

DATA SHEET

Balanced Loader, 50kN Automatic Electromechanical Universal Tester



Balanced Loader universal tester

General description

BALANCED LOADER is a new addition in the range of Controls / IPC Global universal automatic testers. The machine is designed to automatically perform most of the tests included into Balanced Mix Design procedures, including IDEAL-CT, IDEAL-RT, Indirect Tensile Strength, Semi-Circular Bend test and many more.

This model features a wide two-column frame which is fitted with an upper crossbeam that can be set at various heights depending on the accessories to be used. The 50kN capacity jack is driven by a brushless motor, housed in an ergonomic cabinet. **Closed-loop** control ensures reliable test execution both with displacement and load applications. No external transducer is required for displacement measurement. Sample failure is detected automatically and stops the test. Alternatively this feature can be disabled and a travel or time limit can be set instead.

This model is equipped with **adjustable limit switches**, mounted on one column. The interface is granted by a 7" capacitive color touchscreen display allowing the setting of speed/load and travel/load limits, data format download and graph settings, and saving of multiple pre-set test procedures. Real-time test graph and transducer data are displayed on the touchscreen.

Test data can be stored on 16GB internal memory, transferred to a USB pen drive or downloaded through LAN or RS232 communication port. All accessories have to be ordered separately.

BALANCED LOADER can perform following tests:

Marshall	ASTM D6925 / AASHTO
	T245
	EN 12697-34
Splitting Tensile/TSR	ASTM D6931 / AASHTO
	T283
	EN 12697-23
Indirect Tensile - Italian method 3/4 displ.	CNR 134
Semi-Circular Bend SCB	IFIT - AASHTO
	T393/TP124
	Luisiana - ASTM D8044
IDEAL-CT	EN 12697-44
	ASTM D8225

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IDEAL-RT	ASTM WK71466
Direct Shear	ISS - AASHTO TP114
	Leutner - EN 12697-48
CBR	ASTM D1883 / AASHTO T193
	EN 13286-47
Unconfined compression	EN ISO 17892-7

Main features

- **Stand-alone automatic 50kN digital load frame**
- **Universal machine suitable for a wide range of tests, including BMD tests**
- **Closed-loop speed/load control**
- **Automatic failure detection**
- **Integrated transducer calibration facility**
- **Infinitely variable speed from 0.01 to 65 mm/min and load rate from 1 to 9999 N/s**
- **7" touchscreen capacitive color display for viewing real-time graph and test data**
- **Fully automatic test control facility**
- **Adjustable travel limit devices**
- **Remote control from PC by using optional software**
- **CE emergency stop button**

Standards

- AASHTO T245
- EN 12697-23
- AASHTO T193
- ASTM D1883
- EN 13286-47
- ASTM D6925
- EN 12697-44
- ASTM D8044
- AASHTO TP124
- AASHTO T283
- ASTM D6931
- ASTM D8225
- EN 12697-48
- AASHTO T393
- ASTM WK71466

Specifications

Data download: Ethernet port, RS232 port or USB pendrive

Memory: 16GB internal memory

Number of channels: 7 (1 for actuator displacement, 2 for load and 4 for displacement)

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Channel resolution: 24 bit
Sampling frequency: up to 100Hz
Test speed: from 0.01 to 65 mm/min
Load rate: from 1 to 9999 N/s
Type of control: displacement or load
Max ram travel: 100 mm
Max vertical span: 800 mm
Max horizontal span: 380 mm
Overall dimensions: 550 x 670 x 1300 mm (W x D x H)
Weight approx: 110 kg



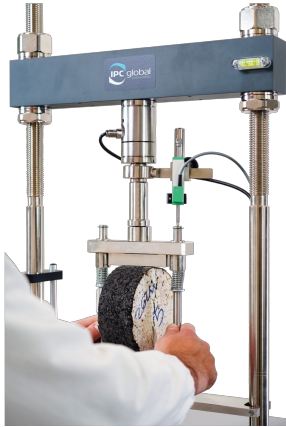
Detail of the adjustable travel limit device



New 7" capacitive touchscreen display



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Products

76-PV1282

BALANCED LOADER, 50kN automatic compression testing machine with digital control and readout unit, motorized ram, two-column structure and adjustable crossbeam. 230V/50-60Hz/1Ph

76-PV1284

BALANCED LOADER, 50kN automatic compression testing machine with digital control and readout unit, motorized ram, two-column structure and adjustable crossbeam. 110V/60Hz/1Ph