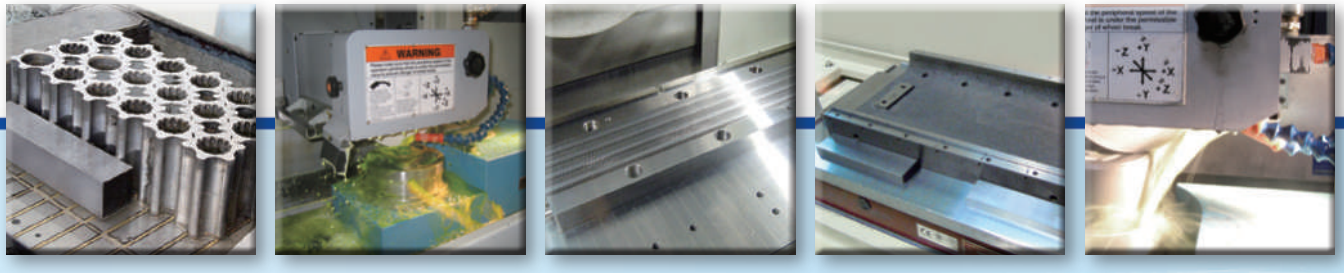
FAUSHON®

福順磨床 · 無與倫比



SSG series

Numerical Surface Grinder

SSG-818 • SSG-1224 • SSG-1632 • SSG-1640

SSG-818 • 1224 • 1632 • 1640 series

Machine Feature

Key Features

This model is a combination of technology for many years, the structure is strong and stable, the operating handle and the movable operating box are within the best sight of the operator and the most comfortable operating position. This is an excellent model with ergonomic design to provide you with more High work efficiency.

Spindle

The spindle is supported by 5 ultra-precision angular ball bearings. The structure is stable and strong, which can bear heavy load grinding.

2 Axes with Linear guideway & 1 Axis Box guideway

The Z-axis and Y-axis adopt high-precision linear guideways, combined with high-precision ballscrews, which can make the movement smooth and without hysteresis; the X-axis is a double-V or one-V-flat box way matched with the saddle with full support, which can be used when loading Maintain accuracy without deformation.

Vertical Drive By AC Servo Motor

C3 level ballscrew, driven by AC servo motor, with large torque, fast speed, high positioning accuracy, and with the CNC system, accurate can reach 0.0001mm.

Crossfeed Speed Control

Saddle continuous movement speed is controlled by a AC servo motor for obtaining better grinding surface finish and dressing grinding wheel from table.

Inspection

In Process Quality Control - To ensure the quality, accuracy, and longevity of our products, every technician follows step-by-step quality control procedures from casting to final product.

The column is placed on a granite surface plate and the perpendicularity of the guideways is inspected with a precision electro-indicator.

The parallelism of the wheelhead guideways is inspected with a precision electro-indicator.

Parallelism and flatness of the table guideways are checked by "In Process Quality Control". These and numerous other tests throughout production help to maintain and improve the quality of FAUSHON grinders.

Spindle Temperature Rise Test

To assure spindle temperature rise to match our standard, the spindle is tested under a non-load condition for a minimum of 8 hours. The spindle is run throughout its entire speed range while being continuously monitored by a thermograph.

Runout of Wheel Spindle Conical

Surface -Apply a test indicator to the rear, middle and front points of the conical surface of the wheel spindle, and rotate the wheel spindle, the variation shall be under standard.

Spindle Dynamic Balancing Test

The spindle of each machine is calibrated by a portable precision dynamic vibration measuring device. The final amplitude of spindle vibration shall be under standard.

Parallelism and Squareness of Wheel Spindle Centerline to Table Surface

Place a cylinder gauge on the table, swing the test indicator which is fixed on the wheel spindle, and obtain the readings of the indicator when table is at its right, middle and left positions.

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Inspection

Parallelism of Table Surface to Table Cross Transverse

Attach the base of a test indicator to the wheel head. Touch the stylus of the indicator to the table surface. Traverse the table in and out to standard value.

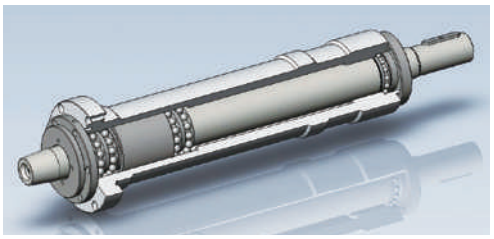
Parallelism of Table Surface to Table Longitudinal Movement

Attach the base of a test indicator to the wheel head. Touch the stylus of the indicator to the table surface. Move the table left to right and reverse, the indicator variation to maximum.

