



A cut above the rest



CNC Wirecut EDM




## A cut above the rest


- 4 axes CNC
- Precision LM guideways for all axes
- Max. cutting speed :
  - ⩽ 160 mm<sup>2</sup>/min.  
(With Ø 0.25 special soft brass wire on 50 mm thick HCHCr (steel) workpiece)
  - ⩽ 140 mm<sup>2</sup>/min. [With Ø 0.25 plain brass wire (Bravocut plus) on 50 mm thick HCHCr (steel) workpiece]
- Best surface finish : 0.8 µ Ra
- Taper : ± 30°/ 50 mm
- $\epsilon$  Pulse technology
- ELCAM - Powerful part programming software




\* PMAC® is a registered trademark of Delta Tau Data Systems, USA



Independent X, Y, u, v control  
Material : HCHCr (steel)  
Height : 70 mm  
No. of cuts : 3 (1 rough + 2 trimcut)  
Machining time : 4 hrs. 50 min.  
Surface finish : 1.0 to 1.2 µ Ra



Speed in Aluminium cutting  
Material : Aluminium  
Height : 180 mm  
No. of cuts : 1+ 2  
Machining time : 2 hrs. 52 min.  
Surface finish : 1.2 µ Ra



Helical cutting :  
Material : HCHCr (Steel)  
Height : 50 mm  
No. of cuts : 1+2  
Machining time : 3 hrs. 30 min.  
Surface finish : 1.0 µ Ra

## CNC Pulse Generator ELPULS-40A DLX

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### High-speed, high-precision CNC

- PMAC based and Multiprocessor open architecture CNC continuous path control
- 32 bit CPU architecture for MMI
- 56 bit DSP Motion Control

### NC functions

- 6 work co-ordinate system
- Auto reference point return
- Auto wire verticality, edge finding & center finding
- On-line edit facility & directory option
- Mirror image of programme across X/Y axes
- Rotation of programme
- Single block execution
- Corner control strategy to enhance shape accuracy
- Monitoring of consumables
- On-screen maintenance check
- Wire diameter compensation on contour
- Backlash compensation
- Pitch error compensation
- EDM machining parameter override
- Pre-spark function
- No man function
- 3 point center finding
- Auto alignment of the workpiece

### Servo system

- Quick response, closed loop DC Servo Systems for X, Y, u, v with PWM Servo Drives

### Data input output

- Standard ASCII Keyboard
- Isolated RS-232C serial interface
- 1.44 MB, 3.5" floppy disk
- Static hard disk for programme storage

### New $\epsilon$ Pulse technology

The product of extensive R & D features two characteristics :

#### Equi-energy pulse

i.e. all sparking pulses carry equal energy.

Adaptive to the gap conditions

i.e. pulse will correct itself to suit the gap conditions.

#### $\epsilon$ Pulse Advantages

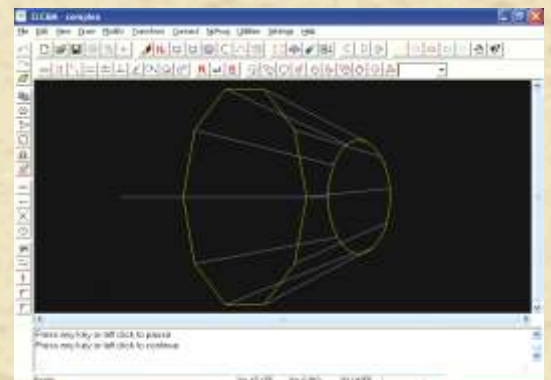
- Stable machining without wire breakages normally occurring in difficult machining conditions such as
  - Flushing nozzle away from the workpiece
  - Stacked workpieces of different materials
  - Cutting at the edge of the workpiece etc.
- Higher cutting speed even on smaller workpiece thickness
- Minimum operator intervention

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## ELCAM

### Powerful part programing software

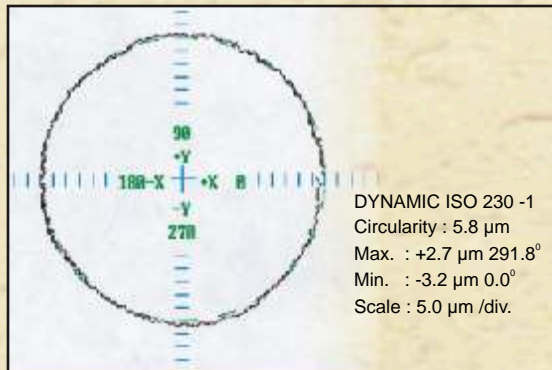
- Windows-based editor (more flexibility in operation)
- Automatic installation facility
- Single screen with all tool-bars around
- Powerful path generation and edit functions
- Icon-based (symbolic) tool-bars (less language dependent)
- Context-sensitive descriptive help (no need to refer to the manual)
- Automatic Start & End block generation at appropriate blocks in NC programme
- Automatic tangential Entry & Exit
- 3D graphic simulation of complex profiles
- Taper or offset change and marking of constant radius blocks is possible
- DXF interface
- Auto parameter selection
- Programmable, multiple TRY & SKIP cavity function for AWT
- Multiple language support
- Program generation for coreless machining



## Machine Tool

- Precision LM guideways for all 5 axes ( X, Y, u, v, Z )
- Integrated u, v axes having stroke 80 x 80 mm

### Renishaw Ballbar Test



### Features of Dielectric Unit : Elektra DL 25 P/ DL 35 M★

- Automatic deionising, filtration & flushing through separate pumps
- Dielectric cooling unit with differential temperature control
- Automatic dielectric conductivity monitoring
- Stainless Steel construction



### Additional features of DL 35 M★

- (Mineral Bed Filtration Unit)
- Eco-friendly, long life filters eliminate periodic replacement
- Back wash / Rinsing through multiport valve

### Standard scope of supply

- Machine tool
- CNC Pulse Generator ELPULS-40 A DLX
- Dielectric unit DL 25 P
- Dielectric cooling system
- Standard accessories consisting of verticality block, set of flushing nozzles (4 no.), job clamp, pilot cone, flexible dial stand, float adjuster
- Standard consumables consisting of wire guides (0.25 mm dia.)
- A set of carbide current pick-ups Ø 0.25 mm dia. wire
- Ion exchange resin
- Paper filters (DL 25 P)

### Optional accessories

- Adjustable job clamping bridge
- Job holder complete
- Set of wire guides (0.15, 0.20 mm dia.)
- Semiautomatic wire feeding
- AC servo in lieu of DC servo

### Optional features

Dielectric Unit : DL 35 M ( Mineral Bed Filtration Unit ) is available as optional unit in lieu of DL 25 P, only in selected countries.





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