



Actual products may differ
from images shown



Water Brake Absorbers

Designed for high rpm and
maximum durability



Built To Last

Featuring industrial grade, heavy-
duty base frames

SF-Powermark

Engine Dynamometer

- Sensor Box**
 The sensor box mounts to the boom where it is kept safely away from engine vibrations and heat
- Cooling Tower**
 Thermostatically controlled engine cooling tower to maintain constant temperatures for continuous testing capabilities and increased repeatability
- Absorber**
 Castings are made from nickel bronze alloy; the main shaft is 2 in (50.8 mm) diameter stainless steel for maximum durability and long life
- Load Cell**
 Load cell is temperature compensated for increased accuracy and repeatability
- Base Frame**
 Industrial grade, heavy-duty base frame for extreme durability



- Integrated Boom**
 Routes water from the engine back to the cooling tower and keeps transducer cables organized
- Tool and Ignition Storage**
 Keep necessary items close at hand - front tray includes cut outs for spark plugs and lambda probes
- Dynamometer Drive Shaft & Guard**
 High speed dampened drive shaft with constant velocity (CV) joints.
- Docking Cart**
 Versatile engine docking cart for quick engine exchanges. Design is adaptable to various engine types and has a removal handle. Multiple engine carts can be purchased.

The SF-Powermark features a rugged and durable power absorption unit with a 2" diameter main shaft machined from solid stock 17-4PH stainless steel and it's the only absorber available with cross vented rotors for smooth and fast water flow. Integrated starters are built into the system so a bell housing or engine mounted starter is not required. A torsionally compliant driveshaft connects the engine to the dyno enabling you to run right off the engines crank shaft while 4.5" constant velocity joints ensure smooth power transfer. The included roll around engine docking cart offers great versatility to adapt to various types of engines and its stainless steel runners mean easy adjustment of the engine supports without any rust. The top of the dyno serves as a tool tray to store your hand tools and a convenient area to mount ECMs and ignition systems. To keep the test cell organized, the integrated boom houses both the sensor box and cooling tower, plus it has cable stays to route transducer wires cleanly between the sensor box and the engine. The included non-pressurized cooling tower mounts to the boom assembly behind the dyno, out of the way. The new sensor box also mounts to the boom where it is kept safely away from engine vibrations and heat. WinDyn's pre-defined test sequences allow for standard tests at the push of a button so you're up and running immediately and the live trace feature lets you see live data as a trace over a saved reference plot.

Standard Configuration

- Temperature:**
 - (1) One - (16) Sixteen-channel thermocouple pane
 - (12) Twelve - Closed tip thermocouples, .125 in (.3175 cm)
 - (12) Twelve - Swagelock fittings
 - (12) Twelve - (10) Ten foot (3.048 m) extension cables
- Pressure:**
 - (1) One - (10) Ten-Channel pressure panel
 - (3) Three - Transducers included standard (-15 to 150 psi)
- Air / Fuel:**
 - (2) Two - Pre-configured analog inputs
- Fuel Flow:**
 - (2) Two - Fuel flow measurement turbines
- Air Flow:**
 - (1) One - Air flow measurement turbine

Specifications

- Absorber Type:** Water brake, bi-directional
- Maximum Speed:** 15,000 rpm
- Horsepower Capacity:** 2,500+ hp (1,864 kW)
- Torque Capacity:** 1,750+ lb-ft (2,373 Nm)

SF-902S

Engine Dynamometer



Sensor Box

Sensor box is boom mounted, keeping it out of the way but still within reach

Tool Tray

Keep necessary items close at hand

Cooling Tower

Thermostatically controlled engine cooling tower to maintain constant temperatures for continuous testing capabilities and increased repeatability

Power Absorber

New power absorber for increased RPM and durability

Fuel Flow Turbines

Measures fuel consumption and used in AFR, BSFC, and other calculated channels (Two fuel flow transducers included standard)

Integrated Boom

Routes water from the engine back to the cooling tower and keeps transducer cables organized

Hanger Plate

Heavy duty hanger plate includes Chevy bell housing pilot - other patterns available

Docking Cart

Versatile engine docking cart for quick engine exchanges. Design is adaptable to various engine types and has a removal handle (Multiple engine carts can be purchased)