Machine Construction

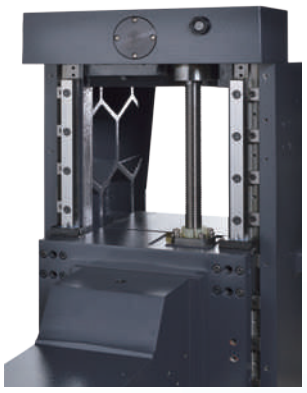
Spindle

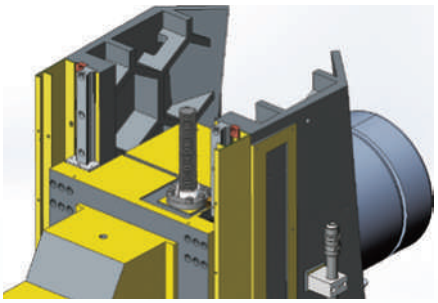
The spindle is supported by four pieces super precision angular contact ball bearings which have been accurately measured, selected and preloaded, and then assembled in a temperature controlled clean room. The spindle is permanently lubricated and requires no aintenance. Spindle motor, spindle shaft, and couplings are precisely balanced to ensure accuracy and superb surface finish.



Elevating Guideway System

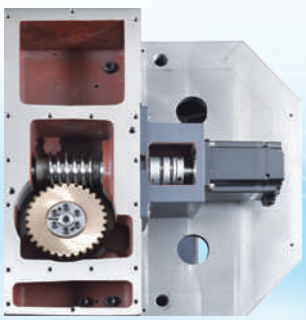
The wheelhead and column system is composed of hardened and ground inserted steel guideways and precision roller bearings. The wheelhead and column guideways are preloaded providing zero clearance for precise straight line movement. The low friction wheelhead guideway system enables accurate feeds even at 0.001mm increments.

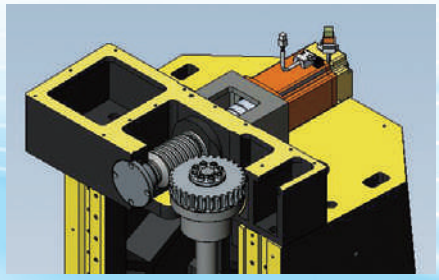




Lifting fine-tuning device

It adopts a worm gear with a compound lead of 1:30 and a high-precision ball screw. It not only has the self-locking function, but also can achieve 0.0001mm fine-tuning feed to ensure stable grinding.



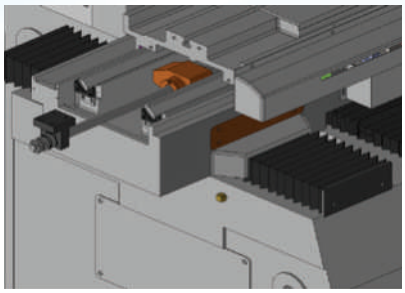


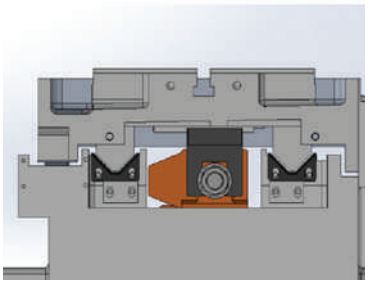
SSG-818 • 1224 • 1632 • 1640 series

Machine Construction

Table Guideway System

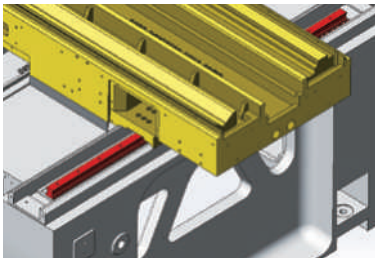
The sliding method of the worktable is specially designed with double V or one V one boxway structure and a saddle with full support, so that the worktable can maintain high speed and smooth operation without vibration when loading, so as to achieve high rigidity and high precision grinding.





