

Cranfield Precision TTG 350

Twin Turret Generator



Ultra-Precision freeform machining platform for components up to 350 mm diameter

- Hydrostatic rotary and linear bearings
- Aerostatic or rolling element grinding spindles
- Linear motor drives
- In-situ measuring probe

Aspheric and Freeform Generator

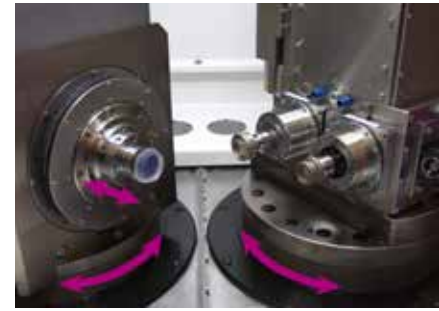
The Cranfield Precision TTG 350 machine has the capacity to produce components up to Ø350 mm.

- Hydrostatic turret bearings and workhead
- Air bearing grinding spindles
- Patented configuration
- Thermally isolated machine base
- Multiple grinding spindle configurations
- 'Tool Normal' or axis perpendicular grinding capability
- Cranfield Precision CNC 6400 control system

MACHINE CAPABILITY

- < 300 nm/60 mm P-V form accuracy
- < 1 nm Ra surface texture capability
- < 1 arc sec turret accuracy

Model	Cranfield Precision TTG 350
Machine capacity	
Max. grinding diameter (OD)	350 mm
Linear axis stroke	150 mm
Max. workpiece weight	25 kg
Tool spindle turret	
Swivel range	+/- 135 deg
Turret bearing	hydrostatic
Max. number of spindles	4
Grinding spindle bearings	Air
Max. wheel Ø	140 mm
Max. wheel width	12 mm
Wheel surface speed (wheel type dependent)	100 m/s
Max. grinding spindle power	16 kW
Max. grinding spindle speed	80,000 rev/min
Work spindle turret	
Swivel range	+/- 135 deg
Turret bearing	hydrostatic
C-axis	hydrostatic (air option)
Workhead speed	1 - 3,000 rev/min
Linear axes travel (infeed)	150 mm
Dimensions	
Dimensions (W x L)	1,800 x 1,950 mm
Machine weight	3,500 kg



Primary axes: Two Rotary, one linear

MACHINE PROCESS OPTIONS

- Plunge mode: Plano, spheres (concave / convex)
- Generate mode: concave / convex aspheres, spheres
- Freeform mode: Surface generation
- Edging: Circular boundary
- Edging: Non symmetrical edge profiling
- Chamfering: (circular boundary)
- Coring
- Flat milling
- Scooping
- Slicing and dicing
- Prism cutting/grinding
- Milling
- Diamond turning
- Hard turning
- Pre-polishing



Typical components

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