The SF-902S houses a new absorber designed for high RPM and maximum durability. It's rated for 15,000 rpm, 1,500 hp and 1,200 lb-ft of torque. PTFE teflon water seals and high speed ABEC 7 bearings allow the new absorber to run at high RPM for extended testing periods without issue. The new stainless steel trunnion and backing plate provide a 75% increase in resistance to cavitations compared to similar aluminum bronze components. In addition to the new water seals, high speed bearings and stainless steel components the new absorber in the SF-902S includes a speed sensor for greatly improved low speed RPM measurement. The included rollaround engine docking cart offers great versatility to adapt to various types of engines and its stainless steel runners mean easy adjustment of the engine supports without any rust. The space saving dynamometer frame provides a convenient tool tray and two bump starters to make lashing valves easy. Adaptation to the engine is simple with the optional multi-fit bell housing or the adapter of your choice. To keep the test cell organized, the integrated boom assembly houses both the sensor box and cooling tower, plus it has cable stays to route transducer wires cleanly between the sensor box and the engine. The included non-pressurized cooling tower mounts to the boom assembly behind the dyno, out of the way. The sensor box also mounts to the boom where it is kept safely away from engine vibrations and heat. WinDyn's pre-defined test sequences allow for standard tests at the push of a button so you're up and running immediately and the live trace feature lets you see live data as a trace over a saved reference plot.

Standard Configuration

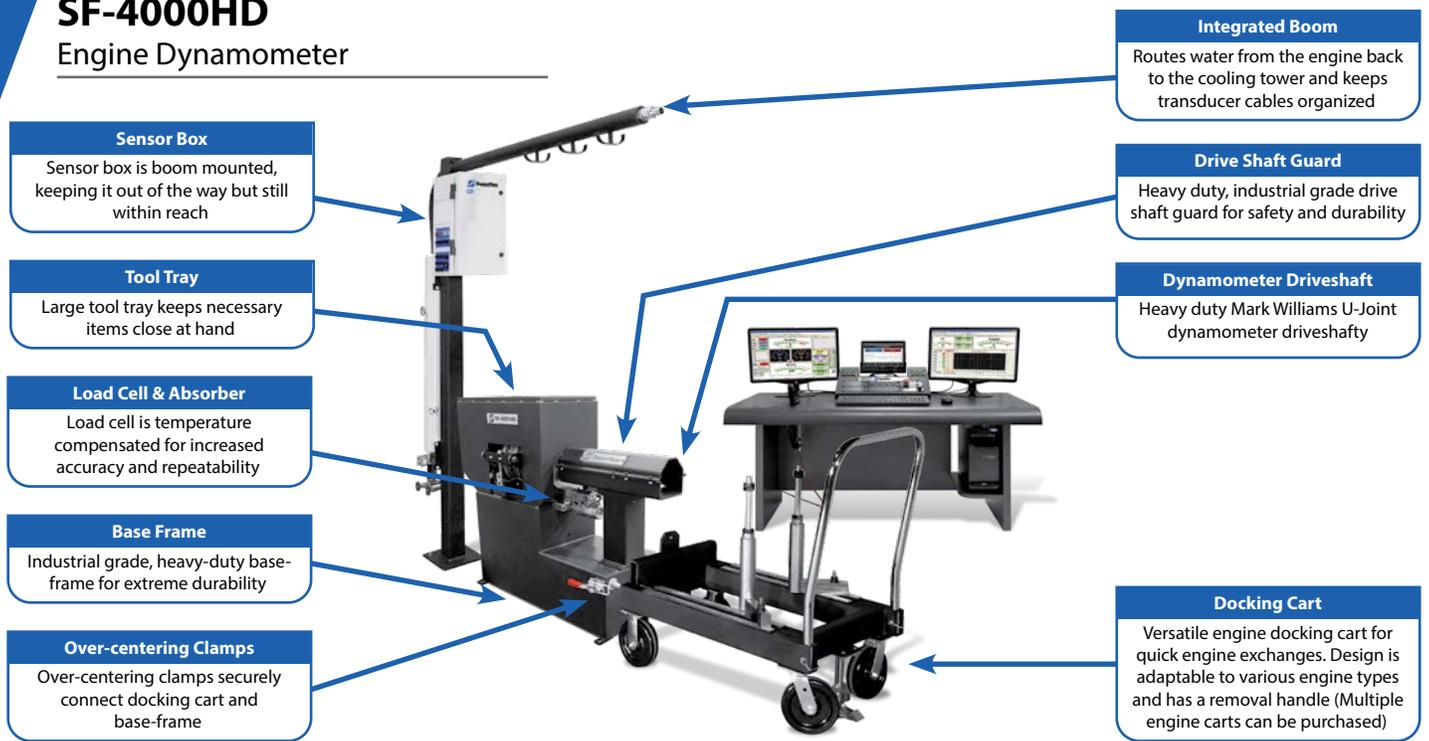
- **Temperature:**
 - (1) One - (16) Sixteen-channel thermocouple pane
 - (12) Twelve - Closed tip thermocouples, .125 in (.3175 cm)
 - (12) Twelve - Swagelock fittings
 - (12) Twelve - (10) Ten foot (3.048 m) extension cables
- **Pressure:**
 - (1) One - (10) Ten-Channel pressure panel
 - (3) Three - Transducers included standard (-15 to 150 psi)
- **Air / Fuel:**
 - (2) Two - Pre-configured analog inputs
- **Fuel Flow:**
 - (2) Two - Fuel flow measurement turbines
- **Air Flow:**
 - (1) One - Air flow measurement turbine