Saddle Guideway System

The guideway of the saddle is composed of high-precision linear guide and high-precision ballscrews. The saddle can still maintain high precision and stable feed under load. The combination of these two will provide low friction and no viscosity. Better and longer service life.



SSG-1224

Note:Machine shown with optional accessories

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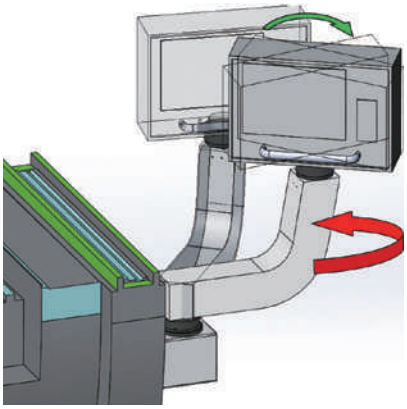
Control

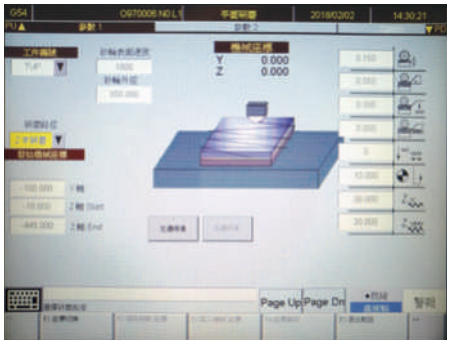
Control Station

The control station can be adjusted to a comfortable position for the operator. All switches, buttons, LEDS, indicating lamps, and displays are ergonomically positioned providing user friendly operation.

The control features are:

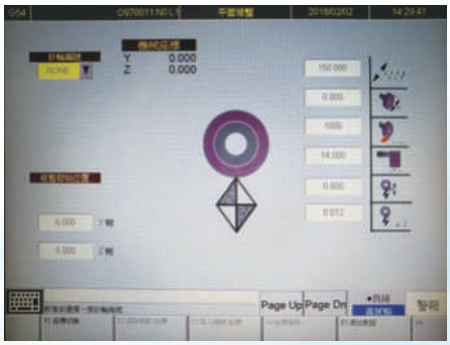
1. High reliability NC control platfom.
2. 10.4" TFT high resolution 65,536 pixel color touch panel control interface.
3. Powerful graphic conversational function with surface/plunge standard built-in grinding program.
4. Brief and clear operation panel.
5. Machine abnormal alarm message display and alarm history record.
6. Y axis home positioning function.
7. Multi-language support available.
8. Mechanical coordinates and relative coordinates display.
9. Digital I/O check mode makes service system more efficient.
10. Operation friendly, grinding, wheel dressing and automatic compensation can be accomplished easily without making CNC program.



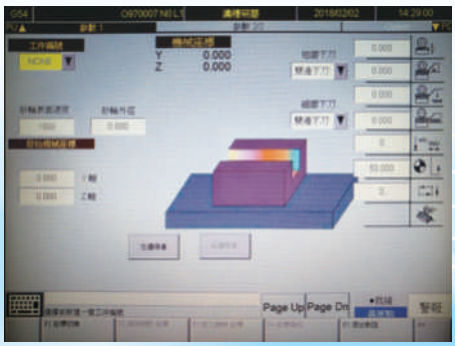


Crisscross Grinding

Surface Grinding Mode



Automatic Dressing



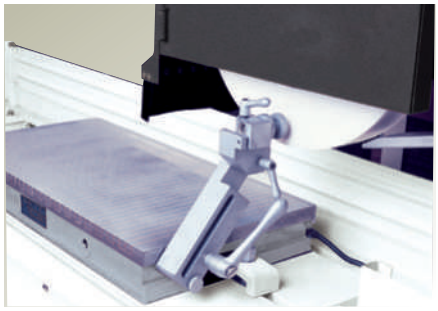
Plunge Grinding Mode

SSG-818 ◦ > 1224 • 1632 • 1640 series

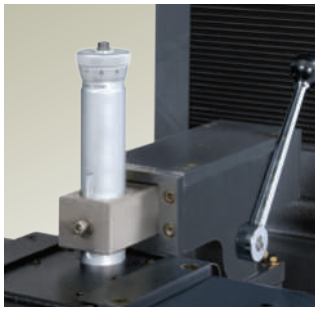
Optional Accessories

Note: Items marked with • are recommended to be factory installed

Machine Lamp
(12V, 50W)



