

LVI & LVS SERIES

Close-Coupled & Split-Coupled Vertical in-line Pumps 50 Hz



Pumping Solution

INTRODUCTION

The Lubi **LVI** are non-self priming, single-stage, vertical in-line, close-coupled type centrifugal pumps, where as **LVS** are non-self priming, single-stage, vertical in-line, split-coupled type centrifugal pumps. They have radial suction and discharge port.

Vertical in-line pumps offer largest floor space saving compared to End suction & Horizontal split case pumps.

The in-line construction offers easy pipe work. Pipe hangers sized for the weight of the pump, piping & fittings offers adequate supports for most installations.

Standard flanges for suction & discharge ports will be PN 16 as per DIN standard EN 1092-2 and PN 25 as per DIN standard EN 1092-2. ANSI 125 and ANSI 250 as per ASME B16.1 are available on request.

These pumps are available with our standard range of motors complying to EFF2 motors. They can also be supplied with EFF1 motors on request.

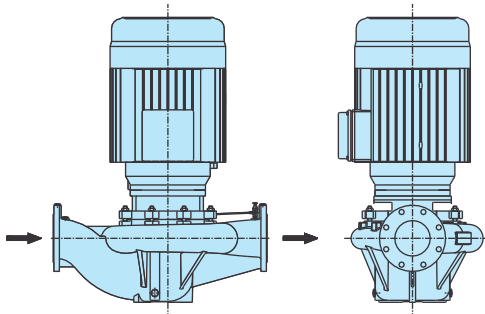


FIG.1 CLOSE-COUPLED TYPE VERTICAL IN-LINE PUMP - LVI SERIES

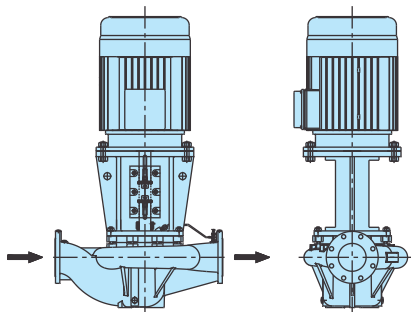


FIG.2 SPLIT-COUPLED TYPE VERTICAL IN-LINE PUMP - LVS SERIES

APPLICATIONS

- Cooling & heating systems.
- Pressure boosting systems
- Industrial applications
- Water supply
- Fire protection systems.

FEATURES AND BENEFITS - LVI

- These pumps are fitted with TEFC squirrel cage induction motors with main dimensions complying to IEC standards.
- These pumps are provided with inside type mechanical shaft seal which can be maintain without dismantling pipe connections.
- The pump impellers are dynamically balanced to grade 6.3 of ISO 1940.
- Rigid volute casing with ribs integrally cast with equal suction and discharge flange size.
- Gauge, flush and drain connections are provide on the volute casing.
- Straightening vanes near the pump suction provide efficient suction performance and quite operation.

FEATURES AND BENEFITS - LVS

- LVS pumps can use industry standard motor designed for vertical operation.
- The axially split, spacer type rigid coupling allows for the mechanical shaft seal maintenance without disturbing pump or motor.
- These pumps are available with two types of mechanical seal arrangements, internal and external. In both arrangements seal can be removed easily and quickly for servicing without disturbing motor or pump from the piping.
- The high performance external type mechanical seal arrangement combines the advantages of a multi-spring balanced seal with premium quality and is the easiest to remove. The inside type mechanical shaft seal arrangement provides an economical alternative.
- Generous venting of seal chamber and liquid flushing at seal faces is provided by gland plate flush connections.
- The pump impellers are dynamically balanced to grade 6.3 of ISO 1940.
- Rigid volute casing with ribs integrally cast with equal suction and discharge flange size.
- Gauge, flush and drain connections are provide on the volute casing.
- Straightening vanes near the pump suction provide efficient suction performance and quite operation.
- Coupling access opening are guarded with a well designed coupling guard.

