

B039A

ASC - Asphalt Shear box Compactor

Asphalt technologists are acutely aware of the importance of a representative specimen during any laboratory performance testing. The precise shearing motion of the ASC replicates the conditions of field compaction in order to reproduce the field properties of asphalt, quickly and easily under the controlled conditions of a laboratory.

The ASC compacts large asphalt prisms that can be sawn to produce four to six beams or slabs for laboratory wheel tracking; or the prism can be cored to produce three to four 100mm diameter cylinders, all having essentially identical properties.

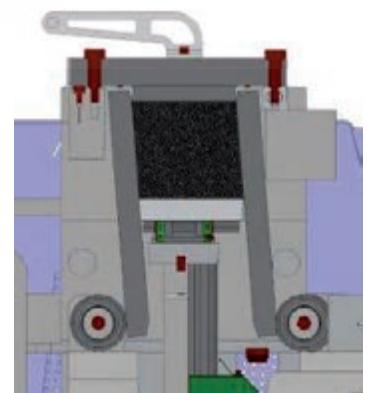
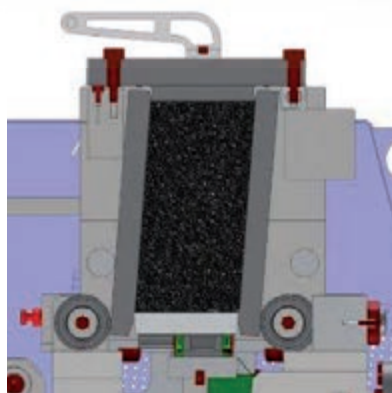
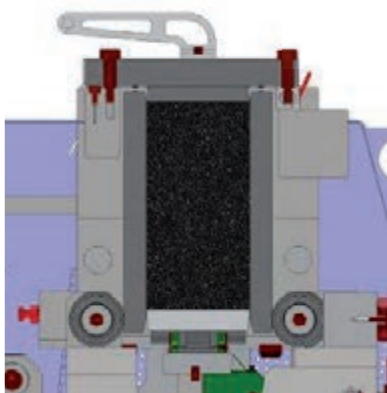
The electronic control unit with touch screen color display operates like a standard Windows based PC for the management and analysis of the data, test results and graphs.

The user friendly touch-screen icon interface allows for easy set up parameter entry, enables immediate (fully automatic test execution) data acquisition/processing, test report, and data file generation.

A LAN connection to Intranet/Internet enables remote communication to receive immediate diagnostic analysis and technical support from Matest technicians, and/or software updates.



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During the compaction process a lateral displacement is applied to the specimen along with a vertical load, which results in a shearing action that makes the compaction similar to the the on-field one.



MAIN FEATURES:

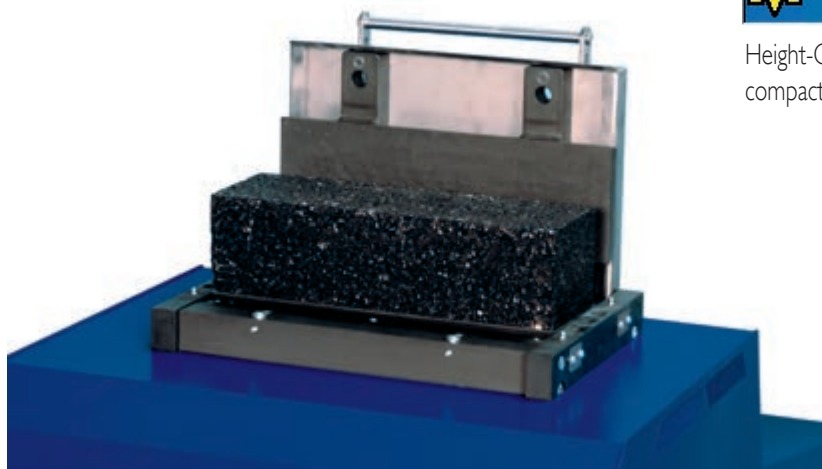
- Extremely sturdy fabricated frame combined with precision machined components
- Servo hydraulic vertical ram with integral hydraulic power supply
- Precision electro-mechanical shearing motion
- Integral specimen extruder
- Electronic control unit with touch screen color display (no need for PC)
- Unlimited memory storage with: 2 USB ports, 1 SD card slot, RS232/485 serial port
- The compaction cycle can be programmed by specifying vertical stress/load and test termination conditions; Number of cycles, Specimen height and/or density
- ASC can be equipped with a load cell for shear stress measurement, upon request

