# AZDR / NZ Series State-of-the-ART ZNC FUZZY EDM.

> The Main Features Of JOEMARS Fuzzy Logic Control System



# NEW Z NC PROGRAMMABLE FOR AUTO MACHINING FROM ROUGH TO FINE FINISHING.

ROUGH TO FINE FINISHING.
Total of 50 or 256 programs, each program
can do a single step, or a maximum
of 10 steps machining (option) and each
step includes 12 or 16 kinds of machining
parameters.
By using the JOEMARS Fuzzy Logic

By using the JOEMAR'S Fuzzy Logic Control System, the operator can get a total of 9600 sets of machining parameters which can also be modified at any time during sparking without



## MACHINING SPEED:

10% - 45% faster than conventional model.

G SHORTEST MACHINING

PARAMETERS SETTING



# ONEW "4A" EQUIPMENT:

Only input: (1) Machining materials, (2) Electrode size, (3) Electrode wear & (4) Peak current. Then the best machining parameters will be enachining parameters will be return to the pre-set machining parameters auto set to start machining from rough to final surface finishing automatically.



## The JOEMARS Fuzzy Logic Control System will auto monitor & adjust the machining parameters in the event of a poor machining condition. Once the



# **❸** LOWEST ELECTRODE WEAR. **�** SURFACE FINISHING:

#### FASTER MACHINING (Anti-Arcing Auto Adjustment) SPEED OF ULTRA-THIN

increased machining speed of ultra-thin ribs



# Specification Sheet



### Machine Unit

Item	Unit	JM32Z/JM32NZ	JM322	JM430	JM500	JM650	JM1050C
Work table size	mm	600x300	600x300	650x400	750x520	920x600	1300x800
X travel	mm	300	300	400	500	600	1000
Y travel	mm	200	200	300	400	500	500
Z travel	mm	200	200	200	300	280	500
W travel	mm	200 (Manual)	200 (Manual)	200 (Motor)	200 (Motor)	300 (Motor)	-
Ram platen to work table	mm	190~590	190~590	230~630	150~650	240~820	400~900
Max. electrode weight	kgs	60	60	75	150	300	300
Max. workpiece weight	kgs	550	550	900	1200	2200	4000
Work tank (WxDxH)	mm	830x500x300	830x500x300	1060x600x340	1250x660x420	1400x830x540	1800x1000x550
Weight of machine unit	kgs	1230	1050	1400	1800	2500	6500
Outside dimensions(WxDxH)	mm	1670x1750x2175	1530x1590x2175	1455x1680x2155	1645x1900x2455	1825x2320x2625	2250x3150x3060

### Dielectric Tank

Item	Unit	Built-in	D320	D430	D500	D650	D1050C
Capacity	L	240	240	340	570	1040	1900
PUMP	HP	0.5HPx1	0.5HPx1	0.5HPx1	0.85HPx1	0.85HPx2	0.85HPx2
Net weight	kgs	built-in	built-in	100	150	280	400
Filter method		Paper filter	Paper filter	Paper filter	Paper filter	Paper filter	Paper filter
Outside dimensions (WxDxH)	mm	built-in	built-in	850x1000x1100	950x1400x1100	1300x2000x1100	2500x1420x1100 (1240x700x566)x2

### ▶ AZDR / NZ Series Generator

Item	Unit	AZ50DR	AZ75DR	AZ100DR	AZ125DR	AZ150DR	NZ50	NZ75
Max.Machining current	Α	50	75	100	125	150	50	75
Total power input	KVA	4.5	7	9	11	13	4.5	7
Max.Metal removal rate	mm³/min	390	610	770	990	1160	390	610
Electrode wear ratio	%	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Best surface roughness	µm Ra	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Net weight	kgs	180	220	360	400	440	180	220
Outside dimensions	mm	580x725x1730	580x725x1730	580x835x1730	(580x725x1730)x2	(580x725x1730)x2	586x790x1735	586x790x1735

	STANDARD	ACCESSORIES	
Paper filters	1 set	Electrode holder	1 pcs
Tool box	1 pcs	Halogen machine work lamp	1 pcs
Flushing nozzle	1 set	Leveling pads	1 set
Drill chuck	1 pcs	Linear scale (installed on machine)	1 set
Clamping kit	1 set	Up cutting	1 set

OPTIONAL ACCESSORIES
Auto fire extinguisher
CNC orbit-cut system
Permanent magnetic table
Dielectric cooler
Spare PCB set
Tungsten carbide expert circuit (W-BOX)

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AZDR & NZ SERIES













# AZDR & NZ series

JOEMARS Fuzzy Logic Control System



## FEATURES of AZ series ZNC EDM New Fuzzy Logic Control system

- Micro-processor based control system
- 50 sets Machining Program
- 12 kinds of Machining Parameters
- 500 sets Machining Condition Selections ■ 9600 sets Fuzzy Machining Condition
- Z axis Auto Fuzzy Machining Condition
- Sharp Conner Lowest Electrode Wear Control (LWF) JM500+AZ75DR+D500
- New 4A Equipment(Anti-ARCing Auto Adjustment)
- Faster Machining Technology
- Tungsten Carbide Machining





# ZNC EDM MECHANICAL FEATURES

- 1. Using symmetrical structure design and the castings are all made by high-strength cast iron and being annealed with high rigidity and well-balanced thermal stability.
- Using high-precision and gapless roller track on Z axis, provide high-precision motion guidance. Using precise wide angular ball bearings on Z axis to
- ensure the required loads for axial and radial, providing the running smoothness and accuracy when machining. 4. The surface of work table has been hardened and grinding treatment, with excellent abrasion resistance
- and improves machine life. 5. Using high-resolution ratio linear scales on each axis, to
- ensure the accuracy under static and dynamic condition. 6. The advanced transmission-mechanism for Z-axis, to improve the efficiency, stability and accuracy when machining.
- 7. Using high-capacity lubricator, with efficient lubricating loop, providing a reliable oil supply for each axis, to enhance the life-time of mechanical parts. 8. Using full-covered protective structure for each axis to
- ensure operator's safety and to prevent dust or liquid fall into the machine. 9. With both oil flushing and suction devices on work tank,
- to offer a convenient way for different kind of work-pieces application.

- stepless feature, to provide efficient speed to the expected oil height.
- 11. Work tank drain system uses a larger diameter drain device, dielectric can be processed into the dielectric tank in a very short time.
- 12. Use a high flow rate PUMP, to fill up the dielectric in the work tank within a very short time.
- 13. Labyrinth compartment design in the dielectric tank, which can effectively improve the cleanliness of processing oil.
- 14. Using a high efficiency paper filter for dielectric tank, to provide fast and cleaned oils.
- 15. The pressure gauge in dielectric tank, provides instant information for normal flow of oil in the filtration system and in the pipelines.
- 16. Some models equipped with high loading capacity wheels for easy movement of dielectric tanks, as well as provide convenience for maintenance or cleaning of
- 17. A simple configuration for Machine body, Generator and Dielectric tank, to reduce the floor space and easy for maintenance purpose.





### FEATURES of NZ series ZNC EDM

- New Fuzzy Logic Control system
- Industrial grade 32bit CPU
- Industrial colorful LCD screen 256 sets Machining Program
- 16 kinds of Machining Parameters
- 1000 sets Machining Condition Selections
- 9600 sets Fuzzy Machining Condition
- Z axis Auto Fuzzy Machining Condition
- Sharp Conner Lowest Electrode Wear Control (LWF)
- New 4A Equipment(Anti-ARCing Auto Adjustment)
- Faster Machining Technology
- Tungsten Carbide Machining









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