



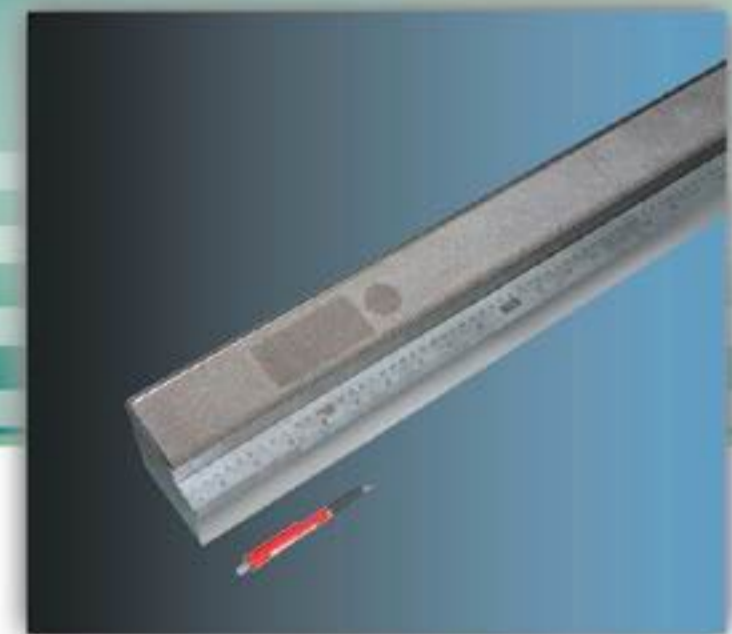
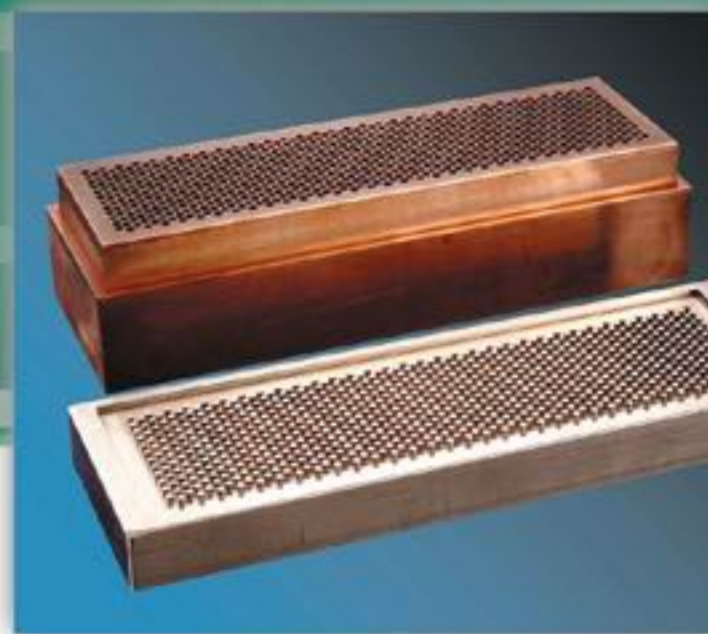
MOLDMASTER®

CE ISO 9001

HIGH QUALITY SUPER POLISHING (HQSP) ELECTRICAL DISCHARGE MACHINE



www.yawjet.com.tw



YIHAWJET ENTERPRISES CO., LTD.



MOLDMASTER®

➔ **S430AS**
(S602AS)



➔ **M335AS**
(M35AS)



AN INNOVATIVE BREAKTHROUGH

Preface

This all new electrical discharge machine with extra fine powder added into working fluid provides a revolutionary machining method for cutting-edge production. The MOLDMASTER new HQSP series is especially ideal for large mold machining which requires uniform luster-effect on the machined surfaces. The HQSP series not only increases the fine machining speed, but also saves time and efforts in manual polishing. It also greatly upgrades mold accuracy and quality.

