

Hydraulic Pump Description

For Mechanical Testing Suite EM10

Procurement of a large volume hydraulic power unit (HPU) is needed to supply the numerous test frames of EM 10 Mechanical Test Team. This unit will use Mobile DTE 25 have a minimum flow of 60 gallons per minute (gpm) and be expandable to a total of 180 (gpm) with additional pumps, without changing the original footprint, or external physical connections. The operating pressure shall be adjustable, up to a maximum of 3000 pounds per square inch (psi) and appropriate sized accumulator for damping. The maximum noise output of the system shall not be greater than 80 db of ambient noise. The HPU is required to have run-on-demand feature, which could be from 1 to 180 gpm, and to adjust the runtime of each pump to a level determined by the user.

The HPU must have controls that display real-time information: pressure, operating time, fluid level, fluid temperature and external manual emergency stop. HPU shall have standard built in safety features that protects against damage due to high temperatures, low fluid levels, or other hazardous condition that might be encountered during normal operation.

Due to the nature of work in the test lab this unit should be capable of running non-stop for long periods of time at maximum operating pressure and maximum flow without any required maintenance. The HPU is required to directly interface with MTS Flex Test SE and Instron 8800Plus controllers with the ability to be started from test frame controllers.

Hydraulic Pump Specifications

For Mechanical Testing Suite EM10

Flow Rates {expandable to}	60 (gpm).. {180 (gpm)}
Filtration	10 microns (or less)
Reservoir Capacity	500 (gal)
Heat Exchanger	Stainless Steel
Hydraulic Connections	2 (in) C61 Flange (pressure and return)
Hydraulic Drain	JIC-16
Cooling Water Connection	1.5 (in)
Noise Level	< 80 (dbA)
Operating Voltage	460 V AC / 60 Hz/ 3ph
Control Voltage	24 V dc
Run on Demand	Only provide required flow
Monitoring	run time, oil temperature, pressure
Largest Outside Dimension	50W (in) x 79H (in) x 170L (in)