



*Maximart*®

CE / EMC ISO 9001

**WARNING**

- 1. KEEP YOUR FINGER AWAY FROM THE GRINDING AREA UNTIL THE WHEEL STOPPED.
- 2. TURN OFF THE POWER SUPPLY & PRESS THE EMERGENCY SWITCH BEFORE OPENING THE WHEEL GUARD OR CHANGING THE WHEEL.
- 3. AVOID IMPROPER USE OF WHEEL AND CAUSE SPOKES.
- 4. OPERATOR AND PERSONNEL SHOULD BE AWAY FROM GRINDING AREA.
- 5. LOOK OUT HEIGHT DIFFERENCE OF WORK-PIECE.
- 6. LOCK THE CROSSED MOVEMENT WHEN DOING PLUNGE GRINDING.
- 7. MAKE SURE THE WORK PIECE IS FIXED ON THE TABLE OR ON THE CHUCK.

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# MSG SERIES

## HIGH PRECISION SURFACE GRINDER SOLUTION

MAXIMART CORPORATION



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# Manual Type

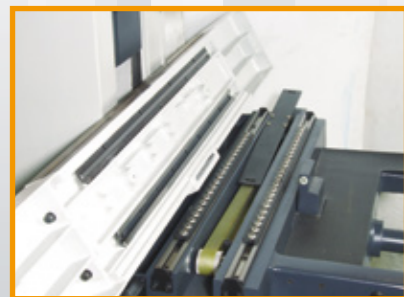
## MSG-618M

Manual Type Surface grinders (Ball way)



## MSG-618F

Manual Type Surface grinders (Ball way)



### Steel wire type timing belt transmission system

High precision slides way & baller track make the lasting accuracy and smooth movement.



### Indexable table handwheel

Easily operated and Ergonomic design.

### Standard Accessories

- Wheel Extrace Screw & Nut
- Balancing
- Levelling Screw With Blocks
- Whell Flange
- Grinding Wheel
- Tool Box With Tools
- Auto Lubrication System
- Diamond Dresser
- Touch-up Paint
- Crossfed Ballscrew

## Technical specification

Model		MSG-618 / MSG-618F	MSG-818 / MSG-818F
Table size		152 x 460 mm	203 x 460 mm
Max. grinding length	Longitudinal	480 mm	480 mm
Max. grinding width	Crosswise	178 mm	238 mm
Max. distance from table surface to spindle centerline		460 mm	460 mm
Standard magnetic chuck size		150 x 450 mm	200 x 450 mm
Longitudinal movement of table	Max. Travel (Hydraulic)	480 mm	480 mm
	Max. Travel (Manual)	510 mm	510 mm
	Max. Travel (IV type)	60 Hz, 5-28m/min ; 50 Hz, 5-23m/min	60 Hz, 5-25m/min ; 50 Hz, 5-20m/min
Cross Transverse Travel	Max. Travel	195 mm	250 mm
	Handwheel per revolution	5 mm	5 mm
	Handwheel per graduation	0.02 mm	0.02 mm
Wheelhead vertical infeed	Handwheel per revolution	1 mm	1 mm
	Handwheel per graduation	0.005 mm	0.005 mm
Grinding spindle drive	Speed	60HZ,3450 R.P.M. / 50HZ,2850 R.P.M.	60HZ,3450 R.P.M. / 50HZ,2850 R.P.M.
	Power rating	2.0 HP	2.0 HP
Standard grinding drive	Diameter	203 mm	203 mm
	Width	12.7 mm, Max. 19 mm	12.7 mm, Max. 19 mm
	Bore	31.75 mm	31.75 mm
Hydraulic motor		1.0 HP	1.0 HP
Crossfeed motor		40W	40W
Elevating motor		60W	60W
Total space require		1810 x 1133 x 1660 mm	1810 x 1285 x 1660 mm
Approx. Weight	(Net weight / Gross weight)	820 KGS / 970 KGS	1170 KGS / 1340 KGS
Approx. Rated Power		2.0 HP	2.0 HP
Packing dimensions ( L x W x H)		1140 x 1000 x 1930mm	1140 x 1000 x 1930mm