Working Principle

For over years, the conventional mirror polishing has been only applied for working area under 30mm diameter and with the use of mirror polishing circuit. It can not work for a large area to create a lustrous mirror polishing surface. The restriction for such machining method is poor dust removing due to too close gap, which results in discharge concentration. But now with the addition of powder, gap can be increased to disperse discharge for increasing efficiency. In addition, a large area also can be fine finish machined uniformly to your desired luster-effect.

Applications

- Mobile phones and related accessories
- Twin-color parts
- PDA keys, digital cameras, and CD players
- 3C products, such as notebook, TV, screen of audio box.
- Deep rib workpieces
- Portable game
- Backlight panel, LCD

➔ **M435S**
(M45BS)



★ () Number is present for old type

TECHNOLOGY FOR MACHINING H IN G7-3C MOLDS

Features

■ Increase Luster-Effect Surface Area

The maximum working surface area for a conventional mirror polishing machining is only of up to $\phi 30$ mm diameter approximately. However the maximum working area for the HQSP reaches 400 cm², and creates a Rmax=1~3 μ m surface roughness.

■ Apply Graphite Electrode for Luster Machining

A graphite electrode applied for fine finish machining usually causes too much wear, and is difficult to achieve uniform and fine surfaces of mold. The HQSP features outstanding dispersion performance, permitting luster-effect machining accomplished easily.

■ Increase Fine Machining Speed

The time required for luster-effect machining on the HQSP is only 1/2-1/5 of that on a conventional machine.

■ Minimum Surface Cracking

Cracking depth on a surface machined by HQSP is greatly reduced when inspected by a microscope, which also provides an increased rusting-proof capability. The hardened structure under the surface with a luster-effect machining is uniform, which saves time and efforts in manual polishing operations.



M645S
(M65BS)

NA: Not available ○: Available

POSITIONING FUNCTIONS	C15-AB	C15-A	C21-B	C21-A
Error alignment	○	○	○	○
Millimeter/Inch unit conversion	○	○	○	○
Multiple work coordinates	○	○	○	○
Inner/Outer measurements	○	○	○	○
Edge, Hole/Groove, Plate/Column center measurements	○	○	○	○
Reference ball, Electrode offset compensation	○	○	○	○
Electric Discharge Position (EDP)	○	○	○	○
Quick stop	○	○	○	○
Manual ATC	○	○	○	○
Multi-jog simultaneously moving	○	○	○	○

NA: Not available ○: Available

MACHINING CYCLES FUNCTIONS	C15-AB	C15-A	C21-B	C21-A
Plunge machining (G111)	○	○	○	○
Expand machining (G121)	○	○	○	○
Half barrel machining (G123)	NA	○	○	○
Orbital machining (G131)	○	○	○	○
Spiral plunge machining (G133)	○	○	○	○
Pyramid machining (G135)	○	○	○	○
ISO-GAP machining (G153)	NA	○	○	○
Multi-angle machining (G161)	○	○	○	○
CLW/CCLW helical machining (G171)	NA	NA	○	○
Vector loran machining (G181)	○	○	○	○
Line / Grid Position (G200)	○	○	○	○
Arc / Circle Position (G210)	○	○	○	○
Contour return (G400)	○	○	○	○
Reference plane return (G401)	○	○	○	○
Fast feed for positioning (G00)	○	○	○	○
2D Contour machining (G01, G02, G03)	○	○	○	○
3D Contour machining (G01, G02, G03)	○	○	○	○
C Axis indexing (G00+C)	NA	NA	○	○
Trans. machining (G01+C)	NA	NA	NA	○
Arc trajectory machining (G02/G03+C)	NA	NA	NA	○
Dwell (G04)	○	○	○	○
Work plane selection (G17, G18, G19)	○	○	○	○
Reference Point return (G28, G29)	○	○	○	○
Work coordinate system (G54~G61)	○	○	○	○
Work zero setting (G92)	○	○	○	○
Multi-point machining	○	○	○	○
Electrode compensation (H code)	○	○	○	○
Miscellaneous function (M code)	○	○	○	○
Polishing time control (Q code)	○	○	○	○