Specifications

- Absorber Type: Water brake
- Maximum Speed: 15,000 rpm
- Horsepower Capacity: 1,500+ hp (1,119 kW)
- Torque Capacity: 1,200+ lb-ft (1,627 Nm)

SF-4000HD

Engine Dynamometer



Prove it with the SF-4000HD, SuperFlow's first 4000 hp engine dynamometer. We've listened to our customers who have asked repeatedly over the years for a test stand that could compete with the rising horsepower of today's engines. Through advanced in-house engineering, design, fabrication, and production, SuperFlow has delivered the industry's first complete testing solutions for high horsepower engines.

The SF-4000HD dynamometer system has been developed for customers that require an affordable solution for testing high speed diesel, gasoline, and alternative fuel engines. With a new stronger dyno shaft (w/splined coupler), a rigid, robust frame design, and a water brake based on the legendary Stuska design, SF-4000HD provides reliable testing for 4000 hp engines at speeds up to 12,000 rpm. The larger pump and water circuits handle the increased water needed to load even the largest of power engines. Bigger bearings, new high RPM seals, easy access servicing, and plenty of other features helps this dyno set the standard for excellence in high horsepower testing.

Complete with WinDyn Data Acquisition & Control Software and utilizing a Stuska XS-211-HD water brake, the SF-4000HD makes testing easier than ever before. With one system, direct from one supplier, modernize your testing capabilities and completely transform your shop.

Where the other dynos begin to fail, the SF-4000HD is just getting started.

