



Product Sheet XRD 47

Sample Stages for the D8 DISCOVER

- Versatile Sample Handling

Fulfilling two important roles in an x-ray diffraction experiment, a sample stage positions the specimen in the center of the instrument and increases the degrees of freedom of diffraction space exploration. Bruker sample stages additionally are designed to accept a wide range of accessories ranging from capillary mounts to non-ambient attachments.

Whether the stage is directly mounted to the center hub or in front of the goniometer, Bruker stages provide a high degree of sample manipulation accuracy. The universal motion concept (UMC) employed ensures the area of interest is held in the instrument center as the sample is moved in a myriad of directions. Solutions include up to 5 primary axes of rotation (θ_{Source} , θ_{Detector} or 2θ), φ (rotation), ψ (side tilt) and 3 axes of translation (X, Y and Z). For ultra-precise surface alignment two additional tilt axes (Zeta and Xi) are available.

Compact UMC^{Plus} 80

XYZ-Phi stage with fast spinner for XRPD, mapping and multi-sample capability

- Fast sample spinner with up to 60 rpm for increased particle statistics
- XYZ travel accommodating up to 5 standard holders or mapping 2-4" wafers

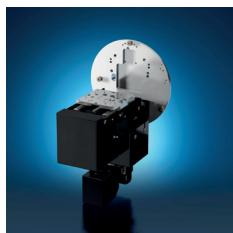
Compact UMC^{Plus} 150

XYZ-Phi stage with large travel and utility feed-throughs for precise sample positioning

- Vacuum and cable feedthrough to enable infinite rotation with wafer chuck or tilt stage
- Large XYZ travel accommodate 96 well HTS plates or mapping 6"-8" wafers

Bayonet Mounted Stages

The bayonet mount allows fast and accurate exchange of the entire sample stage for maximum experimental flexibility. DIFFRAC.DAVINCI component recognition identifies the motorized drives that are present and automatically reconfigures the software.



Compact UMC



Compact Cradle^{Plus}



Compact UMC^{Plus} 80



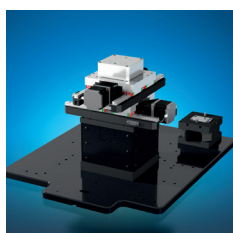
Compact UMC^{Plus} 150



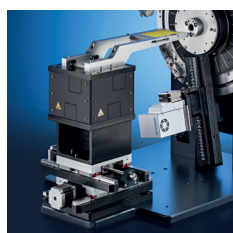
Centric Eulerian Cradle

Base Mounted Stages

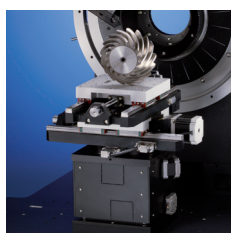
Base mounted stages feature maximum capacity in both weight and size. Modular construction allows customized drive stacking for dedicated diffraction solutions.



UMC 150



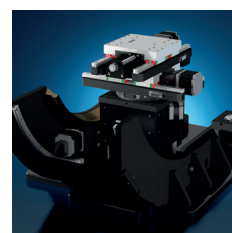
UMC 150 HTS



UMC 151



UMC 350



UMC 1516

Stage Name	Rotation Axes		Translation Axes			Max Sample Size		Utility Feed through
	Phi [rpm]	Psi [°]	X [mm]	Y [mm]	Z-Range [mm]	Weight [kg]	Height [mm]	
Compact UMC	-	-	±12.5	±35	52	2.0	52	-
Compact Cradle ^{Plus}	3	-5 to 95	-	-	2	0.25	25	Vac
Compact UMC ^{Plus} 80	60	-	±40	±40	35	2.0	57	-
Compact UMC ^{Plus} 150	3	-	±75	±75	35	2.0	57	Vac / Elect
Centric Eulerian Cradle	3	-11 to +98	±40	±40	2	1.0	41	-
UMC 150	-	-	±75	±75	50	5.0	133	-
UMC 150 HTS	-	-	±50	150	50	1.0	133	-
UMC 151	3	-	±50	±50	50	5.0	113	-
UMC 350	-	-10 to +10	±150	150	50	5.0	90	-
UMC 1516	3	-5 to +55	±50	±50	50	5.0	90	-

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