



\ Your Partner for the Future \

**Hone Right Precision Machinery Co., Ltd.**

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**HR**  
**HONERight**

**DOUBLE COLUMN  
SURFACE GRINDER**

“ With outstanding knowledge in surface grinding to offer the most complete technical support. ”

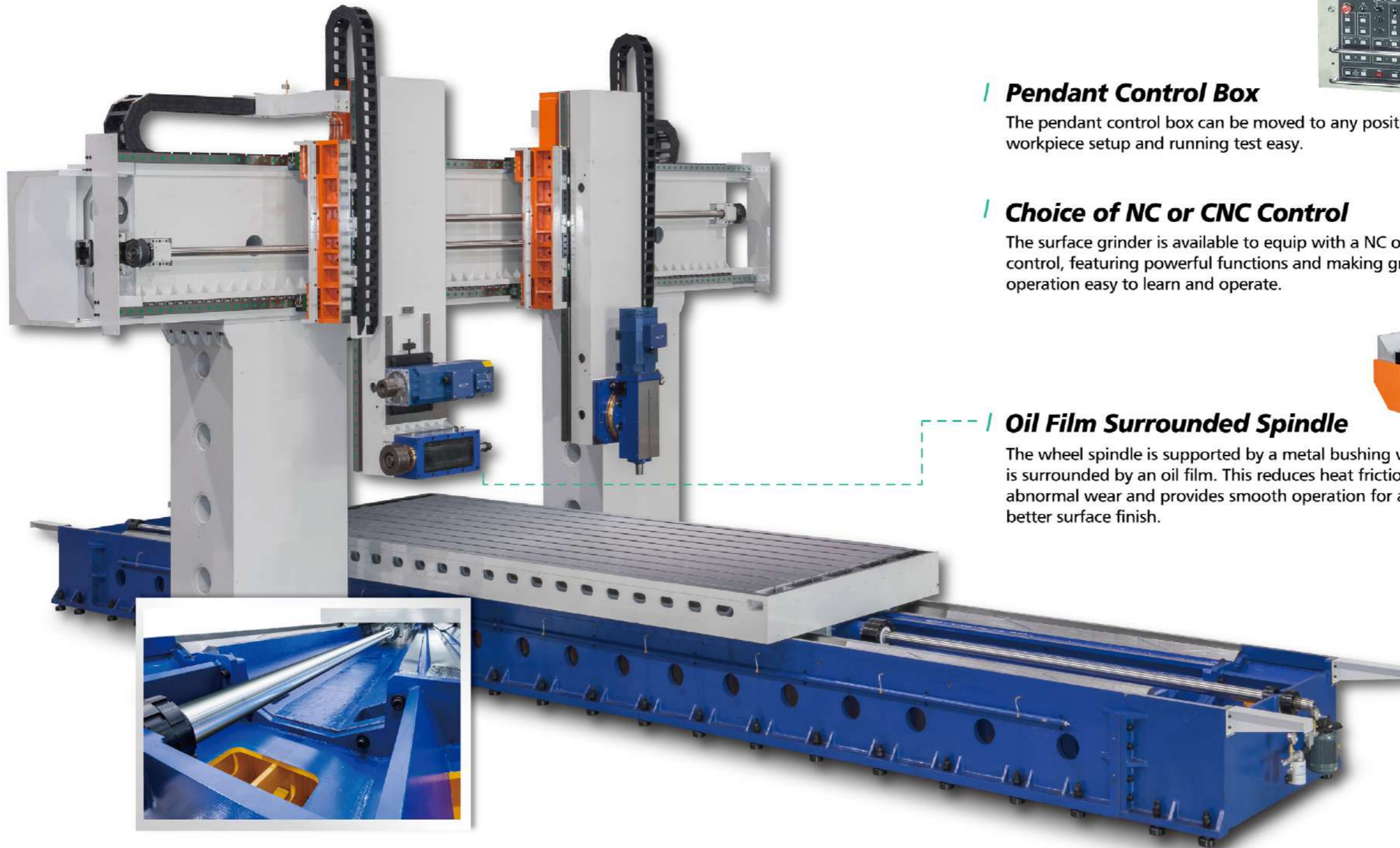
### **| Complete Technical Support**

When you purchase a double column surface grinder from Hone Right, you get more than just a high quality machine, you also get the most complete technical support. With over 20 years of experience in surface grinding operations, Hone Right has an outstanding background in grinding techniques. We are always ready to help and solve your grinding problems.

