

PTX DYNAMOMETER SYSTEM



The PTX Dynamometer System offers the proven reliability of Power Test dynamometers and accessories coupled with a simplified version of our Internationally acclaimed PowerNet data acquisition and automated control package.

The PTX Dynamometer System contains everything required to perform reliable engine certification. Starting with one of our popular 500 HP (373 kW) or 1,000 HP (746kW) dynamometers and the automated simplicity of PowerNet LT, through the guard, universal engine stand, engine cooler and connections, this is a package that is ready to go to work!

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

PTX DYNAMOMETER

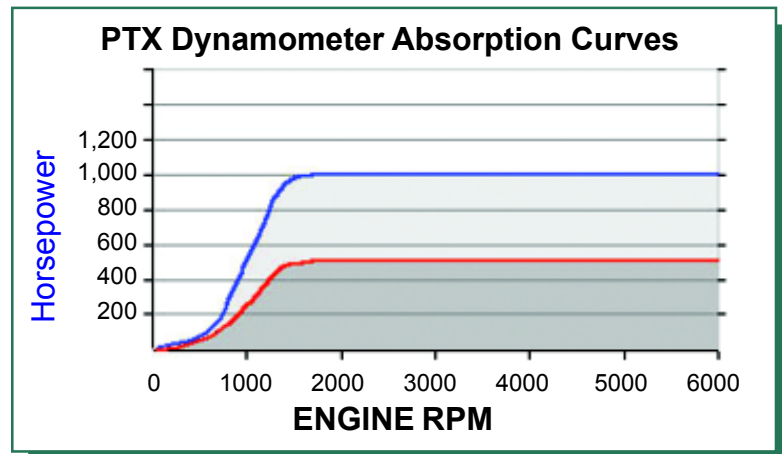
50X Series of Dynamometer



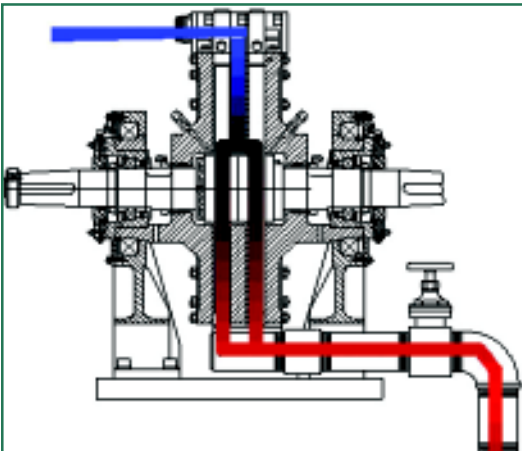
The PTX Dynamometer System features our industry standard 50X series of engine dynamometer. The 50X utilizes Power Test's proven waterbrake technology for the ultimate in reliability. With either 1,750 or 3,500 ft. lbs. of torque capability at 1,300 rpm and 6,000 rpm maximum speed depending on the model selected, these dynamometers are capable of testing gasoline and diesel engines for years to come. Our machines can produce either 500 or 1,000 HP load from 1,600 through 6,000 rpm. When comparing dynamometers, the absorption curves tell the story!

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 bearing and seals on the PTX dynamometer. Our simple design means when it finally becomes time for renewal, bearings and seals are easily replaced.



Power Test dynamometers feature inlet control. This 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.

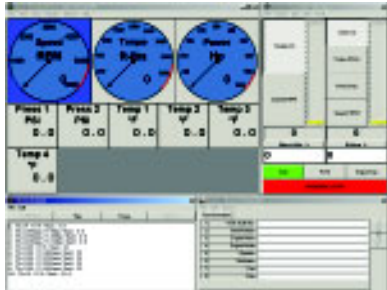


How A Water Brake Dynamometer Works

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 set-point and fully automated tests are just a mouse click away.

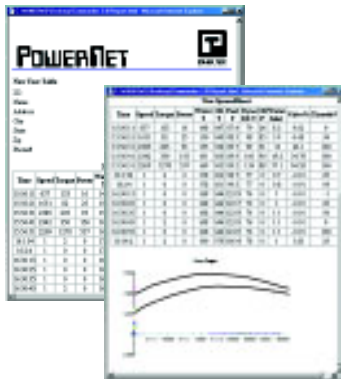


With PowerNet LT, standard engine tests can be recalled from a file and by clicking on the start button, an expert or a beginner can perform and achieve the same test results. The automation of the engine throttle and the dynamometer load assure that every step of the test is performed correctly.

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 a quick disconnect for rapid connection. 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 tests results are obtained. The PowerNet LT package assures that the data is true and accurate. Reports are easily produced that provide 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 features provide 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.

Optional Accessories

PowerNet is compatible with a series of accessories to enhance your engine testing capabilities, including:

Opacity Meters



5 Gas Analyzers



Fuel Measurement



Additional Sensors



SAE J1587, J1708 and J1939 ECM interfaces are also available. PowerNet is designed to allow for easy customization to meet the customer's requirements.

DYNAMOMETER ACCESSORIES

PTX Dynamometer System

The PTX Dynamometer System is supplied complete with engine mounting, connection and cooling accessories. This package is ready to go to work!

A universal engine cart capable of supporting and transporting engines of up to 4,000 pound running weight is supplied. The engine cart provides a rapid and efficient method of locating 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 locating the rear of the engine to the cart. An adjustable support allows the front of the engine to be rest upon it and the engine is ready to go. Once rolled into the dynamometer area, the cart is easily guided into position and simply pinned to keep it from rolling away.



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 automatic 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 thermo-static control of the jacket water temperature to ensure that your engines do not overheat!



The PTX Dynamometer System is a powerful tool that can enhance the reputation of your company, verify the quality of your work and can assist you in catching problems before the engine is installed in your customers' chassis.

The PTX Dynamometer System offers documented durability. Power Test has been an industry leader for more than 25 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.

[PTX 1 Dynamometer System](#)

50X01 500 hp dynamometer
Drive shaft
Guard
Engine cart
Cooling column
2 flywheel adapter plates
PowerNet LT Data Acquisition System

[PTX 02 Dynamometer System](#)

50X02 1000 hp dynamometer
Drive shaft
Guard
Engine cart
Cooling column
2 flywheel adapter plates
PowerNet LT Data Acquisition System

The PTX system is also available with accessories designed to specifically meet your needs, including:

Crankshaft Adapter Plates



Air Starters



Engine Mounted Dampeners



Charge Air Coolers



Corporate Headquarters



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