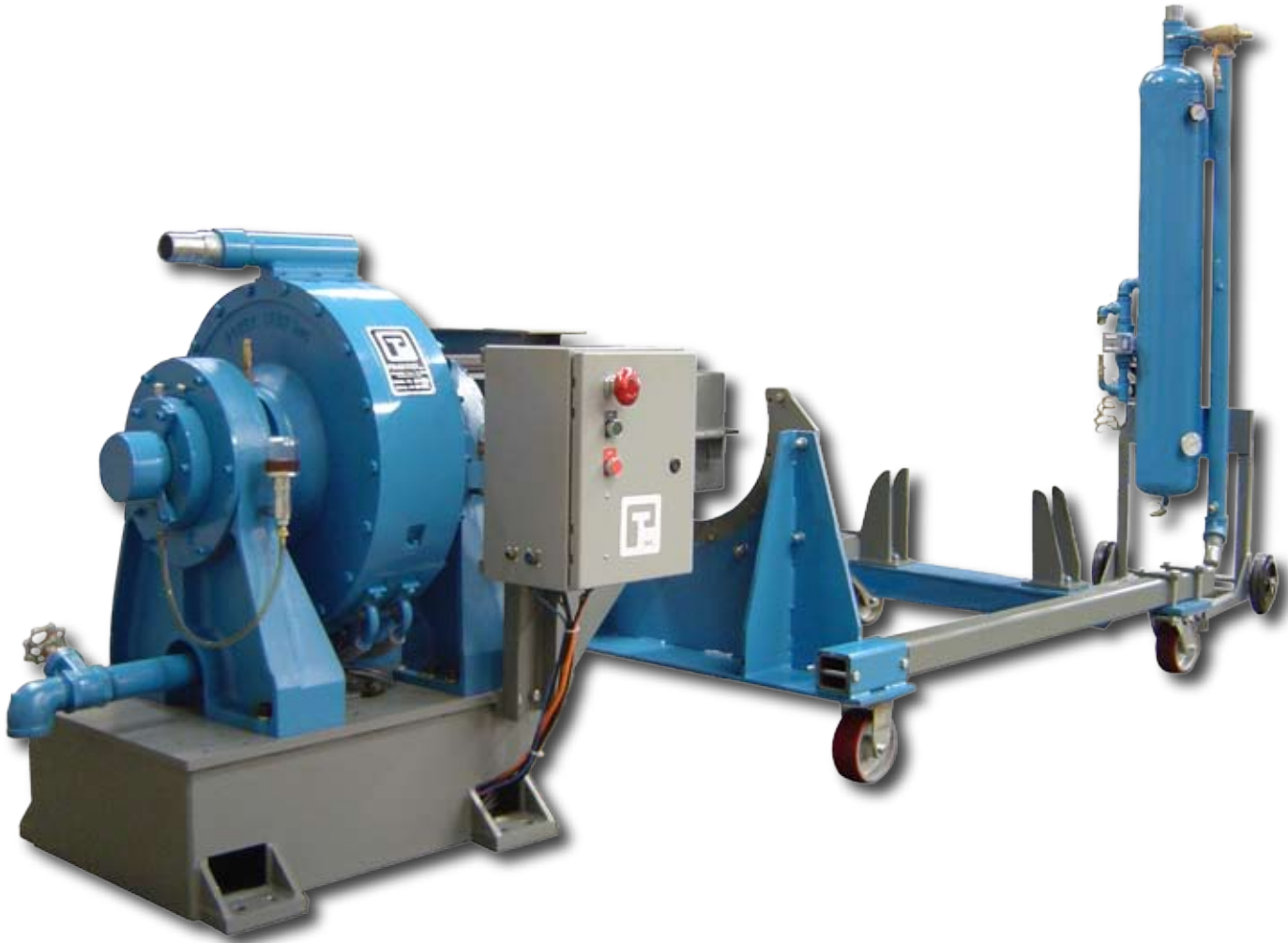


PTX ENGINE DYNAMOMETER SYSTEM



PTX02 Dynamometer System

PTX DYNAMOMETER SYSTEM

The PTX dynamometer system offers the proven reliability of Power Test dynamometers and accessories together with a simplified version of our internationally acclaimed PowerNet data acquisition and automated control package.

With the PTX, accurate and reliable engine testing is easily performed. This system will assure your customers that the performance of your engines is proven and will minimize time lost to after the sale service.

The PTX dynamometer system contains everything required to perform reliable engine certification, including one of our popular water brake dynamometers, the automated simplicity of PowerNet LT, universal engine stand, cooling column, and necessary connections.

Available in both 500 HP (373kW) and 1,000 HP (746kW) configurations and combined with everything needed to begin engine testing, the PTX dynamometer system is a package that is ready to go to work.



