

PRESSURE RANGE 2 TO 6 BAR

FLOW RANGE 5 TO 108 L/MIN

LOW NOISE LEVEL

USES UP TO 80% LESS ENERGY



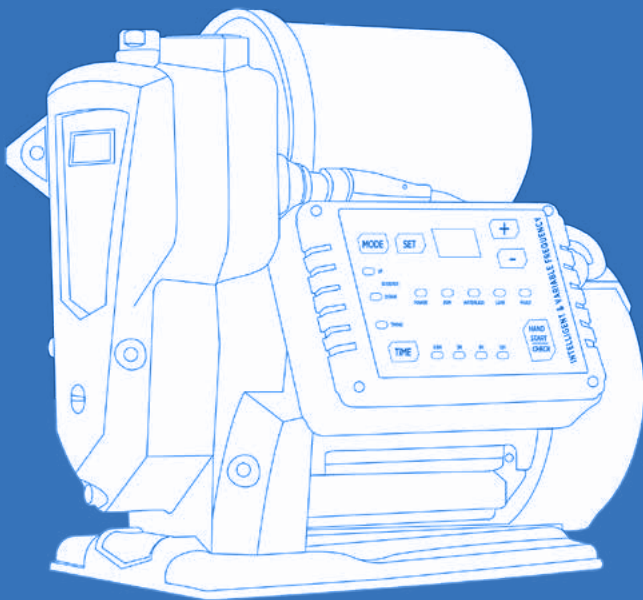
0.75kW & 1.5kW VSP BOOSTER PUMP

CONSTANT PRESSURE
BOOSTER SYSTEM
INCORPORATING
INTEGRATED FREQUENCY
MODULATION VARIABLE
SPEED DRIVE



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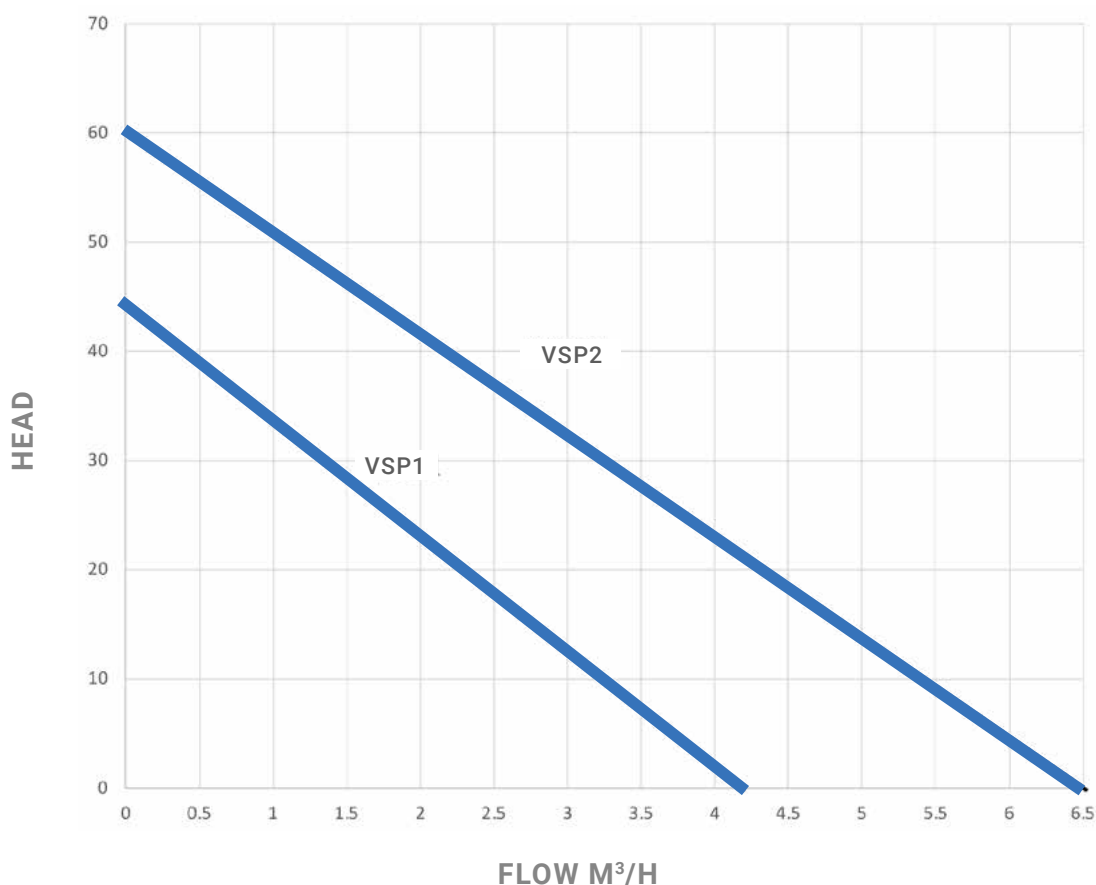


