

The manufacturer reserve the right to modify the design, specifications, mechanisms, etc. to improve the performance of the machine without notice.  
All the specifications shown above are just for reference.

**Timac**<sup>®</sup>

**Timeway**<sup>®</sup>

Stable • Efficient • Environmental

# Grinding Machine



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**TIMEWAY MACHINE TOOL CO., LTD.**



精心制造 铸就精品

METICULOUS MANUFACTURE MAKES FINE PRODUCTS

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CE CGM R IAF CMAS Timac® Timeway®

# COMPANY INTRODUCTION



Timeway Machine Tool Co., Ltd. is a professional machine tool manufacturing enterprises, the main products include lathe, milling machine, grinding machine, etc., and according to customer needs we also can design and manufacture various special purpose machines, to provide relative technology upgrading and transformation services in machine tool field.

Our products are widely used in mold processing, 3C products, agricultural machinery, petroleum machinery, auto parts processing, aerospace industry, etc., selling more than 60 countries and regions in domestic and abroad.

Our company has advanced production testing equipment, first-class R & D, production, sales and service teams, and behave the own production and acceptance standard higher than the national standard to ensure that each machine delivered by us can make customer satisfaction and help customer create the greatest benefits.

Adhering to the "quality products, first-class service, sustainable development" concept, adhere to the "low-key life, high-profile work" spirit of enterprise, look forward to sincere cooperation and work together with the friends from domestic and abroad to create a better future for all.



# EXHIBITION & TRAINING

- ① CIMT Exhibition
- ② International Exhibition
- ③ Training for customer



①



②



③



# Saddle Moving Type Surface Grinder



Well designed control panel with two-way rotate structure, make the operator getting suitable working position very easy, improve work efficiency.



Double walled column construction, provide high rigid support to the grinding spindle. Closed steel guard is equipped for protecting spindle motor and guideway, which make the column safe and beautiful.



The worktable is driven by imported hydraulic valve unit, realize smoothly motion without shocking.



Independent hydraulic station assembles with air cooling, running stably with small temperature rise, provide enough power for precision grinding.



High rigidity one-piece stand adopts high quality casting iron for ensuring stability and performance of whole machine.



The guideway is coated with Turcite and precision hand scraped, move smoothly and keep the accuracy long life.



The AHD series grinder is standard equipped with auto down feed servo motor, and controlled by PLC, HMI and touch screen with built-in program. It is so easy to realize auto grinding.

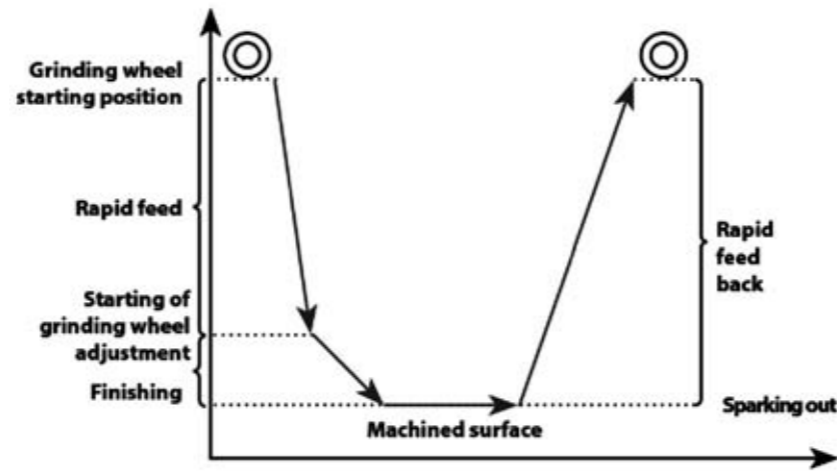


Safe and reliable electrical control, safety interlocking protection system, be designed according to CE tension electric requirement.



# Saddle Moving Type Surface Grinder

- SG series saddle moving surface grinder, the table size covers 200x500, 250x500, 300x630, 300x1000, 400x800, 400x1000.
- Well designed perfect symmetrical structure insure the machine is very suitable for precision grind. Saddle makes cross movement driven by AC motor, work table make reversing movement driven by hydraulic, and spindle make elevating movement and is driven by manual (AH series), AC motor (AHR series), or AC servo motor (AHD series).
- SG-AH: auto feed on cross, hydraulic transmission on longitudinal, manual on vertical.
- SG-AHR: auto feed on cross, hydraulic transmission on longitudinal, rapid movement on vertical.
- SG-AHD: auto feed on cross, hydraulic transmission on longitudinal, auto feed on vertical.



### STANDARD ACCESSORIES:

Working lamp, Balancing arbor, Standard grinding wheel, Magnetic chuck, Built-in magnetic chuck controller, Coolant tank, Wheel flange and extractor, Wheel dresser stand, Lubrication system, Tool box & tools, Leveling wedge and screw, Operation manual (English edition).