### **| Tell Us What You Need**

We custom design machine for your need of precision and accuracy.





**Pendant Control Box**

The pendant control box can be moved to any position, making workpiece setup and running test easy.

**Choice of NC or CNC Control**

The surface grinder is available to equip with a NC or CNC control, featuring powerful functions and making grinding operation easy to learn and operate.

**Oil Film Surrounded Spindle**

The wheel spindle is supported by a metal bushing which is surrounded by an oil film. This reduces heat friction, abnormal wear and provides smooth operation for a better surface finish.



▲ HRE 1503

**Double "V" Slideways on Base**

Extra large double "V" slideways on the base effectively increase contact area between mating surfaces. This provides the rigid support for heavy workpiece.



**X-axis Driven by Hydraulic Cylinder**

The X-axis movement is driven by a double-acting hydraulic cylinder, featuring smooth motion without deformation or oil leakage problem.

X-axis moving speed can be adjusted on the control panel.

The hydraulic system features buffering function to eliminate impact problem at the end of stroke. It not only provides a protection for the hydraulic cylinder but also extends cylinder life.

**Laser Inspection**

Hone Right Q.C. Department applies the laser instrument to inspect the straightness accuracy of the structural parts.

**Straightness Accuracy: 0.008 mm/ 3 meters.**



**Electronic Level Gauge**

An electronic level gauge is applied to inspect the level accuracy of a workpiece surface.



**Grinding Test Service**

At Hone Right we provide proof of our machine's capability through a rigorous grinding test service.

Additionally, we also provide complete operational analysis, including wheel specifications, wheel spindle speed and feed rates, material removal feed, etc.

**Hydraulic Power Unit**

The hydraulic power unit employs a powerful device, providing powerful drive for X-axis movement.

Smooth movement on X-axis can be ensured even at low speed.

The cooler enables the hydraulic oil to maintain a constant temperature for reliable operation.

**Spindle Oil Cooler**

The spindle oil cooler allows the spindle to run at a constant temperature, reducing thermal deformation of the spindle to a minimum.

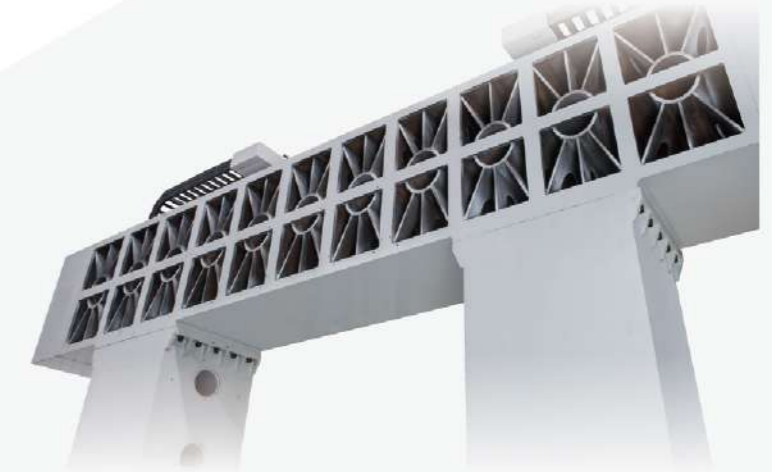
**Circulated Lubrication Oil Circuit**

Lubrication oil is circulated and detected. In case of lack of oil, the machine stops automatically.



