

QUICK START GUIDE: MP1 Pump & VFD

This guide is meant to serve as a quick reference for operating the MP1 Pump and Variable Frequency Drive. It is for your convenience and is not intended to replace the information found in the Operations Manual provided. The MP1 pump requires Ø12x16mm PE Tubing (product code 12.20.16 or 12.20.17).

NOTE

- Daily maintenance **MUST** be carried out on Pump before operation. Follow the barcode link for a video & reverse of page. Failure to do so may result in damage to the pump.
- MP1 is intolerant of sediment and dry run. **ALWAYS** keep the pump at least 1m below the maximum drawdown level of water.
- MP1 & VD can only accept 115V source.

Quick Start Guide

1. The Cooling Shroud is pre-installed on MP1 Pump. **ONLY** remove for wells with a diameter smaller than 75 mm
 2. Connect required length of PE transport tube to barb connection & submerge MP1 pump vertically in the water to be pumped.
 3. Connect Pump lead to Variable Frequency Drive(VFD)
 4. Ensure VFD knobs are in the same position as the picture on the right
 5. If you are using a generator ensure it has warmed up sufficiently before plugging in.
 6. **LASTLY** plug VFD in generator or utility power supply.
- If generator has a circuit breaker, close breaker and check output voltage from generator in within specified range.
 - For wells up to 60 m our EU2000 Generator should be used.
 - For wells 60-90 m the EU3100cx Generator.



Talk to us if you are using your own generator

1. Turn the bottom "PWR" knob to the "ON" position. Be sure **NOT** to press down on the lockout button while turning. Knob may be resistant to turning on new VFDs. "STOP" will be shown on the display.
2. Turn the middle knob to the "FWD" POSITION. "hZ 0.0" will be shown on the display.
3. To begin pumping, use the top knob to increase or decrease speed.
4. Use the Navigate button to toggle speed in Hz and current in Amps.
5. When powering down, return all knobs to positions shown in the above picture.
6. Unplug the VFD from the generator **BEFORE** removing the motor lead from the VFD or turning off the generator.




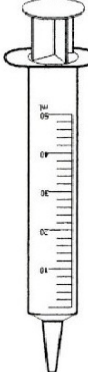




Scan to download the video

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Dismantling & Reassembling the Motor

If the Pump is moved from well to well, it should be thoroughly decontaminated prior to being installed in the next well. In addition to cleaning the individual components inside and outside, the water in the pump motor should be replaced using the syringe that came with the Pump. This can be accomplished through the following steps:

1. Ensure all knobs are in "OFF" position (see picture on previous page)
2. Disconnect the VFD from power supply or generator.
3. Disconnect the motor lead from the VFD.
4. Remove the discharge tubing and the pump end.
5. Turn the pump and motor upside down.

	6. Use a flat blade screwdriver to remove the filling screw on base of motor.		14. Refill motor using contaminant-free deionized water using the syringe provided.
	7. Remove the 3 Allen head set screws at base of motor with 2.5mm Allen wrench.		15. Replace bearing housing & tighten Allen screws.
	8. Push gently on the motor shaft to move bearing housing out of stator housing.		16. Continue to add water until level is even with bottom edge of screw hole.
	9. Continue to remove bearing housing & motor shaft from stator housing.		17. Replace & tighten filling screw.
	10. Clean motor shaft with a cloth.		18. Turn pump over several times then remove filling screw again to let any trapped air escape (if air is left inside motor, the life of motor will be shortened). Add more water as required. Fluid should overflow when the fill cap is screwed back on the motor cavity.
	11. Empty water from motor.		19. Replace & tighten filling screw.
	12. Clean inside of stator housing with a brush.		20. Replace pump end & piping.
	13. Replace motor shaft into stator housing.		