RATNAPARKHI
ELECTRONICS IND. PVT. LTD.
SINCE 1989

Contact us

ALTRA ZNC

We Support

MAKE IN INDIA

ALTRA ZNC

Features

1) High speed Jump

- High speed jump of 3.3 mtr/min maintains clean gap. This ensures highly efficient and reliable EDM machining.

2) Adaptive multi stage anti arc

- Spark discharge is continuously monitored and instant pulse to pulse corrective actions are taken
- Jump cycle and gap control are adjusted suitable in case of difficult spark condition
- Unhealthy spark condition is indicated on front plate by glowing red anti arc LED. Corrective actions are taken automatically till AA red LED glows

3) SAFE Mode

- Safe mode for deep cavities where flushing conditions are difficult to maintain

4) Fuzzy Logic

Fuzzy logic system will auto select best machining parameters in 4 step programing.

5) Z axis reference after power on to ensure correct z-axis co-ordinates

6) Ball screw for X,Y,Z and LM guideways for Z axis

7) Integral design with compact footprint

8) Auto cycle operation based on:

Lift distance, Machining depth, Arc cycle for better carbon removal.

9) **LW:**- Settable low wear factor for controlling electrode wear.

AZ 01: Pulse Generator

- Practically unlimited no. of programs and steps per program (depends on memory size)
- EDM technology at a glance on screen
- 3 axes digital positioning display
- Day and night / Sleep function
- Reverse Servo machining
- Higher Material Removal Rate due to equi-energy pulse discharge
- Reduced electrode wear with high MRR
- Selectable High-speed jump function
- SAFE machining circuit inbuilt
- Adaptive anti-arc and flushing control
- Selectable Anti-arc trip
- Programmable Multi-cavity operation
- Industrial computer for human-machine interface
- Facility for PCD and Array program generation
- Safety Interlocks
- ABS/ INC position display
- Z-axis AC Servo with high speed jump
- Pendent Unit

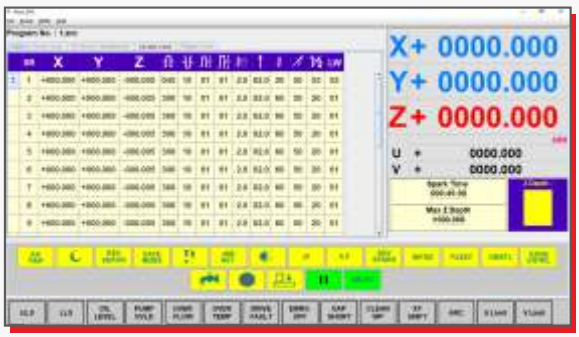
Hand held pendent unit

Safety & Protection :

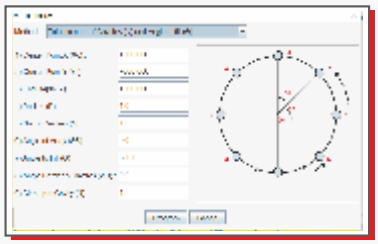
- Servo Fault.
- z / x,y,z axis over travel limit, over temperature, low level, over flow, pump overload.

Self Guided operation panel

Array Programing



PCD Programing



Technical Specification:

[A] Machine Tool	
Work tank dimensions	850 x 530 x 300 mm
Table size	550 x 300 mm
T slot	3 x 15mm
X axis travel	300 mm
Y axis travel	200 mm
Z axis travel	250 mm
Z axis	AC Servo
Max job height	250 mm
Max electrode weight	60 kg
Max job weight	300 kg
Pump motor rating	0.5 Hp 3 phase
Machine X & Y axis	Ball screw
Machine Z axis	Ball screw with LM guideways
Controller Z axis	AC Servo
Overall machine weight	1000 kg
Maximum table quill distance (WA)	350 mm
Minimum table quill distance (WA)	110 mm
Machine foot print	1500 x 1500 x 2300 mm

[B] Pulse Generator	
Max Working Current	15+5, 30+5, 45+5
Pulse ON-OFF Setting	Ton (1 to 999), Ƭ(1 to 12)
Max MRR * Copper to Steel	235 mm^3/min
* Graphite to Steel	240 mm^3/min
* Steel to Steel	150 mm^3/min
Min Electrode Wear	0.1 %
Surface Finish	0.8-1.3
Connected Load	3.5 kVa
Power Supply	3 phase 415 VAC

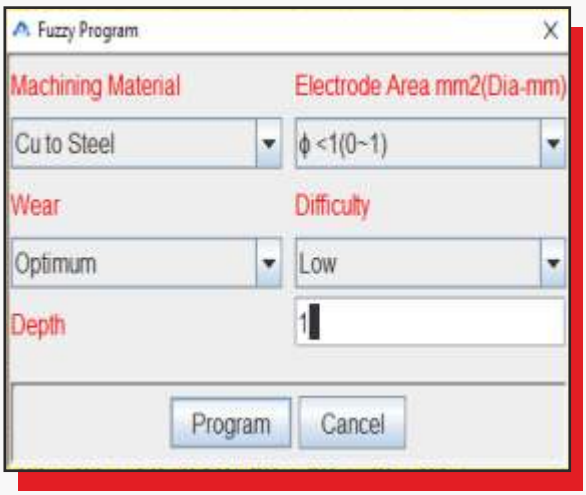
[C] Dielectric Unit	
Integral with M/c	
Dielectric Capacity	300 ltr.
Filter Element	10 µ
No of Filters	2 no
Dielectric Tank width	1100 mm
Dielectric Tank depth	900 mm
Height	330 m
Pump Motor	0.5 hp 3 phase

