

# SG12

## C N C S I N K E R E D M

### SPEED

Introducing the Next-Generation **SG12 Sinker EDM** with **Mitsubishi Electric's AI Technology (Maisart)** and **M800 Series Control System** to pursue both ultra-low wear and high productivity.

### ERGONOMIC DESIGN

- Easy-to-view screen (19-inch)
- Intuitive operations using touch-panel control
- User friendly keyboard and mouse



Mitsubishi  
Artificial Intelligence  
State-of-the-art



M800  
CONTROL

### STANDARD FEATURES

- Mitsubishi M800 Series Control including an all-new LCD Hand Pendant Control.
- New IDPM3 (Intelligent Digital Power Master) offers unparalleled jump speed, reduced electrode wear (up to 40%), and ease of operation for any experience level.
- SS Jump 5 optimizes jump up and acceleration control to stabilize High-Speed NO-FLUSH machining (787"/min. 1.6G in Z and 197"/min in the X and Y-axis).
- High speed positioning and plotting, now at 7M/min. (275"/min.), increases machine efficiency during set-up and dry-run check.
- ESPER II Navigator now simplifies programming inputs to a short question and answer session prompting the operator through the process.
- 1GB User Program Storage

# Integration of Highly Evolved Technology and Advance Control



## IDPM3 – Intelligent Digital Power Master

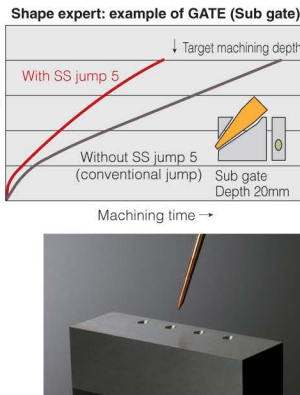
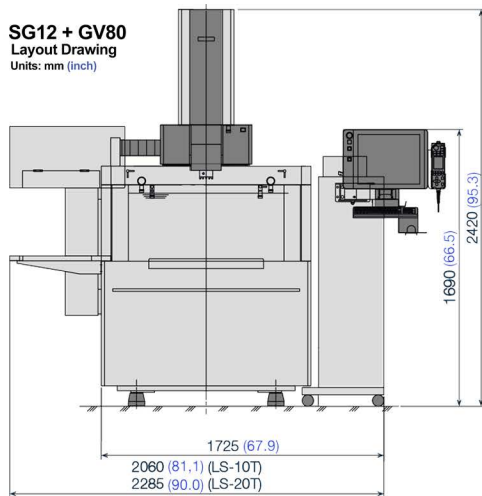


IDPM3 automatically adjusts the spark to reduce the electrode wear while optimizing machining speeds with graphite electrodes.

Dramatically improved corner wear allows for a reduction in electrodes reducing manufacturing costs.

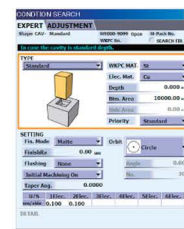
## Machining Stabilizing Control: SS Jump 5

SS Jump 5 control is suitable for various shapes, such as the sub-gate shown, by optimizing the smoothing of the jump up operation. Fast jump speed of 787"/min. (1.6G) shortens non-burn time with the high-speed / acceleration control. Machining speed is 40% faster with "IDPM" Intelligent Digital Power Master control.



## Initial Machining Control

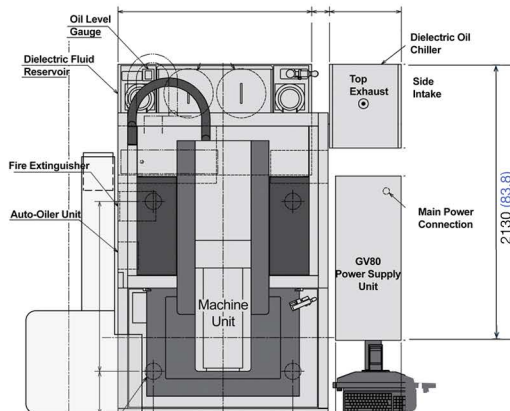
Faster machining is realized with improved initial machining control for the start of machining after rough milling.



Machining time reduced up to 50% for the start of machining after rough milling

## Machine Specifications

	Machine Type	SG12
Machine Unit	X-axis stroke (inch)	15.7
	Y-axis stroke (inch)	11.8
	Z-axis stroke (inch)	11.8
	Work tank internal dim. (W x D x H) (inch)	37.4 x 27.5 x 17.7
	Dielectric fluid level range (inch)	2.6 ~ 15.7
	Table dimensions (W x D) (inch)	27.5 x 19.7 w/3 T-Slots
	Max. workpiece weight (lb.)	2205
	Max. electrode weight "Manual Change" (lb.)	176
	Table to platen distance (inch)	7.9 - 19.7
	Table to EROWA ITS 50 Chuck (inch)	7.9 - 19.7
Table to 3R MACRO Chuck (inch)	7.2 - 19.0	
Machine unit dimensions (W x D x H) (inch)	67.9 x 83.9 x 95.3	
Machine unit weigh (lb.)	7716	
Power Supply	Type	GV80P
	Machining current: Peak	80 (120)
Control Unit	Program support function	E.S.P.E.R. II
	Machining function	IDPM3 / Orbit Pro
	Graphic display	19" TFT color LCD
	CPU / type	M800 Series / Industrial PC
Axis Speeds	Rapid Travel Speed (in/min.)	275
	Max. Jump Speed/Acceleration (in/min/G)	787/1.6
Dielectric Fluid System	Reservoir capacity (gal)	124
	Filtering method	Paper cartridge (2pc)
Machine Layout	Temperature control type	Chiller FTS (Standard)
	Installation dimensions (W x D) (inch)	110.6 x 122.0 w ATC
C-axis	Max. electrode weight "w 20 pos ATC" (lb.)	22 (11 w LS-10 ATC)
	Speed (RPM)	1 to 30
	Min. indexing angle	.001°
	Min. drive unit	.001°



MC Machinery Systems Inc.  
85 NorthWest Point Blvd.  
Elk Grove Village, IL. 60007  
Phone: (630) 616-5920  
Fax: (630) 616-4068  
www.mcmachinery.com

**MC MACHINERY SYSTEMS, INC.**

a subsidiary of Mitsubishi Corporation