

550E Transmission Test Stand
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Model 550E Transmission Test Stand

The 550E Test Stand is designed to test a wide variety of on-highway and off-highway, medium and heavy duty transmissions and torque converters. The machine accommodates mechanical and hydrostatic transmission testing with the ability to mount all standard drop-box or offset, engine, mid-ship and remote mounted powertrain systems.

AIDCO equipment is used around the world in manufacturing and remanufacturing facilities, service centers and at many global military depots.

Based on the Model 450E Inline Transmission Test Stand, the 550E provides larger transmission mounting ability, expanded testing capabilities with integrated hydraulic oil supply and diagnostic flow loops for control of torque converter and transmission. The 550E test stands utilizes the most advanced variable speed motor/drive control technologies to provide exceptional AC motor performance for input speed and torque control. While many test procedures are un-loaded, when required output load is accommodated with an optional air-cooled eddy current load unit.

This progressively engineered, quiet, compact system keeps vehicle downtime to a minimum by greatly reducing critical failures found in testing prior to installation in the vehicle. Performance testing on the 550E will eliminate the added costs of disassembly and repair for rebuilt or serviced components.

AIDCO's products are installed in hundreds of locations worldwide and are viewed as the benchmark for many powertrain manufacturers. Let us put our experience to work for you and your team. Our approach is to provide a host of specialized transmission testing solutions, all designed to meet the customer's specific application. The 550E design gives a high degree of flexibility to test a wide variety of transmissions.



550E Test Stand shown with Optional Output Load Unit, Shift Cart, and Bell Housing Mounting Kit

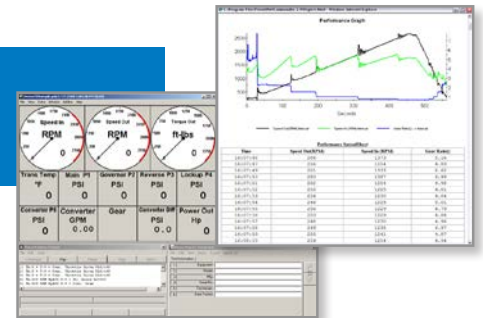
PowerNet TD Data Acquisition and Control System is available for all AIDCO Transmission and Hydraulic Test Stands.

Data Acquisition and Control Systems

PowerNet TD is included with the 550E to provide a comprehensive, easy to use data acquisition, control automation and report generation system. This Windows-based software system monitors and records speeds, torques, pressures, temperatures, flow rates and shift events.

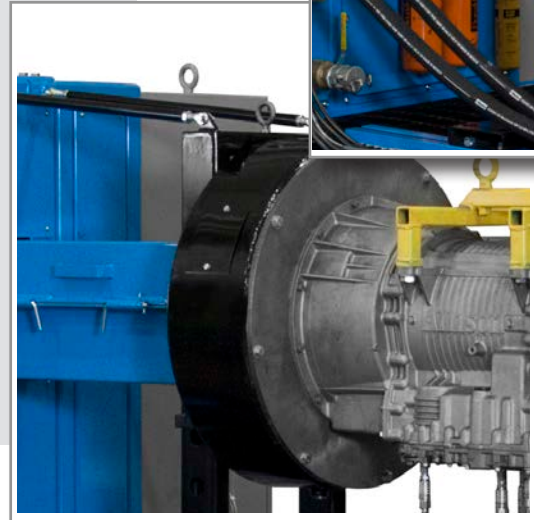
PowerNet TD allows operators to perform manual or construct automated test procedures for mechanical or electronic controlled transmissions while providing a record of data collected and performance parameters exhibited during a test. Automated testing ensures consistent, repeatable test events.

PowerNet TD gives operators the ability to easily build and configure tests with designated warnings for High/Low limits of monitored data and customize full-feature data reports. All reports are generated in a standardized PDF format.