OPERATING CONDITIONS

Flow range	: Up to 1800 m ³ /h
Head range	: Up to 150 metres
Ambient temperature	: Max. + 45°C for EFF2 motors, Max. + 60°C for EFF1 motors.
Liquid temperature range:	0°C to +90°C (with Carbon/Ceramic/NBR/S.S.304 seal) 0°C to +90°C (with Sic/Sic/Viton/S.S.316 seal) 0°C to +140°C (with Carbon/Sic/Viton/S.S.316 seal)

MOTOR

Motor type	: TEFC squirrel cage induction motor
Ratings	: Up to 250 kW
Rated speed	: 2900, 1450, 960 rpm
Enclosure class	: IP 55
Insulation class	: F
Nominal voltage	: 3 phase 400 V (Tolerance +5% / -10%)
Supply frequency	: 50 Hz
Duty / Rating	: S1 / Continuous
Direction of rotation	: Clockwise as seen from the motor rear end

PUMPED LIQUIDS

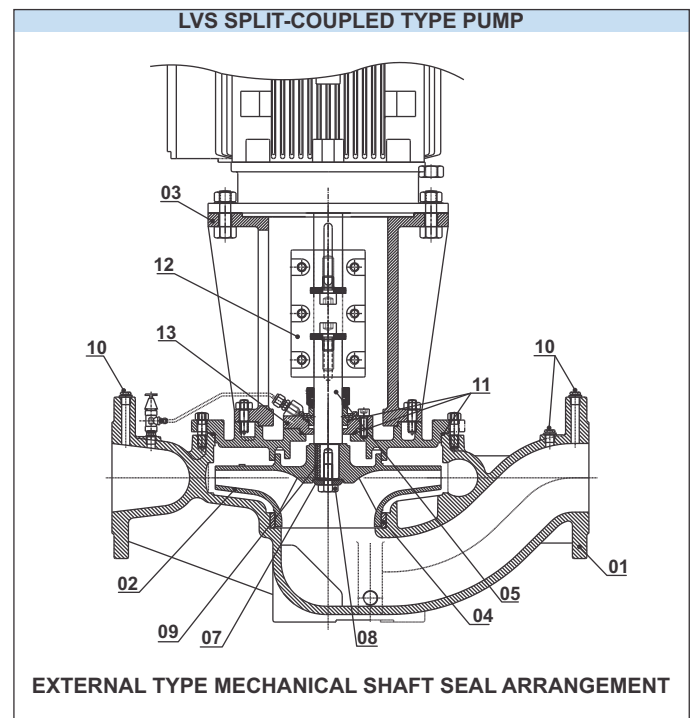
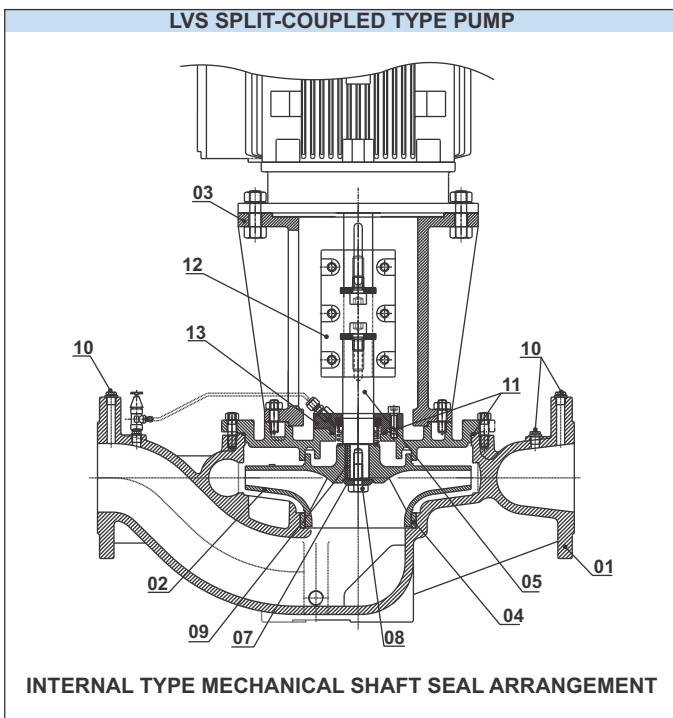
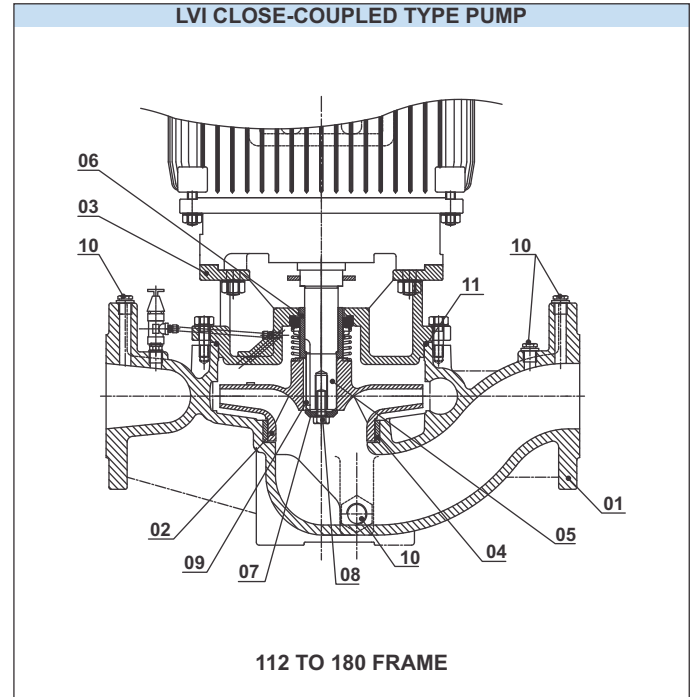
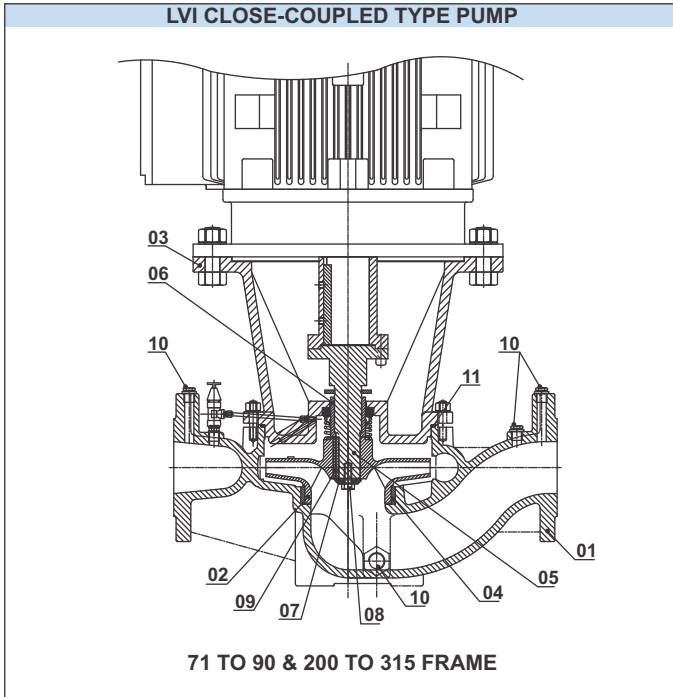
These pumps are designed for non explosive liquids which are clean and thin without any solid particles.

For aggressive liquid please ensure that material of construction is suitable for liquid to be pumped.

If liquids with a viscosity higher than that of water, are to be pumped the power consumption of the pump will increase with increase in viscosity. This will require a larger motor for the pump. Head, discharge and pump efficiency will reduce with increase in viscosity.

