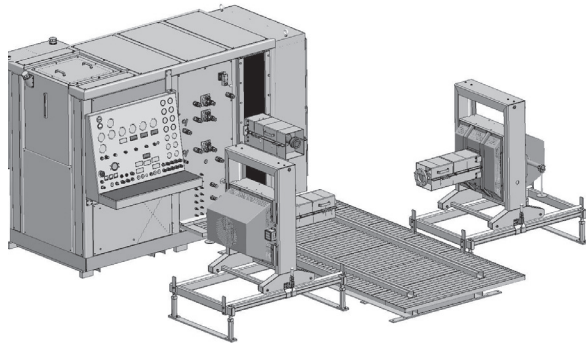


Model 850M Cross-drive Transmission And Hydraulic Component Test Center



850M Hydraulic Test Center shown

Overview

The AIDCO Model 850M Cross-drive Test Center is designed for continuous-duty cross-drive transmission performance verification, quality assurance, endurance, and certification testing for heavy-duty off-highway transmissions. In addition to transmission testing, the 850M is capable of testing various hydraulic system components. Components include, but are not limited to, hydraulic cylinders, valves, torque converters, closed or open loop pumps and motors.

Model 850M Features:

- 200 or 300 HP options available
- A closed loop Hydrostatic Drive System inputs rotary power to the test component.
- Drive speed is controlled from a single potentiometer for simplified operator control.
- Provides closed loop speed, flow and load control to the component under test.
- Hydraulic drive motor power lift facilitates vertical maneuvering to align the drive shaft with the test component.
- Integral 160 gallon (605 L) hydraulic oil reservoir with supply pump for Main and Lube pressurized oil supply circuits.
- Twelve pressure taps in conjunction with liquid-filled pressure gauges monitor pressures within the component under test.
- Equipped with three (3) diagnostic flow loops: (2) loadable, (1) non-loadable.
- System includes two (2) Eddy Current Load Absorbers for dynamic load testing on cross-drive transmissions.
- Optional external Manifold Rectifier Block for testing closed loop pumps is available.
- PowerNet TD Data Acquisition and Control System is available for automated control and data reporting. The system will monitor and record the pressures, temperatures, flows, rpm, torque and has high speed shift capture capabilities.

