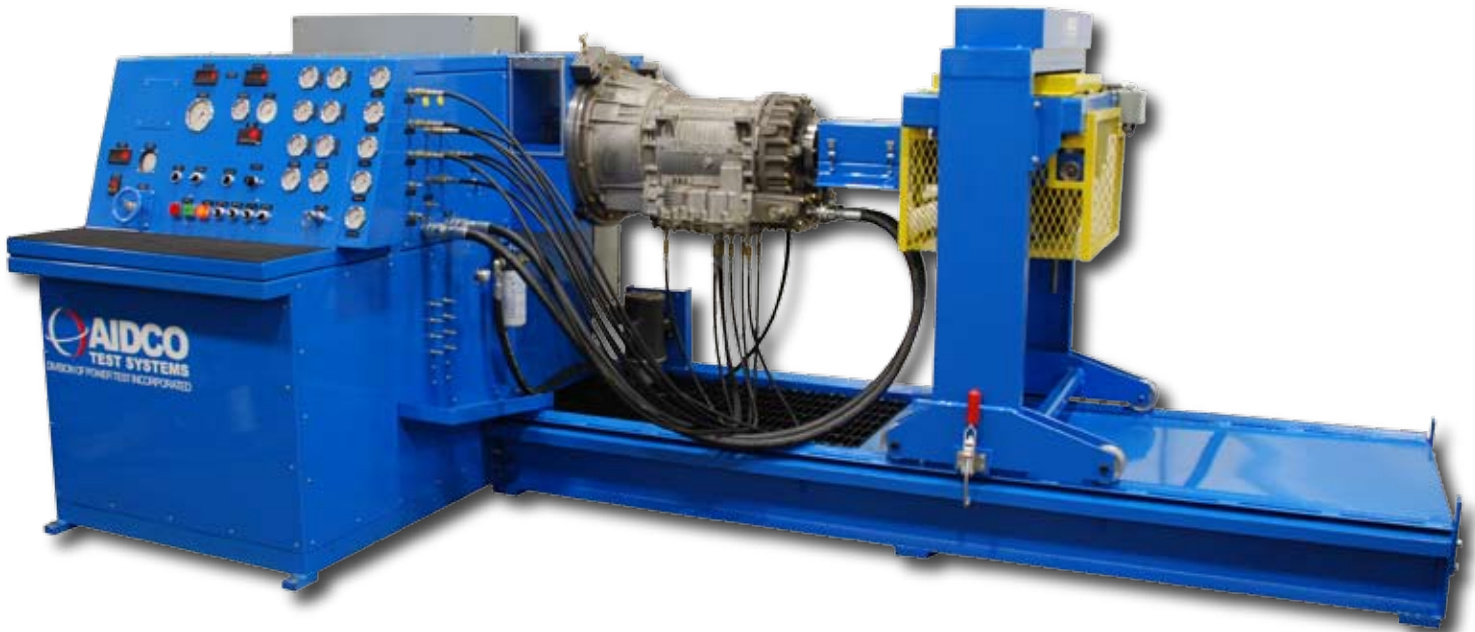


# MODEL 450 TRANSMISSION TEST STAND



# Model 450 Transmission Test Stand

The 450 is designed for testing all automatic and power shift transmissions used in commercial applications built by Allison and other OEM transmission manufacturers.

The result of two decades of experience in building transmission test equipment, this progressively engineered, quiet, compact system keeps vehicle downtime to a minimum by greatly reducing critical failures on the road or in the field. In most cases, performance testing on this machine will eliminate the cost of additional disassembly and repair for rebuilt or serviced components.

Perform all of the following tests:

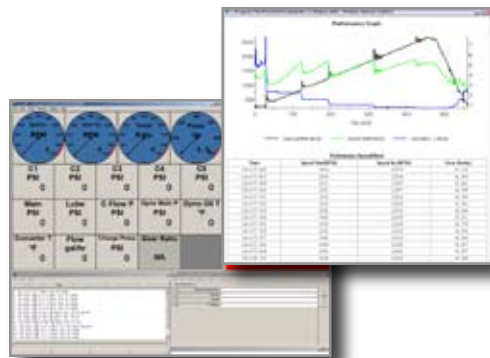
- Check shift points (automatic)
- Set shift points (automatic)
- Full and closed throttle upshift and downshift test (loaded or unloaded)
- Downshift inhibitor test
- Measure output torque (stall test)
- Locate shaft seal leaks
- Identify clutch leakage
- Check noise/vibration
- Detect mechanical binding
- Check main, clutch and converter pressure
- Monitor converter flow and temperature
- Determine converter inlet and outlet pressure

**PowerNet TD Data Acquisition and Control System is available for all AIDCO Transmission and Hydraulic Test Stands**

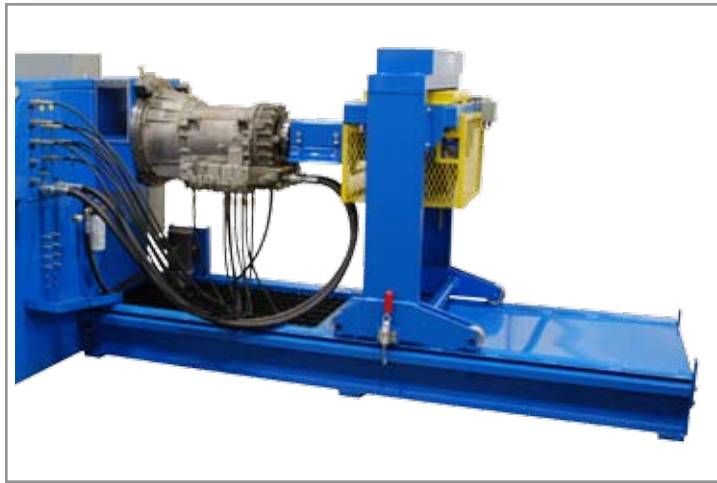
Based on the popular PowerNet series of data acquisition and control systems, PowerNet TD is designed to provide a comprehensive, easy to use data acquisition and control system for all AIDCO customers. PowerNet TD utilizes a Windows-based computerized data acquisition system to monitor and record speeds, torque, pressures, temperatures, flow rates and shift events.

