

DYNO mite™ Engine Dynamometer



Wall console is detachable from mobile engine stand (above) for remote operation from your control room.

Mobile Test Stand Dynos include: tube-steel engine frame (with quick-adjust mounts, heavy-duty locking casters, and engine leveling jack), 13" toroidal-flow water-brake absorber, load control, DYNomite data-acquisition computer, full-bridge electronic torque arm transducer, wall (or stand) mounted console, bell-housing adapter plate, input shaft, calibration arm, stainless-braided hoses, engine-temperature thermistor, and full-function data wiring harness.



Wall console mounted directly to Mobile Engine Stand.

Test over 800 Hp* capacity with our standard 13" toroidal-flow water-brake absorber, or 2,000+ with Siamese-rotor version. Loads most high performance engines at any throttle setting or RPM you will need to test at – indefinitely! (Requires minimum of 5 gpm @ 30+ psi for every 100 continuous Hp. Many other water brake, AC, or eddy-current absorber combinations are available to test from 1 to over 10,000 Hp.)



Heat-treated input shaft couples the mobile stand's absorber to your engine's 1-3/8" x 10 splined clutch disk (or optional heavy-duty dampened engine drive plate). Docking station versions use a telescoping driveshaft.

Absorber to bell-housing adapter plate fits popular GM and Ford bell-housing patterns to the mobile engine stand. Its unique design transmits no torque back through the frame. Can be field adapted to other applications. Docking station

Optional 3,000 Hp toroidal-flow absorber responds twice as quickly as ordinary vane-type brakes.



DYNO mite™ Engine Dynamometer

DYNOmite data-acquisition computer automatically records true Hp, torque, RPM, elapsed time, etc. at up to 1,000 readings per second (that is per channel, not just a total). It can even apply inertia compensation and SAE correction factors for air temperature, barometric pressure, and relative humidity. Test results display on either a built-in DYNOmite LCD or optional DYNO-MAX™-equipped PC. Either configuration can output reports to your compatible printer

Patented torque arm technology features environmentally sealed strain-gauge-equipped torque transducer (temperature compensated) which measures true shaft torque and Hp. Pushbutton, semi-automatic zero-offset calibration is standard.

Advanced features include: Smart Record™, data dampening, spike filtering, playback data averaging, atmospheric correction, auto-zeroing, instant playback, and integral rev-limiter.



DYNO-MAX™ software option creates a full engine dynamometer lab on your Windows PC. Features include: real-time trace graph display, adjustable voice/color limit warnings, pushbutton controls, plus user configurable analog and digital gauge ranges. Publication-quality color graphs and detailed reports are available for printing or even importing into other programs. With appropriate automated electronic loading and throttle control hardware options, operators can easily execute complex race simulations and engine test cycles.

“Pro” Console upgrade adds a Dell™ with Intel® processor PC and 17" high-resolution LCD monitor. It is optimized for DYNO-MAX's real-time color graphics

Develop more powerful engines by pinpointing exact RPM locations of horsepower loss or gain. Evaluate components, tuning changes, engine durability, etc.

Know what works versus what should stay on the shelf. For the first time you can map a fuel-injection or spark-curve map without endless test track time. Perform standardized break-in, endurance tests, or run complex engine simulations from idle to full throttle – without any tedious programming.



“Pro” systems include this console upgrade with Dell™ PC and 17-inch LCD.



Increase profits selling dyno services and improve customer satisfaction by diagnosing tough problems quickly. Uncovering marginal electrical and fuel system malfunctions or tweaking the correct settings is no longer trial and error. The value of dyno testing is well accepted and significant horsepower gains are common during tuning sessions, so customers willingly pay for dynoing. and improve customer satisfaction by diagnosing tough problems quickly. Uncovering marginal electrical and fuel system malfunctions or tweaking the correct settings is no longer trial and error. The value of dyno testing is well accepted and significant horsepower gains are common during tuning sessions, so customers willingly pay for dynoing.



Here is a look, through the sound-proof safety glass, into one of Land & Sea's several engine dynamometer test and training cells.

Simplified installation is just one benefit of the mobile engine-stand's design. With a few options, you can even roll your unit outside for testing – no expensive dyno cell or ventilation system required. However, as your business expands, you are ready to step up to a full-blown docking station test cell (above) and multiple engine carts – without squandering your original investment.

Easy test set-ups by mechanics and machinists with no dyno experience. Get quick horsepower plots of the engine's entire torque vs. RPM curve. No prior experience with computers is needed. It can take less than an hour to install, test, and output report data with the DYNOmite. Just fasten the mobile stand's absorber/adaptor plate assembly to your engine's clutch bell housing and bolt everything onto the stand's adjustable mounts (or drop an engine onto a docking station cart and roll it into the cell), hook up the wiring and hoses, and test.

Automated load control using an optional electronic auto-load servo (high or ultra-flow) kit to replace the standard manual-load control. You just push buttons to set a test RPM or sweep rate and the DYNOmite's advanced PID algorithms run the whole test. The dynamometer computer logs all the data automatically, so you do not have to run the engine to death just getting a simple test curve. You can even add an electronic throttle control to further automate many of DYNO-MAX "Pro's" built-in tests or to maximize the capabilities of any simulations that you create. (Electronic auto-load control is standard on all our "Pro" water-brake, eddy-current, or AC-absorber dynamometer systems.)

Affordable upgrades including: spare rolling engine stands (or docking carts), cushioned drive plates (or telescoping driveshafts), sprint-car engine adapters, thermostatically controlled cooling tower, on-board fuel systems and starters, stainless-steel engine-stand drip tray, fuel-flow and airflow turbines, weather station, EGT (exhaust-gas temperature) thermocouple kits, AFR (air/fuel ratio) monitors, air and liquid pressure transducers, RTDs, thermistors, knock sensors, integrated five-gas exhaust analyzers, precision crankshaft-degree position encoders, high-speed cylinder-pressure mapping systems, and both servo-load and throttle-control options.