**Extra Rigid Beam and Column**

The massive cross beam and double columns are reinforced by radical shape ribs to increase structural rigidity, dampen vibration and reduce deflection.



**Horizontal Spindle Wheel Head**

The horizontal spindle wheel head is driven by a powerful motor allowing heavy material removal.

The wheel head is mounted with a Ø610 mm. grinding wheel.

In case an overload occurs, the machine stops automatically for safety.

**Vertical Spindle Wheel Head**

The vertical spindle wheel head can be tilted 50° right and left enabling the machine to perform angular grinding.

Wheel head tilting is adjusted manually through a worm gear transmission for effortless adjustment.

The wheel head is mounted with a Ø405 mm grinding wheel.

In case an overload occurs, the machine stops automatically for safety.



MODEL	UNIT	HRE1202	HRE1203	HRE1204	HRE1803	HRE1804	HRE1805	HRE1806	HRE1807	HRE1808	HRE1809	HRE1810
Table size (L x W)	m.m.(inch)	2500x1200/1500 opt 98"x47" ( 59" opt)	3500x1200/1500 opt 137.8"x47" (59" opt)	4500x1200 /1500 opt 177"x47" (59" opt)	3500x1800 (137.8"x70.9")	4500x1800 (177"x70.9")	5500x1800 (216.5"x70.9")	6500x1800 (256"x70.9")	7500x1800 (295.3"x70.9")	8500x1800 (334.6"x70.9")	9500x1800 (374"x70.9")	10500x1800 (413.4"x70.9")
Table load	kg.(lbs)	4000(8818.5)	5000(11023)	6500(14330)	6000(13227.7)	7000(15432)	8000(17637)	10000(22046)	12000(26455.5)	15000(33069)	18000(39683)	21000(46297)
Table travel	m.m.(inch)	2100(82.7")	3100(122")	4100(161")	3100(122")	4100(161")	5100(200.7")	6100(240")	7100(279.5")	8100(318.8")	9100(358")	10100(397.6")
Max grinding area (L x W)	m.m.(inch)	2000x1200 (1500 opt) 78.7"x47" ( 59" opt)	3000x1200 (1500 opt) 118"x47" (59" opt)	4000x1200 (1500 opt) 157.5"x47" ( 59" opt)	3000x1800 (118"x70.9")	4000x1800 (157.5"x70.9")	5000x1800 (196.9"x70.9")	6000x1800 (236"x70.9")	7000x1800 (275.6"x70.9")	8000x1800 (315"x70.9")	9000x1800 (354"x70.9")	10000x1800 (393.7"x70.9")
<b>Z axis travel</b>												
Spindle (Horizontal traverse)	m.m.(inch)		850 / 1300 opt			850 / 1300 opt				850 (1300 opt)		
Sub- spindle (Vertical traverse)	m.m.(inch)		(33.5" / 51.2" opt)			(33.5" / 51.2" opt)				(33.5" / 51.2" opt)		
<b>Spindle (Horizontal traverse)</b>												
Jog down feed	m.m.		0.002~0.010			0.002~0.010				0.002~0.010		
Downfeed handwheel speed	m.m. / min		2-500			2-500				2-500		
Spindle speed	r.p.m.		900~1100			900~1100				900~1100		
Motor power	HP (Kw)		25 (18.5)			25(18.5)				25(18.5)		
Grinding wheel (OD x Tx ID)	m.m.(inch)		610x100x203 (24"x4"x8")			610x100x203 (24"x4"x8")				610x100x203 (24"x4"x8")		
<b>Auxiliary spindle (Vertical traverse)</b>												
Jog down feed	m.m.		0.002~0.010			0.002~0.010				0.002~0.010		
Downfeed handwheel speed	m.m. / min		2-500			2-500				2-500		
Spindle speed	r.p.m.		1000~1600			1000~1600				1000~1600		
Motor power	HP (Kw)		15 (11)			15(11)				15(11)		
Grinding wheel (OD x Tx ID)	m.m.(inch)		405x80x127 (16"x3"x5")			405x80x127 (16"x3"x5")				405x80x127 (16"x3"x5")		
Distance between columns	m.m.(inch)		2100 (82.7")			2700 (106.3")				2700 (106.3")		
Distance from main spindle center to table surface	m.m.(inch)		1250 / 1700 opt (49.2" / 66.9" opt)			1250 / 1700 opt (49.2" / 66.9" opt)				1250 / 1700 opt (49.2" / 66.9" opt)		
Distance from Sub- spindle nose to table surface	m.m.(inch)		900 / 1350 opt (35" / 53" opt)			900 / 1350 opt (35" / 53" opt)				900 / 1350 opt (35" / 53" opt)		
Inclination of universal head	degree		±50°			±50°				±50°		
Grinding feedrate	m.m. / min		10000~25000			10000~25000				10000~25000		
Y axis feed each time	m.m.		0~100			0~100				0~100		
Jog down feed rate on Z axis	m.m.		0.002			0.002				0.002		
Y axis feed of handwheel	m.m.		0.002			0.002				0.002		
Y axis motor	HP (Kw)		2.68 (2)			2.68 (2)				2.68 (2)		
Z axis motor	HP (Kw)		2.68 (2)			2.68 (2)				2.68 (2)		
<b>Power required</b>												
Voltage	V		AC 220 / 380±10% · 50/60 Hz ±1 Hz			AC 220 / 380±10% · 50/60 Hz ±1 Hz				AC 220 / 380±10% · 50/60 Hz ±1 Hz		
Control	KVA		NC / PC base / CNC			NC / PC base / CNC				NC / PC base / CNC		
<b>Machine size</b>												
Height	m.m.(inch)		5500(216.5")			5500(216.5")				5500(216.5")		
Floor space	m.m.(inch)	11000x7900 (433"x311")	13000x7900 (511.8"x311")	15000x7900 (590.6"x311")	13000x8500 (511.8"x334.6")	15000x8500 (590.6"x334.6")	17000x8500 (669.3"x334.6")	19000x8500 (748"x334.6")	21000x8500 (826.8"x334.6")	23000x8500 (905.5"x334.6")	25000x8500 (984"x334.6")	27000x8500 (1063"x334.6")
Weight	kg.(lbs)	23000(50706)	30000(66138.7)	37000(81571)	35000(77161.8)	42000(92594.2)	50000(110231)	59000(130072.7)	70,000(154323.6)	83000(182983.7)	98000(216053)	115000(253531.6)