The above specifications subject to change without prior notice, all the speciations just for reference

## MSG-1228-III

Hydraulic Type Surface grinders (3-axis)



For 1228-1648 models  
Table speed control

## MSG-818-II

Hydraulic Type Surface grinders (2-axis)



Cross traverse system (I,II models)

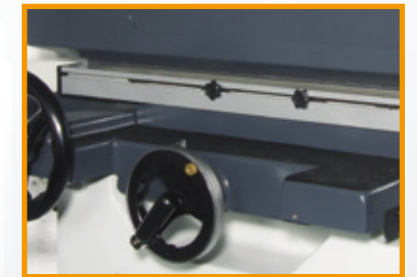


Table travel adjustment with build-in-type (hidden) proximity switch, features safe & easy operation.

## FEATURES



For 1228-1648 models  
High precision spindle



Cross feed high precision ball screw



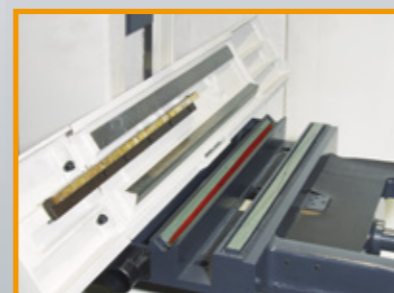
Honeycomb-ribbed column



Easily adjust guarded proximity switch (Longitudinal & Crossfeed)

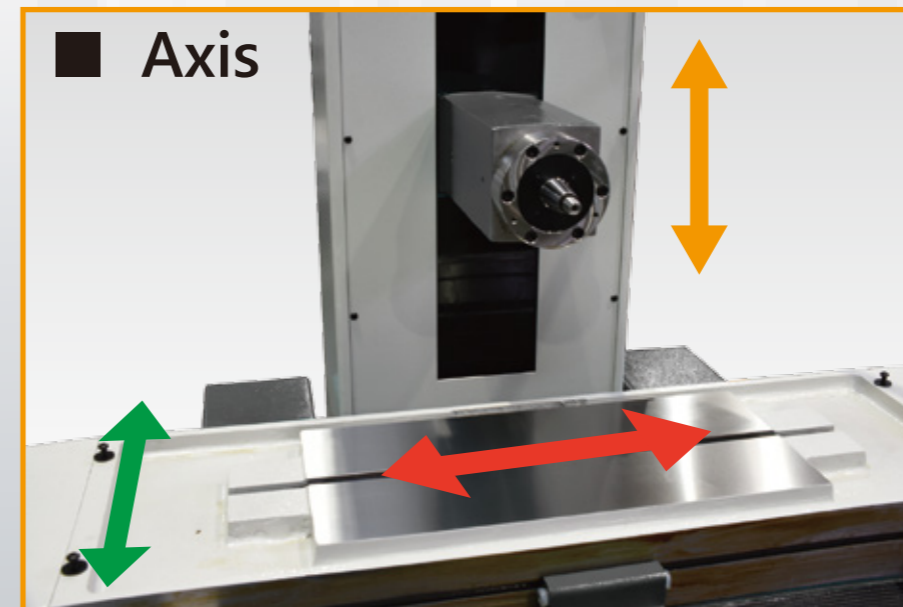


High rigidity double V base. Auto-lubrication function to resist the wear of guideways for lasting accuracy & damping.



High grade anti-wear design ("TURBITE-B"-coated) on all guideways.

### Axis



- Longitudinal Hydraulic
- Crossfeed motorized
- Rapid Up/Down motorized

### Standard Accessories

- Wheel Extrac Screw & Nut
- Balancing
- Levelling Screw With Blocks
- Wheel Flange
- Grinding Wheel
- Tool Box With Tools
- Auto Lubrication System
- Diamond Dresser
- Touch-up Paint
- Crossfed Ballscrew

### Working type

- Type I : Longitudinal Hydraulic
- Type II : Longitudinal Hydraulic & Crossfeed motorized
- Type III : Longitudinal Hydraulic & Crossfeed motorized & Rapid Up/Down motorized

