ETA System

Oberst beam
ASTM E756-05

ETA system measures Young’s modulus and damping loss based on ASTM E756-05 standard (Oberst beam test technique) of elastic or viscoelastic materials. It can be used for quality control as well as for simulation purposes.

Mecanum ETA system works with different beam sizes.
Adds and Complements

Hardware
• Steel frame
• DAQ system with integrated amplifier
• Test beams
• Magnetic exciter
• Magnetic position sensor

Software - ETA-X
Fully controls the measurement of a reference beam followed by the measurement of a treated beam.

The following parameters are measured:
• Apparent Young’s modulus (E)
• Damping loss factor (η)

Results file format: Text

Related Accessories
• Premachined aluminum test beams
• Special adhesive

Technical Data

Hardware
Dimensions: 400(L) x 200(W) x 200(H) mm
Sample length range: 15 to 25 mm
Sample width range: 200 to 300 mm
Weight: 30 kg

Instrumentation
DAQ
Dimensions: 430(L) x 330(W) x 130(H) mm
Weight: 7 kg
Input: 1 channel
Output: 1 channel
Power supply: 100-240 Vac 50/60 Hz

Sensors
Magnetic exciter with current monitoring
Magnetic position sensor

Warranty and Support
The system is covered by a 1-year limited warranty¹ and technical support.

¹ Mecanum Warranty is only valid on manufacturing defects and will not cover damage due to any abusive or improper use.

Some types of materials that may be characterized by the Oberst beam technique

* Please note that the technical aspects of our equipment may be subject to upgrades without prior notice.