### OPTIONAL ACCESSORIES:

Diamond pen, Balancing stand, 2 axis digital readout, Extra wheel flange, Rear splashing guard, Closed safe guard, Oil tank guard, Dust exhaust, Parallel wheel dresser, Radius dresser, Angle dresser, Side dresser, Sinusoidal magnetic table, Electronic handwheel, Magnetic separator, Paper filter.



SPECIFICATION	UNIT	SG-2050AH	SG-2550AH	SG-3063AH
		SG-2050AHR	SG-2550AHR	SG-3063AHR
		SG-2050AHD	SG-2550AHD	SG-3063AHD
Table size	mm	200x508	254x508	305x635
Electro magnetic chuck size	mm	200x460	250x500	300x600
Distance from spindle to table	mm	450	450	580
Table cross travel	mm	240	275	340
Table longitudinal travel	mm	560	560	765
Loading capacity (include chuck)	kg	180	180	270
Longitudinal feed speed	m/min	5-25	5-25	5-25
Table cross intermittent feed rate	mm/str	0.1-8	0.1-8	0.1-8
Table cross rapid feed speed	mm/min	990	990	990
Table cross feed of handwheel	mm/gra	0.02	0.02	0.02
Wheelhead vertical intermittent feed rate	mm/str	AH: -; AHR: -; AHD: 0.005-0.5;	AH: -; AHR: -; AHD: 0.005-0.5;	AH: -; AHR: -; AHD: 0.005-0.5;
Wheelhead vertical rapid feed speed	mm/min	AH: -; AHR: 650; AHD: 480;	AH: -; AHR: 650; AHD: 480;	AH: -; AHR: 650; AHD: 480;
Wheelhead vertical feed of handwheel	mm/gra	0.005	0.005	0.005
Spindle speed (50/60HZ)	rpm	2850/3450	2850/3450	1450/1750
Grinding wheel size	mm	200x20x31.75	200x20x31.75	350x40x127
Main motor power	kw	2.2	2.2	4
Machine dimensions (LxWxH)	cm	230x160x168	230x160x168	290x220x190
Package dimensions (LxWxH)	cm	200x210x215	200x210x215	235x222x221
Machine weight	kg	1650	1800	2800

SPECIFICATION	UNIT	SG-30100AH	SG-4080AH	SG-40100AH
		SG-30100AHR	SG-4080AHR	SG-40100AHR
		SG-30100AHD	SG-4080AHD	SG-40100AHD
Table size	mm	305x1020	406x813	406x1020
Electro magnetic chuck size	mm	300x1000	400x800	400x1000
Distance from spindle to table	mm	580	580	580
Table cross travel	mm	340	450	450
Table longitudinal travel	mm	1130	910	1130
Loading capacity (include chuck)	kg	400	500	600
Longitudinal feed speed	m/min	5-25	5-25	5-25
Table cross intermittent feed rate	mm/str	0.1-8	0.1-8	0.1-8
Table cross rapid feed speed	mm/min	990	990	990
Table cross feed of handwheel	mm/gra	0.02	0.02	0.02
Wheelhead vertical intermittent feed rate	mm/str	AH: -; AHR: -; AHD: 0.005-0.5;	AH: -; AHR: -; AHD: 0.005-0.5;	AH: -; AHR: -; AHD: 0.005-0.5;
Wheelhead vertical rapid feed speed	mm/min	AH: -; AHR: 650; AHD: 480;	AH: -; AHR: 650; AHD: 480;	AH: -; AHR: 650; AHD: 480;
Wheelhead vertical feed of handwheel	mm/gra	0.005	0.005	0.005
Spindle speed (50/60HZ)	rpm	1450/1750	1450/1750	1450/1750
Grinding wheel size	mm	350x40x127	350x40x127	350x40x127
Main motor power	kw	4	4	4
Machine dimensions (LxWxH)	cm	440x220x190	360x240x190	440x240x190
Package dimensions (LxWxH)	cm	295x222x221	285x227x221	295x227x221
Machine weight	kg	3200	3400	3700