Specifications

ITEM	MODEL	UNIT	M335S (M35BS)			M335A*S (M35A*S)			M435S (M45BS)			M645S (M65BS)			M860S (M75BS)				
			Work tank internal dimension	(WxDxH)mm	930 x 600 x 330									1300 x 720 x 400			1400 x 1000 x 500		
Max. workpiece dimension	(WxDxH)mm	800 x 400 x 250									1000 x 500 x 350			1000 x 750 x 400			1300 x 800 x 400		
Max. workpiece weight	kg	400									600			2000					
Max. electrode weight	kg	80									100			120					
X \ Y axes stroke	mm	350 x 300									450 x 350			650 x 450			800 x 600		
Z-axis stroke	mm	300									400			500					
Z-axis back slide travel	mm										NA								
Setting unit increments	μm										1								
Optical scale resolutions	μm										1								
Max. moving speed	mm/min										X,Y axis:1000 Z axis:3000			X,Y axis:1500 Z axis:3000					
Table dimensions	(WxD)mm	610 x 400									1000 x 500			1000 x 750			1320 x 800		
Distance between plate and table	mm	150~450									300~650			500~1000					
Machine dimensions	(WxDxH)mm	1530x1300x2330			1800x2000x2370 * *			1850x1530x2460			2060x2600x2650			2300x2700x2650					
Machine weight	kg	2250			2300 * *			2800			5900			6500					
Dielectric reservoir capacity	ℓ	400									700			2000			3000		
Floor layout	(WxD) m	2.5 x 2.5			2 x 2.2			3 x 2.5			3.8 x 3.6			4 x 4					
Available power supplies	Amp.	G35	G50	G70	G35	G50	G70	G35	G70	G105	G50	G70	G105	G50	G70	G105			

ITEM	MODEL	UNIT	S320A*S (S505A*S)			S430S (S602S)			S430A*S (S602A*S)			S435S (S605S)			S540S (S607S)				
			Work tank internal dimension	(WxDxH)mm	850 x 500 x 350									1100 x 600 x 330			1100 x 650 x 350		
Max. workpiece dimension	(WxDxH)mm	600 x 300 x 200									900 x 500 x 250			1000 x 550 x 300			1100 x 600 x 350		
Max. workpiece weight	kg	300									400			500			600		
Max. electrode weight	kg	60									100			120					
X \ Y axes stroke	mm	300 x 200									400 x 300			450 x 350			500 x 400		
Z-axis stroke	mm										200			250					
Z-axis back slide travel	mm										200								
Setting unit increments	μm										1								
Optical scale resolutions	μm										1								
Max. moving speed	mm/min										X,Y axis:1000 Z axis:2000								
Table dimensions	(WxD)mm	600 x 300									800 x 450			800 x 500			900 x 550		
Distance between plate and table	mm	125~525									130~530								
Machine dimensions	(WxDxH)mm	1600x1600x2100 * *			1300x1320x2120			1720x1930x2200 * *			1400x1480x2120			1450x1600x2220					
Machine weight	kg	1850 * *			1900			2450 * *			2100			2150					
Dielectric reservoir capacity	ℓ	300									500			700					
Floor layout	(WxD) m	2 x 2			2.7 x 2.5			2 x 2.2			2.8 x 2.5			3 x 2.5					
Available power supplies	Amp.	G35	G50	G70	G35	G50	G70	G35	G50	G70	G50	G70	G105	G50	G70	G105			

■ Specifications and data are subject to change without prior notice.

■ ()Number is present for old type.

* A means All In One model.

■ Larger models are available upon request.

* * means dielectric reservoir and power supply included.



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