




**WE MAKE YOUR
TESTING
EASY**



 **PowerTest**
We Make It Better

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ENGINE DYNAMOMETERS

An engine dynamometer is a device used to test an engine that has been removed from a vehicle, ship, generator, or various other pieces of equipment. The purpose is to confirm performance before the engine is installed. Dynamometers can help facilities troubleshoot by determining an engine's functionality while under load. They also verify the quality of builds, rebuilds, or repairs in a controlled environment before engines are put into use.



Water Brake

Water brake dynamometers are ideal for higher power engines with options ranging from 350 to 10,000 HP. These dynos are most cost effective for larger internal combustion engines and electric motors.



Eddy Current

Specifically designed for small displacement diesel engines, the Eddy Current (EC-Series) engine dynamometer features air-cooled, in-line eddy current absorption utilizing electro-magnetic resistance.



AC Series

The AC Series Dynamometer generates electricity as a means to absorb power from an engine under test. AC Dynos provide incomparable responsiveness for precision testing and can be used to supplement electrical power.

Water Brake Dynamometers



Our largest water brake dynamometers, the Power Test H36-Series engine dynos are designed for high torque, low speed diesel engine applications. They can be found servicing mining, construction, power generation, and marine propulsion industries around the world.

Features

- For high torque output of diesel and natural gas engines
- Ranges up to 10,000 HP (7,455 Kw) & 36,878 lb-ft (50,000 Nm)
- Available in six different sizes
- Speeds up to 2,500 RPM

Benefits

- Through-shaft design allows either end of the dyno to be driven
- Provides bidirectional equal absorption capabilities
- Cost-effective, high-HP solution
- Effective power absorption from 300 RPM to 2,500 RPM without gearboxes

X Series Engine Dynamometers

The 35X, 45X, and 50X Series of dynamometers share common operation and construction principles, but differ in size, capacities, operating speeds, materials, and inertia.



35X Series

- For testing on-highway, off highway, and marine applications
- Power ranges from 50-2,100HP (37-1566 kW)
- Speeds up to 4,000 RPM



45X Series

- For testing the broadest range of diesel engines
- Power ranges from 100-4,500HP (76-3344 kW)
- Speeds to 4,000 RPM



50X Series

- For testing electric motors, and higher speed diesel applications
- Power ranges from 50-1,000HP (37-746 kW)
- Speeds to 6,000 RPM



PTX System

PTX systems contain everything required to perform reliable engine certification for various heavy-duty applications.

- Featuring a 50X Series water brake with integrated sub-base and drive shaft guard
- System includes the PowerNet LT Data Acquisition and Control Package

Portable Engine Dynamometers

Portable Engine Dynamometers are a unique testing system designed for facilities where a large, permanent test cell isn't realistic. These portable units are highly mobile with the ability to be fixed directly to the unit under test. Though smaller, portable dynamometers are fully compatible with PowerNet 3.0 and provide versatile testing solutions for a wide range of power outputs, torques and speeds.

PT3600



Designed for testing small to medium sized diesel engine, the PT3600 can be lifted and moved for attachment to engines in many locations.

- Easy to install, operate, & move
- Power ranges from 15-1,200 HP (11-895kW) and speeds to 4,000 RPM

Portable Z



Designed to test high speed gasoline and diesel engines, the Portable Z is available in both fixed base and portable units.

- Works well in limited spaces
- Power ranges from 5-600 HP (4-447 kW) and speeds to 6,000 RPM

CHASSIS DYNAMOMETERS



CF23EC-4B (Tri-Drive)



CF22EC-4B



CF22EC-4RB

Eddy Current Chassis Dyno

Power Test's EC-Series eddy current dynamometer uses air-cooled eddy current load absorbers providing a highly-reliable, cost-effective, very low-maintenance solution without the need for water or a cooling system.

