

Single Point, High Speed, EDM Drilling System

HSD-351 High Speed EDM Drilling System



winbrogroupp.com

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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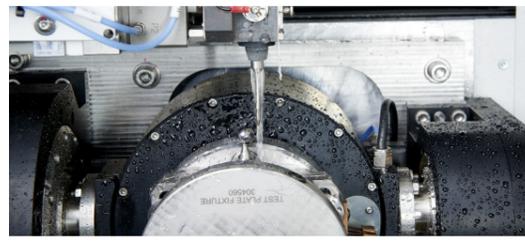


HSD-351

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The HSD-351 is the latest development from Winbro Group Technologies and offers a highly compact solution to high speed single point EDM drilling operations.



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NEXT GENERATION OF PROVEN WINBRO TECHNOLOGY

- Cost Control: advancing proven technology, but reduced cost by integration into the machine.
- 24 & 48 electrode cartridge - quick, simple change
- Automatic electrode change - fast: (<15 sec) spit, load, qualify
- Single sealing & Single collet covering electrode range from 0.25mm - 3.0mm diameter (0.010" - 0.118")

Automatic Toolchanger

- Twin 14-Station carousels
- Automatic Barrel Changer (ABC)
- Barrels hold 15, 25 or 49 electrodes each, up to 700mm (27.5") long
- Automatic Nose Guide Changer (AGC)
- Nominally holds up to 13 nose guides & 1 probe

Auto Part Chuck Integrated to Rotary

- Erowa pneumatic flat chuck (standard)
- 10kg (22lb) capacity (fixture & part)
- Chip reader for fixture identification
- Single & multi-blade fixtures (depending on size)
- Part flushing

New Generator

- Solid State EDM Generator (Air-cooled).

Intuitive User Interface

- Simplified programming via TCPPro and TCPPost
- Part model visible to operator during machining
- Graphical feature selection for rework

Automation Ready

- Machine designed with automation in mind
- Front or top load/unload
- Cobot / AGV solutions

Digital Ready

- OPC-UA or MT Connect interface options
- Key Performance Variables monitored in real-time
- DAX – Data Acquisition system: records detail of each feature

Machine Specification

Strokes

Linear X Axis	300mm (11.81 inches) *410mm for ATC
Linear Y Axis	350mm (13.77 inches)
Linear Z Axis	550mm (21.65 inches)
Rotary A Axis	+ 10° - 143°
Rotary C Axis	+/- 360°

Accuracy

Linear axes	0.008mm (0.00032 inches)
Rotary axes	20 arc sec

Repeatability

Linear axes	0.006mm (0.00024 inches)
Rotary axes	15 arc sec

Features

- Minimal footprint (including tool changer)
- 1010mm (40") wide
- 2684mm (106") deep
- Designed for side by side (Paint to Paint) installation

HSD351 – Technology Features

Part Life

- Serial number control: Track the progress of each component at each machining operations by serial number
- Intelligent factory: Know exactly what operations have been completed on each part & when
- Damage limitation: Prevent unplanned re-machine a feature that is already complete.

6 Point Probing

- On machine Renishaw probe enables accurate, automated machine calibration
- Cost control: keep fixtures simple and low cost
- MP250 Rengage probe carried on AGC carousel

Integrated Electrode Flow Meter Options

- Monitor & record water flow in electrode, nose guide & part before drilling

Electrode Verification

- On machine quill position check/verification
- Minimise True Position deviation

Signature Analysis (including: Breakthrough Detection)

- Backwall impingement control (class leading: as proven on HSD6)
- Infinitely variable parameter selection during each feature based on user definable criteria

Shaped Hole Capable

- Advanced shaped-hole generation with high production rates
- Generation of complex 2D and 3D diffuser holes to design intent

Auto-Recovery / Recut

- Graphical user interface enable operator to see part in 3D, manipulate and identify feature requiring recut
- Recut an incomplete hole automatically
- Machine can recover automatically from interruption mid shaped hole at the exact point it stopped



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1. Auto Quill Alignment Using Tooling Ball
2. Auto Nose Guide & Probe Changer (14 positions on lower carousel)
3. Auto Electrode Barrel Changer (14 positions on higher carousel)
4. HSD351 Programmed From CAD Model
5. HSD351 With Easy, Wide Access Door For Maintenance

