



# *Grinder Professionals*

NC Precision Surface Grinders

**Easy series**



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## Easy Series Surface Grinders

*Simple-operating and high precision grinders,  
the best choice for customers.*

### Specially Built For Mold and High-tech Electronics Industries

E-tech Easy Series surface grinders present unique grinding accuracy and surface finish, and the column type structure design provides high precise rigidity. When grinding large working pieces, this design creates praising machine accuracy. Easy series supply PLC control panel and color touch screen with strong function and easy operation; furthermore, auto grinding function met the target of time saving and high efficiency.



### Saddle Type Structure

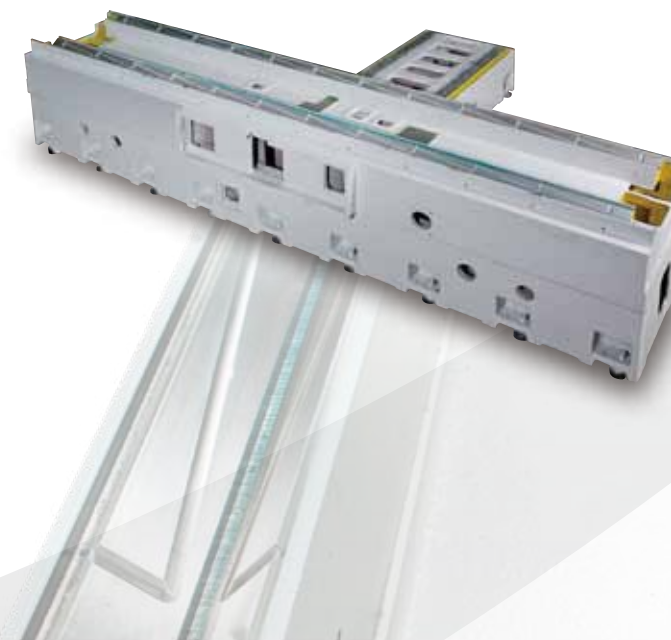
- The base uses strong box structure, and the high rigidity base provides steady support which ensures the long-term precision.
- The double V design of the base slideways raises the supporting stability.
- The interior strengthened rib design effectively increases the structure rigidity.

Easy Series Column Type Surface Grinder



### Column Type Integral "T" Shape Base

- The integral "T" shape base is manufactured from Meehanite casting, with tempering & stress-relief treatment to ensure structure stability.
- The base is 2.5 times longer than the working table, which makes the working table fully supported during the whole working travel and this function also increase the supporting rigidity when grinding.
- For large working pieces, the working table slideways are modified as double V guide ways. Deepen and widen the guideway with large span design enables the working table to move steadily and smoothly.
- Special lubrication circuit design enables the working table fully supported by oil film pressure, and decrease the friction between guideways which will increase the use time of the machines.
- The guideway lubrication system provided with a pressure switch sensor to make sure the machine has enough oil film pressure.

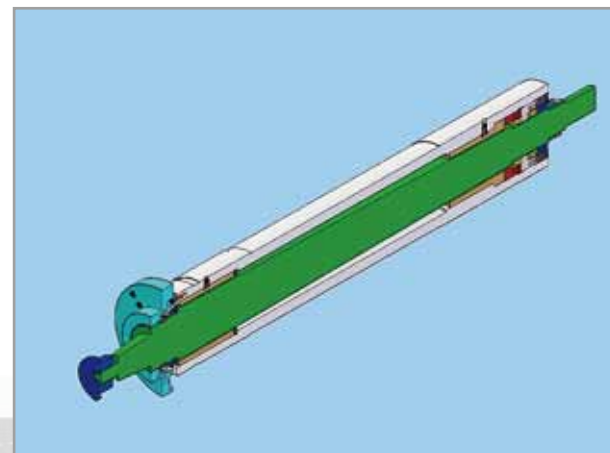
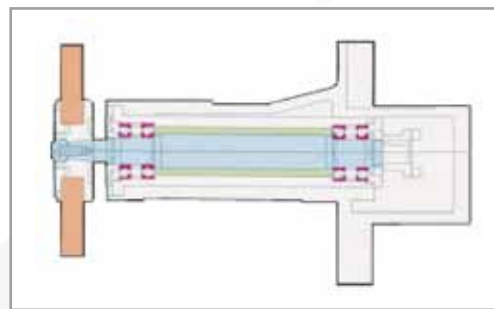


## Grinding Wheel Spindle

Easy series grinding wheel spindle provides hydrostatic and hydrodynamic spindle for customers, all spindles are fabricated and sealed under temperature-controlled environment, and after dynamically balanced then process a long time no-load running-in to make sure the accuracy and stability.