Model 850M Transmission And Hydraulic Component Test Center

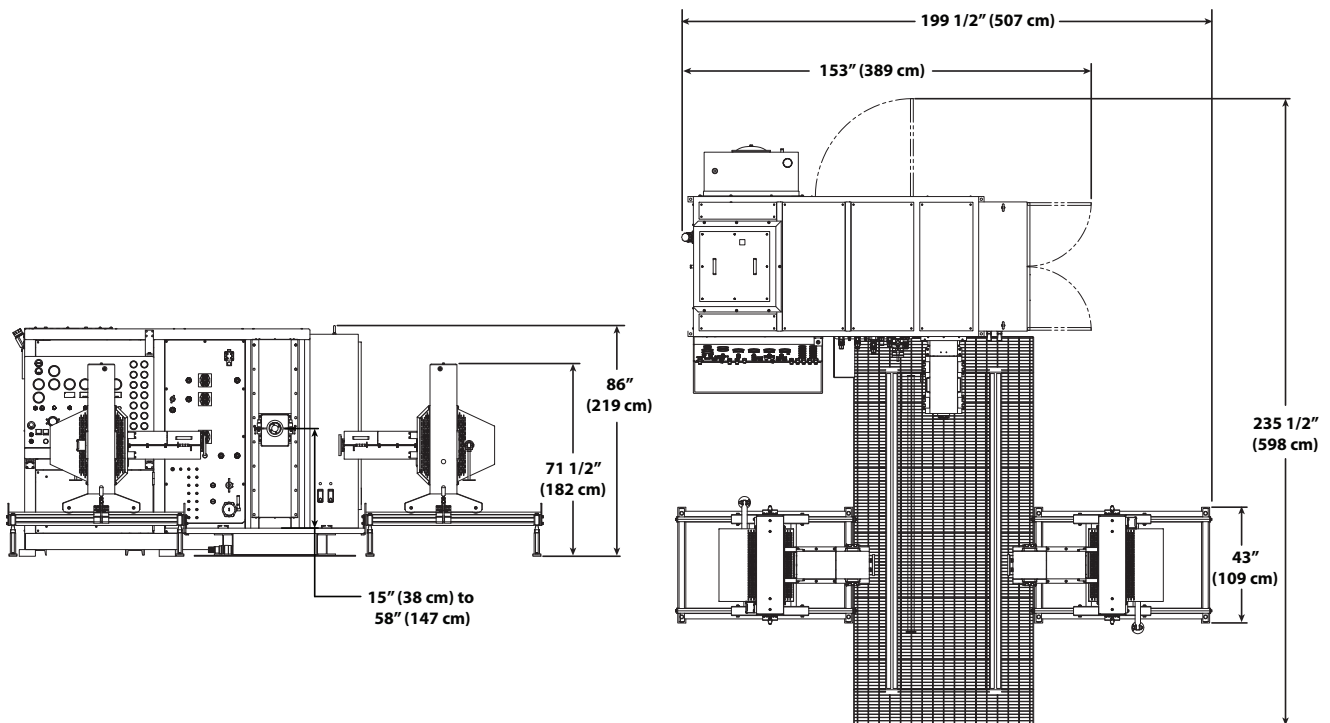
850M Hydraulic Test Center Specifications			
Electric	Electric Motor Selections (other voltage options available on request) Test centers utilize a wye-delta starting method to reduced motor startup voltage. A soft-start option is also available. NOTE: Main Power Disconnect (provided by others) must use time-delay slow-blow fuses or a breaker with an adjustable over-current setting.	850-200 200HP (150 kW) 460V/60 Hz - 350 Amps 165HP (125 kW) 380V/50 Hz - 350 Amps	
		850-300 300HP (225 kW) 460V/60 Hz - 500 Amps 250HP (185 kW) 380V/50 Hz - 500 Amps	
Hydrostatic Drive System	Direction	CCW & CW	
	Max Speed	4,000 RPM	
	Max Torque	777 Lb-ft (1,053 N-m)	
	Max Torque Speed Range	850-200 0-1,422 RPM 850-300 0-1,922 RPM	
	Max Pressure	6,000 PSI (41,369 kPa)	
	Pump Displacement	850-200 130cc 850-300 180cc	
	Motor Displacement	160cc	
Diagnostic Flow Loops	Loadable	150 GPM	0-150 GPM (0-568 L/min), 0-6,000 PSI (41,369 kPa) flow loop with manual load valve and 6,000 PSI (41,369 kPa) gauge for monitoring pressure.
		60 GPM	0-60 GPM (0-227 L/min), 0-6,000 PSI (41,369 kPa) flow loop with manual load valve and 6,000 PSI (41,369 kPa) gauge for monitoring pressure.
	Non-loadable	60 GPM	0-60 GPM (0-227 L/min), 0-2,500 PSI (17,237 kPa) flow loop and a 3,000 PSI (20,684 kPa) gauge for monitoring pressure.
Hydraulic Fluid Supply Circuits	Main	0-60 GPM (227 L/min), 0-2,500 PSI (17,237 kPa) pressurized oil supply circuit with flow control valve, panel meter and 3,000 PSI (20,684 kPa) gauge for monitoring pressure.	
	Lube	0-60 GPM (227 L/min), 0-65 PSI (448 kPa) circuit with 200 PSI (1,379 kPa) gauge for monitoring pressure.	
Fluid Storage and Conditioning	Main Reservoir	160 Gal (606 L)	
	Main Reservoir Cooler	Tube style heat exchanger	
	Hydrostatic Reservoir	100 Gal (379 L)	
	Hydrostatic Res. Cooler	Tube style heat exchanger	
	Kidney Loop Flow	60 GPM (227 L/min)	
	Kidney Loop Filter	3 Micron	
	Worktable Sump Filter	5 Micron	
	Return to Tank Filters	10 Micron	
Customer Supplied Cooling Water	60 GPM (227 L/min) @ 30 PSI (207 kPa) @ 85° F (30° C)		