Specifications are subject to change without prior notice.  
Specification is custom built available.

### STANDARD ACCESSORIES

- Grinding wheel balancing stand
- Grinding wheel balancing arbor for main spindle
- Grinding wheel balancing arbor for sub-spindle
- Wheel flange for main spindle x 2 sets
- Wheel flange for sub-spindle x 2 sets
- Bottom grinding wheel flange for sub-spindle x 2 sets
- Wheel flange extractor

- Wheel lifting tool for main spindle
- Standard grinding wheel (Ø610 x 70 x 203) for main spindle x 1 pce
- Standard grinding wheel (Ø610 x 70 x 203) for main spindle x 1 pce
- Standard grinding wheel (Ø405 x 60 x 127) for sub-spindle x 1 pce
- 50° grinding wheel (Ø405 x 60 x 127) for sub-spindle x 1 pce

- Bottom grinding wheel (Ø205 x 50 x 127) for sub-spindle x 1 pce
- Hydraulic oil cooler
- Circulated cooling temperature display
- Diamond dresser x 2 pcs/set
- Standard magnetic base x 2 pcs
- Stainless steel operation box
- Foundation drawing
- Foundation bolts, leveling bolts and leveling blocks x 1 set

- Electric wiring diagram
- Operation manual
- Tool box

### OPTIONAL ACCESSORIES

- Spare main spindle assembly
- Spare sub-spindle assembly
- Spare wheel flange for main spindle
- Spare wheel flange for sub-spindle
- Spare bottom grinding wheel flange for sub-spindle
- Auto dresser
- Semi-enclosed stainless steel guard
- Specified machine color
- Magnetic filter
- Pedals on both sides of table

MODEL	UNIT	HRE2304	HRE2305	HRE2306	HRE2307	HRE2308	HRE2309	HRE2310	HRE3005	HRE3006	HRE3007	HRE3008	HRE3009	HRE3010
Table size (L x W)	m.m.(inch)	4500x2300 (177"x90.5")	5500x2300 (216.5"x90.5")	6500x2300 (255.9"x90.5")	7500x2300 (295"x90.5")	8500x2300 (334.6"x90.5")	9500x2300 (374"x90.5")	10500x2300 (413"x90.5")	5500x3000 (216.5"x118")	6500x3000 (255.9"x118")	7500x3000 (295.3"x118")	8500x3000 (334.6"x118")	9500x3000 (374"x118")	10500x3000 (413"x118")
Table load	kg.(lbs)	10000(22046)	13000(28660)	15000(33069)	18000(39683)	21000(46297)	24000(52910)	27000(59524.9)	18000(39683)	21000(46297)	24000(52910)	27000(59524)	30000(66138)	33000(72752)
Table travel	m.m.(inch)	4100(161")	5100(200.7")	6100(240")	7100(279.5")	8100(318.8")	9100(358")	10100(397.6)	5100(200.7")	6100(240")	7100(279.5")	8100(318.8")	9100(358")	10100(397.6")
Max grinding area (L x W)	m.m.(inch)	4000x2300 (157.5"x90.5")	5000x2300 (200.8"x90.5")	6000x2300 (236"x90.5")	7000x2300 (275.6"x90.5")	8000x2300 (315"x90.5")	9000x2300 (354"x90.5")	10000x2300 (393.7"x90.5")	5000x3000 (196.9"x118")	6000x3000 (236"x118")	7000x3000 (275.6"x118")	8000x3000 (315"x118")	9000x3000 (354"x118")	10000x3000 (393.7"x118")
<b>Z axis travel</b>														
Spindle (Horizontal traverse)	m.m.(inch)		850 / 1300 opt				850 / 1300 opt			1300 (51.2")			1300 (51.2")	
Sub- spindle (Vertical traverse)	m.m.(inch)		(33.5" / 51.2" opt)				(33.5" / 51.2" opt)							