# Saddle Moving Type Surface Grinder

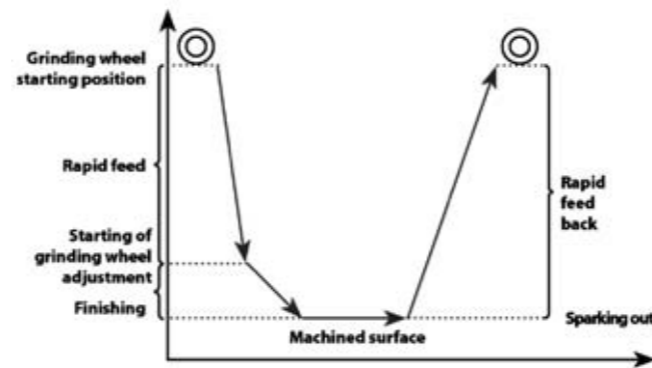
- SG-NC series saddle moving surface grinder, the table size covers 200x500, 250x500, 300x630, 300x1000, 400x800, 400x1000.
- Well designed perfect symmetrical structure insure the machine is very suitable for precision grind. Saddle cross movement (Y-axis) and wheel head elevating movement (Z-axis) are driven by AC servo motor, worktable longitudinal movement (X-axis) is driven by hydraulic.
- SG-NC: auto feed on cross, hydraulic transmission on longitudinal, auto feed on vertical.
- Closed guard with opening door, make the machine tool only looks well but also improve level of protection.



NC series saddle moving grinder are standard equipped with Y/Z-axis AC servo motor, and Y/Z-axis MPG. Table X-axis movement drove by hydraulic.



The machine is standard equipped with SIEMENS 7" LCD-TFT colourful touchable screen. Our engineer's genius philosophy ground program makes the operation very simple and convenient for the operators.



## STANDARD ACCESSORIES:

Y/Z-axis electronic handwheel, Closed safe guard, Working lamp, Balancing arbor, Standard grinding wheel, Magnetic chuck, Built-in magnetic chuck controller, Coolant tank, Wheel flange and extractor, Wheel dresser stand, Lubrication system, Tool box & tools, Leveling wedge and screw, Operation manual (English edition).

## OPTIONAL ACCESSORIES:

Diamond pen, Balancing stand, 2 axis digital readout, Extra wheel flange, Rear splashing guard, Closed safe guard, Oil tank guard, Dust exhaust, Parallel wheel dresser, Radius dresser, Angle dresser, Side dresser, Sinusoidal magnetic table, Electronic handwheel, Magnetic separator, Paper filter.

SPECIFICATION	UNIT	SG-2050NC	SG-2550NC	SG-3063NC
Table size	mm	200x508	254x508	305x635
Electro magnetic chuck size	mm	200x460	250x500	300x600
Distance from spindle to table	mm	450	450	580
Table cross travel	mm	240	275	340
Table longitudinal travel	mm	560	560	765
Loading capacity (include chuck)	kg	180	180	300
Longitudinal feed speed	m/min	5-25	5-25	5-25
Table cross rapid feed speed	mm/min	0.1-1000	0.1-1000	0.1-1000
Table cross micro feed rate	mm/gra	0.005	0.005	0.005
Wheelhead vertical rapid feed speed	mm/min	0.1-500	0.1-500	0.1-500
Wheelhead vertical micro feed rate	mm/gra	0.005	0.005	0.005
Spindle speed (50/60HZ)	rpm	2850/3450	2850/3450	1450/1750
Grinding wheel size	mm	200x20x31.75	200x20x31.75	350x40x127
Main motor power	kw	2.2	2.2	4
Machine dimensions (LxWxH)	cm	230x160x168	230x160x168	290x220x190
Package dimensions (LxWxH)	cm	200x210x215	200x210x215	250x222x225
Machine weight	kg	1650	1800	2800

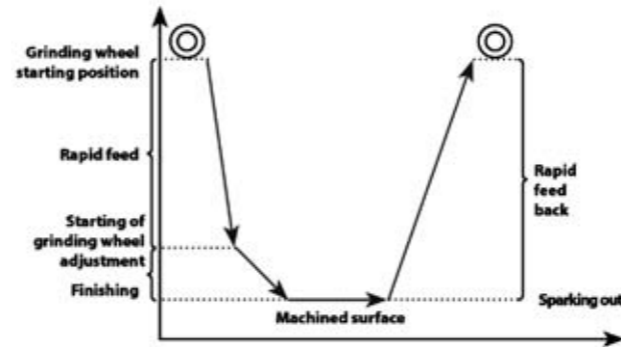
SPECIFICATION	UNIT	SG-30100NC	SG-4080NC	SG-40100NC
Table size	mm	305x1020	406x813	406x1020
Electro magnetic chuck size	mm	300x1000	400x800	400x1000
Distance from spindle to table	mm	580	580	580
Table cross travel	mm	340	450	450
Table longitudinal travel	mm	1130	910	1130
Loading capacity (include chuck)	kg	400	500	600
Longitudinal feed speed	m/min	5-25	5-25	5-25
Table cross rapid feed speed	mm/min	0.1-1000	0.1-1000	0.1-1000
Table cross micro feed rate	mm/gra	0.005	0.005	0.005
Wheelhead vertical rapid feed speed	mm/min	0.1-500	0.1-500	0.1-500
Wheelhead vertical micro feed rate	mm/gra	0.005	0.005	0.005
Spindle speed (50/60HZ)	rpm	1450/1750	1450/1750	1450/1750
Grinding wheel size	mm	350x40x127	350x40x127	350x40x127
Main motor power	kw	4	4	4
Machine dimensions (LxWxH)	cm	440x220x190	360x240x190	440x240x190
Package dimensions (LxWxH)	cm	295x222x221	285x227x221	295x227x221
Machine weight	kg	3200	3400	3700