## Bearing Spindle Standard (for Saddle Type)

Bearing spindle features high accuracy, low chattering, and low thermal growth. The spindle runs on multiple P4 class angular contact ball bearings and the grease sealed lubrication makes the spindle easy to maintain; capable of continuous running; furthermore, the spindle run-out is less than 0.002mm(0.0008”).



## Hydrostatic & Hydrodynamic Spindle Standard (for Column Type)

Hydrostatic & Hydrodynamic Spindle use steady oil pressure supply to support spindle, and the run-out is less than 0.0025mm, stiffness over 50kgf/um. This function is suitable for light and heavy grinding. The hydraulic circuit is connected to a pressure sensor, once the oil pressure is too low the grinding wheel will automatically stopped to prevent causing any damage to the spindle.

## Control Panel

The machine is equipped with a PLC control in combination of color touch screen and user-friendly operation. The operator can simply set up the grinding amount and be ready for a grinding cycle. The control system will save the last grinding cycle setting, and the operator can press “cycle start” button to repeat previous grinding movement and start the cycle again.



### MPG setting

The operator can use the MPG to manually set up the Y axis feed rate



**Main Menu**

**GRINDING MODE**

STEP-CROSS	CRISSCROSS	PLUNGE

FEED SELECTION

FRONT	REAR	LEFT	RIGHT
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PARK SELECTION

LEFT	RIGHT
NEXT	

**Grinding Setting Menu**

Position: \_\_\_\_\_

TOTAL STOCK REMOVAL : \_\_\_\_\_ mm

FINE-FEED AMOUNT : \_\_\_\_\_ mm

COARSE INCREMENT : \_\_\_\_\_ mm

FINE INCREMENT : \_\_\_\_\_ mm

SPARKOUT PASSES : \_\_\_\_\_

CLEARANCE : \_\_\_\_\_ mm

MAIN  
JOG

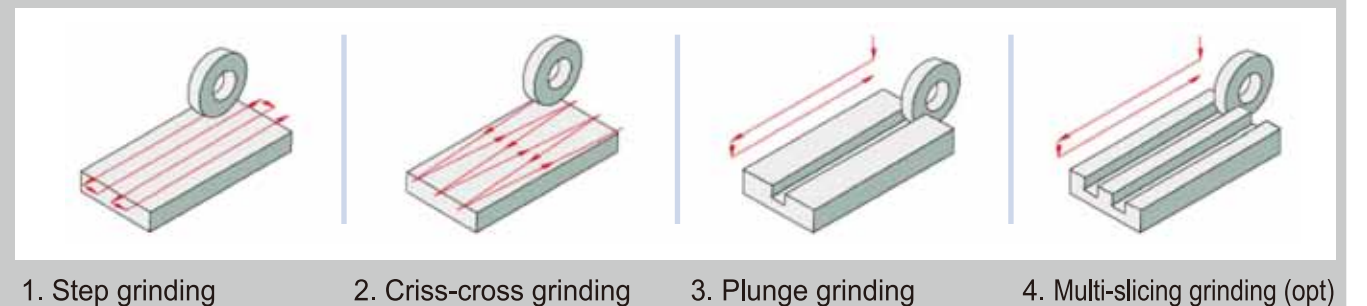
**Data Input Keyboard**

7	8	9	CLR
4	5	6	▲
1	2	3	▼
0	-	ENT	

## 2 Axis Crossfeed Set Up

Crossfeed can be pre set, and the operator can also choose to set the front/rear axis to feed from both sides or one side of the working table. The grinding wheel spindle can be also set up to grind from both sides or either one side of the working table. The working table can be set up left and right efficient infeed, and the operator can choose from left or right side of the start/stop position setting. Furthermore, the operator can choose auto dressing attachment for automatic grinding function.