• Single Face Dresser



• Parallel Dressing Attachment (Manual Type) For 355mm wheel

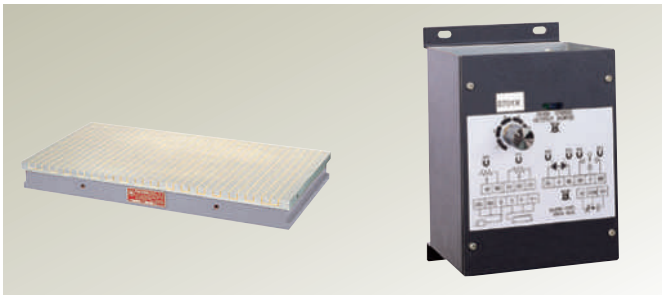
Frequency Converter for Spindle
5/7.5HP (Voltage: 200V、400V)

Wheel Flange
B05-0101
For Ø203xØ31.75x12.7~19mm wheel
SSG-818

Wheel Flange
B05-0401
For Ø355 xØ127x50mm wheel
SSG-1224/1632/1640

Balancing Stand with Levelling Bubble
Max. Dia.: 355mm
Max. Width: 50mm

Balancing Stand (Roller Type)
Suitable for:
For 203~355mm grinding wheel

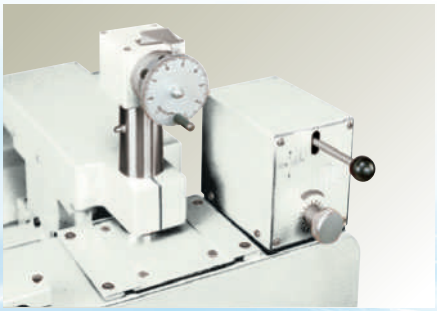


Electromagnetic Chuck
(**818**) 200 x 450mm
(**1224**) 300 x 600mm
(**1632**) 400 x 800mm
(**1640**) 400 x 1,000mm
Voltage ： 110VDC
**Chuck Control is required for all of the above.

• Chuck Controller
Input ： 140VAC
Output ： 110VDC

• Double side water baffle

Over-The-Wheel Auto. Straight Line Dressing & Compensation Device
Suitable for: 355mm Grinding
Wheel Dressing Width: 70mm



• Parallel Dressing Attachment (Hydraulic)
Suitable for: 355mm Grinding
• Wheel Dressing Width: 70mm

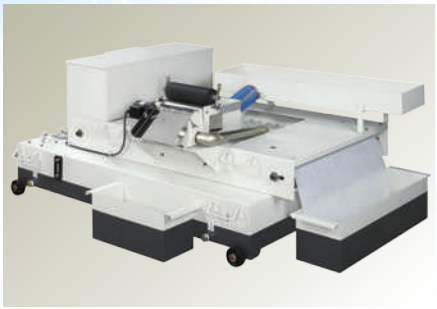
SSG-818 • 1224 • 1632 • 1640 series

Optional Accessories

Note: Items marked with • are recommended to be factory installed

• Dust Collector
Suction Motor: 1/2HP, 2P
Space: 470 x 500mm
Height: 585mm

Coolant System With Double Filter
Volume: 95L
Pump: 1/8HP
Coolant Capacity: 20L/min.
Space: 660 x 480mm
Height: 610mm



Coolant System With Auto. Paper Feeding Device & Magnetic Separator (with 1 Roll of Paper)
Volume: 120L
Paper feeding motor: 25W
Pump: 1/8HP
Coolant Capacity: 20L/min.
Space: 1,450 x 620mm
Height: 760mm

Coolant System with Auto. Paper Feeding Device (with 1 Roll of Paper)
Volume: 120L
Paper feeding motor: 25W
Pump: 1/8HP
Coolant Capacity: 20L/min.
Space: 1,450 x 620mm
Height: 760mm

Coolant System with Manual Paper Feeding Device
Volume: 85L
Pump: 1/8HP
Coolant Capacity: 20L/min.
Space: 550 x 1,000mm
Height: 775mm

Standard Accessories

- Tool box
- Locked nut
- Hex Wrenches
- Splash guard
- Wheel flange
- Puller nut
- Levelling pads
- Grinding wheel
- Balancing arbor
- Levelling screws & nuts

