

# SG28

## CNC SINKER EDM

### SPEED

Introducing the Next-Generation **SG28 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



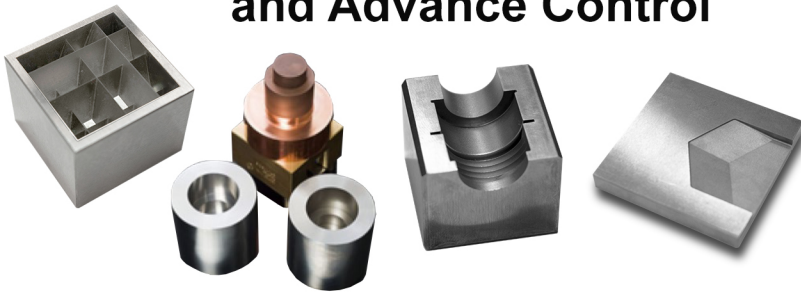
Mitsubishi  
Artificial Intelligence  
State-of-the-art



### 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 (590"/min. 1.0G in Z and 197"/min in the X and Y-axis).
- Thermal Displacement Compensation System utilizes temperature sensors that constantly monitor any changes in the work tank and environment.
- High speed positioning and plotting, now at 4M/min. (157"/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



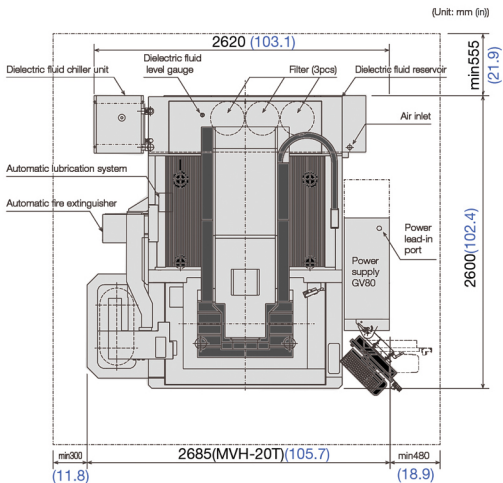
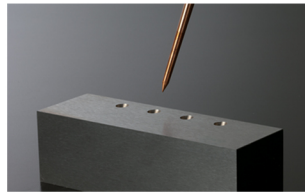
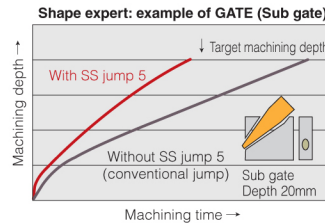
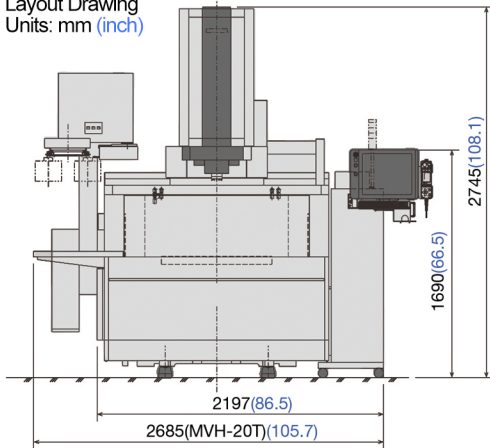
IDPM3 automatically adjusts the spark to reduce the electrode wear while optimizing machining speeds with graphite electrodes.

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

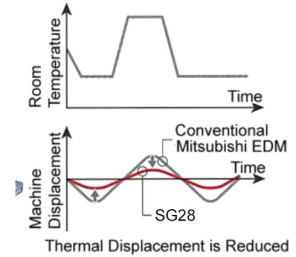
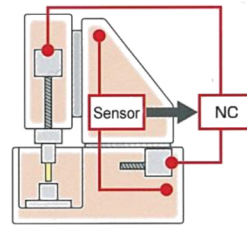
## Machining Stabilizing Control: SS Jump 5

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 590"/min. (1.0G) shortens non-burn time with the high-speed / acceleration control. Machining speed is 40% faster with "IDPM" Intelligent Digital Power Master control.

SG28  
Layout Drawing  
Units: mm (inch)



## Thermal Displacement Compensation Control



## High Accuracy:

The thermal displacement compensation control suppresses thermal displacement of the EDM machine caused by changes in the ambient temperature. In addition, a stable accuracy can be attained even during long continuous operation by automatically compensating the displacement amount.

## Machine Specifications

	Machine Type	SG28
Machine Unit	X-axis stroke (inch)	25.6
	Y-axis stroke (inch)	17.7
	Z-axis stroke (inch)	15.7
	Work tank internal dim. (W x D x H) (inch)	43.3 x 31.9 x 17.7
	Dielectric fluid level range (inch)	3.0 ~ 15.7
	Table dimensions (W x D) (inch)	33.5 x 23.6 w 5 T slots
	Max. workpiece weight (lb.)	4400
	Table to platen distance (inch)	11.0 ~ 26.8
	Table to ERWOA ITS 50 Chuck (inch)	6.9 ~ 22.6
	Table to 3R MACRO Chuck (inch)	6.2 ~ 22.0
Machine Unit dimensions (W x D x H) (inch)		103.1 x 102.4 x 108.1
	Machine weight including power supply (lb.)	12,320
Power Supply	Type (option)	GV80 / GV120
	Machining current: Peak	80 (120)
Axis Speeds	Rapid Travel Speed (in/min)	157.5
	Max. Jump Speed / Acceleration (in/min/G)	590 / 1.0
Control Unit	Program support function	E.S.P.E.R.II
	Machining function	IDPM 3 / Orbit Pro
	Graphic display	19" TFT color LCD
Dielectric Fluid System	CPU / type	M800 Series / Industrial PC
	Reservoir capacity (gal)	157
Dielectric Fluid System	Filtering method	Paper cartridge (3 pc)
	Temperature control type	Chiller FTS (Standard)
Machine Layout	Installation dimensions (W x D) (inch)	135.2 x 139.8 w ATC
	Floor space requirement (sq. ft.)	131
C-axis	Max. electrode weight w MVH-20 ATC™ (lb.)	110 / 22
	Speed RPM	1 to 30
	Min. indexing angle	.001°
	Min. drive unit	.001°



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