# Saddle Moving Type Surface Grinder

- SG-CNC series saddle moving surface grinder, the table size covers 200x500, 250x500, 300x630, 300x1000, 400x800, 400x1000.
- Well designed perfect symmetrical structure insure the machine is very suitable for precision grind. Saddle makes cross movement driven by AC servo motor (Y-axis), worktable make reversing movement driven by hydraulic or servo motor (X-axis), and spindle make elevating movement (X-axis) and is driven by AC servo motor.
- SG-CNC2 model: Y/Z-axis numerical control and linkage, drove by AC servo motor and ball screw; X-axis drove by hydraulic.
- SG-CNC3 model: X/Y/Z-axis numerical control and linkage, drove by AC servo motor and ball screw.
- Precision grind spindle with preload high precision angular ball bearing and drive V3 motor, runs in maintenance-free, low vibration, and no noise.
- Elaborately-designed closed safe guard with safety-switch, not only have good apperance but also safety operating field.



2-axis (Y/Z) or 3-axis (X/Y/Z) CNC control can be choosed for saddle moving grinder. SYNTEC, SIEMENS, FANUC controller are recommended.



#### STANDARD ACCESSORIES:

Electronic handwheel, Closed safe guard, Working lamp, Balancing arbor, Standard grinding wheel, Electrical magnetic chuck, Built-in magnetic chuck controller, Coolant tank, Wheel flange and extractor, Wheel dresser stand, Lubrication system, Tool box & tools, Leveling wedge and screw, Operation manual (English edition).

#### OPTIONAL ACCESSORIES:

Diamond pen, Balancing stand, Extra wheel flange, Rear splashing guard, Oil tank guard, Dust exhaust, Parallel wheel dresser, Radius dresser, Angle dresser, Side dresser, Sinusoidal magnetic table, Electronic handwheel, Magnetic separator, Paper filter.

SPECIFICATION	UNIT	SG-2050CNC2 SG-2050CNC3	SG-2550CNC2 SG-2550CNC3	SG-3063CNC2 SG-3063CNC3
Table size	mm	200x460	250x500	305x635
Electro magnetic chuck size	mm	200x460	250x500	300x600
Table longitudinal travel	mm	510	570	765
Table cross travel	mm	238	275	340
Distance from spindle to table	mm	450	450	580
Loading capacity (include chuck)	kg	120	200	270
Table longitudinal feed speed	m/min	CNC2: 5-25; CNC3: 0.02-18	CNC2: 5-25; CNC3: 0.02-18	CNC2: 5-25; CNC3: 0.02-18
Table longitudinal micro feed rate	mm/gra	CNC2: -; CNC3: 0.005;	CNC2: -; CNC3: 0.005;	CNC2: -; CNC3: 0.005;
Table cross rapid feed speed	mm/min	0.1-1000	0.1-1000	0-1000
Table cross micro feed rate	mm/gra	0.005	0.005	0.005
Wheelhead vertical rapid feed speed	mm/min	0.1-1000	0.1-1000	0-1000
Wheelhead vertical micro feed rate	mm/gra	0.005	0.005	0.005
Spindle speed (50/60HZ)	rpm	2850/3450	2850/3450	1450/1750
Grinding wheel size	mm	200x20x31.75	200x20x31.75	350x40x127
Main motor power	kw	1.5	2.2	5.5
Floor space (LxW)	mm	2600x1800	2800x2000	4000x2200
Gross weight	kg	1600	1900	2800
Packing size (LxWxH)	cm	200x180x215	220x200x215	360x220x225

SPECIFICATION	UNIT	SG-30100CNC2 SG-30100CNC3	SG-4080CNC2 SG-4080CNC3	SG-40100CNC2 SG-40100CNC3
Table size	mm	305x1020	406x813	406x1020
Electro magnetic chuck size	mm	300x1000	400x800	400x1000
Table longitudinal travel	mm	1130	910	1130
Table cross travel	mm	340	450	450
Distance from spindle to table	mm	580	580	580
Loading capacity (include chuck)	kg	400	500	600
Table longitudinal feed speed	m/min	CNC2: 5-25; CNC3: 0.02-18	CNC2: 5-25; CNC3: 0.02-18	CNC2: 5-25; CNC3: 0.02-18
Table longitudinal micro feed rate	mm/gra	CNC2: -; CNC3: 0.005;	CNC2: -; CNC3: 0.005;	CNC2: -; CNC3: 0.005;
Table cross rapid feed speed	mm/min	0-1000	0-1000	0-1000
Table cross micro feed rate	mm/gra	0.005	0.005	0.005
Wheelhead vertical rapid feed speed	mm/min	0-1000	0-1000	0-1000
Wheelhead vertical micro feed rate	mm/gra	0.005	0.005	0.005
Spindle speed (50/60HZ)	rpm	1450/1750	1450/1750	1450/1750
Grinding wheel size	mm	350x40x127	350x40x127	350x40x127
Main motor power	kw	4	4	4
Floor space (LxW)	mm	5000x2400	4500x2400	5000x2400
Gross weight	kg	3500	3800	4400
Packing size (LxWxH)	cm	375x225x225	360x220x225	375x225x225