## Grinding Cycle



1. Step grinding

2. Criss-cross grinding

3. Plunge grinding

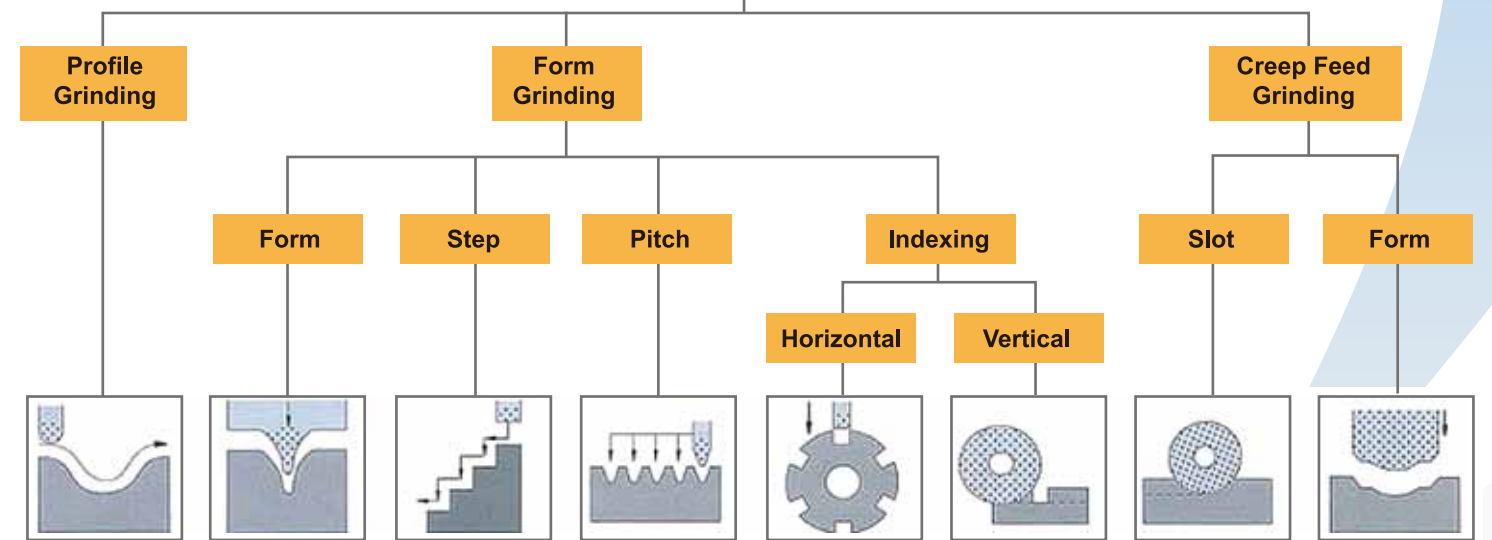
4. Multi-slicing grinding (opt)



# Easy Series CNC Surface Grinders



## CNC Grinding Applications



## CNC Control System

Easy CNC Series use Fanuc control system, which is capable of grinding wheel continuously dressing, auto compensation, and fully-automatic process. By using digital readout feedback system (optional accessory), operator can set up high precision grinding process.

This system can be set up with special accessories for auto grinding wheel balance adjustment, auto dressing, and auto protection when hit or incorrect operating. This system can also set up with diamond grinding wheel for grinding wheel forming dressing.

Fully-automatic & grinding wheel set up program offer fast and continuous dressing process, and these functions can provide precise accuracy and dressing efficiency when decreases the time cost of grinding cycle.



Auto compensation dressing attachment (Optional)



# Multiple Grinding Functions

Choosing different special accessories for Easy series Surface Grinders, the operator will have multiple grinding functions. For example, the operator can choose to equip a diamond dressing attachment and rotary working table, which enables auto surface & rotary grinding with auto dressing function.(CNC Model)



## STANDARD ACCESSORIES

- Standard grinding wheel with flange
- Working lamp
- Leveling screws with blocks
- Balancing stand with arbor
- Wheel extractor
- Operation manual with part list
- Hand tools box with adjustment kits
- Diamond kit with holder
- Splash guard
- Standard coolant tank



## OPTIONAL ACCESSORIES

- Permanent magnetic chuck
- Tilting Permanent magnetic chuck
- Combine coolant and dust collector
- Dust collector
- Hydraulic parallel dressing attachment
- Automatic dressing attachment with compensation system
- Inverter for wheel head spindle
- Auto demagnetizer
- Manual demagnetizer
- Optical scale
- Full – closed splash guard
- Oil and mist separator
- Spare wheel flange (5")



■ Coolant system with Magnetic separator and paper filter



■ Coolant system with Magnetic separator



■ Chiller



■ Rotary table



■ Roller type dressing attachment



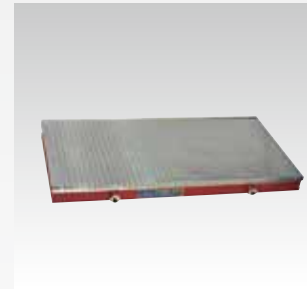
■ Diamond wheel dressing attachment



■ Magnetic chuck (Standard)



