

Product Sheet XRD 48

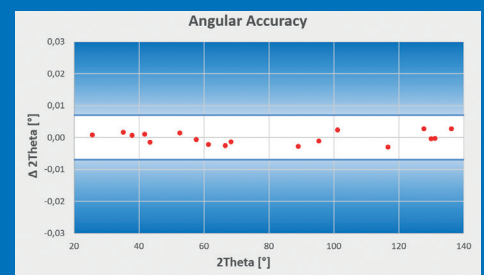
Vertical Goniometers for D8 DISCOVER

- Setting a Strong Foundation

On its most fundamental level, X-ray Diffraction (XRD) can be reduced to a single equation known as Bragg's Law, $\lambda=2d\sin\theta$. Higher accuracy in θ results in higher accuracy in d for every measurement. Bruker offers the highest guaranteed accuracy of any XRD solution.

The D8 DISCOVER family of goniometers incorporate reinforced mounting tracks and drive components with a unique combination of passive and active torque control, resulting in both the highest guaranteed accuracy and a long maintenance free life beyond standard. Samples can easily be mounted with a vertical θ - θ goniometer design and high precision mounting positions, such as dovetail tracks and bayonet hub, allow simple reconfiguration to best match experimental demands.

Unique Alignment Accuracy Guarantee



There are many instruments which can repeatedly measure the position of a single peak, a value known as precision, but only Bruker instruments offer an Angular Accuracy guarantee. Multiple peaks over an angular range of 110° are measured on every instrument.

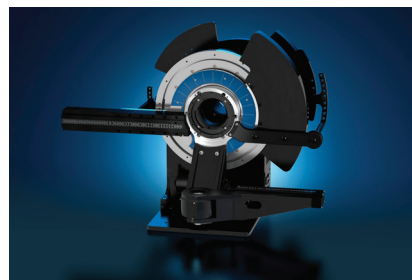
Goniometers for Sealed Tube and μ S Sources



Vertical D8 goniometer

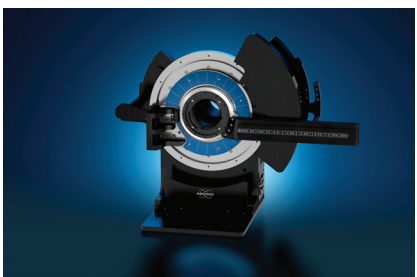


ATLAS™ goniometer

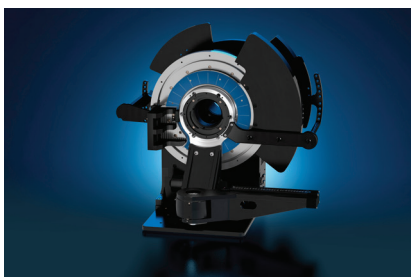


ATLAS™ with Non-Coplanar Arm

Goniometers for TXS-HE Source



ATLAS™ goniometer



ATLAS™ with Non-Coplanar Arm

Specification Table ¹	Standard Goniometer		ATLAS	ATLAS w/ NC	
				Coplanar	Non-Coplanar
Number of Axes	2	2	2	3	
Goniometer to beam [mm]	150	(214), 258	258	258	
Angular Range [°]	> 160	> 160	> 160	-5, ... +150	-3, ... +150
Minimum Stepsize [°]	0.0001	0.0001	0.0001	0.0001	0.001
Max. Scan Speed [°/min]	1200	1200	400	400	360
Max. Detector Distance [mm]	520	520	520	420	370
Detector Distance Recog	Optional	Optional	Optional	Yes	
Counterweight	Single	Single	Dual	Dual	
Compatible Sources	ST	ST, μ S	ST, μ S, TXS-HE	ST, μ S, TXS-HE	
Global Angular Accuracy [°]	±0.01	±0.02	±0.007	±0.007	±0.015
Reproducibility [°]	0.0002	0.0002	0.0002	0.0002	0.003

¹ Specifications dependent on absolute configuration

Bruker AXS is continually improving its products and reserves the right to change specifications without notice. Order No. DOC-S88-EXS048. © 2019 Bruker AXS.

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