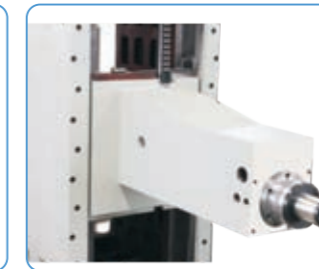


# Column Moving Type Surface Grinder

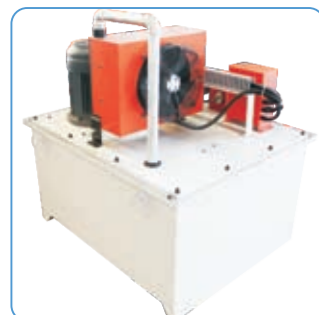
- Independent hydraulic unit with air-cooling unit ensures low temperature rising and supply stable power for precision grinding.
- With auto. center lubrication unit.
- Very easy to set auto ground program include rough, finish, and spark-out stroke.
- The machine is designed for continuous operating at maximum speed, very quiet operation, maximum accuracy.
- The machine bed, table and column are high grade casting iron, which supply strong base of grinding, the slideway is coated with TF wearable material and manual precision scrapped.



Precision grinding 5pcs test parts (diameter 50mm, 45#steel, equal thickness tolerance 0.005/300mm).



Precision grinding spindle runs in maintenance-free, support by preload high precision angular ball bearing. Super great power spindle unit is most important to the machine. It is really an elaboration under well designed, and our ultimate goal is to balance high rigidity and great accuracy.



Well designed external hydraulic unit, with high power oil pump and precision elec-magnetic valve set, stand equipped with cooling fan. The whole system supply great smoothly power for fine ground.



The guideway is coated with Turcite and precision hand scraped, move smoothly and keep the accuracy long life.



MPG is equipped for Y&Z axis(spindle elevating and cross feed), the operating position is free, it is so easy to control the machine.



The machine is standard equipped with SIEMENS 7" LCD-TFT colourful touchable screen. Built in program of our engineers' genius philosophy makes the operation very simple and convenient for the operators.





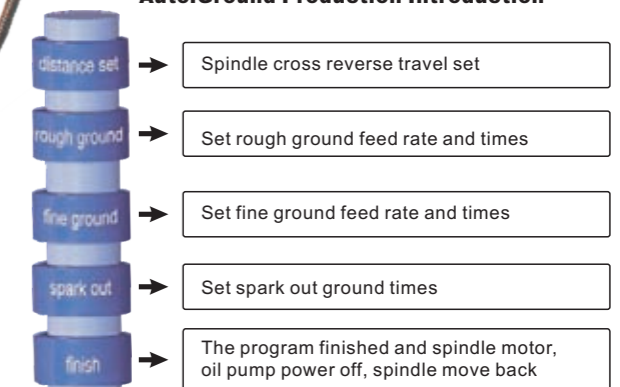
**STANDARD ACCESSORIES:**

PLC+SMART auto. grinding controller, Coolant tank, Work lamp, Balancing arbor, Wheel flange and extractor, Wheel dresser stand, Y/Z axis electrical wheel(MPG), Splashing guard, Standard grinding wheel, Leveling wedge and bolts, Tools & tool-box, Operation manual (English edition).

**OPTIONAL ACCESSORIES:**

Balancing stand, Magnetic separator, Paper filter, Oil tank guard, Electrical magnetic chuck, Built-in magnetic chuck controller, Parallel wheel dresser, 2 axis digital readout, Extra wheel flange.

