



POWER TEST, INC.

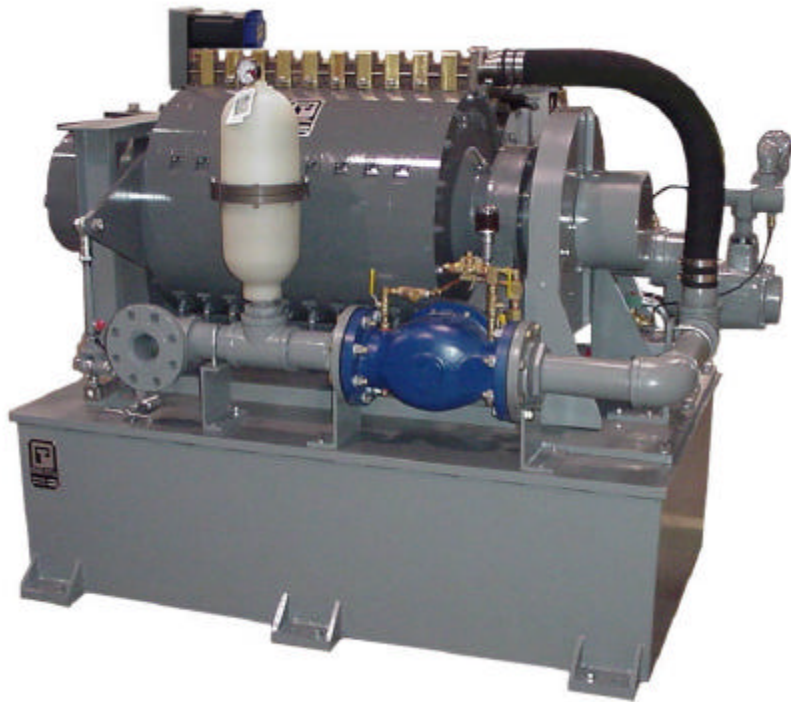
High Performance Water Brake Dynamometers

www.pwrtest.com

DYNAMOMETERS

Extreme Duty Waterbrake Dynamometers 45X, 35X and 50X

Power Test X series of waterbrake dynamometers excel at testing wide ranges of power inputs with one dynamometer. Each of these fixed base dynamometers may be used for continuous duty endurance testing as well as for transient tests. Proven durability and performance assure the dynamometer you purchase today will faithfully perform the tests of tomorrow.



45X10 4,500 HP Dynamometer Shown

Power Test, Inc.

X Series Dynamometer Features



Model 35X04 1,400 HP Dynamometer

Timeless Construction

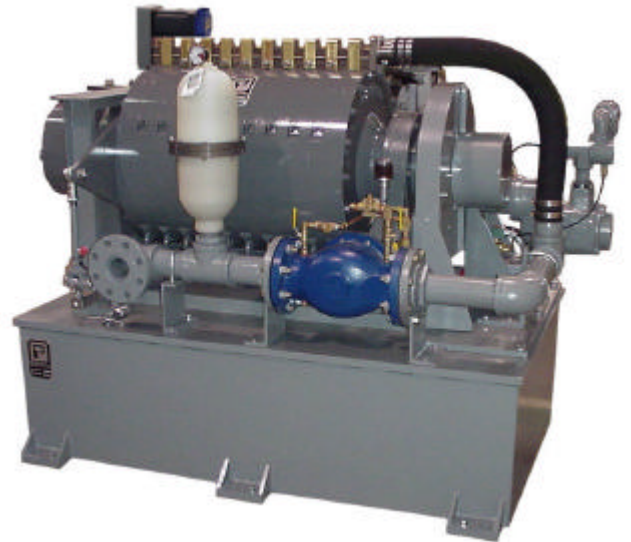
The 45X, 35X and 50X series of dynamometers are modeled after each other in design, sharing common operation and construction principles and differing in size, capacities, operating speeds, materials and inertia.

Each of the X series feature a trunnion mounted, fixed base design. These dynamometers provide equal load capability in either direction of rotation. Power Test dynamometers are constructed of multiple absorption sections to provide the flexibility to test prime movers of widely varying outputs with the same dynamometer. By closing off selected sections, the absorption characteristics are able to be closely matched to the engine or motor capability.