FEATURES & BENEFITS

- ✓ **Easy to operate**
- ✓ **Low noise level**
- ✓ **Automatic start/stop function**
- ✓ **Pre-wired with a 3-point plug**
- ✓ **Energy-efficient**
Up to 80% more energy savings compared to traditional pump systems
- ✓ **Restart delay**
An integral time delay for restart after 3 seconds protects the motor from heat build-up due to continuous on/off switching
- ✓ **Auto-rotation**
A built-in timer will automatically start the pump within a 12-hour cycle to rotate the bearings

- ✓ **Constant pressure**
A pressure transducer ensures that constant pressure is maintained even when multiple water outlets are used simultaneously
- ✓ **Class leading efficiency**
The unit has the following integrated functions for protection from:
 - Dry run
 - Over-current
 - Over/under voltage
 - Overload
 - Phase-loss
 - Abnormal Pressure

PUMP PERFORMANCE CURVE



PUMP SPECIFICATIONS

	VSP1	VSP2		VSP1	VSP2
✓ Pump Model	VSP1	VSP2	✓ Max. Pressure	4.5 Bar	6 Bar
✓ Motor Power	0.75 kW	1.5 kW	✓ Max. Fluid Temperature	80 °C	80 °C
✓ Max. Flow	66 lt/min	108 lt/min	✓ Max. Ambient Temperature	40 °C	40 °C

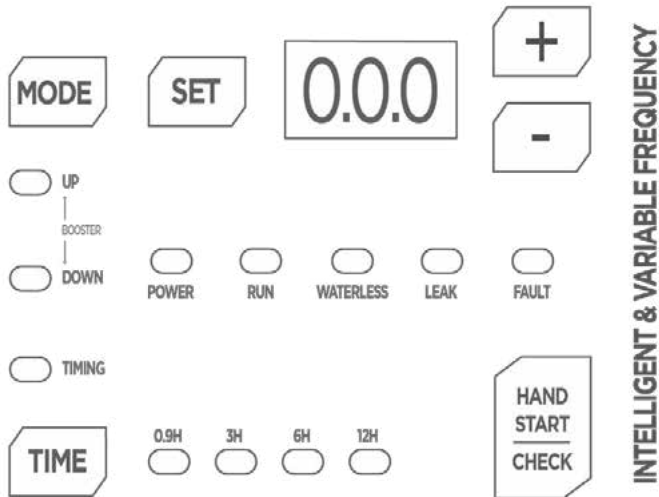
IMPORTANT INFORMATION

- The pump must be earthed.
- All the maintenance should be carried out with the power supply disconnected.
- Do not put any strain on the electrical cable.
- The pump is only designed for clean water use.
- Do not adjust any settings without having carefully read and understood the instructions.
- Extending the cable may affect your factory warranty. Make use of an approved extending plug adapter.
- The pump should be installed in a ventilated, undercover area to protect the unit against direct sunlight, rain and spray from an irrigation system.
- Pumping muddy water or water containing suspended solids will severely reduce the life expectancy of the unit. Note, this type of application falls outside of the factory warranty.
- The booster pump is equipped with a draining screw at the bottom of the suction/discharge casing. It is advised to drain the unit when temperatures fall below 0°C.