**Auto.Ground Production Introduction**



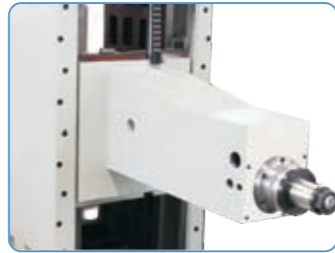
SPECIFICATION	UNIT	SG-50100FR	SG-50160FR	SG-50450FR
Table size	mm	500x1000	500x1600	500x4500
Grinding area	mm	500x1000	500x1600	500x4500
Distance from spindle to table	mm	600	600	600
Electro magnetic chuck size (pcs.)	mm	500x1000x1	500x800x2	500x1000x4
Table longitudinal feed speed	m/min	5-25	5-25	5-25
Cross intermittent feed rate	mm/str	0-30	0-30	0-30
Cross continuous feed speed	mm/min	0-600	0-600	0-600
Cross feed rate (MPG)	mm/gra	0.005	0.005	0.005
Vertical intermittent feed rate	mm/str	0.005/0.01/0.02/0.03/0.04	0.005/0.01/0.02/0.03/0.04	0.005/0.01/0.02/0.03/0.04
Vertical continuous feed speed	mm/min	0-300	0-300	0-300
Vertical feed rate (MPG)	mm/gra	0.005	0.005	0.005
Grinding wheel size	mm	Φ355x(20-50)xΦ127	Φ355x(20-50)xΦ127	Φ355x(20-50)xΦ127
Main motor power	kw	7.5	7.5	11
Package dimensions (LxWxH)	mm	3990x2250x2500	5640x2250x2500	11500x2380x2500
Machine weight	kg	5500	6000	14500

SPECIFICATION	UNIT	SG-60125FR	SG-60160FR	SG-60220FR	SG-60600FR
Table size	mm	630x1250	630x1600	630x2200	630x6000
Grinding area	mm	600x1250	600x1600	600x2200	600x6000
Distance from spindle to table	mm	600	600	600	600
Electro magnetic chuck size (pcs.)	mm	600x1000x1	600x800x2	600x1000x2	600x1000x6
Table longitudinal feed speed	m/min	5-25	5-25	5-25	5-25
Cross intermittent feed rate	mm/str	0-30	0-30	0-30	0-30
Cross continuous feed speed	mm/min	0-600	0-600	0-600	0-600
Cross feed rate (MPG)	mm/gra	0.005	0.005	0.005	0.005
Vertical intermittent feed rate	mm/str	0.005/0.01/0.02/0.03/0.04	0.005/0.01/0.02/0.03/0.04	0.005/0.01/0.02/0.03/0.04	0.005/0.01/0.02/0.03/0.04
Vertical continuous feed speed	mm/min	0-300	0-300	0-300	0-300
Vertical feed rate (MPG)	mm/gra	0.005	0.005	0.005	0.005
Grinding wheel size	mm	Φ355x(20-50)xΦ127	Φ355x(20-50)xΦ127	Φ355x(20-50)xΦ127	Φ355x(20-50)xΦ127
Main motor power	kw	7.5	7.5	11	11
Package dimensions (LxWxH)	mm	4340x2300x2500	5100x2300x2500	6580x2300x2500	
Machine weight	kg	6500	7000	8000	

# Column Moving Type Surface Grinder



The wheelhead spindle use the hydrostatic bearing with high rigidity (high precision ball bearing for export), which can provide the power force together with 18.5kw motor, suitable for the heavy machining. The spindle rotary is supported by rigidity oil layer without wear, ensure the high precision and long life span.



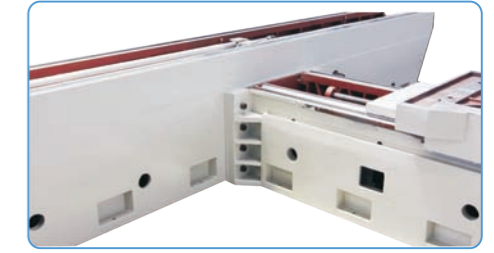
Double walled column construction, providing high rigid support. Adopt counterweight balance, making the machine moving stably, and reducing the load of the ball screw, keeping the accuracy for long time.



Well designed machine bed is one high grade casting iron, which ensure heavy duty cutting.



Strengthen ribs are set inside of the rear slide base, make sure great stability support for spindle.



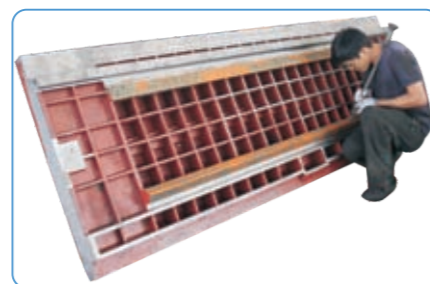
The machine bed and rear slide bed are assembled to one piece, to supply super strong base for efficient working.



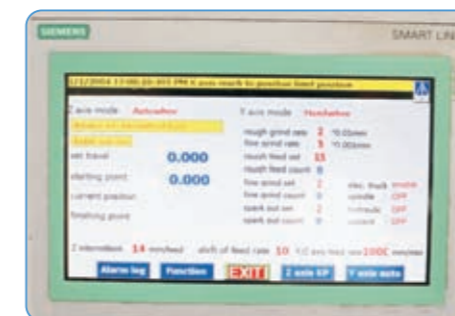
The transverse and vertical movement are driven by AC servo motor, and the electronic hand wheel (MPG) instead of the tradition mechanical hand wheel, to get high accuracy and easy operation.