<b>Spindle (Horizontal traverse)</b>														
Jog down feed	m.m.		0.002~0.010				0.002~0.010			0.002~0.010			0.002~0.010	
Downfeed handwheel speed	m.m. / min		2-500				2-500			2-500			2-500	
Spindle speed	r.p.m.		900~1100				900~1100			900~1100			900~1100	
Motor power	HP (Kw)		25(18.5)				25(18.5)			25(18.5)			25(18.5)	
Grinding wheel (OD x Tx ID)	m.m.(inch)		610x100x203 (24"x4"x8")				610x100x203 (24"x4"x8")			610x100x203 (24"x4"x8")			610x100x203 (24"x4"x8")	
<b>Auxiliary spindle (Vertical traverse)</b>														
Jog down feed	m.m.		0.002~0.010				0.002~0.010			0.002~0.010			0.002~0.010	
Downfeed handwheel speed	m.m. / min		2-500				2-500			2-500			2-500	
Spindle speed	r.p.m.		1000~1600				1000~1600			1000~1600			1000~1600	
Motor power	HP (Kw)		15(11)				15(11)			15(11)			15(11)	
Grinding wheel (OD x Tx ID)	m.m.(inch)		405x80x127 (16"x3"x5")				405x80x127 (16"x3"x5")			405x80x127 (16"x3"x5")			405x80x127 (16"x3"x5")	
Distance between columns	m.m.(inch)		3200 (126")				3200(126")			4600 (181")			4600 (181")	
Distance from main spindle center to table surface	m.m.(inch)		1250 / 1700 opt (49.2" / 66.9" opt)				1250 / 1700 opt (49.2" / 66.9" opt)			1700 (66")			1700 (66")	
Distance from Sub- spindle nose to table surface	m.m.(inch)		900 / 1350 opt (35" / 53" opt)				900 / 1350 opt (35" / 53" opt)			1350 (53")			1350 (53")	
Inclination of universal head	degree		±50°				±50°			±50°			±50°	
Grinding feedrate	m.m. / min		10000~25000				10000~25000			10000~25000			10000~25000	
Y axis feed each time	m.m.		0~100				0~100			0~100			0~100	
Jog down feed rate on Z axis	m.m.		0.002				0.002			0.002			0.002	
Y axis feed of handwheel	m.m.		0.002				0.002			0.002			0.002	
Y axis motor	HP (Kw)		2.68 (2)				2.68 (2)			2.68 (2)			2.68 (2)	
Z axis motor	HP (Kw)		2.68 (2)				2.68 (2)			2.68 (2)			2.68 (2)	
<b>Power required</b>														
Voltage	V		AC 220 / 380±10% · 50/60 Hz ±1 Hz				AC 220 / 380±10% · 50/60 Hz ±1 Hz			AC 220 / 380±10% · 50/60 Hz ±1 Hz			AC 220 / 380±10% · 50/60 Hz ±1 Hz	
Control	KVA		NC / PC base / CNC				NC / PC base / CNC			NC / PC base / CNC			NC / PC base / CNC	
<b>Machine size</b>														
Height	m.m.(inch)		5500(216.5")				5500(216.5")			6000 (236")			6000 (236")	
Floor space	m.m.(inch)	11000x7900 (433"x311")	17000x9000 (669.3"x354")	19000x9000 (748"x354")	21000x9000 (826.8"x354")	23000x9000 (905.5"x354")	25000x9000 (984"x354")	27000x9000 (1063"x354")	17000x10500 (669.3"x413.4")	19000x10500 (748"x413.4")	21000x10,500 (826.8"x413.4")	23000x10500 (905.5"x413.4")	25000x10,500 (984"x413.4")	27000x10500 (1063"x413.4")
Weight	kg.(lbs)	50000(110231)	62000(136686)	68000(149914)	75000(165346)	83000(182983)	92000(202825)	102000(224871)	75000(165346)	87000(191802)	100000(220462)	114000(251326)	129000(284396)	145000(319670)

