LOWARA
a xylem brand

THE XYLEM LOWARA HYDROVAR

HALVE THE COST OF RUNNING A BOOSTER SET IN FIVE STEPS

The Hydrovar from Xylem Lowara is a variable speed drive that can be retrofitted on any existing booster set to deliver guaranteed cost and energy savings of circa 50%. With a payback period of less than two years, the Hydrovar is proving a popular investment for larger premises that use fixed speed booster pumps in commercial or industrial applications.

Fitting the 'plug and play' Hydrovar units to a fixed speed booster set not only eliminates the need for a control panel but also introduces a soft start function, that when combined with the benefits of running a pump at a variable speed, can prolong the life of the pump and the water system. By reducing the in-rush current when the pump is turned on, parts such as motor bearings and pipe fittings are protected from hydraulic shock that can cause cavitation and break-down.

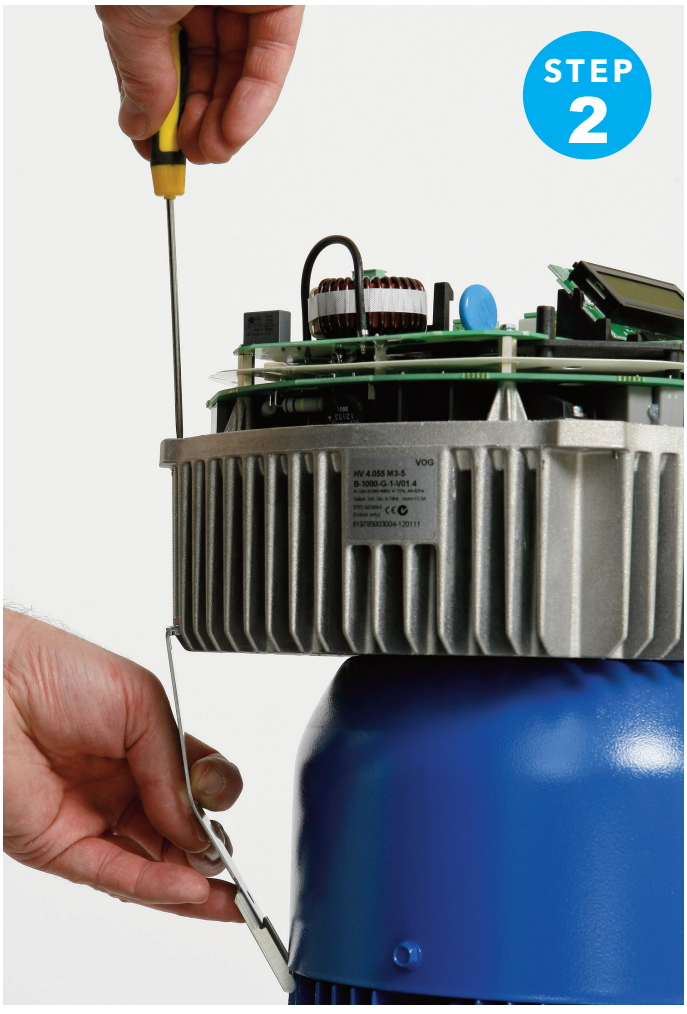
Connecting a Hydrovar couldn't be simpler, here Paul Shute, Variable Speed Drive Specialist for Xylem Lowara, demonstrates an installation in just five steps:

Step One: Assessment of the installation site and the current pump activity

Before any Hydrovar installation, the site and its current equipment should be assessed to determine the current level of energy being consumed. From here, the installer can calculate how much the booster set is costing on an annual basis by calculating ten pence per hour for each kilowatt of energy consumed. (industrial rate) (An 11kW pump will therefore cost £1.10 per hour to run at full speed) Once this cost has been multiplied by the number of pumps that are in use, the installer can explain in monetary terms what a 50 per cent reduction in energy consumption would save the end user.

