

Case Study

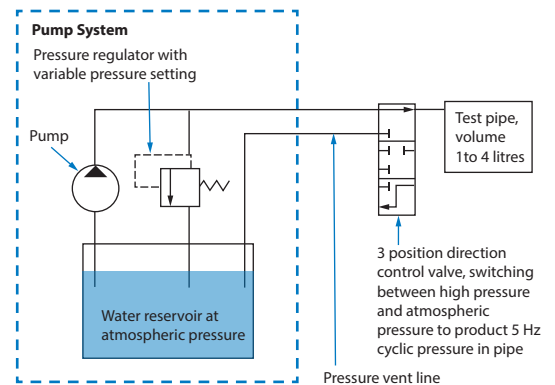


HTU for Cyclic Pressure Testing Application

The Department of Civil and Structural Engineering at The University of Sheffield were looking for a complete pump, motor, and reservoir unit that was able to deliver the pressure and flowrate required for their cyclic pressure testing experiment. After a short search online, they discovered through the Cat Pumps (U.K.) website that the Cat Pumps Hydrostatic Test Unit (HTU) was the only suitable solution for their cyclic pressure testing application.

Our customer explains the application:

“The HTU will form part of a system which will be used for fatigue testing of water distribution pipes. Specifically, the HTU will supply water at a set pressure to a separate system of valves. These valves will alternate the water pressure in the pipe specimen between the HTU supplied pressure and near-atmospheric pressure. This system is designed to have a maximum operating pressure of 20 MPa and a loading frequency of 3 Hz. The hydrostatic test unit would effectively be operating as a constant pressure supply.”



The HTU from Cat Pumps is a robust compact mobile high-pressure system utilising the highly reliable and long-lived Cat Pumps high-pressure pump and motor/gearbox assembly. An inbuilt 50 litre water supply tank feeds the high-pressure pump, which in turn feeds a high-pressure distribution manifold, which incorporates a pressure regulator and an easy-to-read calibrated pressure gauge. The HTU has an inbuilt pressure relief valve that will prevent the unit from achieving pressures exceeding the system design. An incorporated pressure release valve allows the pressurised water to be released back to the supply tank after a hydrostatic pressure test has been completed. The HTU benefits from corrosion resistant wetted components and hoses. Its low noise operation makes it practical in most settings. It is highly reliable and low energy consuming. A great feature for the HTU is that it benefits from having an easy to service pump, which is backed by availability of replacement parts and oil, as well as relevant technical service information, helping to minimise system down time.

Our customer advised:

“Cat Pumps provided excellent support in selecting the pump and motor combination that provided the performance needed for my application while also being compatible with the available power supply.”

Case Study Application Specifications

HTU E22488

Cat Pumps Pump Model:	5CP41110CSS
Pressure:	200 bar
Flow:	6.8 l/min
Fluid:	Water
Temperature:	Ambient
Drive:	3 kW 230V 50Hz Single Phase



For more information on HTU, call us on 01252 622031 or visit www.catpumps.co.uk/engineered-packages/htu.asp

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