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- Wheel flange for main spindle x 2 sets
- Wheel flange for sub-spindle x 2 sets
- Bottom grinding wheel flange for sub-spindle x 2 sets
- Wheel flange extractor

- Wheel lifting tool for main spindle
- Standard grinding wheel (Ø610 x 70 x 203) for main spindle x 1 pce
- Standard grinding wheel (Ø610 x 70 x 203) for main spindle x 1 pce
- Standard grinding wheel (Ø405 x 60 x 127) for sub-spindle x 1 pce
- 50° grinding wheel (Ø405 x 60 x 127) for sub-spindle x 1 pce

- Bottom grinding wheel (Ø205 x 50 x 127) for sub-spindle x 1 pce
- Hydraulic oil cooler
- Circulated cooling temperature display
- Diamond dresser x 2 pcs/set
- Standard magnetic base x 2 pcs
- Stainless steel operation box
- Foundation drawing
- Foundation bolts, leveling bolts and leveling blocks x 1 set

- Electric wiring diagram
- Operation manual
- Tool box

### OPTIONAL ACCESSORIES

- Spare main spindle assembly
- Spare sub-spindle assembly
- Spare wheel flange for main spindle
- Spare wheel flange for sub-spindle
- Spare bottom grinding wheel flange for sub-spindle
- Auto dresser
- Semi-enclosed stainless steel guard
- Specified machine color
- Magnetic filter
- Pedals on both sides of table