Pressure Impulse Fatigue Test Stand
A fully automated system for SAE HS-806 and ISO 4548-5 testing

The Testand Pressure Impulse Fatigue Test Stand makes use of modern hydraulic control valve technology to provide a test stand that is simple to operate, accurate, and flexible. The Impulse Test Stand is designed to test spin-on and cartridge type filter assemblies for their resistance to fatigue failure within their envelopes. The design is based on performing the SAE HS-806, Section 13 and ISO 4548-5 pressure waveforms but other waveforms are easily run as well. The system is suitable for both production audit testing as well as product development and qualification testing.
Specifications

Test Articles: spin-on, cartridge and in-line filters for lube oil, hydraulic oil and fuels

Test Stations: systems available for 1 to 12 test stations, each running independently

Hydraulic Circuit:
Frequency Range 0-3 Hz square wave, 0-5 Hz sine wave
Pressure Range 0-6900 kPa (0-1000 psig)
Pressure Control servo valve with closed-loop PID control
Oil Temperature Range ambient to 140ºC (284 ºF)
Temperature Control automatic PID control, ±2ºC
Oil Tank Capacity 225 L (60 gal)
Tank and Tubing Material Stainless Steel

User Interface, Controls and Data Acquisition:
CPU Dell OptiPlex w/ Intel Core™ processor or equal
Operating System Microsoft Windows 7
User Interface 22” LCD monitor, keyboard & mouse
I/O Hardware Platform National Instruments CompactRIO
Application Software Custom NI LabView executable w/ graphical displays,
Data Output Tabular and graphical test reports, .xlsx files

Utility Requirements & Environmental:
Electrical 480 Vac/3Ph/ 60Hz/40A (International voltages available)
Cooling Water 12 lpm (3 gpm) @ 30ºC (85 ºF)
Ambient Operating Temperature 10-40 ºC (50-104ºF)

Consult Emprise for options and custom features.
Turn-key installation and on-site training are available.

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Specifications are subject to change without notice. Emprise Corporation’s Standard Terms & Conditions of Sale apply.
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