



# PUMPPU LOHJA OY

Member of Lakers Group

## LOHJA 4" SUBMERSIBLE PUMPS

Secure your water supply with Franklin-quality



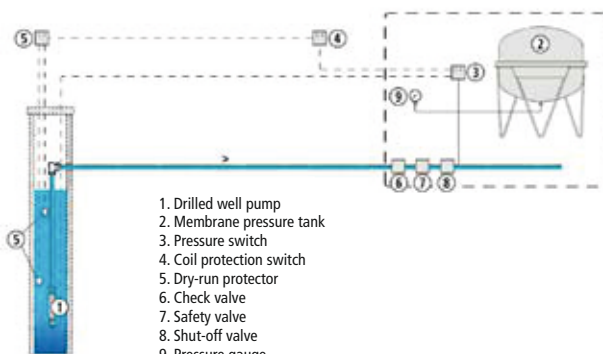
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### APPLICATIONS

Lohja 4" submersible pumps are suitable for use in domestic, civil and industrial applications such as for the distribution of water in combination with pressure sets.

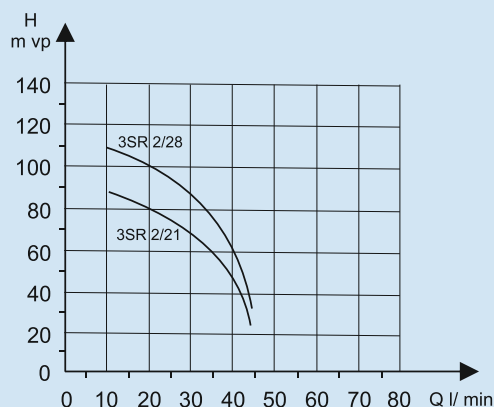
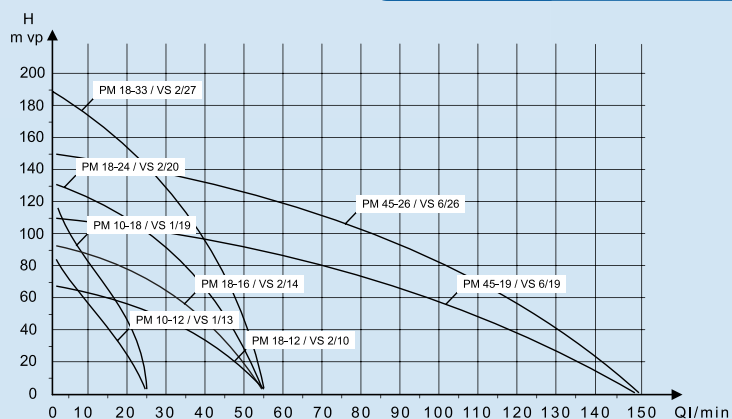
- Houses
- Agriculture
- Holiday homes
- Can be used for water lifting also from ring well or lake
- Easy to install and use
- Small operating costs
- Silent
- Lohja PM submersible pump does not require a separate pump room

### Pressurized water with Lohja 4" submersible pump



1. Drilled well pump
2. Membrane pressure tank
3. Pressure switch
4. Coil protection switch
5. Dry-run protector
6. Check valve
7. Safety valve
8. Shut-off valve
9. Pressure gauge

### Performance curve



# LOHJA 4" SUBMERSIBLE PUMPS

## APPLICATIONS

The Lohja PM pumps are designed for clean, cold water.

Lohja PM pump is suitable for water supply and irrigation in private homes, for leisure housing, agriculture and industry.

There are many uses: it is most commonly used with a pressure tank as a pressure water plant. This can also be purchased as a bundled delivery. If the water usage is low, the pressure tank and pressure switch can be replaced by a pressure regulator (1-phase) which starts the pump as soon as the taps is opened, and stops the pump when the tap is closed. When pumping into an open tank or during watering, the Lohja PM pump can be used also manually controlled.

Lohja PM pump can be used for the so-called "Non-freezing installation" even when the pipe cannot be embedded below the frost limit. The prerequisite here is that the pressure pipe decreases evenly from the application to the well. The check valve is removed from the pump and breather valve and check valve specifically designed for this purpose are installed before the pressure vessel. Then when the pump stops, the water in the pressure pipe drains back into the well, automatically draining the pipe. When the pump starts again, the air in the pipe first ejects out through the vent valve and when the water comes into the vent valve it closes automatically and the water flows to pressure tank.

