

MegaForce II Automatically Controlled Hydraulic Power Unit operating to 10,000 psi

"for materials testing machines and hydraulic presses requiring automatic control of load or strain rate. . . . A low cost solution of unrivaled performance."



MegaForce II-10K with ADMET's Gauge Buster Indicator.

MegaForce II consists of an electronically controlled hydraulic pump and fast return dump valve capable of controlling the rate of loading of single acting pistons to 10,000 psi. Precise closed-loop load or strain rate control is obtained when used with an ADMET Indicator. The ADMET **MegaForce II**/Indicator combination is simple to learn, easy-to-use and rugged. Its simple but elegant design results in a low-cost system of unrivaled performance.

MegaForce II is for both new machines or retrofitting existing testing machines. Retrofits are as simple as replacing the existing pumping system and valve with **MegaForce II** then controlling it with one of ADMET's controllers. Several versions of **MegaForce II** are available. Each designed to your flow and force requirements.

Applications:

- Measuring the compressive strength of concrete cylinders and cement cubes according to ASTM C39 and C109, respectively.
- Measuring the flexural strength of concrete beams according to ASTM C78.
- Tension, compression and flexural testing under load or strain rate control.

Benefits:

- Reduces testing times.
- Ensures consistency in testing by accurately controlling the rate of loading.
- Eliminates operator error.
- Simple to install and costs thousands less than a conventional hydraulic servo system.



A compression testing machine configured for cement cube testing outfitted with MegaForce II-10K and ADMET's Gauge Buster Indicator.

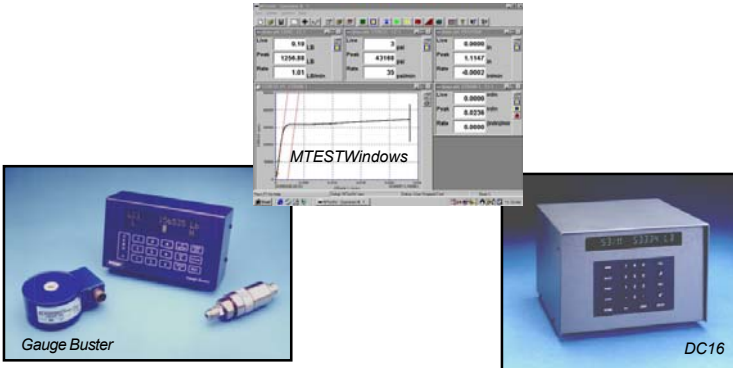


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For a Total Solution to all of your Materials Testing Needs

Precise Control, Reliable Results

MegaForce II provides accurate repeatable testing which is difficult to achieve with manually operated machines. It reduces test times with a user programmable fast preload, plus the ability to precisely control the rate of loading to failure, followed by a fast return to start. A simple press of the start test button allows an operator to conduct the full test from fast preload through sample break without having to intervene in the test or write down the results. Results can be read from the indicator display and/or automatically transmitted to a remote computer for import into a spreadsheet or database program.



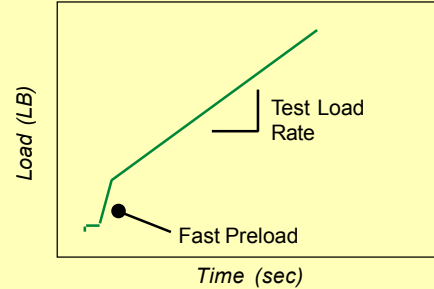
All **MegaForce II** systems can be operated with ADMET's MTESTWindows Materials Testing System as well as with the DC16 or Gauge Buster Indicators.

Retrofits

Mechanically, most manually operated hydraulic universal testing machines will never wear out because they are over designed. These machines feature a single acting piston and as such can be retrofitted with **MegaForce II** and one of ADMET's controllers. The cost of **MegaForce II** retrofit is 50-70% less than the cost of a conventional servo-hydraulic retrofit.



60,000 lb capacity Baldwin Universal Testing Machine retrofitted with MegaForce II and ADMET's MTESTWindows Materials Testing System.



Typical Control Profile - Press the green start button and **MegaForce II** begins controlling at the **Preload Rate** until the **Preload Amount** is reached. At the **Preload Amount**, **MegaForce II** automatically switches to the **Test Rate** until failure. The **Preload Rate**, **Preload Amount** and **Test Rate** are specified by the operator and can be password protected so they cannot be changed.

Why You Should Switch to a MegaForce II Controlled Automatic Testing System

ASTM C39 Standard Test Method for the Compressive Strength of Concrete Cylinders specifies that loading rates must fall between 28-42 psi/sec. On average, the compressive strength of concrete cylinders tested at the high load rate limit will be 3% greater than cylinders tested at the low load rate limit. A 20% increase in compressive strength of high strength concrete is possible when loading rates exceed C39 limits. Manually operated testing machines are capable of loading rates much greater than 50 psi/sec. Many testing laboratories or machine operators are paid by the number of cylinders tested; creating incentive to test each cylinder as fast as possible. Hence, the high probability that ASTM C39 loading rates will be exceeded. The ADMET system precisely controls the load rate while freeing the operator to perform other tasks since the test progresses automatically, without operator interaction.

Specifications

Model: **MegaForce II-10K**

Features a two stage pump that delivers up to 200 in³/min at pressures below 200 psi and 23 in³/min at pressures to 10,000 psi.

Pressure Control Range: 40-10,000 psi
 Reservoir: 2 gallon standard (larger sizes are optional)
 Connection Port: 3/8" Female NPT
 Power: 110/220 VAC Single Phase for 1 hp Motor
 Size: 8"W x 12"Dp x 22"H

Model: **MegaForce II - LowP**

Systems that operate to pressures less than 5,000 psi are available and are designed to meet your exact specifications. Contact an ADMET sales engineer for a quotation.