



Case Study: How the right pump can considerably increase process profitability!



Case Study Information

Customer	Drilling Specialist
Application	Heavy Grout/Cement Transfer
Location	UK

Key Challenges

1. Ability to handle highly viscous, heavy grout
2. The need to reduce manual engineer operation
3. Cut down on excess product being pumped

Equipment Supplied:

1 x Horizontal Close Coupled Peristaltic Pump

Drive Details	15kW, 3 Phase, 50Hz electric, IP55, Variable speed
Flow	10-30 m ³ /h @ 30RPM
Discharge Pressure	8 bar
Connections	Stainless Steel AISI-316
Control Panel	Start/stop remote control, inverter drive, torque control and hose leak indicator



Enquiry:

- ✓ Our customer had a requirement for a pump with the ability to handle heavy grout; a viscous fluid with little moisture, making it quite a difficult product to pump. At the time, they were using a MAT HP-50 peristaltic pump and although they were happy with the capacity and robust design of the pump, it was lacking control features that could make their lives a lot easier and improve profitability.

One of the main problems they had was having to operate the pump manually, which meant one of the groundwork engineers had to stay next to the pump when starting/stopping operation. This was seriously affecting productivity, as a member of their team was spending 50-60% of their time simply switching the pump on and off and making sure correct working pressure and flow was maintained.

Solution:

- ✓ We offered our customer a completely bespoke close coupled peristaltic pump. This is the ideal solution, thanks to its ability to handle dry products, and as the inner hose is the only wearing part, unlike most other pump designs there are no valves to clog or seals to fail that would with such a dry, viscous product. It therefore maintained the robust design of their previous unit with the addition of control panel, inverter drive, torque control/indicator, start/stop remote control up to 150 metres and hose leakage indicator.

The above features allowed our customer to have a full team on the actual job as the pump was able to be controlled remotely and requiring no man power. They could also control the speed and pressure of the peristaltic hose pump, resulting in productivity gains of 35-40% as they could now pump the specific quantity of grout required. Evidently this also meant material waste was cut down significantly.

= The overall impact was a 30% increase in the process' profitability!



Some of the benefits of the FMP Peristaltic Pump supplied:

- ✓ Dry running capability without any damage
- ✓ Seal-less design
- ✓ Reversible rotation system
- ✓ Corrosion and abrasion resistant
- ✓ Available with leakage detector
- ✓ Available with integrated inverter
- ✓ Design pressure up to 8 bar
- ✓ Automatic stop
- ✓ Single hinged door closed with a single bolt to enable quick hose removal by a single person
- ✓ Automatic stop on over pressure
- ✓ Roller design ensures long life expectancy
- ✓ Drainage port at bottom of casing to ensure easy product removal
- ✓ Patented hose coupling design ensures zero leakage from hose connections
- ✓ Speed control ensures low flows can be accommodated ensuring waste is limited

