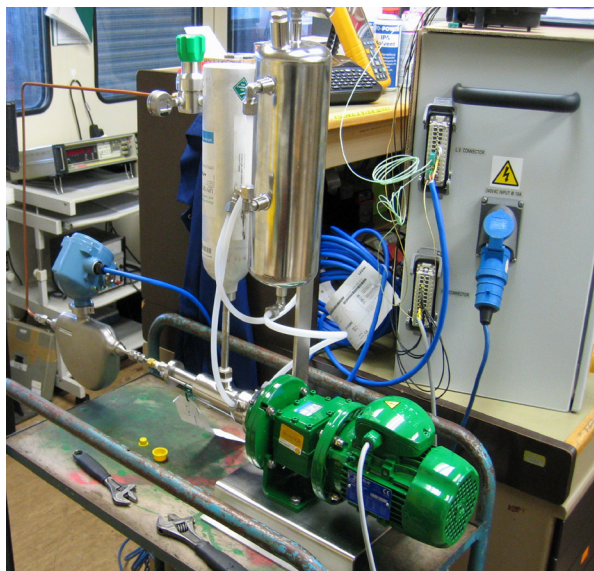




Verification, Testing & Certification Company - Case Study



Case Study Information

Customer	Verification, Testing and Certification Company
Location	UK



Equipment Supplied:

1 x Nova Rotors progressing cavity pump, complete with motor

Type:	MN010-2
Fluid:	Fuel oil with suspension of 10% coal dust (<10 microns) at 70C
Flow:	3l/hour @ 53 RPM
Pressure:	3 bar
Application:	Research and development within the oil and gas industry
Installation:	Horizontal
Pump Body:	AISI 316L / W. 1.440
Stator:	NBR
Rotor:	AISI 316L / W. 1.4404+HCP
Voltage:	440v
Motor:	Coaxial gearbox with electric motor 0.37Kw, 4 Pole
Seal:	Mechanical - SIC/SIC/NBR – With flushing system

Enquiry:

- ✓ Castle Pumps received an enquiry from a new customer in the UK that needed a pump for an abrasive slurry of fuel oil and coal dust, to be used for research and development in the oil and gas industry. The pump needed to have a low flow rate and the ability to handle abrasive coal dust, and also needed to be controlled by a variable speed drive for testing purposes.

Solution:

- ✓ Progressing cavity pumps need the fluid to have lubricating properties to function and are also really good when handling solids or abrasive liquids, so we immediately decided this pump was right for the job. Fitting a mechanical seal flushing system to the pump would also aid when dealing with the abrasive dust particle, and provide a longer lifespan to the seal.

We selected a coaxial gearbox coupled to an electric motor to provide the low RPM needed to produce the low flow rate requested. Running the pump slower would also help with handling the abrasive content of the fluid. The motor was also rated so that it could be connected to a variable speed drive and operated with a control panel.