The independent and large capacity integrated hydraulic station equipped with air cooling and pressurizer, isolate heat and vibroseis, to provide excellent power for precision grinding.



High rigidity rectangular guideway is designed on vertical motion, and coat with Turcite-B belt, to get low friction coefficient. Adopt the Flat-V type guideway on longitudinal and transverse to set good guidance quality, precision scraping to keep stable work accuracy by hand.



Adopt SIEMENS 7 inch LCD-TFT colourful touch screen, built in program of our engineer's genius designation to make the operation very simple and convenient for the operator.

# Column Moving Type Surface Grinder

## STANDARD ACCESSORIES:

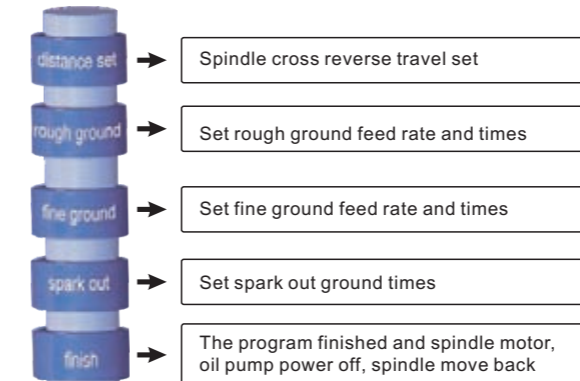
PLC+SMART auto. grinding controller, Coolant tank, Work lamp, Balancing arbor, Wheel flange and extractor, Wheel dresser stand, Y/Z axis electrical wheel(MPG), Splashing guard, Standard grinding wheel, Leveling wedge and bolts, Tools & tool-box, Operation manual (English edition).

## OPTIONAL ACCESSORIES:

Balancing stand, Magnetic separator, Paper filter, Oil tank guard, Electrical magnetic chuck, Built-in magnetic chuck controller, Parallel wheel dresser, 2 axis digital readout, Extra wheel flange.



### Auto.Ground Production Introduction



SPECIFICATION	UNIT	SG-81160FR	SG-81220FR	SG-81300FR	SG-81400FR
Table size	mm	810x1600	810x2200	810x3000	810x4000
Grinding area	mm	810x1600	810x2200	810x3000	810x4000
Grinding height	mm	670(830/1000)	670(830/1000)	670(830/1000)	670(830/1000)
Electro magnetic chuck size (pcs.)	mm	800x800x2	800x1000x2	800x1000x3	800x1000x4
Loading capacity (include chuck)	kg	2000	2400	3500	4000
Table longitudinal feed speed	m/min	5-25	5-25	5-25	5-25
Column cross intermittent feed rate	mm/str	1-30	1-30	1-30	1-30
Column cross continuous feed speed	mm/min	50-2000	50-2000	50-2000	50-2000
Column cross feed rate (MPG)	mm/gra	0.005	0.005	0.005	0.005
Wheelhead vertical intermittent feed rate	mm/str	0.005-0.05	0.005-0.05	0.005-0.05	0.005-0.05
Wheelhead vertical continuous feed speed	mm/min	50-2000	50-2000	50-2000	50-2000
Wheelhead vertical feed rate (MPG)	mm/gra	0.005	0.005	0.005	0.005
Spindle speed (50/60HZ)	rpm	960/1150 (OP: 1450)	960/1150 (OP: 1450)	960/1150 (OP: 1450)	960/1150 (OP: 1450)
Grinding wheel size	mm	Φ500x75xΦ203	Φ500x75xΦ203	Φ500x75xΦ203	Φ500x75xΦ203
Main motor power	kw	18.5	18.5	18.5	18.5
Hydraulic motor power	kw	5.5	7.5	7.5	7.5
Y/Z-axis servo motor power	kw	3	3	3	3
Total power	kw	32	34	34	34
Machine dimensions (LxWxH)	mm	4800x4000x2600	6000x4000x2600	8200x4000x2600	10200x4000x2600
Machine weight	kg	10500	12500	14000	15000

