Testing Equipment for Construction Materials

HUMBOLDT

HM-5120A.3F
Marshall and TSR Loader

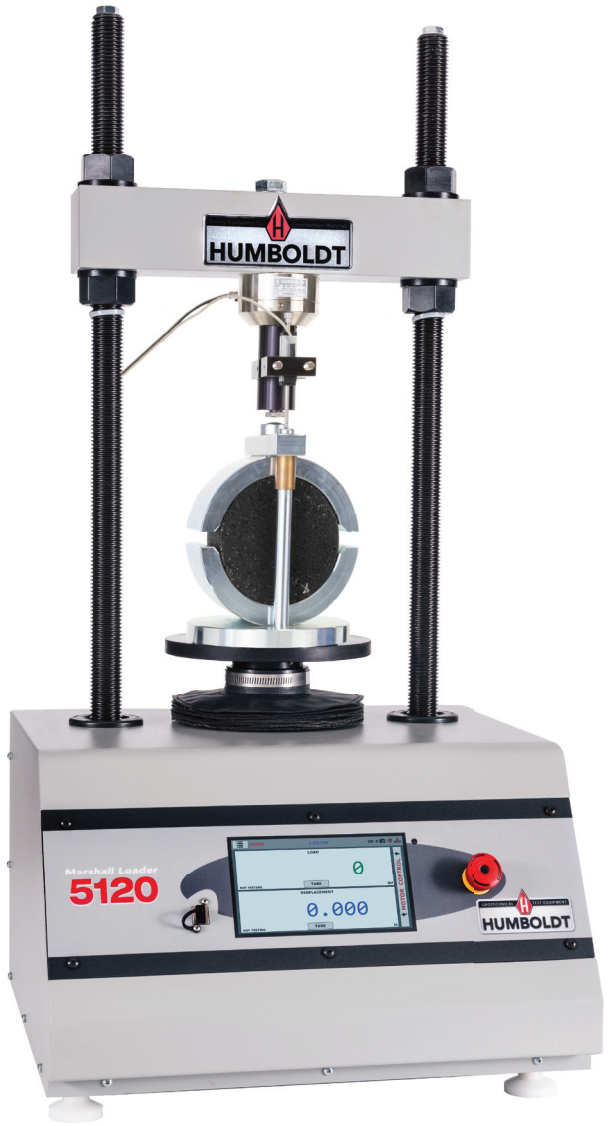
The HM-5120A Loader has been specifically designed to handle Marshall and TSR applications. Its heavy-duty design and precise stepper-motor control provide a stable platform for years of reliable service. From educational institutions and consulting firms to high-volume commercial labs and construction projects, the HM-5120A Loader can handle these applications with ease.

The HM-5120A is built around Humboldt's integral, data logger with touch-screen control, which allows the load frame to be used as a standalone device capable of full test control and data logging. It can also be controlled by a networked computer at any location with access to the network.

In stand-alone mode, the HM-5120A load frame provides a 7" (178mm) touch-screen controller. These new waterproof, touch screens provide colorful, at-a-glance monitoring of testing functions without the use of a computer. Operators can see all the data in several formats at the machine while the test is running. Data can then be transferred to a computer for use with Humboldt's Next Software for report generation.

This machine can also be controlled from a computer using Humboldt's NEXT software. This software provides robust machine control, data acquisition and report generation. Because the HM-5120A is connected to your network, your computer can be placed in the your lab, in the next room or at a different location. Adding the Marshal-specific Software Module allows you to better control your Marshall test by guiding you through the specific process.

The HM-5120A is sold as a Load Frame ONLY, refer to the recommended accessories charts for items needed to perform Marshall and TSR and SCB testing.



HM-5120A and HM-5170A Specifications	
Load capacity	11000 lbf (50kN)
Speed Setting	2"/min. (50.8mm/min.) [HM-5170A only for CBR 0.05 in/min (1.27 mm/min)]
Data channels	2
Platen Size / Travel	10" (254mm) / 4" (100mm)
Data storage	1000 tests and up to 3000 readings per test
Clearance, vertical	40" (1000mm)
Clearance, horiz.	15" (380mm)
Voltage	110/220V 50/60Hz. 5.0amps
Shipping Weight	300 lb (136kg)