Features and Benefits of the 550E

- Designed to test engine, remote and mid-ship mounted transmissions as well as torque converters.
- Accommodates drop-box output configurations
- Quiet variable speed electric motor driven design aids in troubleshooting the transmission.
- Driveshaft connection to input and output eliminates the need for precise alignment of transmission and minimizes vibration.
- Optional Eddy Load Unit allows ability to apply precise controlled output load to confirm functions, monitor noise issues and simulate actual operational conditions.
- Eddy Load Unit accommodates vertical and horizontal offsets.
- Dynamic Load Sensing (DLS) controls peak input torque as needed allowing prime mover speed to decrease during up shifting.
- Integrated hydraulic supply pump and oil reservoir with pre-heat, turbine flow measurement and filtration
- Three additional non-loadable diagnostic flow loops.
- Pressure transducers with easy access ports for shift pressure data.
- Integral drain sump with pump and filter to recirculate test oil.
- Requires input power of 380-460VAC, 3 PH 50 or 60 HZ.
- Adapter kits available for all major transmission makes and models.
- Provides printed reports (customized with your company logo) of the test results, including shift patterns.



Electronic Shift Consoles

The optional consoles are designed for either factory authorized service centers with the ability to flash Transmission Control Units (TCUs) or non-dealer service centers that require the ability to exercise multiple brands and models of transmissions. Both provide a convenient storage and work surface for PowerNet TD data acquisition system.



ASC shift Console



ECS shift Console

ASC Shift Cart

- Primarily used by non-dealer service centers.
- Easily switches between different shift profiles using the touchscreen computer.
- Eliminates the expense and need for multiple TCUs. Does not require an OEM TCU for reprogramming.

ESC Shift Cart

- Primarily used by factory authorized service centers with ability to flash TCUs.
- OEM software, such as Allison DOC (not included), can connect directly to the console to perform diagnostics, read and reset trouble codes and reflash the TCU.
- Oversized enclosure can house multiple TCUs.

Model 550E Specifications

Electric Motor	550E-150 150HP (112 kW) 460V/60 Hz - 300 Amps 125HP (93 kW) 380V/50 Hz - 300 Amps 550E-200 200HP (147 kW) 460V/60 Hz - 350 Amps 165HP (125 kW) 380V/50 Hz - 350 Amps 550E-300 300HP (224 kW) 460V/60 Hz - 450 Amps 250HP (185 kW) 380V/50 Hz - 450 Amps Inverter Duty: 460V/60 Hz, 380V/50 Hz 3-Phase
Max. Transmission Input Torque (continuous)	550E-150 442 lb.-ft. (610 Nm) up to 1,785 rpm 550E-200 588 lb.-ft. (811 Nm) up to 1,785 rpm 550E-300 883 lb.-ft. (1,216 Nm) up to 1,785 rpm
Max. Transmission Input Speed	3,600 rpm (bi-directional)
Fluid Supply Circuits	Aux: 0-56 GPM (0-211 L/min), 0-600 PSI (41 BAR) pressurized oil supply circuit with flow meter Lube: 0-10 GPM (0-38 L/min), 0-65 PSI (4 BAR) Gravity Feed Port: 2 inch (5 cm).
Converter Flow Monitoring Circuit	(1) 5-100 GPM (18-379 L/min) flow meter with digital display Flow circuit includes 22 Micron filter Manual control for differential pressure adjust (backpressure) Heat exchanger with digital temperature controller
Diagnostic Flow Loops (Non-Loadable)	(3) 5-100 GPM (18-379 L/min) flow loops
Main Reservoir	Capacity: 130 Gal (492 L) Includes two (2 ea.) 5 kW immersion heaters with digital temperature control.
Worktable Sump	Capacity: 60 gallons (378 L) Fill Pump w/filter standard
Pressure Taps	(16) 1,000 PSI (69 BAR) pressure taps to monitor pressures of component under test
Dimensions (with worktable)	W 227 inches (576 cm) H 77 inches (195 cm) D 79 inches (200 cm)
Weight	Weight with work table: Approximately 7,720 Lbs. (3,501 kg)
Adapters available to test the following popular transmissions (additional OEMs available)	AIDCO offers adapter kits for mounting and testing many OEM's transmissions. Kits are offered for Allison®, ZF®, Twin Disc®, Dana/Clark®, Funk® and others. Consult with your AIDCO sales representative for more information.

Optional Equipment

Gauge panel package, centrifugal oil cleaning, input torque measurement system, eddy load unit, air brake stall kit, motorized vertical load unit adjustment, load offset kit.

Power Test - Your Full Service Manufacturer

AIDCO manufactures a wide range of transmission testing equipment, including electronic shift consoles, valve body test stands, and transmission test stands.

Contact your Power Test representative or visit our web site at www.pwrtst.com for more information.

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