

# Case Study:

## Heavy Grout Transfer - Drilling Specialist



### 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 this high viscosity 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 relied on one of the groundwork engineers having 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.

### 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

#### Boyser FMP-80 Variable Speed Peristaltic Pump

Fluid	Transfer of heavy grout
Drive	15 kW, 400V, 3 Phase, 50Hz, IP-55, 1450 RPM
Flow	10-30 m <sup>3</sup> h
Head	80m
Output Speed	30 rpm
Working Speed	13-39 rpm

### SOLUTION

As the customer was happy with the performance of their current peristaltic pump, we did not want to divert from this technology. The peristaltic design is ideal, 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 fluid.

Working alongside our manufacturing partner, Boyser, we offered our customer a completely bespoke close coupled peristaltic pump. It 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 process' profitability!

