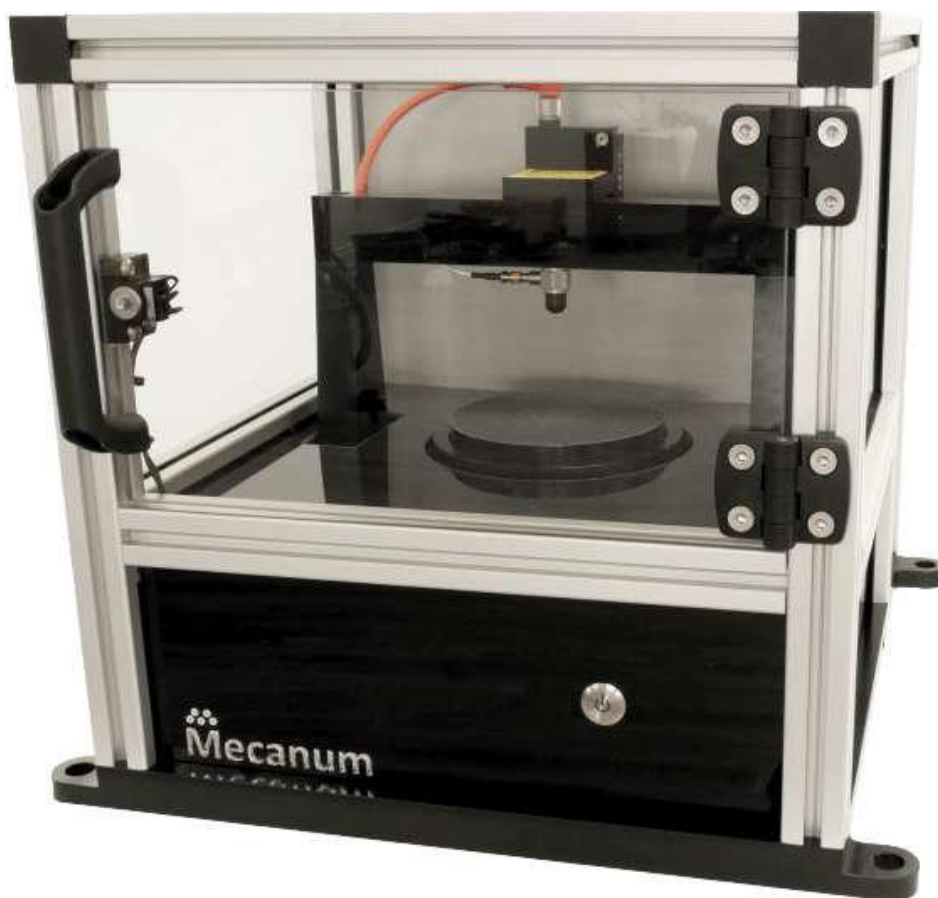


# QMA

## Quasi-Static Mechanical Analyzer

ISO 18437-5

Distributed & Maintained by



Mecanum's quasi-static mechanical analyzer is specially designed to measure, according to ISO 18437-5, the elastic properties of porous materials: Young's modulus, Poisson's ratio and damping loss factor. It can be used for material characterization and quality control.

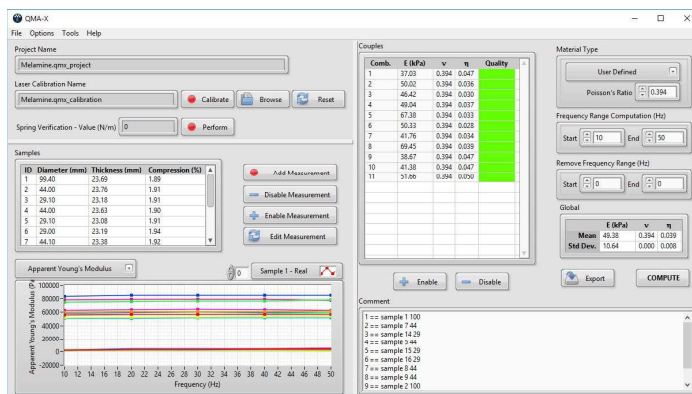
## SPECIFICATIONS

### Test Bench

- Automated test bench with:
  - Detection of sample height
  - Control of sample compression ratio
  - Control of mechanical excitation
- Gauges for static calibration
- Certified verification sample
- Compression plate set
- Sample centering tool

### QMA-X Software

- Fully automatic control of measurement process
- Three operating modes:
  - Static calibration and dynamic verification
  - Stiffness VS compression measurements as a function of the compression ratio
  - Measurement of mechanical parameters (Young's modulus, damping loss factor and Poisson's ratio)



### OPTIONAL ACCESSORIES

- Circular cutter (available in 29, 44.44 and 100 mm diameter)
- Porous material slicer (available in 29, 44.44 and 100 mm diameter)

## TECHNICAL DATA

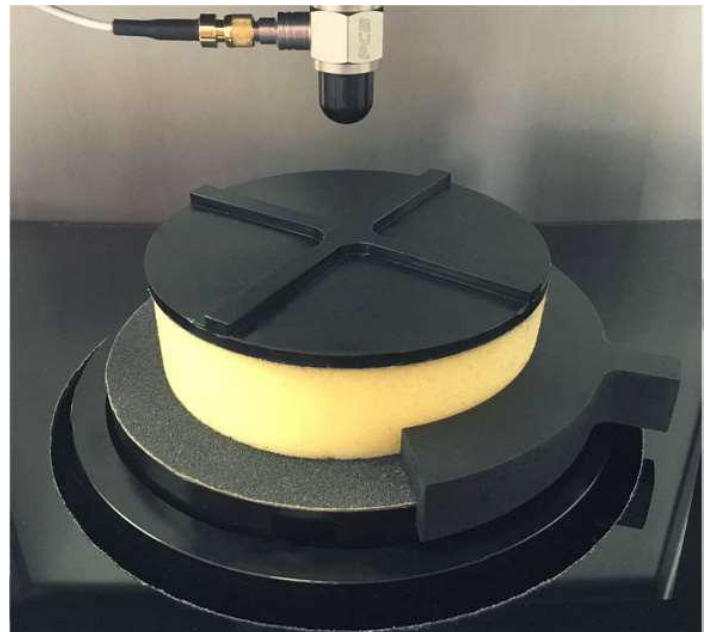
### Test Bench

- Dimensions: 457 (L) x 485 (W) x 398 (H) mm
- Weight: 35 kg
- Power supply: 100-240 VAC / 50-60 Hz / 90 W
- Sample diameter: 29 to 100 mm
- Sample height: 5 to 50 mm
- Mechanical exciter: piezoelectric exciter
- IEPE force & accelerometer transducers
- Laser distance sensor
- Communication: USB 2.0 type A

### MEASURING RANGE

- Frequency: 20 to 60 Hz
- Young's modulus: 300 Pa to 34 MPa (\*)
- Poisson's ratio: 0 to 0.4999
- Damping loss factor: 0 to 0.999

(\*) Depends on material diameter



## WARRANTY & SUPPORT

All Mecanum characterization systems are covered by a one-year limited warranty and technical support. Valid only on manufacturing defects and does not cover damage due to abuse or improper use of the equipment.

Please note that the technical aspects of our equipment may be subject to change without notice