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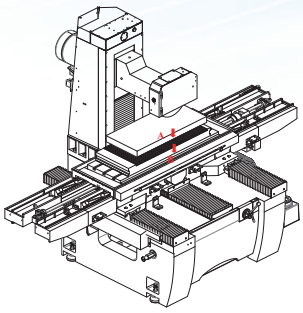
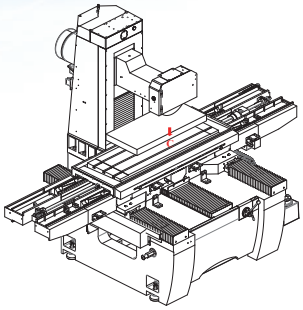
Permissible Load of Machine



Grinding with Magnetic Chuck



Grinding without Magnetic Chuck

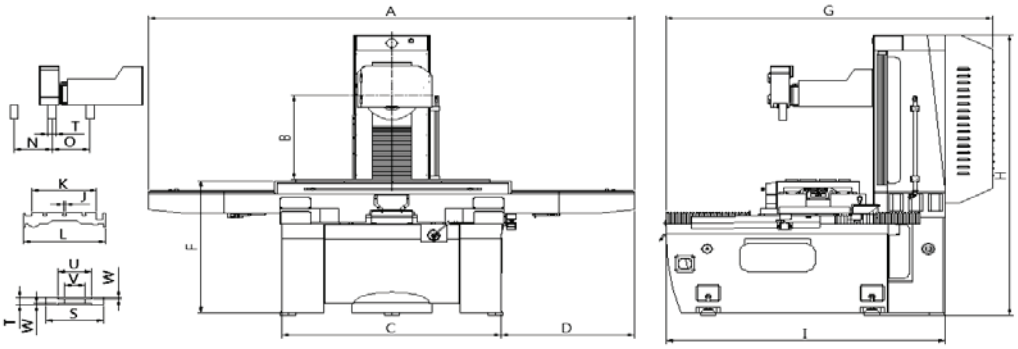
Unit : Kg

The total suggested maximum workloads of table are shown as follows:

A = Workpiece B = Magnetic Chuck C=A+B

型 式	SSG-818	SSG-1224	SSG-1632	SSG-1640
A	175	314	403	42
B	35	106	197	247
C	210	420	600	670

Dimensional Drawings



Unit : mm

Item	SSG-818	SSG-1224	SSG-1632	SSG-1640
A	1760	2250	2620	3020
B	400	600	600	
C	800	960	1360	
D	450	640	680	830
F	995	980	950	
G	1372	1440	2025	
H	1770	2100	2020	
I	1045	1440	1730	
J	12	14		
K	200	305	400	
L	290	400	510	
N	118	180	255	
O	118	180	255	
S	203	355		
T	13	50		
U	–	210		
V	31.75	127		
W	–	9.5		

SSG-818 • 1224 • 1632 • 1640 series

Specification

Description		Unit	SSG-818	SSG-1224	SSG-1632	SSG-1640
Table Size		mm	200 x 460	300 x 600	400 x 800	400 x 1000
Max. Grinding Length	Longitudinal	mm	460	610	810	1015
Max. Grinding Width	Crosswise	mm	200	305	405	
Max. Distance from Table Surface to Spindle Centerline		mm	400	600		
Standard Magnetic Chuck Size		mm	200 x 460	300 x 600	400 x 800	400 x 1000
Longitudinal Movement of Table	Travel/hydraulic	mm	460	650	850	1050
	Speed	m/min	5~25			
Cross Movement of Table	Rapid travel	m/min	0~2.25			
	Auto transverse increment	mm	3~32			
	Maximum travel	mm	220 (std)	320 (std)	420 (std)	
	Mini input	mm	0.0001			
Wheelhead Vertical Infeed	Automatic infeed	mm	0.0001~0.04			
	Rapid travel (approx.)	m/min	0~675			
	Mini input	mm	0.0001			
Grinding Spindle Drive	Speed	Hz/rpm	60/3450	60/1750、50/1450		
	Power rating	Hp(Kw)	4(3)	7.5(5.625)		
Grinding Wheel	Dia.	mm	203	355		
	Width	mm	13	50 Double Recess		
	Bore	mm	31.75	127		
Hydraulic System	Power rating	Hp(Kw)	1(0.75)	2(1.5)		
Crossfeed Drive	Power rating	KW	AC servo 0.75 / 1.1			
Elevating Drive	Power rating	KW	AC servo 0.75 / 1.1			
Floor Space	Total space required	mm	2400x1500x1780	2850x1900x2000	3150x1930x2200	3560x2250x2000
Weight	Net weight approx	Kg	1750	2500	3550	4150
	Gross weight approx.	Kg	2250	3100	4250	5000
Rated Power, Approx.		Hp(Kw)	6(4.5)	10(7.5)		