Standard Configuration

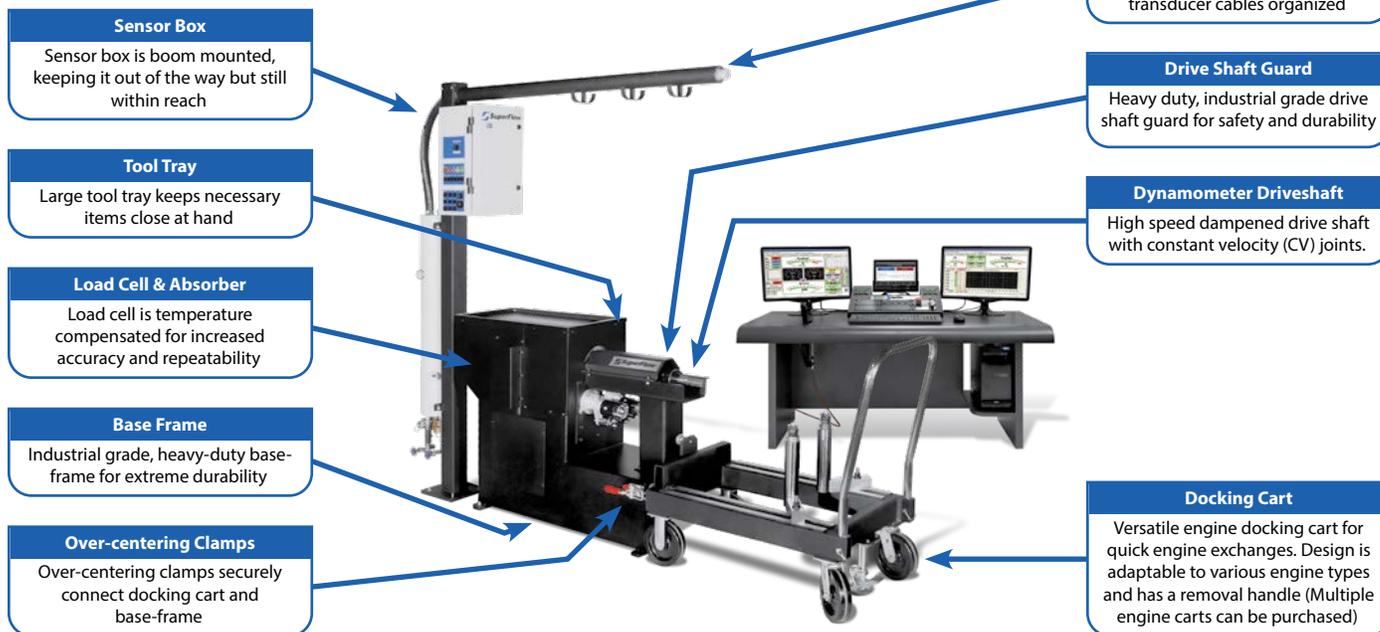
- **Temperature:**
 - (1) One - (16) Sixteen-channel thermocouple pane
 - (12) Twelve - Closed tip thermocouples, .125 in (.3175 cm)
 - (12) Twelve - Swagelock fittings
 - (12) Twelve - (10) Ten foot (3.048 m) extension cables
- **Pressure:**
 - (1) One - (10) Ten-Channel pressure panel
 - (3) Three - Transducers included standard (-15 to 150 psi)
- **Air / Fuel:**
 - (2) Two - Pre-configured analog inputs
- **Fuel Flow:**
 - (2) Two - Fuel flow measurement turbines
- **Air Flow:**
 - (1) One - Air flow measurement turbine

Specifications

- Absorber Type: Water brake
- Maximum Speed: 12,000 rpm
- Horsepower Capacity: 4,000+ hp (2,237 kW)
- Torque Capacity: 2,626+ lb-ft (3,560 Nm)

SF-3000BW

Engine Dynamometer



The SF-3000BW engine dyno from SuperFlow is a breakthrough in versatility and performance among water brake dynamometers. The improved design incorporates the industry leading SF-Powermark dyno base frame and engine cart making engine adaptation simple. With a maximum speed of 11,000 rpm, the SF-3000BW engine dyno handles anything from high-torque diesel and marine engines to high-revving, high powered Pro Mod drag engines. It is rated for 3,000 hp and 2,500 lb-ft of torque. Integrated starters are built into the system so a bell housing or engine mounted starter is not required. The torsionally compliant drive shaft connects the engine to the dyno enabling you to run right off the engine's crank shaft while 4.5" constant velocity joints ensure smooth power transfer.

The included roll around engine docking cart offers great versatility to adapt to various types of engines and its stainless steel runner means easy adjustment of engine supports without any rust. The cart is also compatible with both the SF-Powermark and SF-902S to allow maximum versatility. The top of the dyno serves as a tool tray to store your hand tools and a convenient area to mount ECMs and ignition systems. To keep the test cell neat, the integrated boom assembly houses both the sensor box and cooling tower, plus it has cable stays to route transducer wires cleanly between the sensor box and the engine. The included non-pressurized cooling tower mounts to the boom assembly behind the dyno, out of the way. The new sensor box also mounts to the boom where it is kept safely away from engine vibrations and heat. WinDyn's® pre-defined test sequences allow for standard tests at the push of a button so you're up and running immediately and the live trace feature lets you see live data as a trace over a saved reference plot.