## Technical specification

Model		MSG-618		MSG-818		MSG-1020		MSG-1224		MSG-1228	MSG-1236	MSG-1632	MSG-1640	MSG-2040	
		I, II	III	I, II	III	II	III	II	III	III	III	III	III	III	
Table size		152 x 460 mm		203 x 460 mm		254 x 508 mm		300 x 600 mm		300 x 712 mm	305 x 915 mm	406 x 813 mm	406 x 1020 mm	506 x 1020 mm	
Max. grinding length	Longitudinal	480 mm		480 mm		520 mm		600 mm		712 mm	915 mm	813 mm	1020 mm	1020 mm	
	Crosswise	168 mm		228 mm		280 mm		300 mm		330 mm	330 mm	410 mm	410 mm	500 mm	
Max. distance from table surface to spindle centerline		460 mm		460 mm		500 mm (Opt. 600 mm)		585 mm		Standard: 630 mm / Optional: 720 mm					720 mm
Standard magnetic chuck size		150 x 450 mm		200 x 450 mm		250 x 500 mm		300 x 600 mm		300 x 700 mm	300 x 900 mm	400 x 800 mm	400 x 1000 mm	500 x 1000 mm	
Longitudinal movement of table	Max. Travel (Hydraulic)	480 mm		480 mm		580 mm		650 mm		760 mm	960 mm	890 mm	1060 mm	1060 mm	
	Max. Travel (Manual)	510 mm		510 mm		620 mm		730 mm		830 mm	1000 mm	930 mm	1100 mm	1100 mm	
	Max. Travel (IV type)	60 Hz, 5-28m/min		60 Hz, 5-25m/min		60 Hz, 5-25m/min		60 Hz, 5-25m/min		60 Hz, 5-25m/min					
		50 Hz, 5-23m/min		50 Hz, 5-20m/min		50 Hz, 5-20m/min		50 Hz, 5-20m/min		50 Hz, 5-20m/min					
Cross Transverse Travel	Auto Transverse increment	1-10 mm		1-10 mm		1-13 mm		1-19 mm		0.5-25 mm	0.5-25 mm	0.5-25 mm	0.5-25 mm	0.5-25 mm	
	Max. auto transverse travel	180 mm		235 mm		270 mm		310 mm		350 mm	350 mm	430 mm	430 mm	510 mm	
	Max. manual transverse travel	195 mm		250 mm		300 mm		340 mm		380 mm	380 mm	460 mm	460 mm	520 mm	
	Handwheel per revolution	5 mm		5 mm		5 mm		5 mm		5 mm	5 mm	5 mm	5 mm	5 mm	
	Handwheel per graduation	0.02 mm		0.02 mm		0.02 mm		0.02 mm		0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	
Wheelhead vertical infeed	Automatic infeed	-	0.001 - 0.04 mm		-	0.001 - 0.04 mm		-	0.001 - 0.04 mm		0.001 - 0.04 mm				
	Step feed (jog)	-	0.001 mm		-	0.001 mm		-	0.001 mm		0.001 mm				
	Rapid travel, Approx	-	250 mm / min		-	250 mm / min		-	250 mm / min		270 mm / min				
	Slow travel, Approx	-	6 mm / min		-	6 mm / min		-	6 mm / min		6 mm / min				
	Handwheel per revolution	1 mm	1 mm	1 mm	1 mm	1 mm	1 mm	1 mm	1 mm	1 mm	1 mm				
	Handwheel per graduation	0.005 mm	0.005 mm	0.005 mm	0.005 mm	0.005 mm	0.005 mm	0.005 mm	0.005 mm	0.005 mm	0.005 mm				
Grinding spindle drive	Speed	60HZ,3450 R.P.M. 50HZ,2850 R.P.M.		60HZ,3450 R.P.M. 50HZ,2850 R.P.M.		60HZ,3450 R.P.M. 50HZ,2850 R.P.M.		60HZ,1750 R.P.M. 50HZ,1450 R.P.M.		60HZ,1750 R.P.M. / 50HZ,1450 R.P.M.					
	Power rating	2.0 HP		2.0 HP		3.0 HP		5.0 HP		Standard: 5.0 HP / Optional: 7.5 HP			7.5 HP		
Standard grinding drive	Diameter	203 mm		203 mm		203 mm		304 mm		355 mm					
	Width	12.7 mm, Max. 19 mm		12.7 mm, Max. 19 mm		19 mm, Max. 25 mm		31.75 mm		50 mm					
	Bore	31.75 mm		31.75 mm		31.75 mm		76.2 mm		127 mm					
Hydraulic motor		1.0 HP x 6P		1.0 HP x 6P		2.0 HP x 6P		2.0 HP x 6P		3.0 HP x 6P					
Crossfeed motor		40W x 6P		40W x 6P		80W x 6P		80W x 6P		80W x 6P	80W x 6P	80W x 6P	80W x 6P	80W x 6P	
Elevating motor		40W x 6P		40W x 6P		80W x 6P		80W x 6P		80W x 6P	80W x 6P	80W x 6P	80W x 6P	80W x 6P	
Total space require (L x W x H, Unit: mm)		1810 x 1133 x 1660		1810 x 1285 x 1680		2400 x 1500 x 1760		2700 x 1620 x 1850		3610 x 3420 x 1950	4280 x 3400x 1950	3300 x 3520 x 1950	4580 x 3500 x 1950	4770 x 4090 x 2100	
Approx. Weight (NW / GW)		840 / 980 KGS		1200 / 1380 KGS		1870 / 2150 KGS		1950 / 2250 KGS		3050 / 3550 KGS	3350 / 3700 KGS	3500 / 4000 KGS	4000 / 4550 KGS	5000 / 5800 KGS	
Approx. Rated Power		3.0 HP		3.0 HP		5.5 HP		7.5 HP		Standard: 8.5 HP / Optional: 11 HP					
Packing dimensions (L x W x H, Unit: mm)		1950 x 1050 x 1960	1990 x 1450 x 1950	1900 x 1560 x 1950	1910 x 1640 x 1930	2290 x 1850 x 2150	2490 x 2070 x 2100	2340 x 2150 x 2130	2490 x 2160 x 2100	2670 x 2300 x 2250	2790 x 2300 x 2250	2950 x 2300 x 2250	3150 x 2300 x 2250	3510 x 2300 x 2470	