Step Two: Clamping the Hydrovar into place

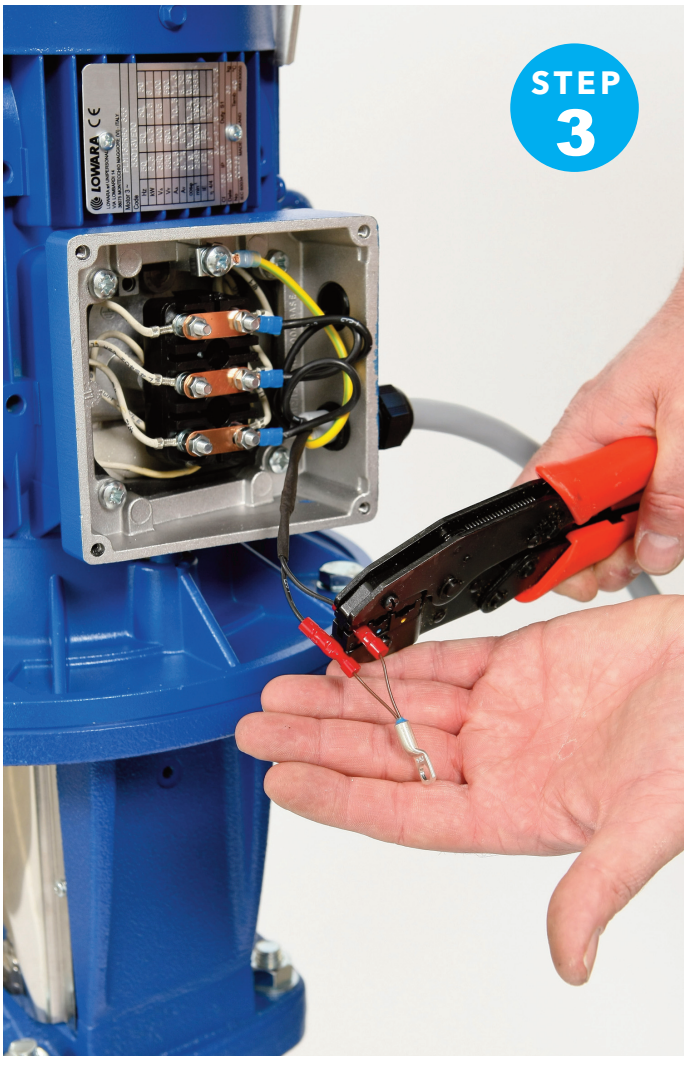
The Hydrovar sits directly onto the pump and utilises the cool air emitted from the fan vents to prevent overheating. This means that there is no need for an additional cooling unit, keeping the footprint of the Hydrovar to a minimum and not utilising valuable wall space. After unscrewing the outer casing of the Hydrovar, use the four mounting clamps provided, to secure it to the metal fan cowl of the pump unit. The clamps are designed to fit all IEC Euro motors.

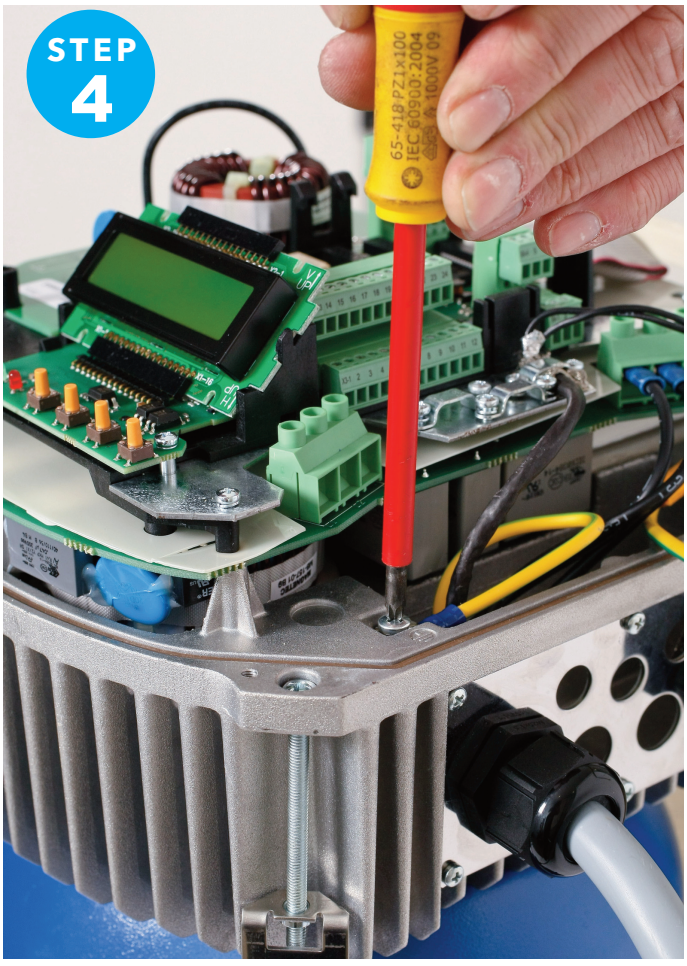


Step Three: Pump Terminal Wiring

After attaching the cable glands to the exposed gland plate on the right hand side of the Hydrovar, unscrew and remove the front of the pump motor terminal box. Take the Hydrovar connection cables (purchased separately or made using standard wires and connections) and feed the motor terminal end of the cable through the cable entry points, connecting it to the relevant terminals. If you are retrofitting the unit to an existing booster set then the power supply needs to be rerouted directly into the Hydrovar.

Connect a PTC Thermistor to the two exposed signal wires and attach it to the motor housing. The sensitive resin within the PTC will open circuit the two signal wires in the event of overheating, informing the Hydrovar of the problem. Once this is done, reattach the terminal front cover, ensuring that the water seal is correctly in place.





Step Four: Hydrovar wiring

Pass the other end of the connection cable through the cable inlet on the right hand side of the Hydrovar, connecting it to the relevant power supply and signal wires. Once this is done, connect the transducer cable (also called the sensor or pressure transmitter) to the Hydrovar through the same gland plate. The loose end of the transducer must then be connected to the pipe as close to the pump as possible.

Step Five: Completion and Programming

After replacing the lid of the Hydrovar unit programme the required bar pressure using the buttons and the screen. Depending on the number of pumps in the booster set, some very simple programming may be required. This is detailed clearly in the operating instructions manual. The Hydrovar will automatically begin its soft start as soon as the power is turned back on.

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