Eddy Current Cost Savings

Our Eddy Current dynos offer an easy-to-use solution with extremely low annual operating costs. By removing the need for an expensive external cooling system, you can avoid the water supply headaches often associated with traditional chassis dyno testing systems. There's no need to worry about water quality control issues and you eliminate the potential risk of flooding your dyno pit. With the EC-Series, you avoid these headaches and save money in the process.

CF22.2FD "Flat Deck" Chassis Dyno



While maintaining all of the features of our EC Series, the Flat Deck Chassis Dyno is the first designed with a flush mounted surface. This logical design progression has the full load absorption capabilities of the EC Series while eliminating potential trip hazards and also incorporating a simplified belt-tensioning system, making it our easiest chassis dyno yet.

**Lifetime Warranty
on Frame & Rollers**



Chassis Dyno Payback Calculation

To prove how cost-effective Power Test equipment can be, we've created a payback calculation tool that gives you a detailed accounting of every dollar spent or earned on your chassis dynamometer. With a few simple assumptions, a Power Test rep can walk you through this powerful tool.

EXAMPLE

A 13 Month Return on Your Investment

Estimated Investment

Purchase of dyno, PowerNet CD controller & exhaust hood	\$150,000
Pit Construction, installation & expenses	+\$30,000
Total Investment	\$180,000

Estimated Monthly Operating Revenue & Expenses

Dyno runs per month (assumes approx. 2 trucks/day)	50 @ \$200 (conservative) dyno fee	\$10,000
Dyno labor cost at .5 hours per run	25 labor hours/month @ \$45/hr.	- \$1,125
Dyno electricity cost per month (estimated)	1,000kWh @ \$.10/kW-hr	- \$100
Incremental shop repairs identified by dyno	25 new repairs @ \$400 each	+ \$10,000
Incremental shop cost for parts & labor	25 repairs @ \$200 cost each	- \$5,000
Total incremental monthly profit from dyno		\$13,775
Total incremental yearly profit from dyno		\$165,300

Break-Even time = 13 months* (\$180,000 investment / \$13,775 profit/month)

*This is one example. Talk to your Power Test sales representative to determine the Pay-Back for your location.

Large Roll and Multi-Axle Chassis Dynos

CF42

Large Roll Chassis Dynamometer

A truck, semi-truck, and heavy equipment dyno featuring larger rolls, heavier construction, greater operating speeds, and higher load capacities with the use of water brake absorbers. The CF42's large, dynamically balanced 40-inch roll sets allow higher top speed, increased traction, reduced tire wear and minimize test cell heat during an extended dyno vehicle test.

Multi-Axle Chassis Dyno

Custom Engineered Solution

The Custom Engineered Solutions team works with you to understand your multi-axle chassis dynamometer testing needs. We combine intelligent ideas, years of experience with U.S. military installations, and the modular design of our chassis dynos to provide you with a value-driven solution that exceeds your expectations.



TRANSMISSION & HYDRAULIC TESTING

AIDCO Test Systems offer the latest in modern, electric motor and hydrostatically-driven transmission and hydraulic test stands. A product line designed and manufactured at Power Test headquarters, these test systems are capable of testing accompanying transmission and hydraulic components is available, including valve body test stands, electronic shift consoles, and a variety of adapter and mounting kits to fit your specific product needs. Compatible with all PowerNet 3.0 software, the AIDCO lineup of test stands provides versatility, simplicity and repeatable confidence in your testing process.



AIDCO
TEST SYSTEMS
DIVISION OF POWER TEST INCORPORATED

900C-FA (Fully Automated)

Transmission & Hydraulic Component Test Stand

A versatile test stand designed for testing heavy-duty off-highway transmissions and hydraulic components, the AIDCO Model 900C Hydraulic Test Center is your solution for complete pump, motor, and hydrostatic transmission testing. Now available in a fully automated model, this state-of-the-art test stand, complete with flat panel monitors, delivers precise, repeatable results in a safety optimized environment.

