

Team

Standard Products

Standard



A member of the **N|V|T** GROUP



From the first hydraulic shakers to the introduction of the first 6-DOF systems, Team Corporation has been driven by innovation. It's this DNA of innovation that makes our standard products anything but. Architects, engineers, earth scientists, and myriad other professionals rely on Team products and expertise to solve the toughest challenges.



Standard Products

Markets

Since 1954, Team Corporation has contributed to the development of the world's most advanced programs in the following markets:

Aerospace
Automotive

Electronics
Military

Oil Field
Packaging

Rail
Seismic

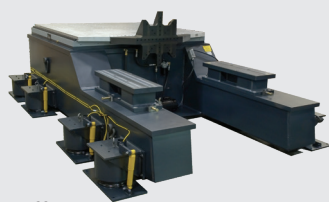
Special
Telecom



Components

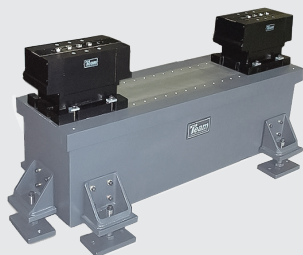
Slip Tables

For large, heavy and awkward loads, Team slip tables offer extraordinary load capacity, excellent cross-axis control, outstanding dynamic stiffness, and an "all bearing" system that utilizes a low-pressure oil supply for a zero friction, zero wear and zero maintenance system. Our patented T-film bearings, slip tables and riser bases can be integrated with virtually any shaker to create the perfect horizontal test system.



Bearings

Team hydrostatic bearings provide a zero backlash, zero friction and direct load path coupling. The bearings include "T" & "V" bearings, pad bearings, and journal bearings. Team also manufactures hydrostatic gas bearings for use in inertial guidance systems and military applications. Team bearings utilize a 3,000 psi (205 bar) oil supply and are virtually maintenance free.



Hydrostatic/Spherical Couplings (HydraBall)

Our complete line of hydrostatic spherical couplings are specifically designed to be the ideal connection for vibration exciters. With all articulating surfaces supported by a hydrostatic film, they have the highest possible transmissibility of force. The hydrostatic film eliminates virtually all friction, eliminating wear and maintenance. Team Hydraball couplings are the perfect replacement for traditional MAST table rod ends.



Single Axis Vibration

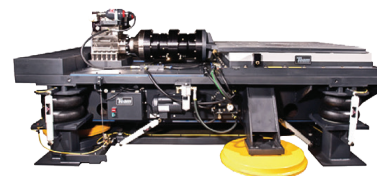
Vertical Systems

Standard systems are available in 2 and 4 inch strokes. Our 50 and 60 Series actuators are produced in a range of dynamic force outputs from 2,000 to 50,000 lbf. Our 80 Series actuators offer dynamic strokes up to 12 inches and are available with a wide range of dynamic force outputs. Each vertical system includes our standard head expander and user defined insert pattern plus our air isolated, laminated steel reaction mass.



Horizontal Systems

Team's high performance Hydrashaker combined with our T-Film® slip table offers overturning moment capacity to the millions of inch pounds. Team's low pressure hydraulic system eliminates potential oil misting problems seen in other slip table bearing systems utilizing high pressure hydraulics. Team's unique T-film bearing design allows for virtually any slip table configuration while providing exceptional performance and relatively no maintenance.



Combination Systems

Combination systems provide for sequential dual-axis testing while using only one dedicated actuator. Our unique trunnion mounted actuator assembly minimizes changeover time from the vertical to horizontal test operation, and insures perfect alignment in each axis, every time. Combination systems are available in a variety of displacement and force ratings to accommodate your test needs.

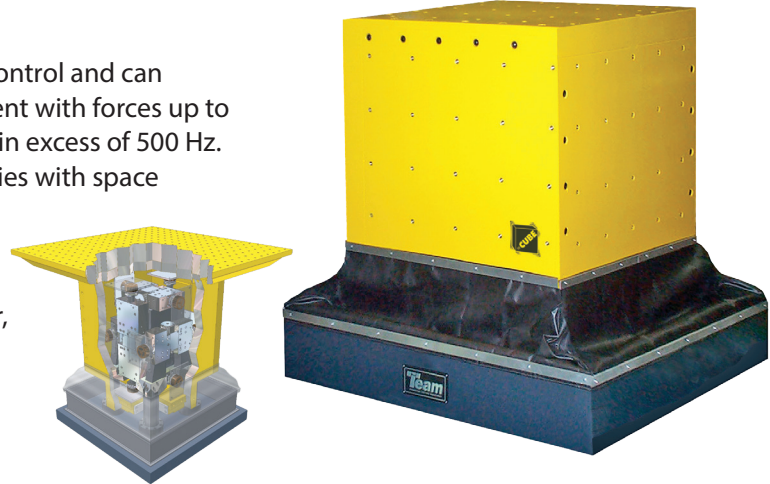


Standard Products

Multi-Axis Vibration

The CUBE™

The CUBE™ vibration test system offers 6 degrees of control and can accurately replicate virtually any vibration environment with forces up to 14,000 lbf (62 kN) and a frequency range from 1 Hz to in excess of 500 Hz. The CUBE's small footprint makes it ideal for laboratories with space constraints. Its unique design incorporates five active mounting surfaces providing for simultaneous testing of more than one object. The CUBE can be fitted with our one-piece or four-piece head expander, increasing the mounting surface for vertical testing of large payloads.

