

## EC-Series Chassis Dynamometers

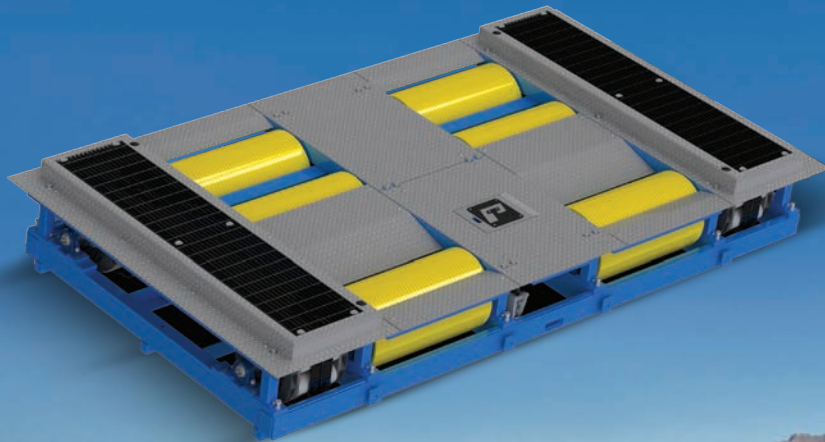
[www.pwrtst.com](http://www.pwrtst.com)



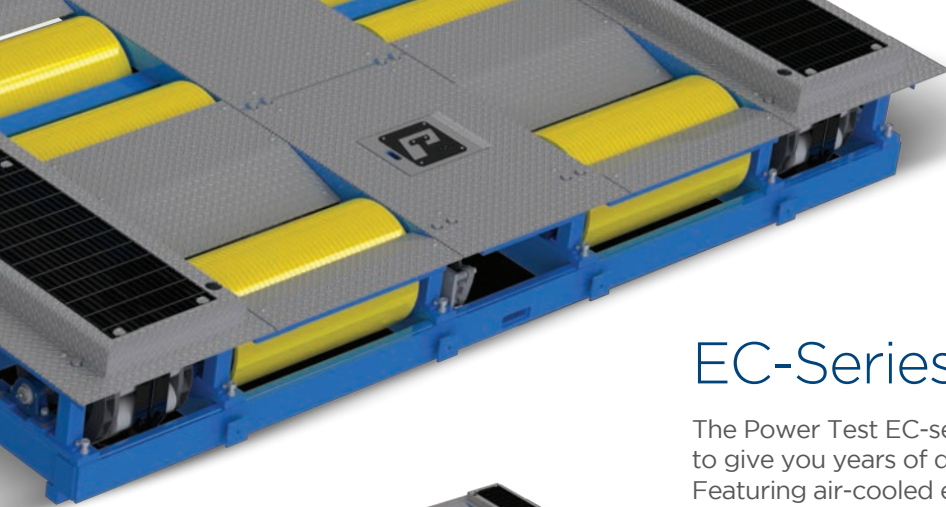
# We Make It Better

**Rugged Construction. Accurate, Repeatable Results. Builds New Business.**

- Identify new driveline problems leading to additional shop work
- Verify shop repairs are done right the first time to minimize “come-backs”
- Simulate real-world load conditions and varying terrain
- Troubleshoot inside cab with DDDL, Cat ET, Cummins INSITE™ and other systems
- Eliminate liability and time of road testing
- Document test results and generate performance graphs
- Conduct controlled break-ins after engine rebuild
- Determine trade-in value and upsell extended warranties with confidence
- Retrofits economically into most existing dyno pits







# EC-Series Dynamometers

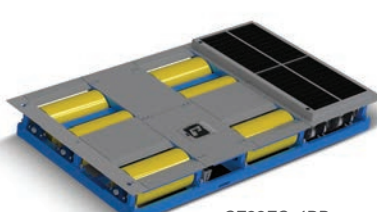
The Power Test EC-series of chassis dynamometers is built tough to give you years of dependable results and increased business. Featuring air-cooled eddy current load absorbers, the EC-series is designed to provide a heavy duty, cost effective dynamometer solution without reliance on water or a cooling system.

In addition to air-cooled load absorbers, the EC-Series features a precision ground, heavy duty steel frame, dynamically balanced rollers with proprietary siped traction grooves and Power Test's PowerNet CD computerized data acquisition and control system. The EC-Series chassis dynamometers are available with the absorbers on all four corners or in four left or four right configurations.

