

Model 700 Hydraulic Component Test Center



Model 700 Hydraulic Component Test Center shown

Overview

The AIDCO Model 700 Hydraulic Component Test Center may be used for continuous-duty pump performance verification, quality assurance, endurance, and certification testing for heavy-duty off-highway closed or open loop pumps.

Features:

- 100, 200 or 300 HP output drive motor options available.
- Variable Frequency Drive (VFD) controlled output drive motor.
- Drive speed is controlled from a single potentiometer for simplified operator control.
- Provides closed loop speed and load control to the component under test.
- Integral 200 gallon (757 L) hydraulic oil reservoir.
- Two (2) pressure taps, in conjunction with liquid-filled pressure gauges, monitor pressures within the component under test.
- Equipped with loadable flow loop.
- Optional internal Manifold Rectifier Block for testing closed loop pumps is available.
- Optional 0.25-25 GPM (0.95-95 L/min) low flow loop with turbine flow meter and digital panel display can be added for precise case drain readings.
- 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, and torque.

AIDCO can provide a custom solution to meet your application needs. Consult with your AIDCO representative for more details on custom machine options.

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Model 700 Hydraulic Component Test Center Specifications		
Electric	Electric Motor Selections (other voltage options available on request) * BASE Machine FLA NOTE: Main Power Disconnect (provided by others) must use time-delay slow-blow fuses or a breaker with an adjustable over-current setting.	100 HP 100HP (75 kW) 460V - *170 FLA 100HP (75 kW) 380V - *203 FLA
		200 HP 200HP (149 kW) 460V - *286 FLA 200HP (149 kW) 380V - *318 FLA
		300 HP 300HP (224 kW) 460V - *407 FLA 300HP (224 kW) 380V - *435 FLA
Max. Input Torque	100 HP Test Stands	294 Lb-ft. (399 N-m) up to 1,785 RPM
	200 HP Test Stands	588 Lb-ft. (797 N-m) up to 1,785 RPM
	300 HP Test Stands	883 Lb-ft. (1,197 N-m) up to 1,785 RPM
Loadable Flow Loop	100 GPM	0-6,000 PSI (41,369 kPa) capable, 0-100 GPM (0-378 L/min) flow loop with manual load valve incorporating a 6,000 PSI (41,369 kPa) pressure gauge and turbine flow meter with digital panel display for monitor pump outlet readings.
Fluid Storage and Conditioning	Main Reservoir	200 Gal (757 L) w/ thermostatically controlled 7 kW reservoir immersion heater. Digital panel display shows reservoir oil temperature and temperature set point.
	Main Reservoir 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	10 GPM (38 L/min) @ 30 PSI (207 kPa) @ 85° F (30° C)
Misc.	Pressure Monitoring Taps	(2 ea.) 0-6,000 PSI (0-41368 kPa)
	Worktable	46" (117 cm) W x 40" (101 cm) L x 30" (76 cm) T - with sump pump.
	Gravity Feed Ports	(1) 3" (7.6 cm) from 200 Gal (757 L) Main Reservoir. A 20 PSI (138 kPa) gauge monitors pump inlet pressure.
	Soundproofing	Included on enclosure panels
	Approx. weight	8,300 Lb. (3,765 Kg)

* Filter ratings are based on ISO 4572 - Beta 75 (98.7% Eff.) rating or better.

Available Options Listed On Following Page

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Model 700 Hydraulic Component Test Center Options	
PowerNet TD	PNET-TD is a complete automated data acquisition and <u>control</u> package.
PowerNet Mounting Kit	Provides a means to mount all PowerNet components (Commander PC, monitor, printer, ect) to the test stand.
Torque Transducer Kit	Provides a precision non-contact torque transducer, 0.05% accuracy class, for high accuracy input torque readings.
PWM DC Control Signal	Provides an external PWM (Pulse Width Modulation) 0-3 amp VDC power supply point to the control panel. Control signal is adjusted using a 3 turn potentiometer. Additional control signal options available on request.
Work Table Sliding Side Shield	Adds a safety shield used to protect operator from fluid splash and small projectiles.
"Floating" Spray Shield	Adds a boom-mounted positional fluid splash shield for maximum flexibility.
Work Table Safety Enclosure	Adds a safety enclosure to protect operator that completely encloses work table.
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 Loop	Adds a 0.25-25 GPM (0.95-95 L/min) flow loop with turbine flow meter and digital panel display for precise case drain readings.
Optional Fluid Supply Circuits (can only select one)	High PSI w/ Pilot Adds an integral 0-5.8 GPM (22 L/min), 0-5,000 PSI (34,474 kPa) fluid supply circuit that includes a 6,000 PSI (41,369 kPa) gauge for monitoring pressure. Kit also includes an integral 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.
	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.
Pilot Pressure Manifold	A multi-port manifold that provides five (5) different adjustable pressure sources ranging from 50-1500 PSI (344-10,342 kPa).
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 units under test. Consult with your AIDCO sales representative for more information.