■ Magnetic chuck (Hi power)



■ Electromagnetic chuck (fine pole)



■ Angle dressing attachment



■ Radius dressing attachment



■ Parallel dressing attachment (manual)



■ Scope type dressing attachment



■ Dual side dressing attachment



■ Roller type balancing stand

## Easy Series Surface Grinder Specifications

Description / Unit / Mode	Unit	Easy 1224NC	Easy 1632NC	Easy 2040NC	Easy 2060NC	Easy 2448NC	Easy 2460NC	Easy 2480NC	Easy 24100NC	Easy 24120NC	Easy 3248	Easy 3260	Easy 3280	Easy 32100	Easy 32120	
<b>General Capacity</b>																
Table Size	mm	300 x 600	400 x 800	500 x 1000	500 x 1500	600 x 1200	600 x 1500	600 x 2000	600 x 2500	600 x 3000	810x1350	810x1650	810x2150	810x2650	810x3150	
Max. Grinding Length	mm	600	850	1050	1550	1250	1550	2050	2550	3050	1250	1550	2050	2550	3050	
Max. Grinding Width	mm	300	400	500	510	610					810					
Distance from Table Surface to Spindle Centerline	mm	550			700			700				800 (Std.) / 1000 (Opt.)				
Stand Mag, chuck size	mm	300 x 600	400 x 800	500 x 1000	500 x 1500	600 x 1200	600 x 1500	600 x 2000	600 x 2500	600 x 3000	800 x 1200	800 x 1500	800 x 2000	800 x 2500	800 x 3000	
Saddle /Column Moving	per	Saddle Moving		Column Moving		Column Moving					Column Moving					
<b>Longitudinal Movement X-Axis</b>																
Table Speed (Infinitely Variable)	M/min	3 - 25		3 - 25		3 - 25					3 - 25					
<b>Cross Movement Z-Axis</b>																
Manual Travel	mm	370	470	560			660					860				
Rapid Travel, approx	M/min	0.5 - 1		0.5 - 1		0.5 - 1					0.5 - 1.5					
Automatic Increment Feeds	mm	0.5 - 8		2 - 10		2 - 10					1 - 15					
Handwheel per Graduation	mm	0.02				0.001/0.01/0.1 (MPG)					0.02 (Opt.)					
Handwheel per Revolution	mm	5				0.1/1/10 (MPG)					5					
<b>Vertical Downfeed Y-Axis</b>																
Rapid Travel	mm/min	190		285		280					280					
Automatic Downfeed	mm	0.001 - 0.03				0.001 - 0.03					0.001 - 0.05					
Handwheel per Graduation	mm	0.01/0.1/1 (MPG)				0.01/0.1/1 (MPG)					0.005					
Handwheel per Revolution	mm	0.1/1/10 (MPG)				0.1/1/10 (MPG)					0.5					
<b>Grinding Wheel</b>																
Wheel Size (OD x W x ID)	mm	ø355 x 50 x ø127		ø405 x 50 x ø127			ø405 x 50 x ø127					ø510 x 50 x ø127 (Std.) / ø510 x 75 x ø127 (Opt.)				
Spindle Speed (60 Hz)	rpm	1800				1800					1100					
<b>Motor</b>																
Spindle Motor	Hp	5		10		10					15 HP 6P					
Crossfeed Z Axis Motor	Kw	0.2		0.5		1					500W					
Elevating Y Axis Motor	Kw	1				3					1KW					
Hydraulic Motor	Hp	2		3	5	5					7.5 Hp		10Hp			
<b>Weight</b>																
Net, approx.	Kg	4050	4500	7500	8700	7700	8800	9850	10900	12000	7400	8200	9500	11000	12000	
Gross, approx.	Kg	4500	5100	8300	9500	8500	9600	10650	11700	12800	7900	8700	10100	11500	12700	
Packing Dimensions (L x W x H)	mm	2580 x 2250 x 2550	3030 x 2280 x 2550	4280 x 2280 x 2550	5180 x 2280 x 2550	4280 x 2280 x 2550	5180 x 2280 x 2550	6290 x 2280 x 2550	7600 x 2280 x 2550	8600 x 2280 x 2550	40 HQ					

NC: PLC control servo motor  
CNC: CNC control servo motor (2 Axis/3 Axis)

▪ Manufacturer reserves the right to change or improve specifications without notice.