Recommended Marshall and TSR Accessories

Typical Marshall Testing Setup

Description	Qty	Part #
Load Frame (choose one)	1	HM-5120A.3F HM-5170A.3F
Load Cell, Pancake 11,000 lbf (50kN)	1	HM-2300.100CP
Strain Transducer 1" (25mm)	1	HM-2305.10
Transducer Bracket	1	HM-5000BR
Marshall head, 4" Marshall head, 6" (choose one)	1	H-1349 H-1369
Marshall Software Module	1	HM-5005SW

Typical TSR Testing Setup

Description	Qty	Part #
Load Frame	1	HM-5120A.3F
Load Cell, Pancake 11,000 lbf (50kN)	1	HM-2300.100CP
Lottman head, 4" Lottman head, 6" (choose one)	1	H-1349 H-1369

Meets ASTM D8225, D5581, D6927, D6931; AASHTO T245, T283, BS 598 , EN 12697-34 and other applicable international standards

HM-5120A Marshall and TSR Loader

Stand-alone Control

Humboldt's touch-screen controller provides you with full, graphical monitoring of all testing functions in a stand-alone application, while maintaining full computer control when desired.

The seven-inch, waterproof screen provides at-a-glance monitoring of testing functions, in a real-time graphical display, without the use of a computer, building upon Humboldt's dedication to modular, stand-alone data acquisition.

In a stand-alone application, you will be able to run tests and display results while viewing tabulation, basic x-y graphs and instrument readings in real-time during the test, using user-defined, basic data acquisition. Test data is stored in the device and can be downloaded to a USB drive via the machine's FRONT USB port or the data can be transferred to a computer via the LAN port.

A second USB port located on the back of the machine can also be used to power a wireless access point, which can provide a wireless hook-up with a computer, if no LAN is available.

Touch-Screen Controller provides:

- 2-channel data acquisition
- Hi-res, 7," waterproof, touch-screen provides total control and real-time graphical display of tests
- Machine /Test control and data acquisition via touch-screen
- Calibration of channels to load cells, transducers and other suitable instruments
- Real-time graphical chart and numerical display of tests via touch-screen display
- Effective sampling rate of 50 readings per second
- Stores up to 1000 tests with 3000 points per test
- 2 USB ports. One in front for data transfer and the rear port is for powering a wireless access point.
- Automatic determination of specimen failure and correction for stability and flow values.

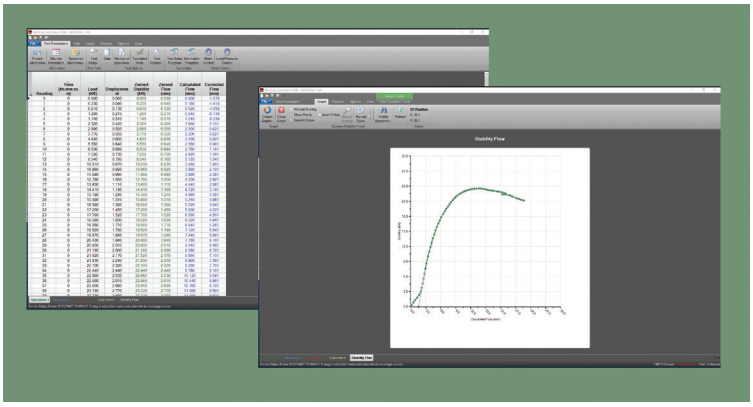
Computer Control

Humboldt's Next software is included with the HM-5120A load frame. This software provides robust machine control, data acquisition and report generation for those using a computer to control load frame operations.

Humboldt's NEXT software and the Marshall-specific module provide you with the following capabilities:

- Test-specific setup that guides you through the process, which includes selecting data collection parameters that best fit the specific test
- Input specific project information for each test, such as project name, client information, etc
- All test-specific initial, intermediate, and final parameters required by ASTM and BS standards are dynamically calculated for you, based on your input of specimen information, such as size, weight, etc
- Tabulated test data, graphs and all test-specific calculations are provided in real time, allowing you to monitor tests in process
- Generate test-specific reports that include all graphs and data presented in a project
- Create and store test-specific test setup templates for rapid setup of future tests
- Produce test-specific graphs, which allow you to draw construction lines to calculate angles and other test-specific parameters
- Automatically recover from a PC shutdown without loss of data
- All unit parameters can be adjusted individually
- Simultaneously run multiple tests on one computer, involving any of the available NEXT software modules and any compatible Humboldt equipment up to 255 device connections, which is up to 1020 inputs
- Access free, downloadable software upgrades for purchased modules

Marshall Module, HM-5005SW



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