Standard Configuration

- **Temperature:**
 - (1) One - (16) Sixteen-channel thermocouple pane
 - (12) Twelve - Closed tip thermocouples, .125 in (.3175 cm)
 - (12) Twelve - Swagelock fittings
 - (12) Twelve - (10) Ten foot (3.048 m) extension cables
- **Pressure:**
 - (1) One - (10) Ten-Channel pressure panel
 - (3) Three - Transducers included standard (-15 to 150 psi)
- **Air / Fuel:**
 - (2) Two - Pre-configured analog inputs
- **Fuel Flow:**
 - (2) Two - Fuel flow measurement turbines
- **Air Flow:**
 - (1) One - Air flow measurement turbine

Specifications

- Absorber Type: Water brake
- Maximum Speed: 11,000 rpm *intermittent
- Horsepower Capacity: 3,000+ hp (2,237 kW)
- Torque Capacity: 2,500+ lb-ft (3,390 Nm)

Standard Equipment



Control Console

In addition to the Sensor Box, Servo Valves and the WinDyn Software, the WinDyn control console system comes with two 22" LCD monitors, a 10" touch screen operator console to control your tests, engine and test cell, a throttle cable, and an operator table that seamlessly integrates each part of the system.



The Data You Need

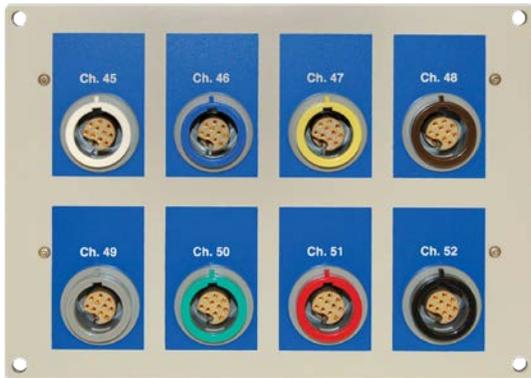
The SuperFlow Sensor Box is the brains of the dyno. It collects data at 1,000 - 2,500 Hz so you'll never miss a single detail. It also accommodates a wide range of sensors to monitor engine temperatures, pressures, air/fuel flows, ECM data, and comes with integrated weather station for automatic power corrections

WinDyn

SuperFlow's WinDyn Software is the most feature-rich system available for dynamometers today. We've included all the tools you need to make a SuperFlow dynamometer a successful piece of your business. WinDyn is preconfigured with industry standard tests to get you up and running quickly. But, we didn't stop there... We've also developed powerful configuration and test editors that offer you complete, customized control of the dynamometer, the test cell and the tests you're running. WinDyn's available 76 measured channels and 35 calculated channels let you measure and analyze data to make your products better. Our advanced electronics sample data at rates between 1,000 and 2,500 Hz depending on the channel and display it at 100 lines per second so you're sure to see the entire picture. The built-in data analysis tools let you see data in a way that makes sense, and like the rest of WinDyn, data analysis is completely user-configurable should you choose. WinDyn comes pre-configured with standardized tests to get you testing quickly. Pre-defined test groups automatically configure the dynamometer for standardized testing. Simply select the one that matches your current needs and you're ready to run.



Optional Equipment



Analog Panel

8 channel analog panel to integrate exhaust analyzers, lambda sensors and other devices with analog outputs. Select 0-1V, 0-5V, 0-10V, 0-20V or 0-30V



Air Fuel Kit

Air Fuel Meter Kits available in any channel count configuration. Bosch LSU 4.2, 4.9 and OEM grade NTK type sensors available.



Additional Docking Cart

Extra docking cart to save time between engine tests. Pre-stage one engine while another is being tested.



Fuel System

High performance fuel pump and two fuel regulators. Rated at 0-800 lb/hr.

Optional Equipment



Sensor Expansion Panels

The modular sensor box allows for additional 10-channel pressure panels (shown) and additional 16-channel temperature panels. Extra transducers are sold separately. Additional panels available to meet your testing needs, options for pressure and temperature testing.



Blow-By Sensor

Measures the volumetric flow of crankcase blow-by. Two sizes available: 0.4 to 16 ACFM and .25 to 10 ACFM. Select either analog or frequency output.