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- Type I : Longitudinal Hydraulic
- Type II : Longitudinal Hydraulic & Crossfeed motorized
- Type III : Longitudinal Hydraulic & Crossfeed motorized & Rapid Up/Down motoruzed

## MSG-1640-NC

Hydraulic Type Surface grinders (NC)



## MSG-818-NC

Hydraulic Type Surface grinders (NC)



### Standard Accessories

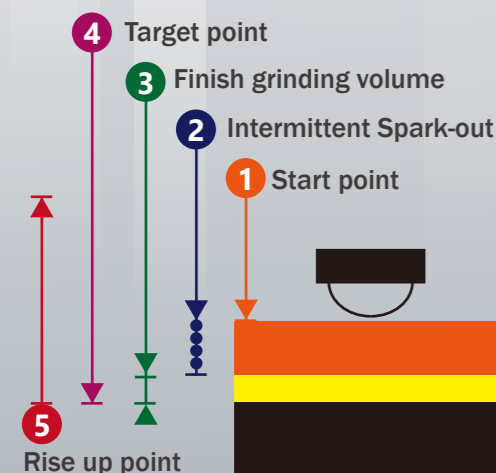
- Wheel Extrac Screw & Nut
- Balancing
- Levelling Screw With Blocks
- Wheel Flange
- Grinding Wheel
- Tool Box With Tools
- Auto Lubrication System
- Diamond Dresser
- Touch-up Paint
- Crossfed Ballscrew

## Maximart User-oriented Control Unit (NC)



- 1 7.2" Color Display w/ Touch screen
- 2 Embedded MPGs Mechanism for precise positioning
- 3 Chuck control section (Opt.) Permanent/Electro/Inclinable chucks selections
- 4 Y/Z - axis Travel Setting
- 5 Grinding Mode switch

