

CF21M Single Axle Transit Chassis Dynamometer

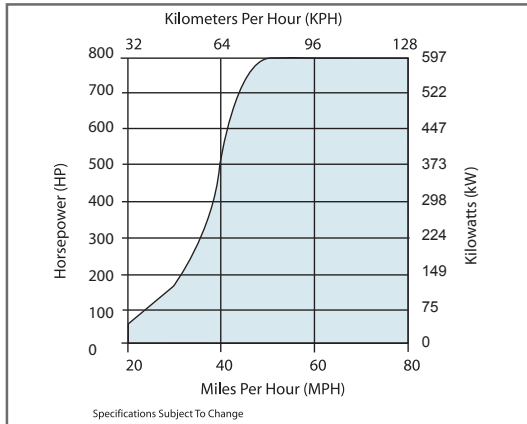


Motorized Chassis Dynamometers
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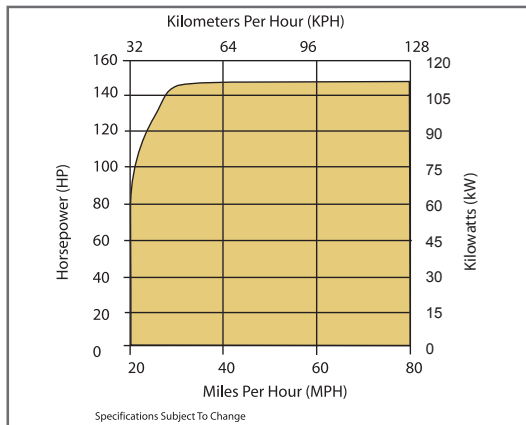


CF42 Chassis Dynamometers

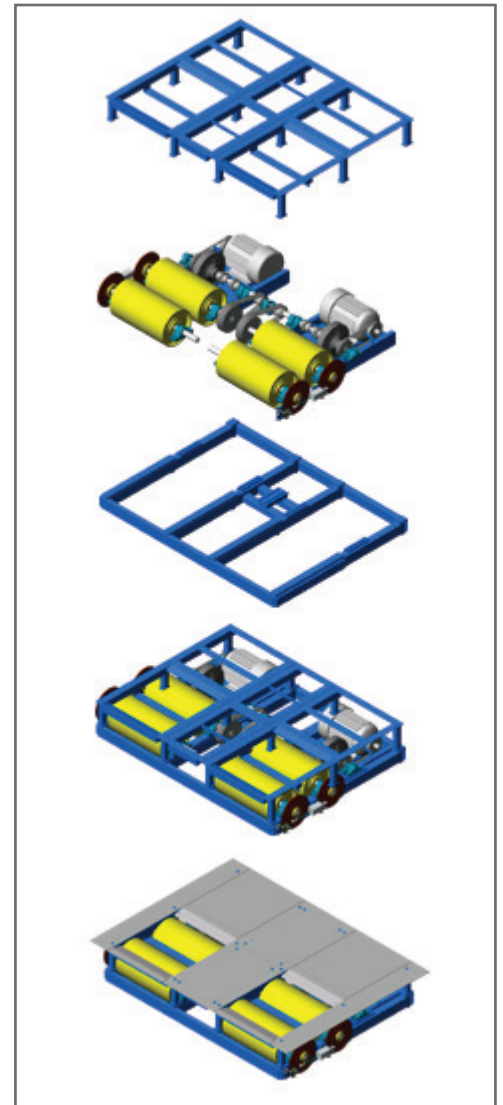
Power Test is proud to present our exclusive motorized chassis dynamometer system. Featuring large rollers, heavy construction, and state-of-the-art PC-based data acquisition and control, this system provides the ultimate in reliability. Independent left and right load absorption and roller motoring allows one machine to perform repeatable engine, transmission, drivetrain, brake testing, and alignment verification. When interfaced with the diagnostic connection of electronically controlled engines, valuable engine data and dynamometer test results are combined into an easy-to-read and easy-to-understand report.



Absorption Curve



Motoring Power Curve



CF21M Dynamometer

Only From Power Test

Power Test's exclusive motorized chassis dynamometer takes the place of several machines previously required to perform the same tests. Our system can perform more tests using less floor space and less time than ever before.

Absorbing Mode

- Transmission Up Shift
- Flywheel Torque
- Speedometer Tests
- Transmission Down Shift
- Vibration Tests
- Cooling System Performance
- Wheel Horsepower
- Noise Tests
- Fuel Efficiency Tests

Motoring Mode

Steer Axle

- Rolling Resistance/Balance
- Brake Force/Balance
- Brake Fade
- Brake Conditioning
- Tire Vibration
- Speedometer Tests
- Alignment Verification

Non-Powered Axle

- Rolling Resistance/Balance
- Brake Force/Balance
- Brake Fade
- Brake Conditioning
- Tire Vibration
- Speedometer Tests
- Alignment Verification

Drive Axle

- Rolling Resistance/Balance
- Brake Force/Balance
- Brake Fade
- Brake Conditioning
- Tire Vibration
- Speedometer Tests
- Drive Train Parasitic Loss
- Brake Saver/Retarder

A New Standard For Brake Bias Testing

Completely independent motoring units allow our motorized chassis dynamometer to measure, in terms of horsepower and torque, brake bias and parasitic drag at each wheel. Additionally, intelligent motor controls provide for precise brake testing at virtually any speed.

Chassis Dynamometer Specifications

Controls	<ul style="list-style-type: none">• PowerNet CD data acquisition and control system.• Ethernet-based communications included.• Windows®-based PC and dynamometer controller.• Wireless hand held controller.
Roll Specs	<ul style="list-style-type: none">• 20" (508 mm) diameter.• Proprietary siped traction grooves.• 24" roll spacing.• 36" inner track width.• 108" outer track width.
Wheelbase	<ul style="list-style-type: none">• 48"-78" (1219-1981 mm) accommodation.
Maximum Speed	<ul style="list-style-type: none">• 80 mph (128 kph) Single axle.
Max. Power Absorption	<ul style="list-style-type: none">• 800 hp (596 kW) Single axle.
Max. Motorized Power	<ul style="list-style-type: none">• 150 hp (111 kW) @ 30-80 mph (48-128 kph) Single axle.
Axle Weight	<ul style="list-style-type: none">• 32,000 lbs. (14,515 kg) maximum per axle.
Frame	<ul style="list-style-type: none">• Precision ground, heavy duty structural steel.

All specifications subject to change

Chassis Dynamometer Features

- Thick walled rollers that are precision machined, stronger and dynamically balanced.
- Easily accessible single point lubrication manifold simplifies maintenance and requires no tools.
- Available in Single, Tandem and Multi-Axle configurations.
- Pneumatic disc brakes which require less maintenance.

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, 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.



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



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.

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.

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.



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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