50X02 Dynamometer

50X Series Dynamometer

The PTX dynamometer system features our industry standard 50X Series engine dynamometer. The 50X utilizes Power Test's proven water brake technology for the ultimate in reliability.

With either 1,750 or 3,500 ft. lbs. of torque capability at 1,300 rpm or 6,000 rpm maximum speed, depending on the model selected, these dynamometers are capable of testing gasoline and diesel engines for years to come!

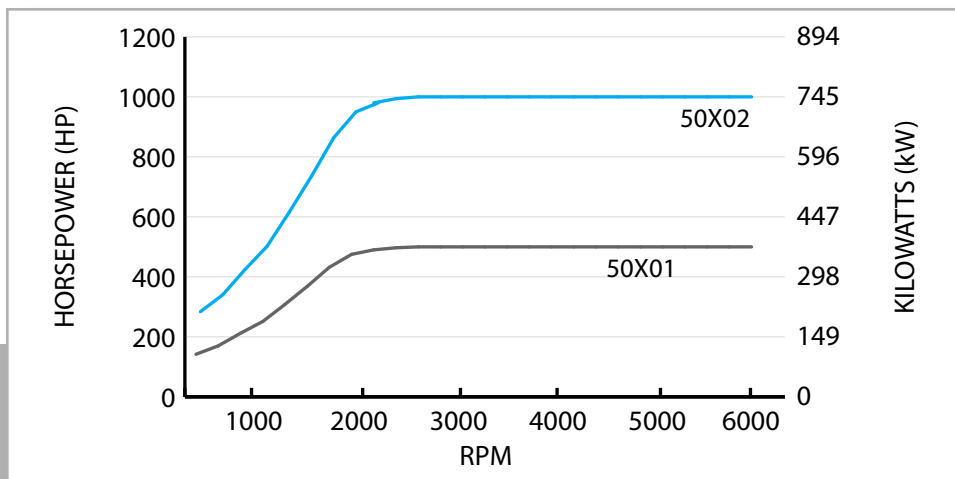
The 50X Series can produce either 500 or 1,000 HP load from 1,600 through 6,000 rpm.

The 50X Series dynamometers are pedestal-mounted and offer equal absorption capabilities in either direction of rotation. The simplicity of the Power Test design assures continued operation without relying upon the often problematic seal lubrication lines or thermal overloads used by other manufacturers.

Constant level oilers for the high-speed bearings and easily accessible grease fittings for the dynamometer support bearings, result in minimal maintenance. For convenience, Power Test uses only internationally available bearings and seals on the PTX dynamometer. Our simple design means that when it finally becomes time for renewal, bearings and seals are easily replaced.

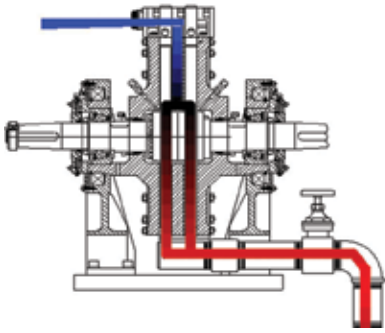
Power Test dynamometers feature inlet control, which allows for very low, minimal loads to be applied for high speed, low torque testing. This method of control also minimizes the amount of water consumed as compared to other styles of dynamometers.

The PTX dynamometer system offers documented durability. Power Test has been an industry leader for more than 30 years. Now the equipment preferred by some of the largest engine manufacturers, distributors, and dealers worldwide is available in an affordable package designed specifically for the rebuilder.



50X Series

- For testing electric motors, gasoline, and higher speed diesel applications.
- Power ranges from 20-1000 HP.
- Speeds to 6,000 rpm.
- Alloy construction for reduced inertia.

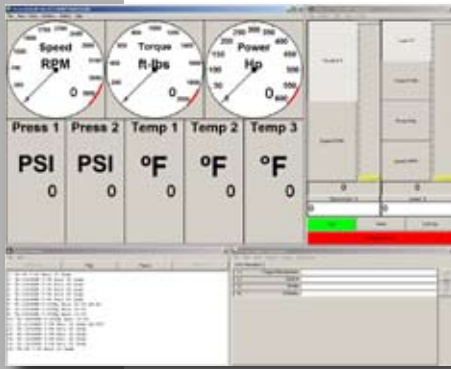


How A Water Brake Dynamometer Works

In the Power Test water brake dynamometer, water flow proportional to desired applied load is used to create resistance to the engine or motor. A controlled flow of water through the inlet manifold is directed at the center of the rotor in each absorption section. This water is then expelled towards the outside of the dynamometer body by centrifugal force. As it is directed outward, the water is accelerated into pockets on the stationary stator plates where it is decelerated. The continual acceleration and deceleration causes the applied load to the input device. Through this transfer of energy, the water is heated and discharged.