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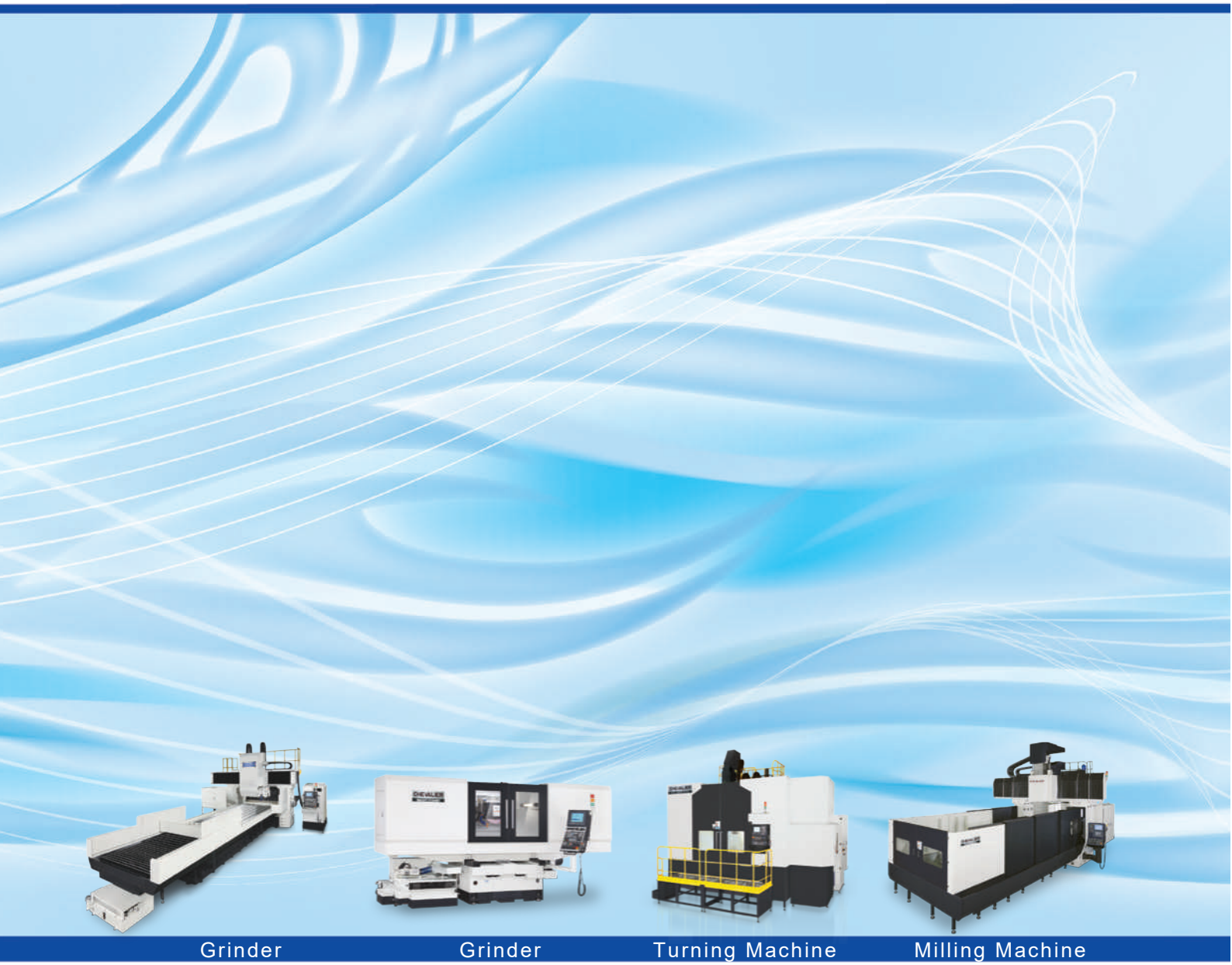

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