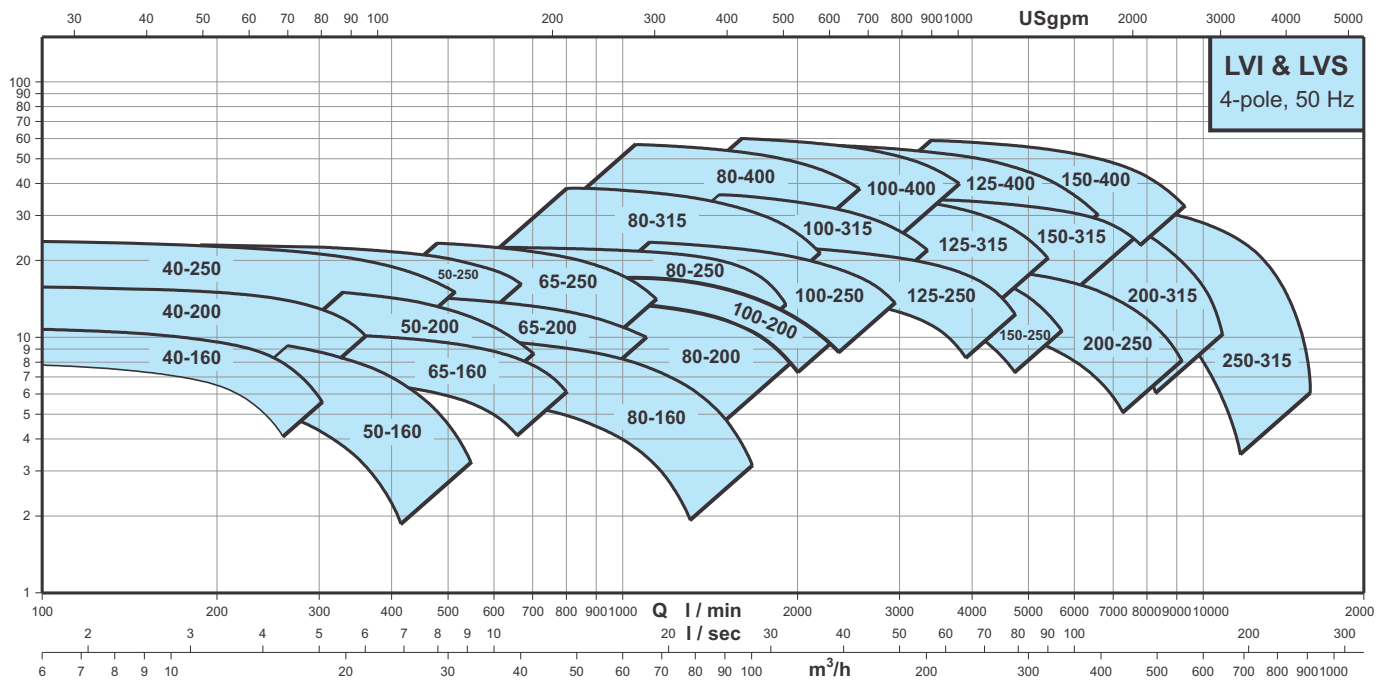
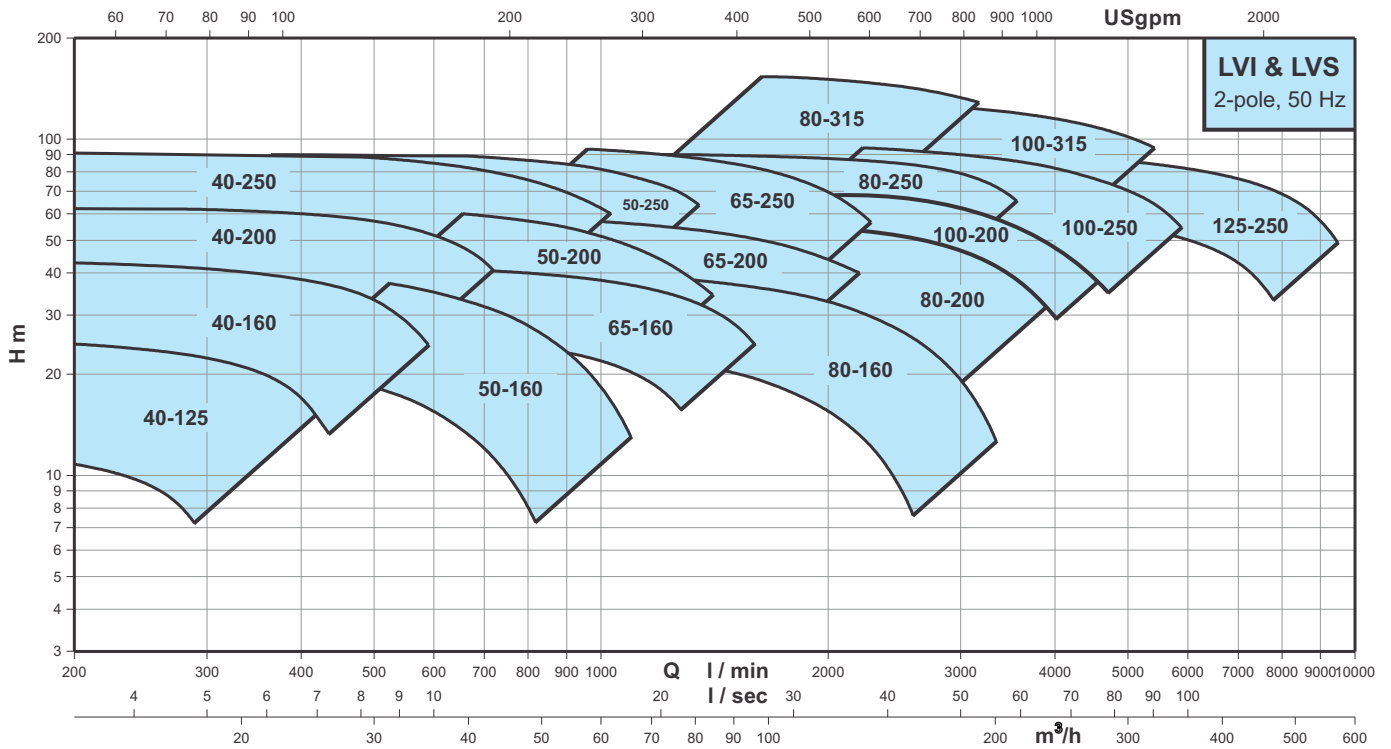
When pumping liquids with a density higher than that of water, the power consumption of the pump will increase at a ratio corresponding to increase in density.