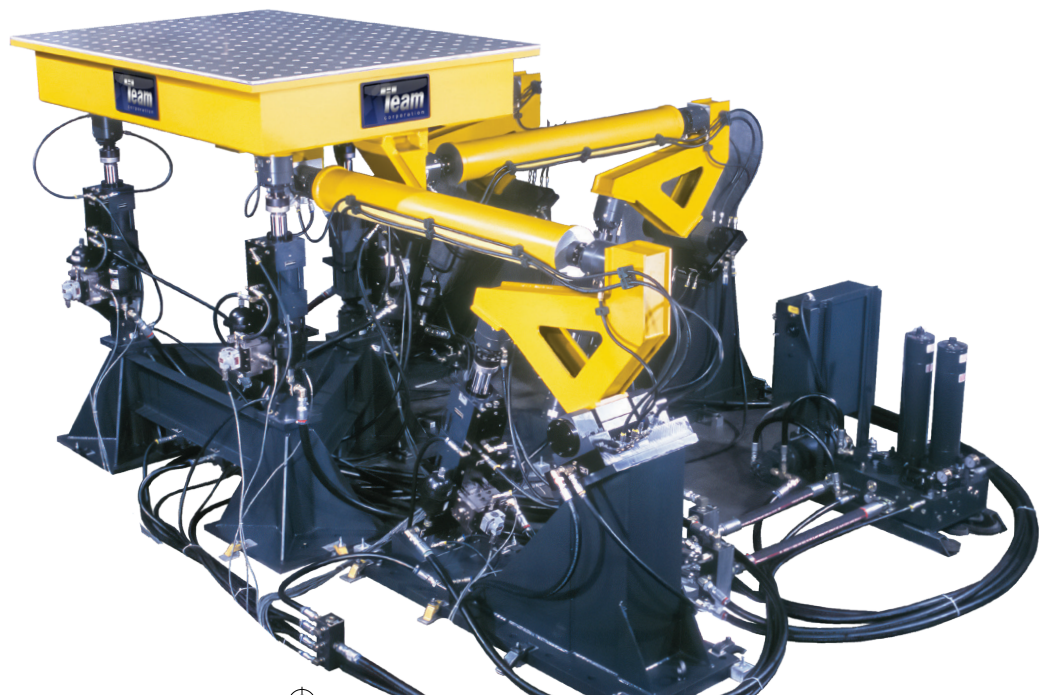


TENSOR™

TENSOR™ is the system of choice for multi-axis, high frequency vibration testing applications; providing controllable simultaneous excitation in each axis. Through the use of electrodynamic shakers, TENSOR™ has the performance to produce true multi-axis environmental stress screens (ESS) or replicate field conditions to frequency levels previously attainable only in a single axis. Available force rating of 200 lbf (900 N) and 4,000 lbf (18kN shown left) and frequency range of 10-5,000 Hz.

MANTIS™

MANTIS™ is the culmination of over 45 years of experience in the design and manufacture of multi-axis test equipment for military, aerospace, automotive and commercial customers. Force levels from 2,000 lbf (8.89 kN) to 50,000 lbf (222 kN), pk-pk displacements of six inches or more and operating frequencies up to 200 Hz. The MANTIS is uniquely designed for automotive component BSR and durability testing.





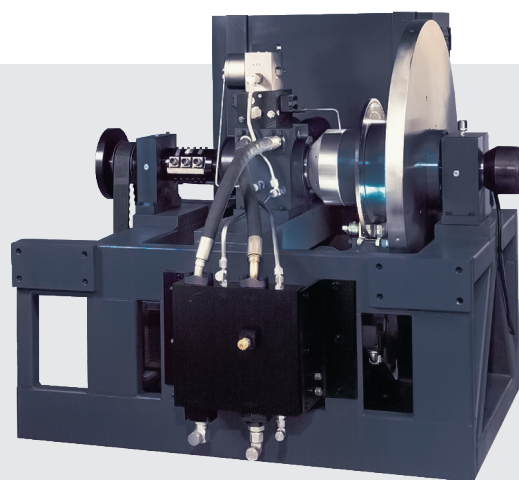
Specialty

Transmission Pressure Oscillator

Designed for testing the dynamic response of spool valves in the development of automatic transmissions, this portable device is able to generate pressure oscillation with a controllable shape, frequency and amplitude. The self-contained hydraulic power unit provides oil flow and pressure to continuously operate the transmission pressure oscillator. The system produces 300 psi pk-pk oscillation pressure about a nominal pressure with a 300 Hz maximum frequency capability. Pressure oscillations are controlled with a Team V-20 Voice Coil Servo-valve.