Specifications Continued On Next Page

Model 850M Transmission And Hydraulic Component Test Center

850M Hydraulic Test Center Specifications		
Misc.	Eddy Load Units	Model 850M comes standard with two (2 ea.) Eddy Load Units. Continuous braking torque 525 Lb-ft. (712 Nm) Intermittent braking torque 1,470 Lb-ft. (1,993 Nm) Max. stall torque (with stall bar) 2,000 Lb-ft. (2,712 Nm) (with air brake) 3,000 Lb-ft. (4,067 N-m) Maximum RPM: 3,000 Rotation: bi-directional (standard unit specifications listed above, optional larger load unit is available)
	Eddy Stall Kit	Manually inserted Eddy Load Unit stall bar.
	Vertical Eddy Movement	Manual system to adjust vertical position.
	Pressure Monitoring Taps	12 Total (1 ea.) 0-100 PSI (0-690 kPa), (2 ea.) 0-200 PSI (0-1379 kPa), (8 ea.) 0-600 PSI (0-4137 kPa) & (1 ea.) 0-6,000 PSI (0-41368 kPa)
	Power Motor Lift	Can adjust 15" (38.1 cm) to 60" (152.4 cm) from top of worktable
	Worktable	Standard 144 1/2" (367 cm) long x 66 7/8" (170 cm) wide worktable with sump pump; 6,000 Lb. (2,722 Kg) support capacity.
	Gravity Feed Ports	(1) 3" (7.6 cm) from 300 Gal (1,136L) Main Reservoir.
	Soundproofing	Included on enclosure panels
	Approx. weight	Test Stand = 11,000 Lb. (4,990 Kg); Worktable = 2,000 Lb. (907 Kg)

Available Options Listed On Next Page



Model 850M Transmission And Hydraulic Component Test Center

850M Hydraulic Test Center Options		
PowerNet TD	PNET-TD is a complete automated data acquisition and <u>control</u> package.	
Main Reservoir Heater	Adds a thermostatically controlled 12 kW reservoir immersion heater.	
Transmission Drive Kit	Includes driveshaft guard, driveshaft, adapter. Kit can be ordered with or without a torque meter for high accuracy torque readings.	
Safety Shield	Adds a safety shield used to protect operator from fluid splash and small projectiles.	
Manifold Rectifier Block	Adds a 0-200 GPM (0-757 L/min), 0-6,500 PSI (44,816 kPa) flow loop used for testing closed loop pumps.	
Low Flow Recirculation Loops	Adds two externally mounted flow meters for flow measurement. One (1) 0.5-5 GPM (19 L/min) and one (1) 0.2-2 GPM (8 L/min).	
Optional Fluid Supply Circuits (can only select one)	High PSI w/ Pilot	Adds an integral 0-5.8 GPM (83 L/min), 0-6,000 PSI (49,642 L/min) fluid supply circuit that includes a 10,000 PSI (68,948 kPa) gauge for monitoring pressure. Kit also includes an intergral 0-5.8 GPM (22 L/min), 0-800 PSI (5,516 kPa) pilot circuit with a 1,000 PSI (6,896 kPa) gauge for monitoring pressure.
	Super Charge	Adds an integral 0-31 GPM (117 L/min), 0-800 PSI (5,516 L/min) fluid supply circuit that includes a flow control valve, panel meter, and 1,000 PSI (6,896 kPa) gauge for monitoring pressure.
Convertor Flow Loop Cooling Kit	Kit includes a heat exchanger, temp. control valve, digital control and display to maintain operator set temp. range on components that function as closed circuits.	
Pilot Pressure Manifold	A multi-port manifold that provides five (5) different adjustable pressure sources ranging from 50-1500 PSI (344-10,342 kPa) for testing tandem or triple pumps.	
Suction Supply Manifold	A multi-port manifold that provides four (4) different suction supply ports; two (2) 2" (5.1 cm) and two (2) 1.5" (3.8 cm) ports.	
Adapter Kit(s)	Used in conjunction with test stand to mount and drive specific transmissions. Consult with your AIDCO sales representative for more information.	
Soft Start	Provides a smooth, stepless, reduced-voltage acceleration of the main motor.	
Large Eddy Load Unit (Air Cooled)	Connects to trans. output to apply a load simulating actual operational conditions. Includes V-Rail Extension Kit for mounting Eddy Load Unit. Continuous braking torque 669 Lb-ft. (907 N-m) Intermittent braking torque 1,879 Lb-ft. (2,548 N-m) Max. stall torque 2,000 Lb-ft. (2,712 N-m) Maximum RPM: 3,000 Rotation: bi-directional	
Stall Kit	Stall Bar	Manually inserted Eddy Load Unit stall bar. (standard)
	Air Brake	Air actuated brake assembly installed on to Eddy Load Unit to stall transmission output. (optional)
Vertical Eddy Movement	Manual	Manual system to adjust vertical position. (standard)
	Motorized	Motorized system to adjust vertical position is available. (optional)
Electronic Shift Console	Used in conjunction with test stand to control transmission. Consult with your AIDCO sales representative for more information.	



Note

AIDCO can provide a custom designed system solution to meet your application needs. Consult with your AIDCO representative for details.