Fully Automated Functionality

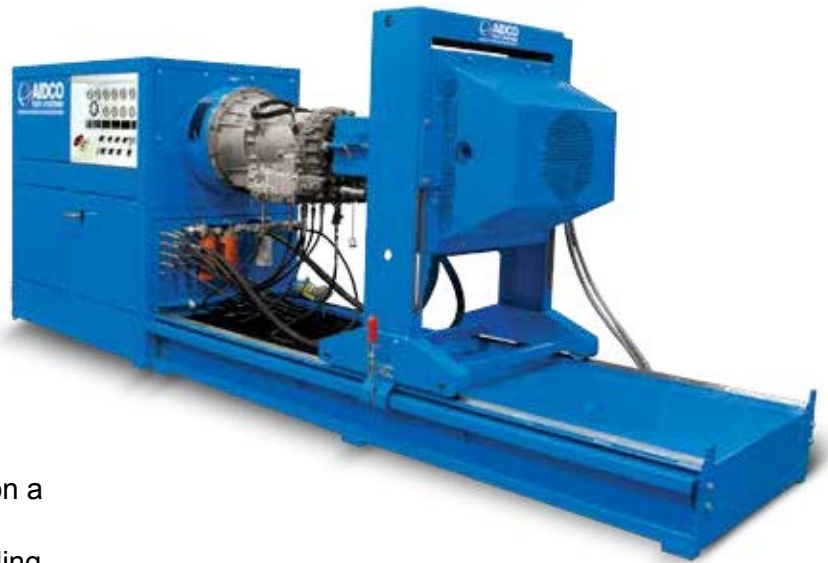
- Available in 300/400/450/500 HP configurations
 - 224/298/336/373 kW
- Ensures consistent & repeatable results between multiple operators
- Specified settings save time with each component test
- Capable of controlling every set point of every flow loop
- Also allows for full manual control on panel
- Enables testing from a remote control room.

450E Series

In-line Transmission Test Stand

The AIDCO 450E-Series transmission test stand is designed for testing automatic, fully-automated manual (AMT), or manual in-line transmissions used in commercial or military applications.

- Available in 125-300 HP options (93-224 kW)
- Eddy Load Unit simulates operating conditions on a transmission
- Splined input facilitates quick transmission coupling & alignment
- Rotating mount ring allows easy access to underside connections
- Transmissions with SAE #1 flange mount directly to 450E bell housing
- Adapter rings available for other SAE sizes



500E Series

Off-Highway Heavy Duty Transmission Test Stand

The Model 500E accommodates in-line or drop-box style transmissions mounted in a direct, remote, or mid-ship configuration, with or without integrated torque converters. This compact unit is designed with customization in mind, allowing you to specify a machine as basic or comprehensive as you like.

- 100, 200, or 300 HP output drive motor options available (75-224 kW)

Options Include: Heat exchange cooler kit, remote mounting kit, eddy output load unit, oil reservoir tank, & more.



700 Series

Hydraulic Component Test Stand

For heavy-duty closed or open loop pumps, the 700 Series Hydraulic Component Test Stand gives you the capacity to effectively test new or rebuilt pumps, motors, valves, and cylinders. Confidently and efficiently verify your work and communicate quality to your customers.

- 100, 200, 300 or 500 HP output drive motor options available (75-373 kW)
- VFD allows for maximum control of flow, speed, and load



