



Cranfield Precision TTG 350

Twin turret generator



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

- Hydrostatic rotary and linear bearings
- A erostatic 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 $\varnothing 350$ mm.

FEATURES

- 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

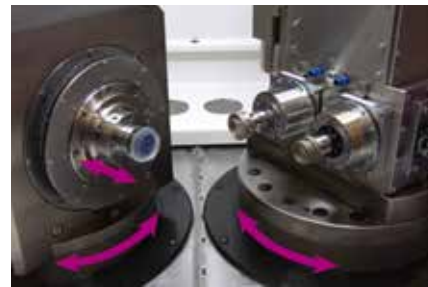
MACHINE CAPABILITY

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

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

Model	Cranfield Precision TTG 350
Machine capacity	
Max. grinding diameter (OD)	350 mm (13.8")
Linear axis stroke	150 mm (5.9")
Max. workpiece weight	25 kg (55 lb)
Tool spindle turret	
Swivel range	+/- 135 deg
Turret bearing	hydrostatic
Max. number of spindles	4
Grinding spindle bearings	Air
Max. wheel \varnothing	140 mm (5.7")
Max. wheel width	12 mm (0.5")
Wheel surface speed	100 m/sec (328 ft/sec)
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 (5.9")
Dimensions	
Dimensions (W x L)	1,800 x 1,950 mm (5.9' x 6.4')
Machine weight	3,500 kg (7,716 lb)



Primary axes: two rotary, one linear



Typical components

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