

# Thermo Scientific ARL EQUINOX 1000

Benchtop X-Ray Diffractometer

The Thermo Scientific™ ARL™ EQUINOX 1000 offers very fast measurements compared to other diffractometers due to our unique EQUINOX curved detector that can measure all diffraction peaks simultaneously across a wide angular range. It will take you just a few minutes on most samples to get a complete analysis regardless of your resolution requirements.



Research



Environment



Geology, Cement,  
Mining



Metallurgy



Pharmaceuticals



Education



No scanning required. Measures the whole 2 theta range simultaneously and in real time.

The ARL EQUINOX 1000 is a rugged multi-purpose benchtop style instrument designed for QA/QC, academic and routine X-ray diffraction applications. The ARL EQUINOX 1000 is the perfect instrument when space becomes a priority. With its truly excellent performance it is the perfect match for laboratories that are looking for a simple and powerful benchtop X-ray diffractometer. Several sample holders are available on this instrument such as a 6 or 30 positions sample holder, powder transmission mode sample holders, small thin film sample attachment.

**Real time acquisition**  
**Easy to use**  
**No alignment needed**

**Very reliable**  
**Superb resolution**  
**No maintenance**

## Specifications

X-ray source	Generator : 3500 W (60kV / 60mA - Option 30kV limitation) Cu, Co - Standard sealed X-ray tube
Detector	Curved Position Sensitive X-ray Detector, CPS 180 Curvature radius : 180mm Acquisition in real time over 110° 2Theta
Goniometric table	No moving parts: acquisition in asymmetric mode
Sample holders	Fixed, with or without sample rotation Reflection or transmission mode Zero background sample cup Sample changer: 6 or 30 positions Thin layer attachment
Optic	Monochromatic (Germanium, Graphite)
Computer	Windows© 8, 7 Vista, XP
Software	Real time diffractogram display Multiple and automatic recording Peak search Deconvolution with several shapes Phase identification and quantification Degree of crystallinity determination Cell parameters, crystallite size, lattice strain Crystal structure analysis Rietveld analysis Free open database for search match Option : ICDD PDF2 or PDF4 databases
Power	30-32A / 208-230V / 50-60Hz
Weight	~90 kg
Cooling water	Flow : ~3,5l/min T°C : ~18 / 25°C
Dimensions	996 mm H x 715 mm D x 750 mm W



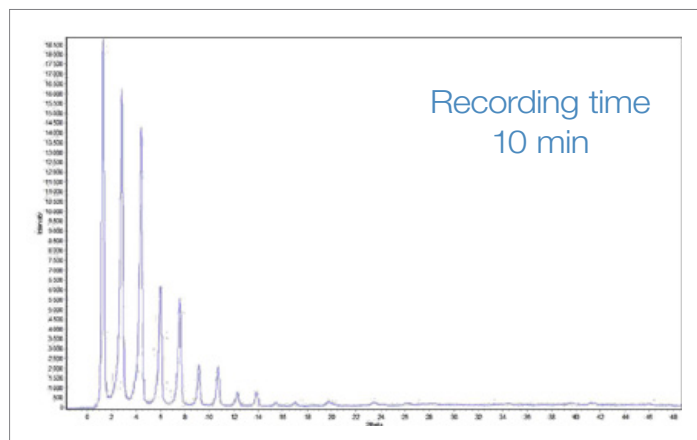
You want to perform transmission analysis? Choose either the Sample Spinner for reflection and transmission analysis on powder samples or the capillary sample holder for Transmission mode analysis depending on your needs.



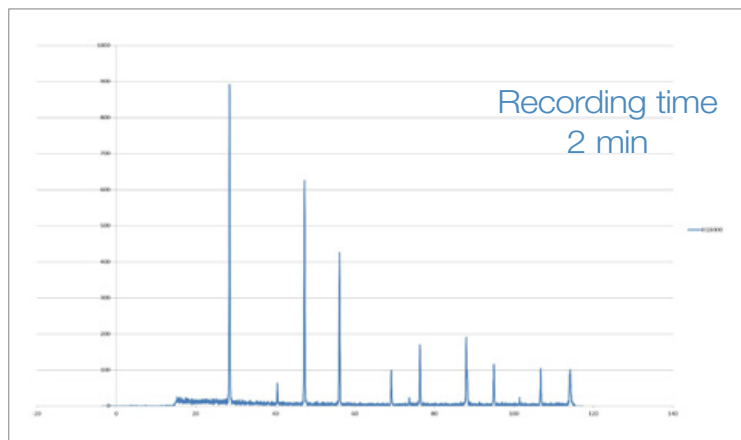
You need to analyze several powder samples a day? Optimize your throughput with the 6 or 30 position sample changer.



You need to perform grazing incidence measurement on small samples? Try our Small Thin Layer analysis attachment.



Silver Behenate powder sample recorded on EQUINOX 1000 in reflection mode.



Si powder sample recorded on ARL EQUINOX 1000 in reflection mode.

[www.thermoscientific.com/xrd](http://www.thermoscientific.com/xrd)

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