CUSTOM ENGINEERED SOLUTIONS



EXAMPLE

HTS-100x2

Regenerative Hydraulic Pump/Motor Test Stand

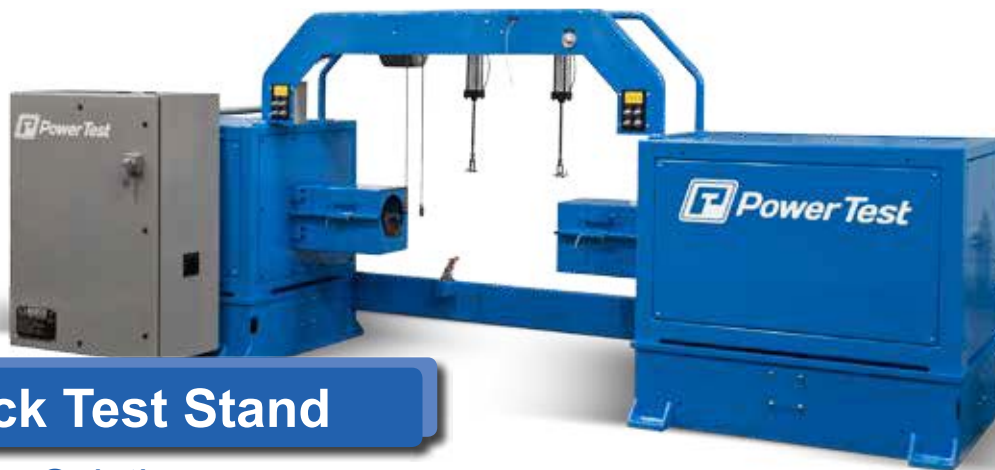
Testing Challenge: A Naval Maintenance facility needed to enhance their hydraulics test laboratory. From motors and pumps to valves, accumulators, actuators and cylinders there is an extremely wide variety of hydraulic systems on-board naval vessels.

Innovative Solution:

- Multiple custom hydraulic test stands were produced for the customer.
- Each test stand had several active regenerative power loops allowing power to/from units under test to be recirculated during load.
- Operator test areas offered complete control of the testing procedure through custom PowerNet data acquisition & control.
- The machine operation area is a completely stainless steel fabrication giving it a long term rust-free life.

Non-standard test requirements demand engineered solutions

Power Test's Custom Engineered Solutions Division uses years of expertise to address your **challenge** with logical and creative custom **solutions**. Our team studies all aspects of the requirement to develop the right machine design for you.



EXAMPLE

Power Pack Test Stand

Military Testing Solution

Testing Challenge: Custom Engineered Solutions was challenged to provide a test system for testing heavy-duty military diesel engine and cross drive transmission power pack systems. The high volume of repairs in the facility required easy and efficient testing processes that minimized turnaround time.

Innovative Solution:

- A cross-drive Power Pack Test System with custom mounting for easy positioning.
- Tests engine, torque converters & clutch performance and checks transmission shift points through a range of vehicle load & engine throttle conditions.
- Features left/right, heavy-duty, dual eddy current absorbers to accommodate torque and power control.
- Shift & Steer actuators for cross drive transmission steering unit & an electronic throttle control system.

DATA ACQUISITION & CONTROL



Data Acquisition and Control for Any Testing Need

All PowerNet testing systems run on the familiar Windows® platform, making it easy for operators to manage testing on all Power Test engine, chassis, transmission, electric motor, and Gen-Set systems, and to create customized, professional reports. PROOF that your quality is worth the price.

PowerNet 3.0 Software

All the control & data you need in one easy-to-use system.

PowerNet, the trusted solution for complete, reliable data acquisition and control is now even more powerful and easier to use. Version 3.0 offers flexible graphics, remote monitoring and reporting, test facility integration and professional reports.



Engine Dynamometers

Easily customizable test patterns for similar operation across all equipment types.

Transmission Test Stands

For users of AIDCO Test Systems on transmissions, torque converters, hydraulic pumps and motors.



Chassis Dynamometers

Easily manage truck and bus testing from within a vehicle's cab with a single operator.

Electric Motor Test Systems



The EMTS X-Series dynos are used for power verification, vibration testing, quality assurance, endurance and certificate testing of electric motors. The X-Series is offered in a number of different sizes and is compatible with a wide range of electric motors.

- The ability to test a wide range of electric motors on the same dynamometer
- Low-inertia and high absorption characteristics in a compact package
- Servo inlet control valve allows for low minimum horsepower
- Equal Absorption capabilities in either direction of rotation
- PowerNet EMTS controls and captures all relevant parameters.

