

DATA SHEET

Modular Electro-Mechanically Operated Asphalt Tester AsphaltQube



AsphaltQube with open doors

General description

AsphaltQube is a fully integrated standard testing system based on the revolutionary EmS Electro-mechanical Servoactuated technology, suitable for QC / QA tests.

Now you can perform the most common asphalt standards in one compact, modular, easy to use machine.

The flexible system allows you to perform the test with AMPTQube (permanent deformation, cyclic compression, indirect tensile stiffness, indirect tensile fatigue, crack propagation, direct tension-compression, dynamic / complex modulus) plus triaxial compression, four-point and two -point stiffness and fatigue flexural tests.

The **AsphaltQube** can be used as part of your **Superpave performance based testing** program.

Main features

- Brand new technology including the new revolutionary EmS actuator
- Easy and versatile with his fully integrated modular system, that includes a 15 kN capacity CEMA1 actuator
- Enhanced environmental cabinet (to be added as option) that grants a wide temperature range with fast and accurate temperature control
- Easy-to-use and ergonomic testing system
- Clarity in results with the 3rd Generation Integrated Multi Axis Control System (IMACS2)
- Fully integrated and very compact in design, a perfect solution for both static and mobile testing facilities
- Optional air compressor that comes integrated in the machine
- All-in-one touchscreen PC (optional)

EmS technology's main benefits:

- Improved dynamic performance over servo-pneumatics
- Stand-alone with no need of compressed air supply
- Lower maintenance
- Robust and durable giving a more resilient solution
- Compact design requiring, in general, a smaller footprint
- Easy to use

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Specifications

Load capacity: Static 10 kN, Dynamic 15 kN

Frequency range: 0.01 to 70 Hz sinusoidal loading

Actuator stroke: 30 mm (+/- 15 mm stroke)

Actuator type: E-Mech electro-mechanical actuator CEMA1

Specimen size (dia x H): 100 x 150 nominally, 50 x 135, 38/50 x 110mm

Noise level less than 70 db at 2m

Computer control: integrated all-in-one PC touch screen (optional)

Temperature controlled cabinet: required, to be ordered separately depending on the required range (see accessories)

Air compressor and dryer: low noise, integrated, automated-on-demand (optional)

Dimensions (H x W x D): 1630 x 830 x 830 mm with environmental chamber (to be ordered separately)

Weight :: 250kg

Transducers

Load cell: low profile pancake type

Built-in LVDT actuator: 30 mm stroke

Plug-and-Play: up to 8 channels

Services

Power without air compressor: 230 V, 50 Hz, single phase, 9 A; 110 V, 60 Hz, single phase, 18 A

Power with air compressor: 230 V, 50 Hz, single phase, 11 A; 110 V, 60 Hz, single phase, 22 A

Air: Clean dry air at 450-800 kPa; 2 L / sec (optional integrated air compressor available)



AsphaltQube with closed doors

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AsphaltQube fitted with Overlay testing jig

Products

79-PV72Q02/I2

AsphaltQube, modular electro-mechanically operated asphalt tester with inbuilt IMACS2 controller. 208-230V/50-60Hz/1ph

79-PV72Q04/I2

AsphaltQube, modular electro-mechanically operated asphalt tester with inbuilt IMACS2 controller. 110V/60Hz/1ph

Accessories and consumables

79-PV71001

AMPT Pro compressor assembly, Max air flow 137 L/min, 8 Bar cap., 5 litres tank, with air dryer with molecular sieve 230V/50Hz/1ph

79-PV71002

AMPT Pro compressor assembly, Max air flow 137 L/min, 8 Bar cap., 5 litres tank, with air dryer with molecular sieve 220V/60Hz/1ph

79-PV72001

AsphaltQube/AST Pro Reaction Frame Kit

79-PV72002

AsphaltQube - All-in-One Touch Screen PC Assembly

79-PV72E12

AsphaltQube Environmental chamber, +2°C to+60°C.

79-PV72E22

AsphaltQube Extended Range Environmental chamber, -10°C to +60°C. Complete with inbuilt water cooling system with recirculator