In addition to advanced monitoring and recording, PowerNet TD enables AIDCO users to run an automated test procedure for electronically controlled transmissions. This not only ensures consistent repeatability of test procedures, but provides a record of performance parameters exhibited during a test.

Designed for ease of use, PowerNet TD allows for easy configuration of instrumentation, operator designated warnings for High/Low limits, and operator customized full-feature data reports. All reports are generated in a standardized HTML format.



# Features



Splined input allows for quick positioning and takes the guesswork out of alignment.

Transmissions with SAE #1 flange mount directly to the 450. Adapter rings are available for other SAE sizes.

The eddy current absorber can be maneuvered horizontally and vertically and locks into position.

The worktable includes a sump with suction pump for recovery of lubrication oil.

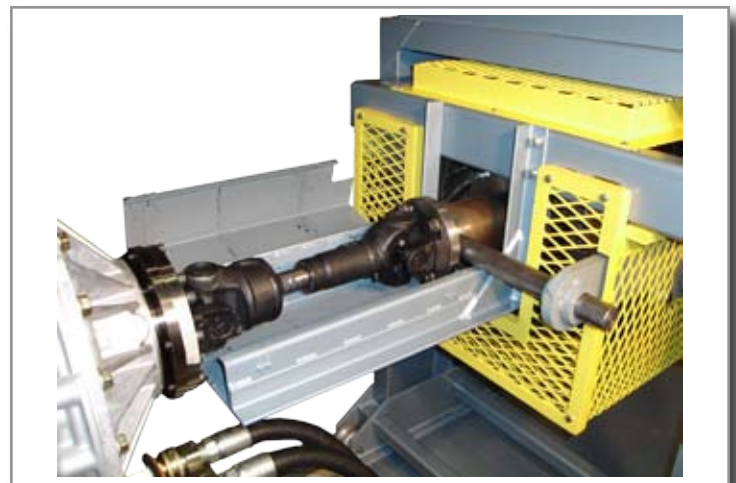
Eight pressure taps are available for monitoring pressures within the test unit.

Contact AIDCO Test Systems for information on our full line of transmission testing equipment

Output adapter to a standard drive shaft results in fast, simple, quiet connection to load unit.

### Stall bar testing

To measure the amount of output torque developed by a transmission, the output shaft is locked against an eddy current absorber. Output torque can be read from the stall load meter. (Drive shaft guard removed for illustration ).



# Model 450 Specifications

<b>Electric Motor</b>	150 HP (112 kW) 1755 rpm (60 Hz), 1450 rpm (50 Hz) 230V/60 Hz, 460V/60 Hz, 380V/50 Hz 3-Phase Drip-proof, fan-cooled, 444 TSC frame
<b>Hydrostatic Drive Pump</b>	130 cc variable displacement
<b>Hydrostatic Motor</b>	105 cc variable displacement and direction
<b>Maximum Torque</b>	470 lb.-ft. (635 Nm) at 2200 rpm
<b>Maximum Output Speed</b>	4000 rpm (bi-directional)
<b>Input/Output Speed Indicators</b>	4 digit, constant display, digital indicators
<b>Main System Pressure</b>	6000 psi (414 bar)
<b>Converter Flow Monitoring Circuit</b>	(1) 50 gpm (189 L/min) flow meter with digital display (1 ea) 2.5 in. converter in/out pressure gauges (200 psi) (1) 2.5 in. converter differential pressure gauge (50 psi) Manual control for differential pressure adjust (backpressure) Heat exchanger with automatic temperature control
<b>Eddy Current Absorber</b>	Continuous braking torque 525 ft. lbs. (712 Nm) Intermittent braking torque 1470 ft. lbs. (1993 Nm) Max. stall torque (with stall bar) 2000 ft. lbs. (2712 Nm) Maximum rpm: 3000 Rotation: bi-directional
<b>Hydrostatic Reservoir</b>	100 gallons (378 L) (1) fixed-tube, bundle type, heat exchanger with thermostatically controlled water regulating valves. Oil temperature gauge (30° to 240° F) (1) 10 micron filter
<b>Worktable Sump Capacity</b>	100 gallons (378 L)
<b>Dimensions</b>	With worktable in place: W 185 ¼ inches (470 cm) H 58 ½ inches (149 cm) D 85 inches (216 cm)
<b>Weight</b>	Weight with work table: Approximately 6,000 lbs. (2727 kg)
<b>Adapters available to test the following popular Allison transmission models</b> Additional OEMs Available	1000/2000 Series MD 3000 ( B300, B400 ) HD 4000 ( B500 ) AT 500/MT 600/HT 700 Series V730, V731 Series

In addition to the Model 450 Transmission Test Stand, AIDCO manufactures a wide range of transmission testing equipment, including electronic shift consoles, valve body test stands, and hydraulic test stands.

**AIDCO TEST SYSTEMS** - a division of Power Test Incorporated

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