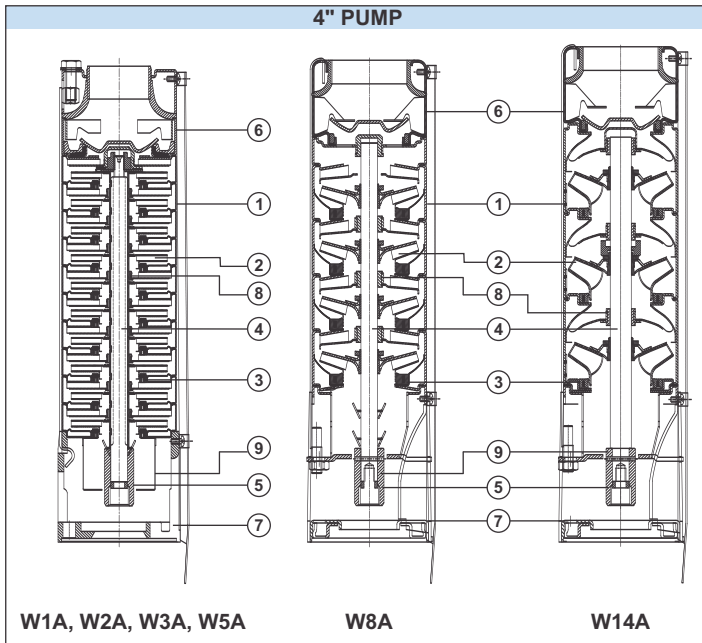
The stationary part of the stop ring is secured in the upper intermediate chamber. The rotating part is fitted above the split cone.

### Inlet strainer

The inlet strainer prevents particles over a certain size from entering the pump.

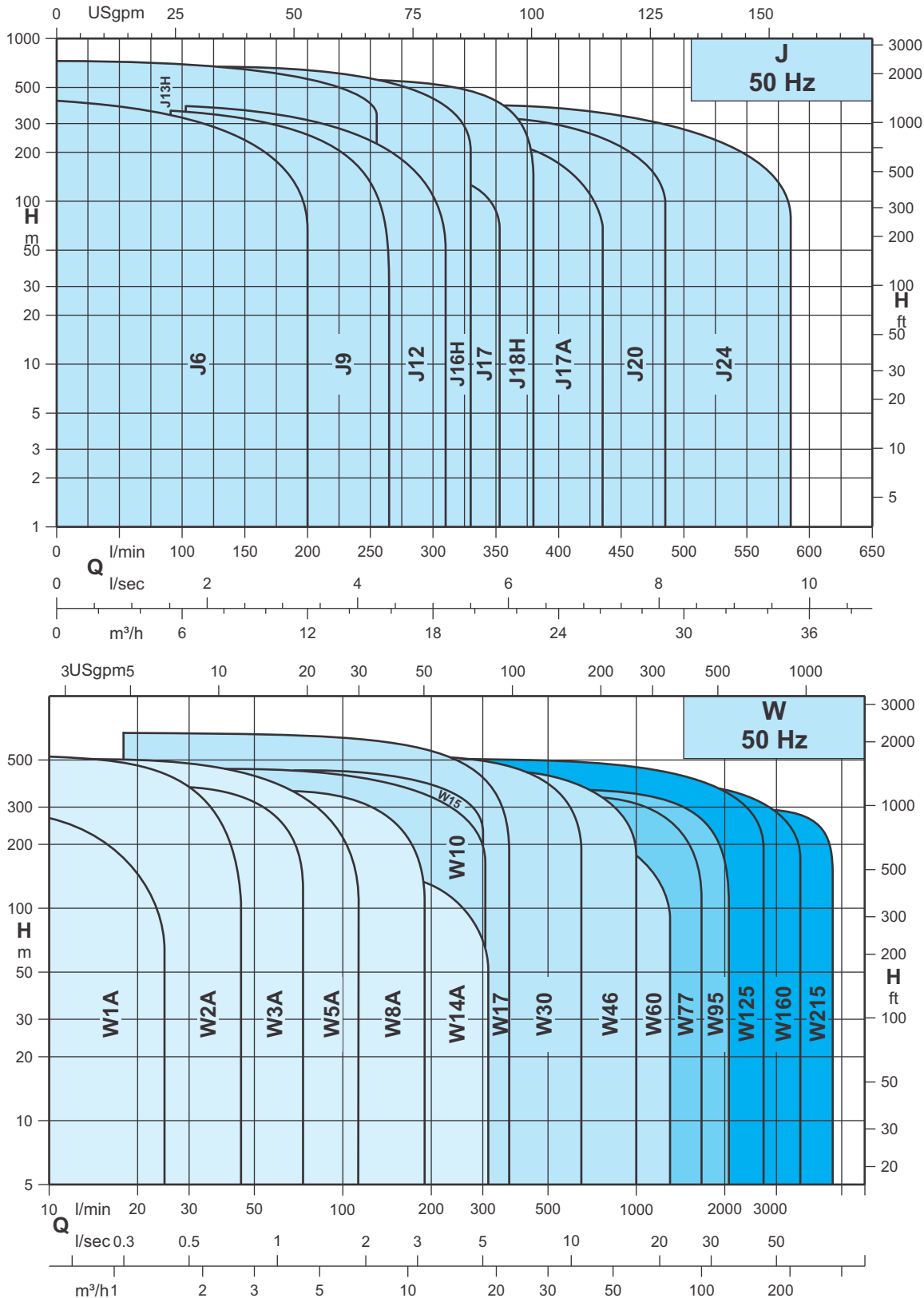


## SECTIONAL DRAWING & MATERIALS



POS.	COMPONENT	MATERIAL	4" PUMP	6" PUMP		8" PUMP	10" PUMP
			"W" TYPE	"J" TYPE	"W" TYPE	"W" TYPE	"W" TYPE
1	Bowl / Diffuser	Stainless steel	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304
2	Impeller	Stainless steel	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304
3	Neck ring	NBR	NBR	NBR	NBR	NBR	NBR
4	Shaft	Stainless steel	AISI 316	AISI 431	AISI 431	AISI 431	AISI 431
5	Couple	Stainless steel	AISI 316	AISI 316	AISI 316	AISI 304	AISI 304
6	Delivery casing	Stainless steel	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304
7	Suction case	Stainless steel	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304
8	Bearing bush	NBR	NBR	NBR	NBR	NBR	NBR
9	Strainer	Stainless steel	AISI 304	AISI 304	AISI 304	AISI 304	AISI 304
10	Connector	Stainless steel	-	AISI 304	-	-	-

## PERFORMANCE RANGE



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