

Multi Axis, Single or Multi Hole High Speed EDM  
Drilling System for Aero Combustor Parts and Large IGT  
Vaness and Blades

# HSD6 GT

## High Speed EDM Drilling System



**HSD6 GT**

The HSD6 GT has been developed from the original and highly successful HSD6 system to take advantage of the latest design, control and process concepts employed in High Speed EDM for large annular parts such as Aero combustor components and also the larger IGT Blades and Vanes with a weight capacity up to 500kg.



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## Features

### Signature analysis

- Monitors real time drilling performance
- Reduces the requirement for manual inspection

### Advanced shaped hole generation

- Generation of complex 2D and 3D diffuser holes

### High production rates

- Up to 5 times faster than conventional EDM

### Hole geometry

- From 0.3mm to 25.0mm diameter and up to ~ 100mm in depth

### Patented 6 point probing system

- Allows positioning using simple fixturing
- Ensures accurate positioning of drilled holes

### Optical on machine inspection

- Hole true position measurement using a laser opticator

## Tooling

- Single point rotating or static electrode
- Single point AEC (Automatic Electrode Change, holds 12 electrodes)
- Multi-tool with up to 45 individually sensed

## Applications

- The HSD6 machine in its latest GT incarnation has been specially developed for machining cooling holes and slots in aero combustor components and larger IGT Blades and Vanes.
- Round holes/Shaped holes (oval)
  - Seal slots
  - 2D & 3D diffusers

## Performance

### Strokes

Linear X	1050mm (41.34 inches)
Linear Y	540mm (21.25 inches)
Linear Z	720mm (28.35 inches)
Rotary A	+ 210° - 60°
Rotary B	+100° - 200°
Rotary C	Continuous
EDM axis	100mm (3.94 inches)

### Accuracy

Linear	0.015mm (0.00059 inches)
Rotary	0.007°

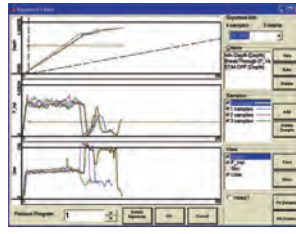
### Repeatability

Linear	0.010mm (0.00039 inches)
Rotary	0.003°

1. Renishaw Probe
2. Combustor Liner
3. Signature Analysis
4. Rotary Table
5. Single point AEC tool



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In addition to our UK headquarters and USA facilities, Winbro Group Technologies has a number of partner companies strategically located to provide local sales and service support.

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