



Generator Supplier - Case Study



Case Study Information

Customer	Critical Power, Supply, Hire & Rental Service OEM & Provider
Location	United Kingdom

Equipment Supplied:

INV MINOR 40

Reversible Flexible Impeller Pump w/ Frequency Converter, Remote Control (15m)
Fitted to Customised Stainless Steel Trolley w/ Flow Meter, Hosing & Ancillary Fittings

Supplementary 24v NC connector, dry running protection & thermal overload protection included.

Enquiry:

- ✓ The customer wanted to be able to extract diesel stored in underground tanks (5 m deep) through a 2" ø pipe and deliver it into a secondary tank to enable decommissioning to take place. They wanted the ability to vary the flow of the pump and also monitor the amount of diesel being extracted. The plan for the system was to be used and stored outdoors, powered by a single phase power supply, and needed to also house up to 20 m of hose within it to enable the operator to connect different lengths of pipe together to achieve different discharge and suction heads. The extraction process from their tanks was currently taking upwards of 8 hours and they wanted to reduce this to "as quickly as possible".
- ✓ The challenge was to try and come up with a bespoke solution which was easy to operate and maintain, fitted into a small footprint whilst also providing good suction lift capabilities and an adequate varying flow range through the 2" pipe they had on site, which couldn't be made any bigger.

Solution:

- ✓ We were able to design, build and supply a ready to use solution which fitted all the customer's criteria and managed to cut their extracting time to less than 2 hours.
- ✓ We were able to mount a remote controlled inverter driven flexible impeller pump onto a bespoke trolley which housed the pump and flow meter on one level, and the 4 x 5 m coils of hose on a secondary level. Both sides of the trolley were fitted with double doors, with piano hinges and locks to enable the operator to position the system, open the doors, connect the required hose lengths together and control and monitor the volume displaced over a 15 m range. The supplied remote comes complete with on / off / reversing & speed control and pump fitted with dry run protection thus providing the operator with complete peace of mind over the safety of the system and full control of the pump at the point of use.
- ✓ The flexible impeller pump in question was supplied in Stainless Steel AISI 304 with NBR Impeller and Seal, ideally suited to the fluid and environment it was intended for. Furthermore, due to the pumps innate ability to prime from 6 m without the use of a non-return valve and handle solids up to 10 mm in diameter, it enabled the customer to prime from great depths and not worry about any sedimentation being drawn up from the bottom of the tanks.
- ✓ The connections used throughout the system were of a CAM Lock design enabling quick assembly of the suction and discharge hose lengths, connection to the pump and disassembly of the system for any maintenance purposes. Dust Caps and Plugs were also supplied to provide protection from dirt ingress into the hose and pump whilst the system was not in use.
- ✓ The trolley system was supplied with a powder coated finish with a high phosphate powder base coat ideally suited for use and storage outdoors, and fitted with 4 x swivel wheels, two of which had brakes, in order to provide as much manoeuvrability as possible.