

# MTI Company

## EQ-MD-10 Precision Mini X-Ray Diffractometer with Software & Laptop Computer



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## EQ-MD-10 Precision Mini X-Ray Diffract meter

a breakthrough tech at an unbelievable price

EQ-MD-10 precision mini XRD integrates the state of art technology in X-Ray. It has the compact size as a microwave oven; however, it performs phase analysis of powders and solid materials with accuracy and speed comparable to those of full-scale laboratory instruments! And it is offered at a much more competitive price than its larger and heavier rivals. This is the most cost effective solution for R&D and education labs, industrial quality control lab, mobile laboratories for any transportation facility, and it has been used successfully in materials research, geology, ocean studies, ecology, forensic science, and many other applications. MTI provides one year warranty and free technical support for all customers, as well as extended warranty that makes customer worry free.

- Debye-Scherrer geometry, horizontal sample orientation and spinning sample holder. No goniometry and other precision mechanics to be maintained.
- Two incident-beam monochromators improve signal to noise ratio and double the angular range of the detector.
- Sealed-off curved position-sensitive detector with curvature radius 114 mm and Methane-Argon-Xenon gas filling.
- Precise 12-bit ADC provides high resolution and angular measurement accuracy.
- Low power air-cooled X-ray tube with stabilized focus position.
- High-frequency solid-state single block HV power supply.
- AC and DC feeding (optional) is possible to operate in lab, car or by batteries out in the field.
- Compact electronic control and data acquisition system in a single module.
- Real-time data treatment with MS Windows software, and automatically controlled by computer.
- Low tube power, radiation protective enclosure and safety interlocks guarantee the safety of operators.
- Light weight, small dimension, affordable price, and low maintenance cost.
- One 3" High Quality Nature Agate Mortar and Pestle is included for grinding powder sample.

The diffraction pattern from corundum sample is shown to illustrate the device capabilities

with acquisition time 800 sec.

### Technical Specifications

Angular range of measurements (degrees)	16 -120 ( 2 theta )
Angular accuracy of peak positioning (degrees)	+/- 0.02 ( 2 theta )
Peak-to-peak resolution (degrees)	0.1
Sample spinning (rpm)	60
X-ray tube power (W)	10 (at 25kV, 0.4mA)
Anode materials	Cu, Co or Fe
X-ray tube cooling	forced air
Power consumption (W)	80
Power source	110V / 220V 50/60Hz
Dimensions (mm)	400(h) x 560(w) x 300(d)
Weight (kg)	26
Shipping volume	45x40x30 "
Shipping weight	150 lbs
Warranty	One year limited warranty. Extended warranty is available at extra cost