## SELECTING THE PUMP

When choosing the right pump size, the following points must be considered:

- Whether single or three phase current is used
- Depth of well and water level from the ground
- Distance and height difference from well to application
- The desired water pressure range, or the pressure switch setting values
- Need for water

The pump is selected so that it has the minimum amount of water required in practice the lifting height is reached, which is the sum of the lowest water level and water intake point height, pipe resistors (1" pipe approx 0.4 m against 10 m length) and the pressure switch cut-off pressure in meters (10 mvp = 1 bar). Pump is selected based on performance of a certain pump described at the table below.

If the output of the well is very low, the pump is protected by a dry running protection.

## INSTALLATION

Lohja PM pump is easy to install. The pump with electrical cables and pipes is lowered into the well. Suspend the pump so that it is at least 5 meters away from the bottom of the well. If an electric dry running protector (with electrode switch) is used, install the lower electrode so that the water level does not fall closer to 1-3 meters top of the pump.

A plastic pipe is recommended as a pressure pipe. Three-phase motors needs to be protected against overload and phase outages with a motor protection switch. The Lohja PM submersible pump must not be used dry, but when submerged in water it does not need separately be filled with a starter water.

The following installation parts are usually required when installing a drilled well pump:

Pump, electric cable and lifting wire. As a plastic pipe connectors we recommend Beulco high quality connectors. 32 mm plastic pipe is usually used in summer cottages and detached houses. Borehole cap or cover. Plastic pipe fittings and brass fittings to the top of the borehole (often using 32 mm plastic pipe connector with an angle). Complete pressure vessel kit 50 l or 25 l including a pressure tank, pressure switch (which controls the pump runs), a pressure gauge and a safety valve. External non-return valve must be used. Complete pressure vessel kit must be placed in a suitable position for water devices in an ice-free space. In addition, a motor protection switch is always required for the three-phase pump. If the output of the well is low related to use, it is advisable to equip the pump with a dry running protection.

### Technical Specifications 4" Submersible Pumps

Available as a mere pump or 40-130 m long package. Package contains ready dimensioned pump and drinking water cable.

Package	Type	Motor	Maximum lift	Maximum flow	Connector	Diameter
	LOHJA PM 10-12 / VS 1/13	0,37 kW/1-v 4,1 A	83 m	25 l/min	sk 1 1/4"	95 mm
40 m package	LOHJA PM 18-12 / VS 2/10	0,55 kW/1-v 5,8 A	67 m	55 l/min	sk 1 1/4"	95 mm
40 m package	LOHJA PM 18-12 / VS 2/10	0,55 kW/3-v 1,6 A	67 m	55 l/min	sk 1 1/4"	95 mm
60 m package	LOHJA PM 10-18 / VS 1/19	0,55 kW/1-v 5,8 A	118 m	25 l/min	sk 1 1/4"	95 mm
60 m package	LOHJA PM 18-16 / VS 2/14	0,75 kW/1-v 7,3 A	94 m	55 l/min	sk 1 1/4"	95 mm
60 m package	LOHJA PM 18-16 / VS 2/14	0,75 kW/3-v 2,0 A	94 m	55 l/min	sk 1 1/4"	95 mm
80 m package	LOHJA PM 18-24 / VS 2/20	1,10 kW/3-v 2,8 A	133 m	55 l/min	sk 1 1/4"	95 mm
100 m package	LOHJA PM 18-24 / VS 2/20	1,10 kW/3-v 2,8 A	133 m	55 l/min	sk 1 1/4"	95 mm
130 m package	LOHJA PM 18-33 / VS 2/27	1,50 kW/3-v 3,9 A	189 m	55 l/min	sk 1 1/4"	95 mm
	LOHJA PM 45-19 / VS 6/19	2,20 kW/3-v 5,5 A	110 m	150 l/min	sk 2"	95 mm
	LOHJA PM 45-26 / VS 6/26	3,00 kW/3-v 7,5 A	150 m	150 l/min	sk 2"	95 mm

The correct set of values needs to be checked from the motor VIN plate when installing. An external non-return valve is to be used.

### Technical Specifications 3" Submersible Pumps

Available as a package.

Package	Type	Motor	Maximum lift	Maximum flow	Connector	Diameter
30 m package	3 SRm 2/21	0,55 kW/1-v 4,5 A	84 m	45 l/min	sk 1"	76 mm
60 m package	3 SRm 2/28	0,75 kW/1-v 6,0 A	109 m	45 l/min	sk 1"	76 mm
60 m package	3 SR 2/28	0,75 kW/3-v 2,6 A	109 m	45 l/min	sk 1"	76 mm



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