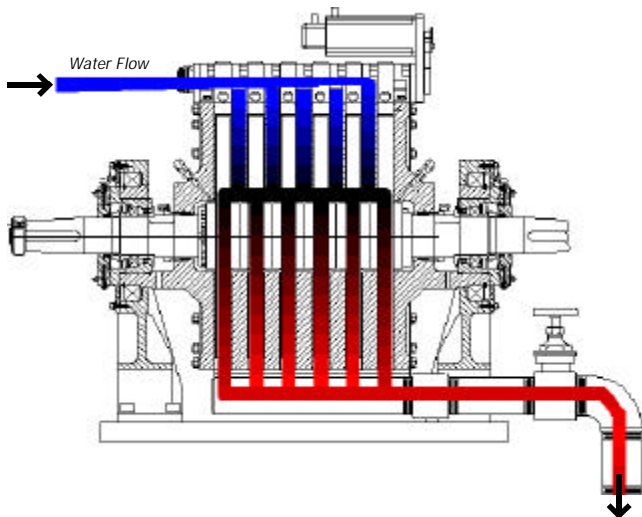
The through shaft design allows either end of the dynamometer to be driven and for the attachment of dynamometer mounted starting systems to be used. Although supplied to provide long term service, internationally available bearings and seals are used in each of the Power Test X series. These components are located in easy to access cartridges to allow field service without the need for dynamometer removal or specialty tools.

Each of the X series dynamometers may be operated for extended periods of time without water flow. This feature ensures that this dynamometer can perform flawlessly even on the warmest of days without fear of damaging the absorber. Power Test dynamometers do not rely upon thermal or pressure sensors to provide dynamometer protection.

Inlet control 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.



Model 45X10 4,500 HP Dynamometer



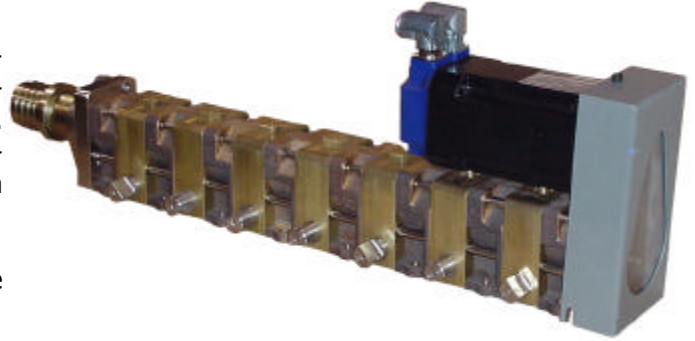
How It Works

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.

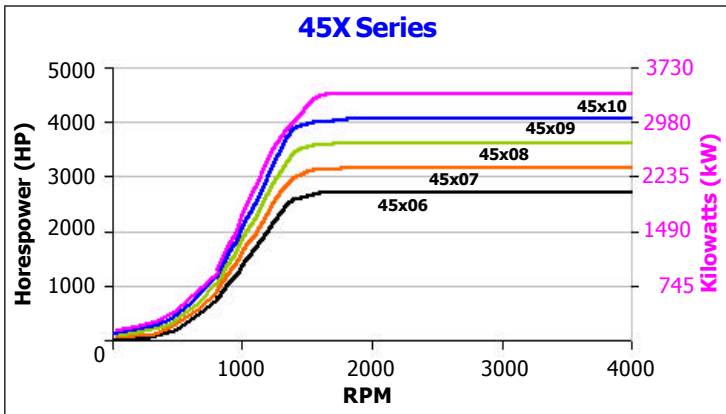
High Performance or Basic Controls

Each of the X series can be produced in two configurations. For demanding test applications and automation, a servo operated inlet manifold is incorporated into the dynamometer to facilitate rapid load change. The servo inlet manifold is designed for direct interface into our PowerNet data acquisition and control package but also may be adapted to a wide range of available control devices.

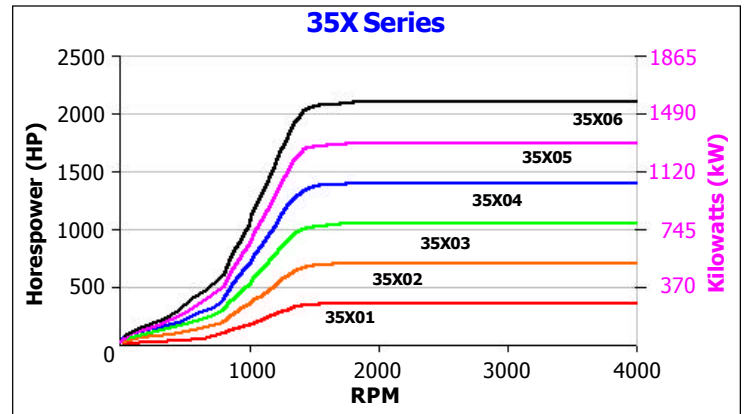
For less demanding applications, a water supply control valve may be used with our standard inlet manifold.