## "One-stop Grinding Cycle" Precise Fine Surface



- Vertical movement (grinding wheel) is displayed on the screen for instant spindle position. (Automatic feed minimum 1  $\mu$ m)
- Clear, and Graphic Grinding Size Input: Interactive visual setting on Start Point, Intermittent Spark-out, Finish Grinding Volume, Target Point, and Grinding Wheel Rising up Point.
- Standard grinding wheel infeed (vertical movement) selection to fit any circumstances. (dualsides or one side of work table)
- A preset speed function on hydraulic work table gives a stable and durable speed rate for each grinding performance.
- Grinding wheel dressing speed adjusted on control unit.

## Machine Highlights

- Each and every component of models (including machine base, saddle, work table, wheel head) is made of high rigidity cast iron, giving a stable and smooth support for grinding performance, and greatly maintaining longer service duration.
- Enlarged honeycomb-ribbed design column comes standard with each model, and is well suitable for large parts and heavy-duty grinding solution.
- High grade anti-wear design ("TURBITE-B"-coated") on all guideways. (For Hydraulic and NC models)
- The double V-shaped guideways are hand-scraped by experienced craftsman to ensure smooth and steady movement of saddle (Cross Feed Travel/Z -axis movement).
- Cross feed travel (Z -axis movement) equipped with standard high grade Ballscrew, and powered by DC servo motor.
- Work table rests on precision hand-scraped one "V" and one "flat" design guideways, securing accurate positioning on every movement.
- Continuously lubrication system is actuated automatically, and fully delivered through all guideways, saddle, and ballscrew to minimize wear and friction.
- D.R.O. system upgrade is available for accurate positioning.



NC Starting page (Language select opt.)



NC Downfeed page (Rough grinding / Finish grinding / Sparkout setting)  
Minimum display unit:  
Y-axis: 0.001 mm, Z-axis: 0.001 mm