TECHNICAL SPECIFICATION:

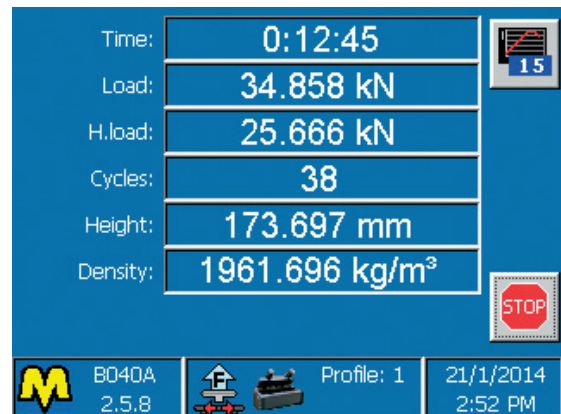
Vertical force:	Up to 100kN
Shearing force:	Up to 50kN
Shear angle:	$4^{\circ} \pm 0.1^{\circ}$
Shearing cycle rate:	3 ± 0.1 gyrations per minute
Mould width:	$150\text{mm} \pm 0.1\text{mm}$
Mould length:	$450\text{mm} \pm 0.1\text{mm}$
Mould surface finish (inside):	Smoother than $0.4\mu\text{m rms}$
Mould surface hardness:	More than 48 Rockwell C
Mould capacity:	Approx. 20 litres
Loading platen width:	$149\text{mm} \pm 0.2\text{mm}$
Loading platen length:	$449\text{mm} \pm 0.2\text{mm}$
Loading platen smoothness:	Smoother than $0.4\mu\text{m rms}$
Loading platen surface hardness:	More than 48 Rockwell C
Number of cycles:	Up to 100
Vertical stress:	$0.1 \text{ to } 1.5\text{MPa} \pm 0.01\text{MPa}$
Compaction height:	$145\text{mm to } 185\text{mm} \pm 0.1\text{mm}$
Power supply:	230V 1ph 50/60Hz
Dimensions:	$788 \times 1360 \times (H) 1314\text{mm}$
Weight:	1200 kg

ACCESSORIES:

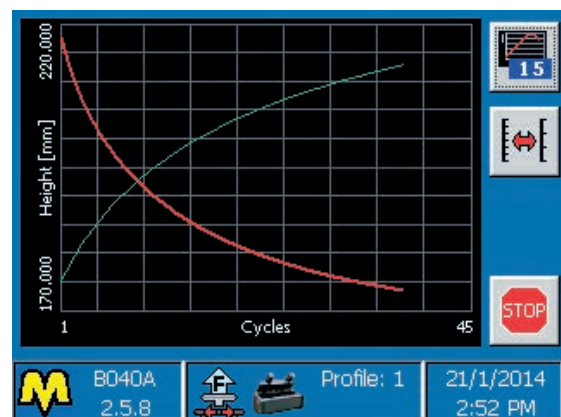
- B039A-01** Loading Chute
- B039A-02** Tray (2 off)
- B039A-03** Spreading comb
- B039A-04** Leveling blade



Specimen is extruded after the machine has completed the specified number of cycles, or when the required specimen height has been reached. An automatic extruder allows an easy extraction of the compacted specimen.



Test parameters during compaction



Height-Cycles and Density-Cycles curves during compaction