OPERATING INSTRUCTIONS

1. Ensure that the power supply cable is connected correctly.
2. The suction and discharge piping should be of rigid characteristics, be able to withstand pressure of up to 6 bar, be air tight on the suction side and water tight on the discharge side.
3. Follow the priming instructions as per diagrams.
4. Insert a small screwdriver into the fan cover and ensure that the fan is turning freely. If not, consult your supplier.
5. The booster pump is designed to operate with a 230V single-phase power supply. Voltage variance is maximum 10% up or down. Further variation will damage the electrical motor.

SETTINGS



1. Press **"MODE"** until reaching the desired category.

1.1 Mode **"UP"**:

- The screen will display the working pressure (bar).
- Pressing **"+"** will increase the set pressure.
- Pressing **"-"** will reduce the set pressure.
- The new set point will flash five (5) times before saving the value.
- The recommended operating range is between 2 bar and 4 bar.

2. Press **"SET"** for skipping between functions **"B01"** to **"B05"**.

2.1 B01:

- When **"B01"** is displayed and **"SET"** is pressed, the start-up pressure can be adjusted as a percentage of the working pressure. The default ratio is set at 70%. **"+"** or **"-"** will increase or decrease this ratio.

For example, working pressure set at 3.0 bar and ratio set at 70%:

$$3.0 \text{ bar} \times 0.7 = 2.1 \text{ bar}$$

Once water usage has stopped, the pump will allow system pressure to drop to 2.1 bar before starting up.

2.2. B02:

- When **"B02"** is displayed and **"SET"** is pressed, the screen will display **"00"** or **"01"**. Press **"+"** or **"-"** to adjust the direction of rotation. **"00"** means clockwise and **"01"** means anti-clockwise. The factory setting is **"00"** for single-phase.

2.3. B03:

- When **"B03"** is displayed and **"SET"** is pressed, the screen will display a value between **0** and **1.5kgfcm²** (approximately = 1.5 bar). The default is set at 0.15kgf/cm² and is the pressure at which the pump will switch off in the case of running dry or against low back pressure as in the event of a burst discharge pipe. **"+"** or **"-"** will increase or decrease this value.

NOTE, IT IS NOT RECOMMENDED TO CHANGE THIS DEFAULT SETTING AS IT ENABLES THE UNIT TO OPERATE IN ITS HIGHEST EFFICIENCY ZONE AND MOST ACCURATELY MIMICS MUNICIPAL PRESSURE SUPPLY CONDITIONS.

2.4. **B04** and **B05**:

- “**B04**” and “**B05**” has no function on this booster system.

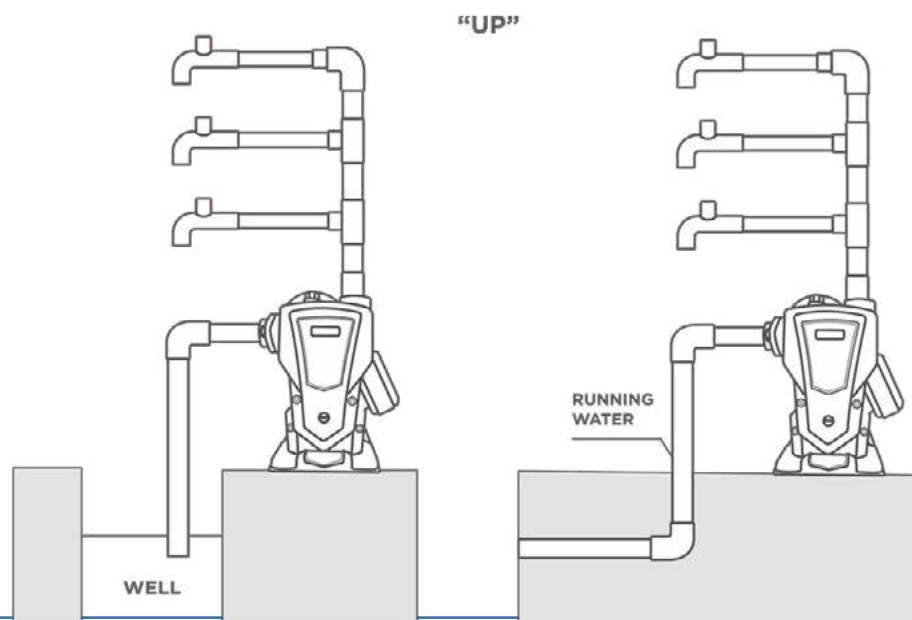
3. Indicator lights and fault codes:

3.1. Mode “**UP**”:

- The “**POWER**” light will be illuminated.
- The “**RUN**” light will illuminate when the pump is operating.
- The “**RUN**” light will flash when the pump is operating but unable to reach the set pressure.

This is not unusual, as the application for household supply and irrigation supply vary vastly in flow demand.

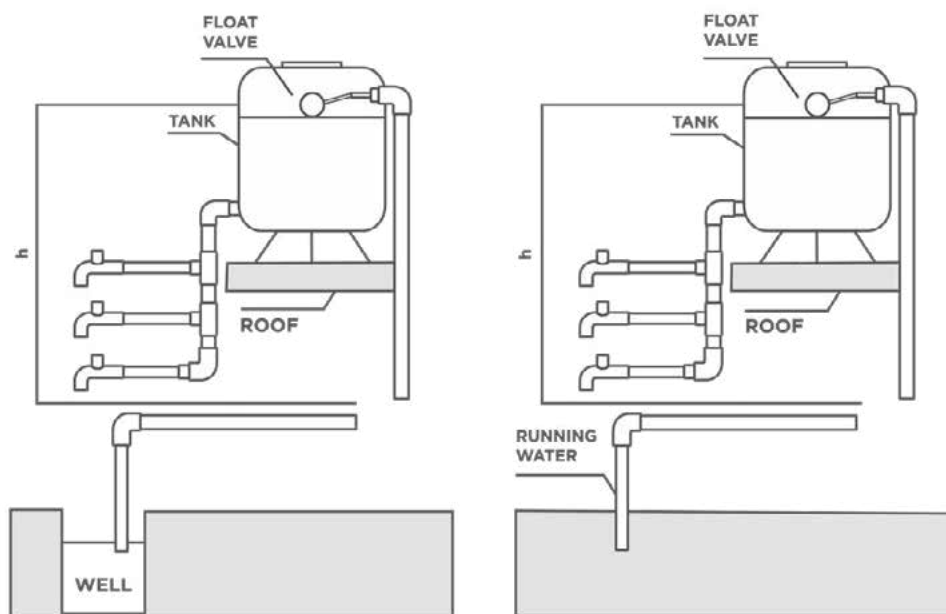
- The “**LEAK**” light will illuminate in cases of electrical irregularities.
- Error codes will appear on the screen and are as follows:
 - **E01**: Low voltage from supply (below 130V).
 - **E02**: High voltage from supply (above 280V).
 - **E03**: Extreme voltage fluctuations are indicative of a supply connection defect.
 - **E04**: Motor temperature exceeding operating limits. Check for insufficient ventilation.
 - **E05**: Overload condition. Check for solid objects trapped inside the pump hydraulic end or cooling fan
 - **E06**: Not in use.
 - **E07**: Not in use.
 - **E08**: Not in use.
 - **E09**: Over-current condition indicates that something is impeding the rotating part of the pump during normal operation.
 - **E10**: Not in use.
 - **E11**: Not in use.
- Pressing the “**MANUAL/AUTO**” button will reset all fault codes. Press again to resume automatic operation.
- Operating under the “**UP**” mode will disable the “**TIME**” light and function.



3.2. Mode “TIME”:

- “TIME” retains all settings of “UP” mode, but allows for the selection of a restart time. For example, “3H” will start the pump every 3 hours without the system demanding an automatic start. This function is important for applications where the unit may not be required to operate for extended periods of time (holiday home, weekend retreat, etc.)
- Daily starts keep the rotating equipment in good condition and prevents damage to bearings.
- In the “TIME” mode, the “POWER” and “RUN” lights will not be illuminated.

“TIMING”



3.3. Mode “DOWN”:

- “DOWN” mode will disable the pump system.

