

EA12V CNC Sinker EDM

— *Advance*

Introducing the new EA12V with Mitsubishi's M700 Series Advance CNC Control System and the new FP80V power supply with the ultra-low wear Power Master (GF2 control).



Ergonomic Design

- Easy-to-view screen (15-inch)
- Intuitive operations using touch-panel control
- User friendly keyboard and mouse

Standard Features:

- Mitsubishi M700 Series Control uses Windows Embedded OS
- 1GB User Program Storage on a 40GB Hard Drive
- Fuzzy Pro 3 Plus Emulates an Experienced Operator Optimizing the Burn Process From Rough Burn to Finish Orbit
- SS Jump 5 Optimizes Jump Up and Acceleration Control to Stabilize High-Speed NO-FLUSH Machining (592"/min. in Z and 197"/min. in X, Y)
- Power Master (GF2 Adaptive Control) Reduces Graphite Electrode Wear by as Much as 80%
- New Digital AC Smart Servo System Improves Resolution to 0.05 μ m (2 millionths) Speeding Response Time

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Key Features of the EA12V



XYZ Glass Linear Scale

0.1um resolution, closed loop system with rotary encoders

New LS ATC System

Mitsubishi built 10 or 20 position Rotary Automatic Tool Changer

New Rigid C-Axis option

High Inertia type for large electrodes. Flushing through the C-axis.

Multiple-Step Rise & Fall Work Tank

Much faster fill and drain.

Rigid Bed Construction

Wider than previous models. Greater stability

Thermal Displacement Compensation Technology

Thermal Isolation Cabinet

Prevents rapid changes due to varying air temperatures

New Generator FP80V (FA120V option)

Compact Design (Small Footprint)

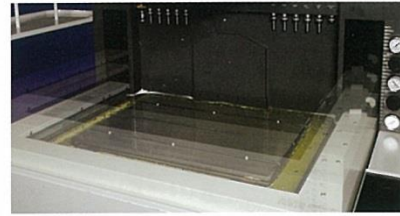
Improved Filtration

2 large capacity filters

Variable Dielectric Circulation. Rapid circulation

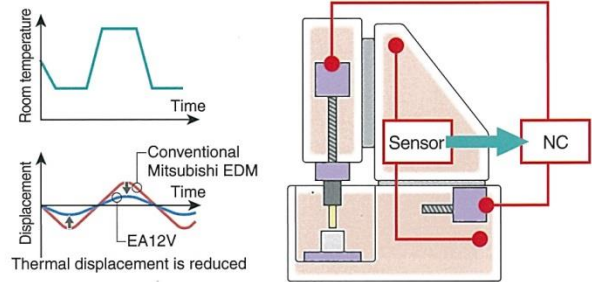
Improved setup workability

- The three-face opening type vertical working tank improves setup work.
- Wider application of emission-less machining is possible with the feature of adjusting the fluid flow rate in work tank.
- High-accuracies are attained with the fluid circulation function.



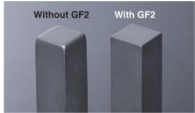
High-accuracy technology

- A heat shielding cabin structure is incorporated.
- Thermal displacement compensation function, refined with the MA2000, is provided.
- As a standard, the XYZ axes are provided with an absolute value linear scale.



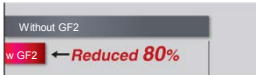
Power Master: GF2 Adaptive Control

GF2 Control optimizes spark control to greatly improve electrode wear while improving speed when using graphite electrodes.



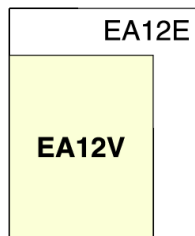
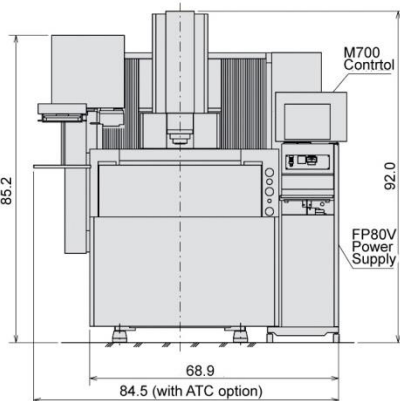
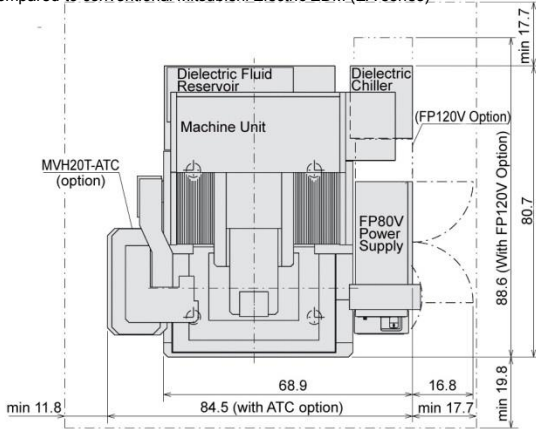
Less wear of corner shape of the electrode.
Smooth electrode surface.

Electrode wear comparison for 0.6 x 0.6" and 1.6" depth



Wear using a graphite electrode is reduced up to 80%

Compared to conventional Mitsubishi Electric EDM (EA series)



Comparison of installation spaces

Machine Systems	Machine Specifications	EA12V Advance
	Worktank Type	28 Step Drop Tank
	Worktank Internal Dimensions (WxDxH) in	33.4 x 23.6 x 13.8
	Max. Dielectric Fluid Level in	11.8
	Max. Workpiece Weight lb	1543
	Table Size (W x D) in	27.5 x 19.7
	X-Axis Travel in	15.7
	Y-Axis Travel in	11.8
	Z-Axis Travel in	11.8
	Table to Platen Distance in	7.8 ~ 19.7
Max. Electrode Weight lb	110	
Machine Height (including pads) in	93.1	
Machine Dimensions (W x D) in	69.0 x 80.7	
Total Machine System Weight lb	8160	
Fluid Tank Capacity gal	90 (105 1 st fill)	
Fluid Filtering Method	2 fine mesh paper filters	
Fluid Temperature Control Unit	Chiller	

Maintenance:

Dual filter system can be replaced during machining reducing machine stoppage and improves the operation rate.



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