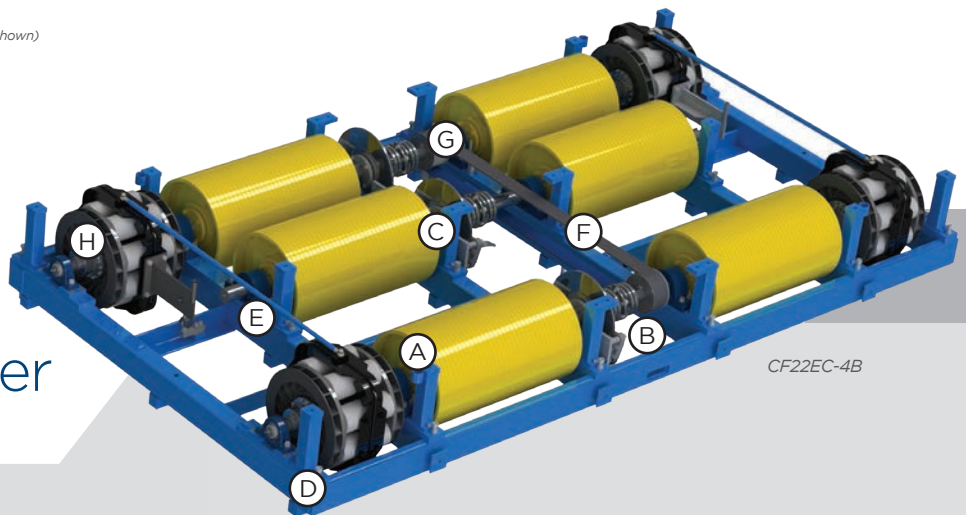
The EC-Series has been designed to fit into most existing chassis pits with minimal or no modifications necessary. The need for cooling towers, pumps and water treatment is eliminated by using eddy current load absorbers.



CF22EC-4B



CF22EC-4RB  
CF22EC-4LB (not shown)



CF22EC-4B

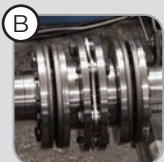
## Features That Matter

It's what's under the cover that counts.



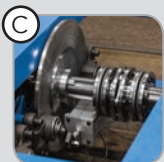
### A 20" Concentric Welded Rolls

Thick walled rolls that are precision machined, stronger and dynamically balanced.



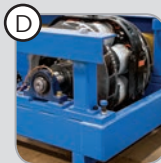
### B Steel Flex Disc Couplings

No backlash, no maintenance with easy serviceability.



### C Roll Brakes

Pneumatic disc brakes which require less maintenance.



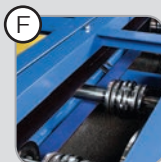
### D Unitized Box Tube Frame

Rigid, welded, corrosion resistant frame that is stress-relieved and precision ground - no floor shims needed.



### E Four bolt Roller bearings

Rigid and long lasting.



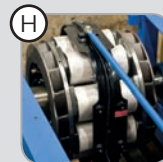
### F Belt Driven Design

Higher HP capacity, no gearbox, less maintenance and long belt life.



### G Taper Lock Hub

Allows easy roll shaft disassembly and inexpensive replacement.



### H Electric Eddy Current Absorber

Eliminates the installation cost, repairs and maintenance of a water system. Only requires a 220 VAC/40 Amp electrical circuit.



### Lubrication

Easy access single point lubrication manifold. (not shown in above diagram because located on top frame)

# Testing Controls & Data Acquisition

**PowerNet CD - The Future of In-Frame Testing**  
 The PowerNet CD data acquisition and control system is designed to take chassis dynamometer testing to the next level. PowerNet CD utilizes a networked computer system to provide automated, repeatable vehicle tests - all controlled from a rugged wireless hand held device operated from the driver's seat! With the PowerNet CD data acquisition and control system, vehicle and work order information can be entered, then the desired tests can be recalled and run. For diagnostic purposes, engine-specific software service tools may also be connected to perform cylinder cutouts, reset cruise limits and perform other engine tests.

## Standard ECM Interface

When connected to the system, electronically controlled engines can transmit valuable engine data, which is automatically merged with dynamometer information to be viewed, stored, reported and graphed. All of this information can be seen on the wireless hand held controller.

## The Wireless Hand Held Controller

Power Test's wireless hand held controller provides the ultimate in behind the wheel instrumentation and control. The touch screen interface device is all that



is needed to perform the tests. From behind the wheel, the operator selects a test pattern to be run, engages the throttle, and literally watches the vehicle automatically run through the steps of a repeatable test.

**Detailed Information Reporting with PowerNet CD**  
 PowerNet CD provides colorful screen captures, easy-to-read performance reports, and graphical charts. Now results obtained during a vehicle test, combined with vehicle specific information, can be confidently presented as a final confirmation of quality assurance - all with just a few clicks of the mouse.