Engine Simulators

The 900 Series Engine Simulator produces torsional vibrations similar to those found on an engine crankshaft. Comparable to an engine, the engine simulator produces torsional vibrations while spinning. This system offers repeatability, and can be programmed to simulate any type of engine configuration. With reduced R&D costs and enough flexibility to test front engine accessories, harmonic dampers, clutches, transmissions, and drive lines, Team's 900 Series Engine Simulator will give you the results you need.



4-Poster

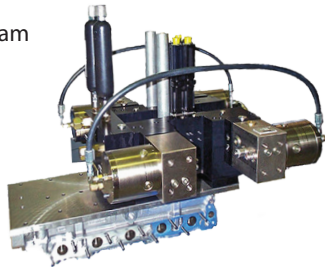
Team Corporation's unique Four Poster is designed specifically for full vehicle testing. Featuring low-profile, low-noise actuators equipped with hydrostatic bearings, Team Four Posters are ideally suited to end-of-line and development testing applications. The compact actuator modules are ideal for smaller laboratories. When not in use under a vehicle, each actuator module can be used as a stand-alone vertical vibration test system.

Standard Products

Engine Valve Simulator

Originally developed by Team for Stanford University in the 1980's, valve actuators are used by engine manufacturers to study valve timing and valve lift profiles.

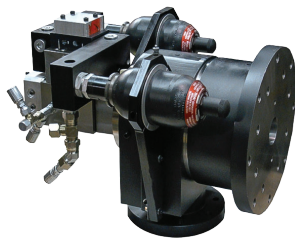
Mounted on live firing engines, the valve actuators allow design engineers and scientists to study the effect of various cam profiles and investigate variable valve timing. The results have proven useful in studies of fuel economy and enhanced engine performance. Team's Engine Valve Simulator permits full control of exhaust and intake valve lift and dwell on operating automotive engines by effectively replacing the function of camshaft and rocker arms.



Acoustic Generator

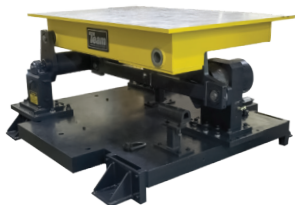
The Mark VI and MKVII Acoustic Generators consist of a servo-hydraulic actuator driving a specialized reciprocating poppet valve that provides modulation of a high-pressure airstream.

This design has proven to be the most effective sound source for large reverberant and progressive wave tube test chambers, providing extreme power handling capabilities with high efficiency. Peak acoustic pressures of approximately 60% of the supply pressure are produced downstream of the poppet valve.



Pitch Table

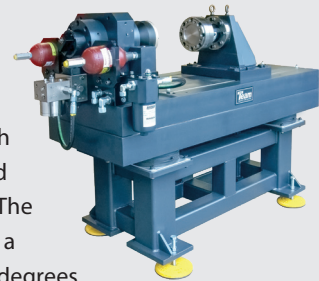
Team Corporation, a leader in higher performance, servohydraulic vibration test systems designed the Pitch Table specifically for automobile seat manufacturers. This system is designed to perform in process testing as described in the "Vibration Amplitude of Seat Back (IP TESTING)" and "Evaluation of Noise During Applied Vibration (IP TESTING)" sections of Ford Motor Company's ES-F58B-1600034-A specification.



Rotary Vibration

Rotary Actuators

Team R-10 series Rotary Actuators are designed for fatigue testing wherever high torque output with restricted rotational travel is required. The R-10 Series of actuators have a total rotational travel of 100 degrees (± 50 degrees) and a dynamic torque output from 5,000 to 200,000 lb-in (564 to 22,596 N-m). The R-10 series is a heavy duty, robust, fatigue rated actuator that finds many applications in the automotive industry such as testing couplings, dampers, drive shafts, axles, and materials.



RVC 400

The RVC 400 is an electro-dynamic rotary shaker used to create controllable torsional vibration and shock, all in a compact, quiet device suitable for use in a standard office or laboratory setting. Capable of frequency response to 2kHz, the RVC400 can provide clean rotary sinusoidal and random profiles as well as limited shock pulses on small test objects. Originally designed for the computer hard drive industry, the RVC 400 is perfect for any application requiring high frequency torsional vibration.



Torsional Table

The Torsional Table has three hydrostatic bearings. One large journal bearing defines the axis of rotation, a thrust bearing carries the vertical static load, and a spherical drive coupling in the connecting arm allows for the angular rotation of the table. The drive arm bearing is 12 inches from the center of the rotation of the table. With that dimension you can calculate the angular acceleration knowing the shaker acceleration. Inserts in any desired pattern may be installed on the top mounting surface.





- Authorized Sales Agents

sales@teamcorporation.com

Corporate Headquarters

11591 Watertank Road,
Burlington, WA 98233, USA
+1.360.757.8601
teamcorporation.com

EMEA

South Road, Hailsham
East Sussex, BN27 3JJ, United Kingdom
Tel: +44.(0).1323.846464
Fax: +44.(0).1323.847550

Asia Pacific

Rm 2005 Minhang Plaza
18 Xinqiao Road, Pudong
201206 Shanghai, China
+86.21.3382.0671
+1.831.655.6677