Throttle Actuator

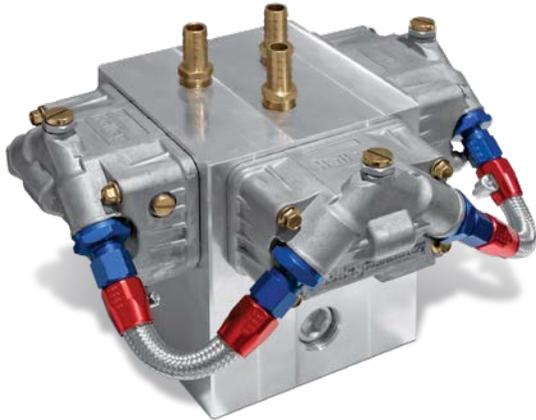
Rotary electric throttle control provides automated testing from computer. Morse cable options also available.



Pressurized Cooling Tower

CT-700 Pressurized Cooling tower integrates seamlessly with boom assembly. Standard temperature range from 160° F to 230° F. Rated for continuous duty testing up to 700 HP (522 kW).

Optional Equipment



Fuel Canister

Designed to measure fuel consumption of fuel injected engines. Mid flow unit available in 20 – 720 lb./hr. High flow unit available in 30 -1070 lb./hr. Available for gas and alcohol.



Engine Adapter

Multi-fit adapter packages for both the SF-902S and SF-Powermark. Multi-fit Bell Housing pictured for SF-902S. Universal Engine Mounting Kit available for SF-Powermark.



Superstart

Starter option for the SF-902S includes 8" spacer box and 2 high torque starters.

SF-832 Chassis Dynamometer

The SF-832 is the most versatile performance chassis dynamometer on the market with the ability to test a variety of automobile, light truck, ATV and UTV applications up to 2,500 horsepower (traction limited) at speeds up to 225 mph (362 kph). Its innovative design and small footprint save valuable shop space. The SF-832's standard center-mounted power absorber allows the operator to perform loaded, steady state, step, track road load simulation, drive cycles and controlled or inertia only acceleration tests. Upgradeable to AWD or adding a second power absorber for higher loads or extended testing.



SF-750 Flowbench

The new standard in air flow testing. Based on the legendary SF-600 design but now standard with our FlowCom™ digital airflow measurement and motor control system offering precise, easy-to-read, accurate, repeatable results and faster testing capabilities.



Superflow® The Industry Standard

SuperFlow® is a global engineering leader specializing in test and remanufacturing equipment for vehicle drivelines. Since 1972, SuperFlow® has been designing and manufacturing industry leading flowbenches, engine dynamometers, chassis dynamometers and advanced Windows® based data acquisition systems. Our products are used daily by performance engine builders, engine and transmission remanufacturers, the U.S. Military and allies worldwide, technical schools, race teams, speed shops, universities, and leading automotive manufacturers to produce powerful and efficient vehicles.

Today, with more than 10,000 products in the field, SuperFlow® is the most experienced manufacturer in the industry offering the most complete selection of test equipment. SuperFlow's® four major brands, Axiline®, Hicklin® Engineering, SuperFlow® and TCRS®, test or rebuild every component of the drive train from the engine and transmission to the torque converter, drive shaft and axles. Our commitment to providing the best products and service at a great value has given us the opportunity to work with some of the most notable companies in the automotive industry. Experience why thousands have trusted SuperFlow® for all of their testing needs.





SuperFlow is part of Power Test, LLC, an industry leader in the design, manufacture and sales of dynamometers, specialized test systems, and related data acquisition and control systems. Power Test, LLC, offers a portfolio of brands that have long been the standard bearer for quality in the testing industry. As your equipment testing partner for innovative products and comprehensive lifecycle services and support, we are dedicated to delivering an exceptional experience by offering specialized solutions to Make Your Testing Easy.

TEST WITH THE BEST™

Chassis Dynos

Flowbenches

DriveShaft Rebuilding Equipment

Engine Dynos

Solenoid Testers

Torque Converter Rebuilding Systems

Transmission Dynos

Valve Body Testers

Transmission Testers