SECTIONAL DRAWING & MATERIALS

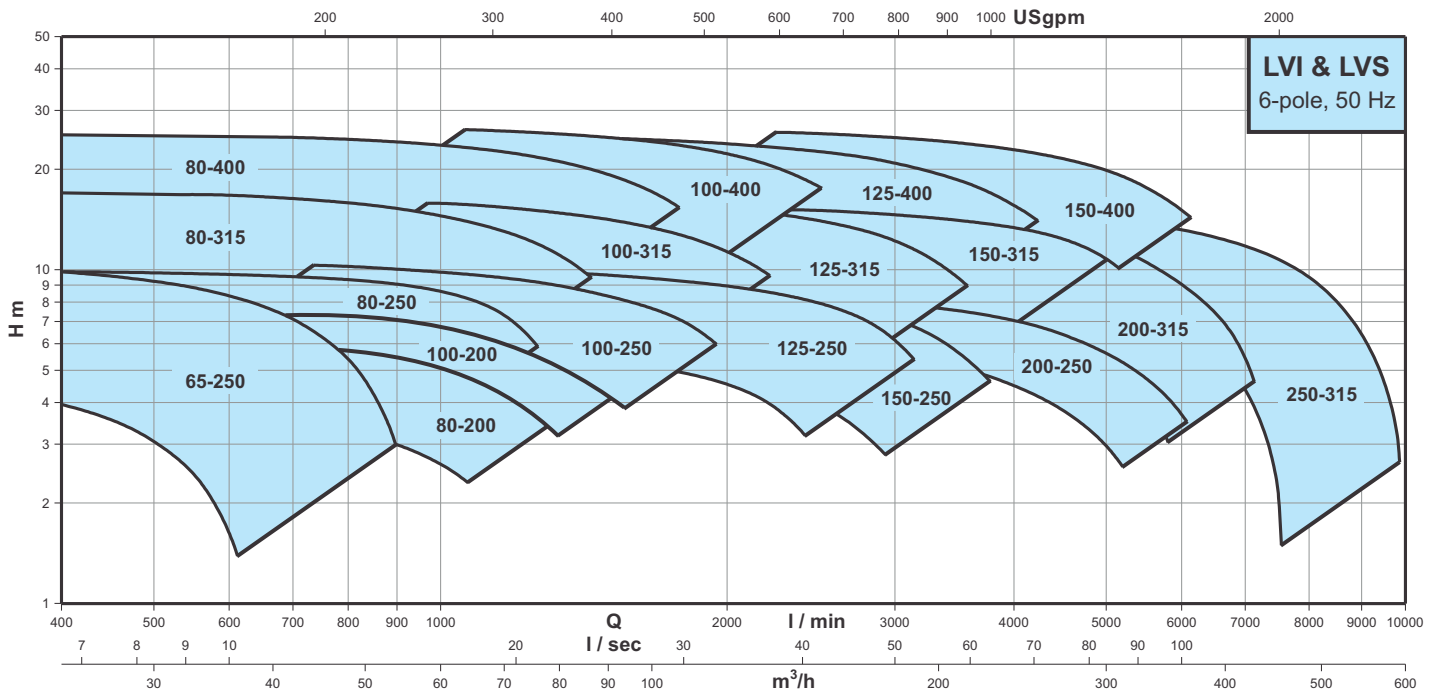


POS.	COMPONENT	CLOSE-COUPLED PUMP (LVI)				SPLIT-COUPLED PUMP (LVS)			
		A-VERSION	B-VERSION	C-VERSION	D-VERSION	A-VERSION	B-VERSION	C-VERSION	D-VERSION
1	Volute casing	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron
2	Impeller	Cast iron	Bronze	CF-8	CF-8M	Cast iron	Bronze	CF-8	CF-8M
3	Adaptor	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron
5	Pump shaft	Carbon steel	Carbon steel	S.S. AISI 304	S.S. AISI 316	S.S. AISI 410	S.S. AISI 410	S.S. AISI 304	S.S. AISI 316
6	Shaft sleeve	S.S. AISI 410	S.S. AISI 410	S.S. AISI 304	S.S. AISI 316	-	-	-	-
7	Impeller washer	S.S. AISI 410	S.S. AISI 410	S.S. AISI 304	S.S. AISI 316	S.S. AISI 410	S.S. AISI 410	S.S. AISI 304	S.S. AISI 316
8	Impeller lock pin	S.S. AISI 410	S.S. AISI 410	S.S. AISI 304	S.S. AISI 316	S.S. AISI 410	S.S. AISI 410	S.S. AISI 304	S.S. AISI 316
9	Impeller key	S.S. AISI 410	S.S. AISI 410	S.S. AISI 304	S.S. AISI 316	S.S. AISI 410	S.S. AISI 410	S.S. AISI 304	S.S. AISI 316
10	Plugs	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
11	O-ring	NBR	NBR	NBR	NBR	NBR	NBR	NBR	NBR
4	Wear ring	Cast Iron	Bronze	S.S. AISI 304	S.S. AISI 316	Cast Iron	Bronze	S.S. AISI 304	S.S. AISI 316
12	Couple	-	-	-	-	Aluminum	Aluminum	Aluminum	Aluminum
13	Seal housing	-	-	-	-	Cast iron	Cast iron	Cast iron	Cast iron

PERFORMANCE RANGE



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Product Improvement is a continuous process at 'LUBI'. The data given in this publication is therefore subject to revision.

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ISO 9001



ISO 14001

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