



# HUMBOLDT

## HCM-2500 Series Concrete Compression Machine

### HCM-2500 Series

- Perfect machine for labs, contractors and even mobile labs
- Accuracy of  $\pm 0.5\%$  of indicated load from 2,500–250,000 lbs. (11–1,112 kN)
- Choice of 3 digital load-indicating systems
- Quiet-running, continuous-duty hydraulic pump
- Supplied with platen set for 6" (150 mm) cylinders using unbonded or sulfur-capping method

The CM-2500 has all the features you look for in a basic compression testing machine: accuracy, compactness, portability, versatility, and dependability.

The load frame features a wrap-around box construction with each corner fully welded on both the inside and outside crosshead seams, providing the rugged stability needed for accurate and repeatable test results year after year.

The load frame is also protected with a unique baked-on, powder-coated painting process for a durable, long-lasting finish that keeps it looking good for years to come. The machine's eye-level digital indicator, loading-control valve, and hydraulic pump are positioned on the right side of the load frame for easy access, increasing productivity, and safer operation. Featuring superior rate-of-load control, its unique quiet-running, continuous-duty hydraulic pump and pressure-compensated loading-control valve are manufactured to ISO 9001 international quality standards. Exceeds ASTM C39, E4 and AASHTO T22 specifications.

**Optional .75 hp motor available. Order optional stand HCM-0200, if desired.**



HCM-2500DIR machine with optional floor stand.



HCM-0135 Cylinder Loading Shelf is available for use with HCM-2500 Series machines.



Choose from three Digital Load Indicators.

All machines feature, quiet-running, continuous-duty hydraulic pumps



# HCM-2500 Series Compression Machine

## Specifications

<b>Maximum Compression Capacity</b>	250,000 lbs (1,112kN)
<b>Vertical Opening</b>	19.375 in. (492mm)
<b>Horizontal Opening</b>	9.25 in. (235mm)
<b>Piston Stroke</b>	2.5 in (63.5mm)
<b>Dimensions w/ Opt. Stand (W x D x H)</b>	27 x 17 x 56.312 in. (686 x 432 x 1430mm)
<b>Lower Platen Diameter</b>	33.2 sq in. (214 sq mm )
<b>Upper Platen Diameter</b>	6.5 in. (165mm)
<b>Pump</b>	.5 hp (.4kw)
<b>Oil Reserve Capacity</b>	2 gallon (7.6 liter)
<b>Electrical Configuration</b>	110V 60Hz 220V 60Hz 220V 50Hz
<b>Shipping Weight</b>	780 lbs (353kg)

## Digital Load Indicating Systems

The HCM-2500 is available preconfigured with one of three digital load indicating systems.

### DIR

The DIR digital is a basic, easy-to-use, budget-minded load indicator. The DIR model simultaneously displays both live load and rate of load in force units per second during a test and peak load automatically at the end of a test.

The DIR is one of the easiest-to-use digitals available, featuring automatic test reset — eliminating the need to zero between tests —and automatic peak-load display at the end of a test through the pre-set sample-break detector function. The digital's face is set on a 60° angle for easier reading of load values, and the display uses 3/8" (9.5 mm) characters protected by a nonglare, scratch-resistant window. Users can select from load-value engineering units of lbs., kN, kg, and N.

### iD – Intelligent Indicator

The iD digital indicator is the system of choice for testing programs where accuracy, ease of operation, test documentation and dependability are required.

Its user friendly setup menu displays all menu option listings simultaneously, allowing the operator to quickly access the required option, and simply press a key to activate it or enter a numeric value to set the test parameter. This display feature eliminates the time consuming method of scrolling through single line menu displays to find an option or set a function. Its sample type menu lists six common specimen types to select from; cylinder, cube, beam third point and center point, cylinder split in tension and cross-sectional area. Just select and set. Test results can be automatically stored for hard copy documentation.

## Accessories

Cylinders	HCM-2500	
6 x 12 in.	Platen Spacer	Supplied NR
4 x 8 in.	Platen Spacer	Supplied HCM-0612
3 x 6 in.	Platen Spacer	HCM-0023L HCM-0612
2 x 4 in.	Platen Spacer	HCM-0023L HCM-0615

Supplied: Item comes with machine,  
NR: Not required

Beams	HCM-2500
Flexural Attach.	HCM-0119

Cubes	HCM-2500	
6 in.	Set	HCM-0113
2 in.	Set	HCM-0112

Set includes platen and pedestal. Cube pedestal (11 in.) only: MP0022.

Blocks	HCM-2500	
Platen Assembly	HCM-0106	

Block set-ups on HCM-2500 do not meet ASTM Specifications

Split Cylinders	HCM-2500	
Splitter Attach.	HCM-0120	

Built for the harshest laboratory environments the indicator features a NEMA-4 stainless steel enclosure that is both moisture and dust proof, heavy duty tactile feel keys with stainless domes tested to over five million actuations, a restore calibration program where the indicator's original factory calibration data can be uploaded back into the indicator via an RS-232 communication port.

For test documentation the indicator can be set to automatically store test results to memory for downloading into a PC or printed by the indicator. Up to 500 tests can be stored to memory and printed in a spreadsheet format and lists the following information: Test date and time, sample ID number, sample type, specimen area and length, peak load and peak stress. Optional data includes average rate of load applied to a specimen during a test, cylinder correction factor to C-39, cylinder break type, cylinder cap type, sample age and weight, and operator ID number.

### LXI

The LXI Digital System is the system of choice for commercial and in-house testing laboratories where ease of operation, accuracy, and test documentation are required.

During a test it displays load, stress, rate of loading in load or stress units seconds or minutes, plus the type of specimen being tested and its size — all simultaneously on the indicator's four-line display. At the end of a test it automatically displays peak stress and load, and, if activated, the average rate of load applied to the specimen during the test, with an accuracy exceeding ASTM C39 and E4 requirements.

The LXI's user-friendly scroll-through test set-up menu allows the operator to select an option and enter a "yes/no" command to activate or a numeric value to set the test parameter field.

A pre-set menu lists seven common specimen types to select from: cylinder, cube, beam center, beam third point, and cross-sectional area, allowing you to select, display, and document test data.

All test information is easily read on the indicator's back-lit LCD display, which can show test data in any of the selectable engineering units, including lbs., kN, N, kg, psi, MPa, Kpa, kg/cm<sup>2</sup>, in, mm, cm, seconds, or minutes.



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