INSTALLATION ADVANTAGE

DESIGN, CONSTRUCTION, AND INSTALLATION (DCI)

A dynamometer is only part of your comprehensive test cell system.

With our DCI services, we'll help you get the most from your investment by ensuring your test cell performs exactly how it should. We'll partner with you to learn your exact needs and we'll work with you to get it right, because at Power Test, **We Make It Better.**



Standard

- Dimensional drawings
- Basic support during design phase
- System commissioning & training

Customized

- Detailed test cell drawings
- Phone and/or on-site consulting
- Design review & ongoing recommendations
- System commissioning & on-site employee training

Turnkey

- Responsibility for all design, construction, and installation
- Development of all detailed test cell & facility drawings
- Complete management of local architects & contractors
- On-site project management & supervision
- Budget oversight
- System commissioning & training

Service Advantage

Industry Leading Customer Service

At Power Test, we are committed to becoming your long-term partner. Whether you need to repair your existing dyno or build a complete test cell, we provide unsurpassed service. We ensure your equipment is serviced quickly and effectively. If your equipment is down, we respond immediately to get you up and running.

"The right thing to do is always the right thing to do."

Power Test provides world class support with a team of highly trained technicians who travel the globe. As your partner, we are honest and straightforward about our progress with our projects and we work with you until the job is done.



StuskaDyno

A Division of Power Test Inc.

Manufacturing durable, affordable engine dynamometers since 1963. Stuska's comprehensive test stand packages represent the gold standard for testing equipment in the racing industry. The legendary water brake dyno holds a reputation of 50 years of unmatched quality.



Dependable Quality



Exceptional Service



Legendary Durability



Total Control



TrackMaster Complete Dyno System

The Stuska TrackMaster dynamometer system offers exceptional engine testing capabilities with proven water brake technology and a sophisticated, yet easy-to-use, data acquisition package.

- Waterbrake available in 800HP (XS-111) and 1600HP (XS-211)
- PowerPro software displays live gauges & graphs on a virtual dashboard
- The QuikStik LC Joystick features easy one-handed operation w/ load control.
- Docking Cart for easy engine mounting without the need for bell-housing.
- Top speed rating of 10,000 rpm



TrackMONSTER3000

StuskaDyno's first 3000HP engine dyno. With a strong dyno shaft (w/splined coupler), a rigid, robust, frame design, and a water brake based on the legendary Stuska design, the TrackMONSTER3000 is your high horsepower testing solution.

- Rigid and robust dynamometer frame
- Stronger dyno shaft engineered with splined drive coupler
- Bigger bearings, new high RPM seals, & easy access servicing
- Load cell rated to measure massive torque

*Championship winning
engine builders choose*

StuskaDyno



Who We Are

Power Test, Inc. is an industry leader in the design, manufacture and sale of dynamometers, heavy equipment testing systems and related data acquisition and control systems. For over 40 years, Power Test has provided specialized test equipment to manufacturers, rebuild facilities and distributors in the mining, oil & gas, power generation, marine, trucking, construction, rail, and military markets in over 90 countries on six continents. Our headquarters and manufacturing operations are located in Sussex, WI with sales representatives worldwide.

How We Work

The Power Test team of innovative engineers, designers, software developers and sales consultants will SOLVE YOUR CHALLENGES with logical solutions. Our skilled machinists, fabricators, electronic technicians and assemblers build products to meet your unique needs. Our technical service experts are dedicated to working with you, anywhere and anytime. They travel the globe to ensure your equipment is running right and your staff is trained to operate it. Our exceptional product life and manufacturing expertise made us an industry-leading dynamometer manufacturer, as evidenced by our first machine sold, which operated for over 40 years.



We Make It Better

At Power Test, We Make It Better in all that we do. We make exceptional products and provide unsurpassed support. We offer valuable solutions to improve our customers' businesses. We train, develop and enable our employees to make them the best they can be. We donate generously and work vigorously in the community around us to improve it in many ways, both large and small.

**We are committed to
making the world a better place.**



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