## Flexible Testing Modes

### Setpoint Operation

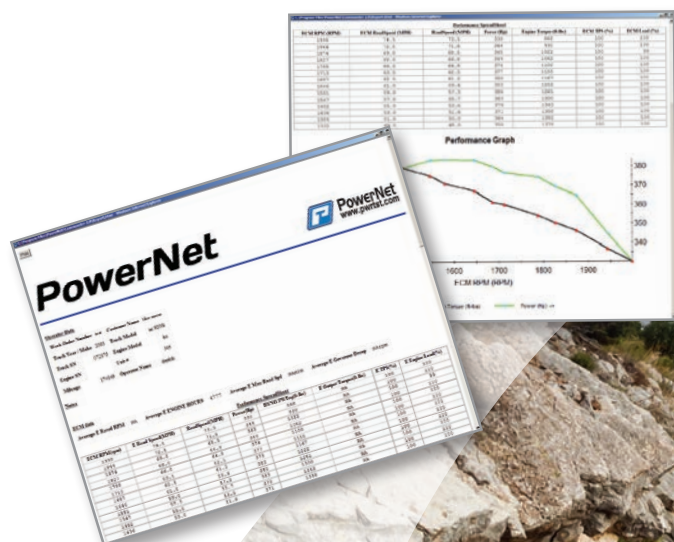
- allows the operator to enter a specific value for speed or horsepower on the hand held controller.
- Dyno load is automatically adjusted and maintained until the next value is entered.
- Increase or decrease these values incrementally or by entering the next numeric value.

### Pattern Run Mode

- Allows the operator to run a desired test cycle created with PowerNet and begins by a touch of a button on the hand held controller.
- Created on the Commander PC by selecting setpoints, the mode of operation, and entering the length of time each point is run, a pattern is constructed and it can easily be recalled and run from the hand held controller.

### Manual Operation

- Allows the operator to have complete control over the chassis dynamometer's applied load.
- The operator decides how much horsepower or speed should be reached by the engine and the duration of each test.

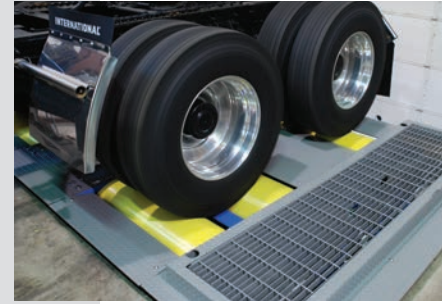




# Chassis Dynamometer Specifications

<b>Horsepower**</b>	<b>CF22EC-4</b>	
	622 HP	45 mph
	720 HP	60 mph
	800 HP	90 mph
<b>Absorber</b>	• Air-cooled eddy current load absorbers	
<b>Controls</b>	• PowerNet CD data acquisition and control system • Ethernet-based communications between included • Windows®-based PC and dynamometer controller • Wireless hand held controller	
<b>Roll Specs</b>	• 20" diameter, precision balanced rolls • Proprietary siped traction grooves • 24" roll spacing • 36" inner track width • 108" outer track width	
<b>Wheelbase</b>	• 45"-60" accommodation	
<b>Maximum Speed</b>	• 90 mph (145 kph) continuous • 120 mph (185 kph) intermittent	
<b>Axle Weight</b>	• 30,000 lbs. (13,636 kg) maximum per axle	
<b>Frame</b>	• Precision ground, heavy duty structural steel • Above ground installation kit available	
<b>Power</b>	• 120 VAC single phase, 60 Hz, 15 Amps (controller) • 230 VAC single phase, 60 Hz, 40 Amps (CF22EC-4)	

*All specifications subject to change*



## Accessory Options

Power Test manufactures a complete line of chassis dynamometer accessories to fit your specific testing needs. Some of those accessories include exhaust hood, above grade installation kit, pressure and temperature sensor kits, fuel measurement system and smoke opacity meter.

## Designed To Meet Your Needs

Power Test has the knowledge and experience to design and manufacture custom chassis dynamometers to meet your specific needs. Many options are available including roll size, number of axles, weight capacity, power absorption, and the PowerNet CD control system.



# We Make It Better

## 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 nearly 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 80 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 is still in active use today!



**Power Test Incorporated**

N60 W22700 Silver Spring Drive • Sussex, WI 53089 USA  
262-252-4301 • [www.pwrtst.com](http://www.pwrtst.com) • [info@pwrtst.com](mailto:info@pwrtst.com)