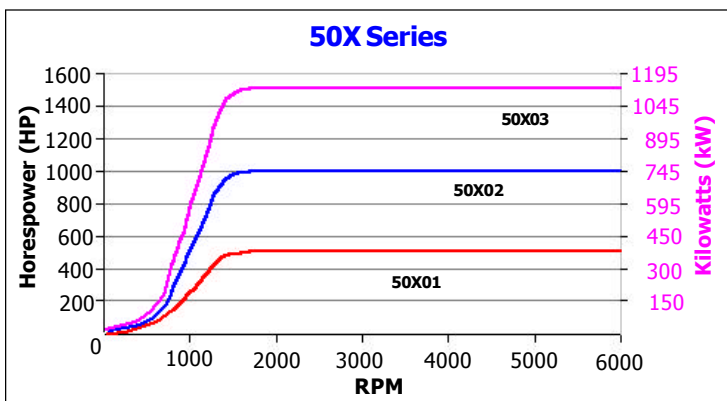
Absorption Curves



For testing on-highway through off-highway and marine applications. Power ranges from 100 through 4,500 HP. Speeds to 4,000 RPM. May be used in tandem applications.



For testing the majority of diesel engines from 50 HP through 2,100 HP. Speeds to 4,000 RPM.

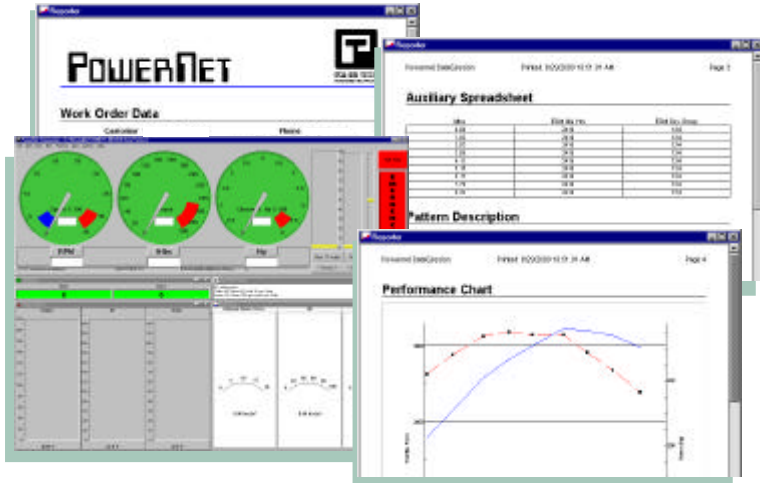


For testing electric motors, gasoline and higher speed diesel applications. Power ranges from 20-1500 HP, speeds to 6,000 RPM and alloy construction for reduced inertia.

PowerNet

Power Test can custom configure any dynamometer to our PowerNet data acquisition and control system. PowerNet is a complete automatic advanced computer control system that provides the operator with a wealth of testing tools in a simple to use format. A two computer system composed of the Workstation (enclosed in an industrial housing) and the Commander PC, has the capacity to accept over 50 inputs. The whole system is based on the Microsoft Windows Operating System, making the package easily understood, serviced, updated, and maintained.

Power Test, Inc.



PowerNet Provides Reporting

PowerNet provides colorful screen captures, easy to read performance reports and graphical charts. Now results obtained during a test, combined with engine specific information can confidently be presented as a final confirmation of quality assurance.

Putting It Together

Power Test, Inc. manufactures a complete line of accessories to compliment each of the X series of dynamometers including engine carts, air starter systems, drive shafts, resilient couplings, engine adapters, water recirculation systems, and more. In addition to our typical product line, custom applications can be engineered and manufactured by Power Test to meet your needs.



Driveshafts



Engine Adapters



Fuel Measurement Systems



Drive Shaft Guards



Cooling Columns



Universal Engine Carts



Support Before and After the Sale

Facilities planning assistance, water system design, customer service, training and unsurpassed customer service make Power Test an industry leader. Quick and competent support from our staff ensures total satisfaction.

Power Test is THE Source for Your Testing Needs

Power Test, Inc. is the source for legendary water brake performance. Our product line includes dynamometers for testing up to 5,000 HP (3,730 kW) and 6,000 RPM, Dual Dynamometers, Electric Motor Test Systems, Single, Tandem, and Multi-axle Chassis Dynamometers and the PowerNet Data Acquisition and Control System.



Chassis Dynamometers

Corporate Headquarters



POWER TEST, Inc.

N60 W14630 Kaul Avenue

Menomonee Falls, WI 53052 USA

Phn: (262) 252-4301

Email: info@pwrtst.com

Fax: (262) 252-4700

Web: www.pwrtst.com