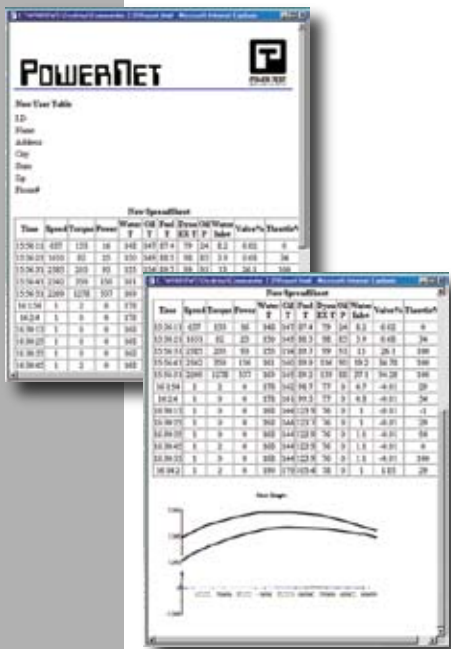
PowerNet LT

PowerNet LT is a complete monitoring and control package for dynamometers and engines. Power Test transforms a standard desktop computer and a specifically developed interface box into engine development and qualification tools. Featuring a condensed version of our PowerNet Windows®-based software, manual setpoint and fully automated tests are just a mouse click away.



With PowerNet LT, standard engine tests can be recalled from a file and by clicking on the start button an expert or a beginner can perform a test and achieve the same results. The automation of the engine throttle and the dynamometer load assure that every step of the test is performed correctly.

Included with the PowerNet LT package are sensors for engine, oil, fuel, and air temperature, as well as sensors for oil and fuel pressure. All sensors are enclosed in an industrial console and supplied with quick disconnects for rapid connection/disconnection. Information collected from these sensors along with torque, rpm, and power measurements from the dynamometer are all automatically recorded to the computer hard drive.



Through automated recording, verifiable test results are obtained. The PowerNet LT package assures that the data is true and accurate. Reports are easily produced that include your company logo, your specific workshop information, customer information, and the engine manufacturer's specifications, along with the actual dynamometer test results in table and graph formats. The included paragraph feature allows you to enter any notes or observations made during the test.

The included alarm feature provides visual displays and flashing warnings when a sensor exceeds the usual operation range. Whenever an alarm condition is reached, data is automatically recorded so that a determination of the trouble can be diagnosed.

The PowerNet LT software package may be used as supplied or you may easily change the sensor units, ranges, alarm values, and even the language of display if desired! Once changes have been made, they are stored to the system for future usage. Data that is saved to the hard drive may be recalled and printed at any time and may even be sent by e-mail.

A Complete System for Comprehensive Testing

The PTX dynamometer system is supplied complete with engine mounting and connection and cooling accessories. A universal engine cart capable of supporting and transporting engines of up to 6,000 lbs. running weight is supplied. The engine cart provides a rapid and efficient method of placing the engine in the proper position for testing. Screw jacks and load binders are a thing of the past.



Adapter plates are provided for quickly mounting the rear of the engine to the cart and an adjustable support allows the front of the engine to rest upon it. Once rolled into the test cell, the cart is easily guided into position and simply pinned to keep it from rolling away. With these easy steps completed, the engine is ready to go.



With the engine in position, the flywheel is connected to a guarded universal joint drive shaft with just a few bolts. Through the use of the drive shaft and the guided positioning of the engine on the cart, time spent connecting the engine is minimal.

Once in position and connected, the engine cooling column may be used to maintain jacket water temperatures on liquid cooled engines. The Power Test engine cooling column provides thermostatic control of the jacket water temperature to ensure that your engines do not overheat.

PTX01 Dynamometer System

50X01 500 HP Dynamometer and Sub Base
PowerNet LT Data Acquisition System
Drive Shaft and Drive Shaft Guard
Universal Engine Cart
Cooling Column
Choice of 2 Flywheel Adapter Plates

PTX02 Dynamometer System

50X02 1,000 HP Dynamometer and Sub Base
PowerNet LT Data Acquisition System
Drive Shaft and Drive Shaft Guard
Universal Engine Cart
Cooling Column
Choice of 2 Flywheel Adapter Plates

In addition to the components supplied with a standard PTX dynamometer system, Power Test manufactures a variety of accessories designed specifically to meet your engine testing needs, including:

Crankshaft Adapter Plates



Air Starters



Engine Mounted Dampeners



Charge Air Coolers



Power Test, Your Full Service Dynamometer Manufacturer

Power Test can provide facility design and installation of every dynamometer we sell. We also offer a complete line of support equipment, including ventilation systems, exhaust systems, auxiliary cooling systems, and water recirculation systems.

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

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