NC Setting of the grinding value

## Technical Specification

Model		MSG-618	MSG-818	MSG-1020	MSG-1224	MSG-1228	MSG-1236	MSG-1632	MSG-1640	MSG-2040
		NC	NC	NC	NC	NC	NC	NC	NC	NC
Table size		152 x 460 mm	203 x 460 mm	254 x 508 mm	300 x 600 mm	300 x 712 mm	305 x 915 mm	406 x 813 mm	406 x 1020 mm	506 x 1020 mm
Max. grinding length	Longitudinal	480 mm		520 mm	600 mm	712 mm	915 mm	813 mm	1020 mm	1020 mm
Max. grinding width	Crosswise	178 mm	228 mm	280 mm	300 mm	330 mm	330 mm	410 mm	410 mm	500 mm
Max. distance from table surface to spindle centerline		460 mm		500 mm (Opt. 600 mm)		585 mm	Standard: 630 mm / Optional: 720 mm			720 mm
Standard magnetic chuck size		150 x 450 mm	200 x 450 mm	250 x 500 mm	300 x 600 mm	300 x 700 mm	300 x 900 mm	400 x 800 mm	400 x 1000 mm	500 x 1000 mm
Longitudinal movement of table	Max. Travel (Hydraulic)	480 mm		580 mm	650 mm	760 mm	960 mm	890 mm	1060 mm	1060 mm
	Max. Travel (Manual)	510 mm		620 mm	730 mm	830 mm	1000 mm	930 mm	1100 mm	1100 mm
	Max. Travel (IV type)	60 Hz, 5-25m/min				50 Hz, 5-20m/min				
Cross Transverse Travel	Auto Transverse increment	0.1-10 mm		1-13 mm	1-19 mm	0.5-25 mm	0.5-25 mm	0.5-25 mm	0.5-25 mm	0.5-25 mm
	Max. auto transverse travel	180 mm	235 mm	270 mm	310 mm	350 mm	350 mm	430 mm	430 mm	510 mm
	Max. manual transverse travel	195 mm	250 mm	300 mm	340 mm	380 mm	380 mm	460 mm	460 mm	520 mm
	Handwheel per revolution	5 mm	5 mm	5 mm	5 mm	5 mm	5 mm	5 mm	5 mm	5 mm
	Handwheel per graduation	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm	0.02 mm
Wheelhead vertical infeed	Automatic infeed					0.001 - 0.1 mm				
	Step feed (jog)					0.001 mm				
	Rapid travel, Approx					400 mm / min				
	Slow travel, Approx					6 mm / min				
Grinding spindle drive	Speed	60HZ,3450 R.P.M. 50HZ,2850 R.P.M.	60HZ,3450 R.P.M. 50HZ,2850 R.P.M.	60HZ,3450 R.P.M. 50HZ,2850 R.P.M.	60HZ,1750 R.P.M. / 50HZ,1450 R.P.M.					
	Power rating	2.0 HP	2.0 HP	3.0 HP	5.0 HP	Standard: 5.0 HP / Optional: 7.5 HP			7.5 HP	
Standard grinding drive	Diameter	203 mm	203 mm	203 mm	305 mm	355 mm				
	Width	12.7 mm, Max. 19 mm	12.7 mm, Max. 19 mm	19 mm, Max. 25 mm	31.75 mm	50 mm				
	Bore	31.75 mm	31.75 mm	31.75 mm	76.2 mm	127 mm				
Hydraulic motor		1.0 HP x 6P	1.0 HP x 6P	2.0 HP x 6P	2.0 HP x 6P	3.0 HP x 6P				
Crossfeed motor		400W	400W	400W	400W	750W				
Elevating motor		400W	400W	750W	750W	1KW				
Total space require (L x W x H, Unit: mm)		2850 x 2700 x 1750	2930 x 2690 x 1750	3000 x 3100 x 1750	3270 x 3150 x 1830	3610 x 3420 x 1950	4270 x 3350 x 1950	3950 x 3520 x 1950	4590 x 3520 x 1950	4800 x 4100 x 2100
Approx. Weight (NW / GW)		860 / 990 KGS	1200 / 1380 KGS	1820 / 2170 KGS	1990 / 2280 KGS	3020 / 3550 KGS	3350 / 3700 KGS	3500 / 4000 KGS	4000 / 4550 KGS	5000 / 5800 KGS
Approx. Rated Power		4.0 HP	4.0 HP	7.0 HP	9.0 HP	Standard: 10.5 HP / Optional: 13 HP			13.5 HP	
Packing dimensions (L x W x H, Unit: mm)		1990 x 1450 x 1950	1900 x 1560 x 1950	2290 x 1850 x 2150	2340 x 2150 x 2130	2670 x 2300 x 2250	2790 x 2300 x 2250	2950 x 2300 x 2250	3150 x 2300 x 2250	3510 x 2300 x 2470

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# Optional Accessories

- |   |  |                                       |  |
|---|--|---------------------------------------|--|
| 1 Adjustable speed rotary magnetic chuck            | 11 Manual parallel dressing attachment   | 16 Dynamic balancer                   | 26 Concave/Convex forming dresser        |
| 2 Permanent magnetic chuck                          | 12 Chuck control with demagnetizer       | 17 Punch former                       | 27 Hydraulic oil cooling system          |
| 3 Electro magnetic chuck                            | 13 Table type splash guard               | 18 Digital read out (DRO)             | 28 Micro down-feed for 1020 series above |
| 4 Inclined permanent magnetic chuck                 | 14 Electric parallel dressing attachment | 19 Manual pulse generator             | 29 Manual pulse generator for NC series  |
| 5 Coolant system with magnetic separator            | 15 Fully enclosed splash guard           | 20 Spare wheel flange                 | 30 Precision vice                        |
| 6 Coolant system                                    |  | 21 Halogen work light                 |  |
| 7 Coolant and dust unit                             |  | 22 Balance stand (Double line)        |  |
| 8 Auto paper feeding device with magnetic separator |  | 23 Inverter                           |  |
| 9 Dust collector                                    |  | 24 Roller type balancing stand        |  |
| 10 Coolant system with manual paper feeding         |  | 25 Micro crossfeed for 618/818 series |  |