ALTRA ZNC

Technical Specifications

MACHINE TOOL	DIM.	ALTRA 7040
Work tank internal dimensions (W x D x H)		1200 X 620 X 450
Work table	mm	700 X 400
Oil Filling Height	mm	300
X axies travel	mm	450
Y axies travel	mm	350
Z axis travel	mm	350
Z axis backslide travel	mm	NA
Max. Distance from electrode holder To worktable surface	mm	520
Max Electrode Weight (Kg.)	Kg.	80
Max Work piece wight	Kg.	1000
Overall machine weight	Kg.	2000
Overall all dimensions (W x D x H)	mm	1900 x 1500 x 2200

Fuzzy Logic



Job Samples

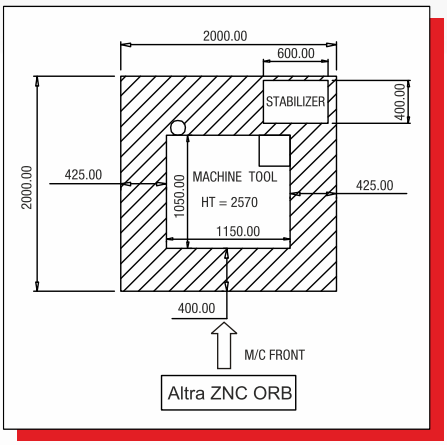
Button Die

Fastner Die

Biscuit Die

Letter Die

Floor Plan



ORBITAL UNIT

The Revolutionary Transformation in EDM Orbital system.

Keeping in mind the varied and critical requirements of professional tool maker, Ratnaparkhi is constantly striving for the betterment of EDM. With this endeavour we are now introducing Orbiting system for EDM's which improves the efficiency of EDM to a great extent thereby allowing easier working. The REIPL Orbital put up many CNC capabilities to your sinker EDM machine, giving you opportunity to to do variety of jobs like, under grooving, side finishing, threading, side sparking etc..

4 Easy Steps of installation :-

1. Attach the U, V mechanism to the the machine platen plate and electrode holder under it, and position it properly.
2. Connect the control unit to the mechanism.
3. Attached your electrode to holder and position electrode appropriately.
4. Set the pattern and depth on REIPL controller and start.

Orbital Mechanical Unit

Orbital Control Unit

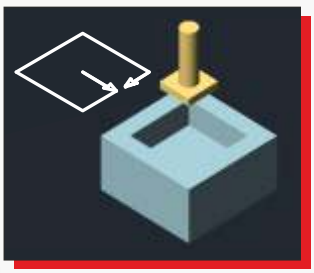
Advantages of orbiting function:

1. Basic steps towards CNC EDM functions in manual machine
2. Corner sharpening.
3. Giving undergroove
4. Side machining
5. Increasing the size of cavities

Specifications of Orbital Unit :

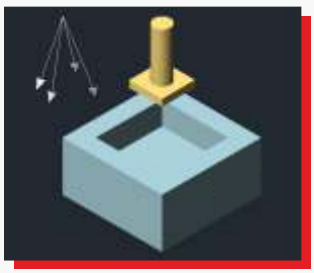
1. Type of Control : Micro Controller based pre-defined path control
2. Data Input : Multifunction key board, touch screen HMI
3. Orbital Cycles : Vector, Circular, Polygon & Z Independent
4. Orbital Head Unit Stroke : 0 to 20.0 mm in step of 0.001 mm
5. Orbit Speed : Max 50 mm /min in 99 steps
6. EDM Interface : Direct EDM Gap Voltage Sensing up to 300 V (for adaptability to all EDMs Machine)
7. Power input standard : 230 VAC
8. UV Position Repeat accuracy : 0.010 mm

Orbital Cycles



Polygon Cycle

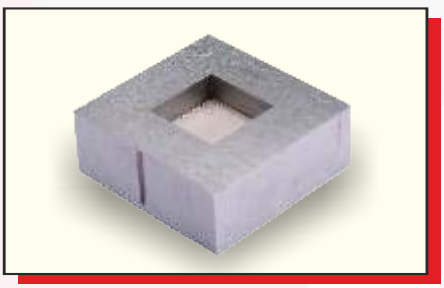
Vector Cycle



Z-Independent

Circular Cycle

Job Samples



Important Note : In keeping with our constant endeavour to meet market needs, we reserve the right to alter or change the specifications mentioned, without prior notice

www.ratnaparkhiedm.com

RATNAPARKHI ELECTRONICS IND. PVT. LTD. SINCE 1989

E-52, MIDC, Satpur, Nashik , Maharashtra India - 422007

Contact : Tel. : +91- 253-2351125 Fax : +91- 253-2351025

E- Mail : sales@ratnparkhiedm.com vgp@ratnaparkhiedm.com

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Our Sales & Services Network : Delhi, Faridabad, Ludhiana, Bengaluru, Coimbatore, Chennai, Kolkata, Ahmedabad, Hyderabad, Mumbai, Pune.