



GRINDING | ULTRA PRECISION

Cranfield Precision OGM

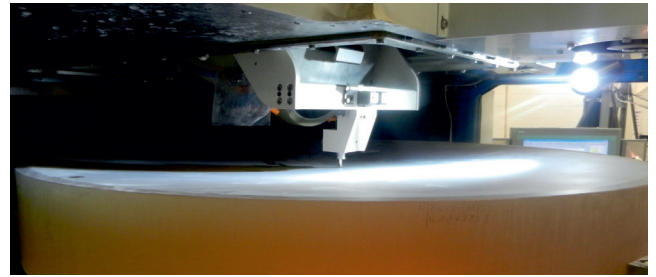
Off axis grinding machine



High precision freeform grinding machine
for components up to 2000 mm diameter

- Hydrostatic rotary and linear bearings
- Linear motor drives
- In-situ measuring probe
- Patented vertical axis counterbalance

Off Axis Grinding Machine



The Cranfield Precision Off Axis Grinding Machine has the capacity to produce components up to Ø2000 mm.

FEATURES

- Hydrostatic bearings
- Twin linear motors
- Linear encoders
- Patented vertical axis counterbalance
- FEA optimised base and bridge
- 3,050 rev/min work spindle (5,000 rev/min optional)
- 60 rev/min 800 Nm rotary table

In-situ metrology

MACHINE GRINDING MODES

- Spheric, aspheric and freeform mode
- Spiral and raster grinding path modes
- Edging: Circular boundary
- Edging: Non-symmetrical edge profiling
- Chamfering
- Light weighting

Model	Cranfield Precision OGM1200	Cranfield Precision OGM1600	Cranfield Precision OGM2000
Machining capacity			
Max. diameter	1,200 mm	1,600 mm	2,000 mm
Max. workpiece height capacity	200 mm	600 mm	800 mm
Max. workpiece mass	1,200 kg	1,600 kg	2,000 kg
Y axis (horizontal workpiece travel)			
Axis stroke	1,430 mm	2,000 mm	2,200 mm
Min. command resolution	0.05 µm	0.05 µm	0.05 µm
Max. linear motor force (continuous)	1,640 N	1,640 N	1,640 N
Max. working feed rate velocity	3,000 mm/min	3,000 mm/min	3,000 mm/min
Z axis (vertical grinding wheel infeed)			
Axis stroke	275 mm	455 mm	655 mm
Min. command resolution	0.05 µm	0.05 µm	0.05 µm
Max. working feed rate velocity	3,000 mm/min	3,000 mm/min	3,000 mm/min
C Axis (component work table)			
Axis rotation (continuous)	+/- 360°	+/- 360°	+/- 360°
Max. axis velocity	60 rev/min	60 rev/min	60 rev/min
Encoder resolution	0.0001°	0.0001°	0.0001°
S1 grinding spindle			
Spindle speed (standard spindle)	100 - 3,055 rev/min	100 - 3,055 rev/min	100 - 3,055 rev/min
Theoretical stiffness (radius and axial)	950 N/µm	950 N/µm	950 N/µm
Rated spindle power (continuous)	20 kW	20 kW	20 kW
Dimensions			
Dimensions (W x D x H)	2,180 x 6,000 x 3,050 mm	2,600 x 7,550 x 3,850 mm	3,300 x 8,100 x 4,000 mm
Machine weight	30,000 kg	40,000 kg	50,000 kg

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