Structural Solutions Private Limited

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Technology News

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Complete Test Stands for the Automotive Industry

Dynamic Testing & Equipment, Inc. a group company of Automatic Handling, Inc was founded to design and manufacture integrated testing systems and machines, both in standard and customized configuration to the mechanical testing industry.

Dynamic Testing & Equipment, Inc. has provided many components and machines to a wide variety of customers in the Automotive, Aerospace, and **O**ff- high way industries.

DTE manufactures complete Test Stands for the Automotive Industry which includes:

- Shock Absorbers Powertrain Components Hose Testers
- Seat Testers Steering Components Driveshaft Components and also specialize in developing systems which meet Customer's Special Requirements.

Components manufactured by DTE includes: Servo Controls, Fatigue-rated Linear and Rotary Actuators, Service Manifolds, Hydraulic Power Supplies.

Structural Solutions Private Limited, specializing on Testing and Measuring solutions is now pleased to inform the Exclusive Representation of Dynamic Testing & Equipment, Inc. to provide Cost effective Test Stands, Components and Controllers.



SEAT VIBRATION TESTER FOR TESTING SQUEAK AND RATTLE

This machine uses a proven control system with the following features and functions:

Sine sweep: Starting at a low frequency and increasing the frequency at an operator defined rate. The rate of increase can be either linear or logarithmic.

Test reports can be created from customized report templates. Graph images can be copied and pasted into spreadsheets or word processing programs.

24 bit input A/D's with simultaneous sampling. Control limits based upon displacement, load, or acceleration.

As an option, a noise measurement system can be integrated into the machine control and data acquisition system.

An electrically controlled proportional valve is provided to ramp the hydraulic pressure when starting.



COMPUTER CONTROLLED HOSE TESTING MACHINE

This hose testing machine provides unparalleled safety and performance. Using a vented chamber eliminates the possibility of explosion due to a buildup of test fluid vapors in the environmental chamber. Performance is enhanced by using a robust intensifier with built in servo valve. The built in servo valve provides better performance by increasing the natural frequency of the system. A special valve with lower hysterisis and threshold provides higher accuracy than a standard flapper-nozzle valve in this pressure control application.

FEATURES

Separate test fluid and hydraulic system.
Servo controlled pressure intensifier.
Data Acquisition and storage with computer.
External venting of air for safety.
(no high temperature fumes)
Tests up to (30) hoses.
Test editor and test storage capabilities.
High ramp-rate capability, Small footprint.



REAL TIME AXLE TEST RIG

Two point testing provides table top static and fatigue load result monitoring. Versatile test unit for front, rear axle manufacturers, Earth movers, Heavy duty trailer manufacturers, Column and beam manufacturers, research and test certification departments.



SUSPENSION TEST STAND

Easy specimen loading performs service life simulation as well as durability test. Analysis includes damper, peak rebound, compression, force vs displacement, velocity and friction force results etc.



POWER STEERING AND ITS ACCESSORIES TEST STAND

Flexible Step Editor For Test Creation. On-line FFT With Order Tracking On 4 Channels. 60 To 300 Deg. F Environment. Noise Level Measurements. 0-10,000 Rpm Pump Speed. Data Acquisition On 14 Channels.



Four Control Channels. **POWERTRAIN TEST STAND**

Valuable for testing most drive components, including torque converters, clutches, manual and automatic transmissions, and shafts.



Accommodates a wide range of Specimen types.

ENGINE BEARING AND GEAR BOX TEST STAND

Spinning hydraulic actuator provides high torque.

Allows high speed and high horse power test with the greatest energy efficiency.



TORSIONAL TEST STAND

Maximum torque of 1000Nm. Operator defined test speed of 0-1 deg./second. Maximum specimen diameter of 40 mm.

Maximum specimen length of up to 600 mm. Operator defined torque Vs angle.



STANDARD LINEAR ACTUATORS

Load rating: 1.5 Tons to 50 Tons. Standard Stroke: 4 inches to 18 inches.

FEATURES:

Fatigue rated, Double acting actuators for Static and Dynamic Loading. Versatile for rattle and squeak, linear and logarithmic frequency operations.

STANDARD HYDROSTATIC BEARING **ACTUATORS**

Load rating: 1.5 Tons to 10 Tons. Standard Stroke: 4 inches to 10 inches.

FEATURES:

Fatigue rated, Double acting actuators for static and dynamic Loading. Have high side load capability. High, low frequency simulators. Real time shock absorber.



STANDARD ROTARY ACTUATORS

Standard ratings: 0 – 20,000 Rpm. 0 – 150,000 NM Torque.

FEATURES:

Inline Mount. Axial Load Capability due to Hydrostatic Bearings. Low and high frequency rotaries. Low and high frequency spinning rotaries.



Proportional - Soft start 0 - Leak Design. Pressure Compensated Pumps. Low pressure Drop. 3 Micron Filtration. Low Noise level. Economical to install and use.



STANDARD CONTROLLERS

16 Bit conditioners. Block cycle program capability. Optional hand held remote. Internal function generator. Amplitude control includes Up to 16-Channel controllers. Block cycle capability. Ability to play back Optional Iteration Packages.



For further product & application details please contact:

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