SPECIFICATION	UNIT	SG-100220FR	SG-100300FR	SG-100400FR
Table size	mm	1000x2200	1000x3000	1000x4000
Grinding area	mm	1000x2200	1000x3000	1000x4000
Grinding height	mm	670(830/1000)	670(830/1000)	670(830/1000)
Electro magnetic chuck size (pcs.)	mm	1000x1000x2	1000x1000x3	1000x1000x4
Loading capacity (include chuck)	kg	4000	5000	5000
Table longitudinal feed speed	m/min	5-25	5-25	5-25
Column cross intermittent feed rate	mm/str	1-30	1-30	1-30
Column cross continuous feed speed	mm/min	50-2000	50-2000	50-2000
Column cross feed rate (MPG)	mm/gra	0.005	0.005	0.005
Wheelhead vertical intermittent feed rate	mm/str	0.005-0.05	0.005-0.05	0.005-0.05
Wheelhead vertical continuous feed speed	mm/min	50-2000	50-2000	50-2000
Wheelhead vertical feed rate (MPG)	mm/gra	0.005	0.005	0.005
Spindle speed (50/60HZ)	rpm	960/1150 (OP: 1450)	960/1150 (OP: 1450)	960/1150 (OP: 1450)
Grinding wheel size	mm	Φ500x75xΦ305	Φ500x75xΦ305	Φ500x75xΦ305
Main motor power	kw	18.5/22	18.5/22	18.5/22
Hydraulic motor power	kw	7.5	11	15
Y/Z-axis servo motor power	kw	3	3	3
Total power	kw	37	41	41
Machine dimensions (LxWxH)	mm	6000x4300x2600	8200x4300x2600	10000x4300x2600
Machine weight	kg	14000	15500	19500



**STANDARD ACCESSORIES:**  
 PLC+SMART auto. grinding controller, Coolant tank, Work lamp, Balancing arbor, Wheel flange and extractor, Wheel dresser stand, Y/Z axis electrical wheel(MPG), Splashing guard, Standard grinding wheel, Leveling wedge and bolts, Tools & tool-box, Operation manual (English edition).

**OPTIONAL ACCESSORIES:**  
 Balancing stand, Magnetic separator, Paper filter, Oil tank guard, Electrical magnetic chuck, Built-in magnetic chuck controller, Parallel wheel dresser, 2 axis digital readout, Extra wheel flange.



SPECIFICATION	UNIT	SGT-61160FR	SGT-61220FR	SGT-61300FR	SGT-61600FR
Table size	mm	610x1600	610x2200	610x3000	610x6000
Grinding area	mm	610x1600	610x2200	610x3000	610x6000
Grinding height	mm	790 (heighten)	790 (heighten)	790 (heighten)	790 (heighten)
Wheelhead swivel angle	°	±5° / ±30°	±5° / ±30°	±5° / ±30°	±5° / ±30°
Loading capacity (include chuck)	kg	1230	1690	2300	6000
Table longitudinal feed speed	m/min	5-25	5-25	5-25	5-25
Column cross feed rate (MPG)	mm/gra	0.005	0.005	0.005	0.005
Column cross continuous feed speed	mm/min	50-2000	50-2000	50-2000	50-2000
Wheelhead vertical continuous feed speed	mm/min	50-2000	50-2000	50-2000	50-2000
Wheelhead vertical feed rate (MPG)	mm/gra	0.005	0.005	0.005	0.005
Spindle speed	rpm	1450	1450	1450	1450
Grinding wheel size	mm	customerized	customerized	customerized	customerized
Main motor power	kw	5.5	5.5	5.5	5.5
Total power	kw	17	17	17	27
Machine dimensions (LxWxH)	mm	4700x3000x2950	6000x3000x2950	8200x3000x2950	17000x3000x2950
Machine weight	kg	8500	9500	12500	25000

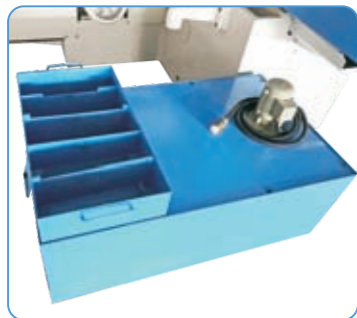
Optional accessory: Worktable bump prevention system is recommended for L type parts.

SPECIFICATION	UNIT	SGT-81160FR	SGT-81220FR	SGT-81300FR	SGT-81400FR
Table size	mm	810x1600	810x2200	810x3000	810x4000
Grinding area	mm	810x1600	810x2200	810x3000	810x4000
Grinding height	mm	790 (heighten)	790 (heighten)	790 (heighten)	790 (heighten)
Wheelhead swivel angle	°	±5° / ±30°	±5° / ±30°	±5° / ±30°	±5° / ±30°
Loading capacity (include chuck)	kg	1900	2300	3100	6000
Table longitudinal feed speed	m/min	5-25	5-25	5-25	5-25
Column cross feed rate (MPG)	mm/gra	0.005	0.005	0.005	0.005
Column cross continuous feed speed	mm/min	50-2000	50-2000	50-2000	50-2000
Wheelhead vertical continuous feed speed	mm/min	50-2000	50-2000	50-2000	50-2000
Wheelhead vertical feed rate (MPG)	mm/gra	0.005	0.005	0.005	0.005
Spindle speed	rpm	1450	1450	1450	1450
Grinding wheel size	mm	customerized	customerized	customerized	customerized
Main motor power	kw	5.5	5.5	5.5	5.5
Total power	kw	17	17	19	27
Machine dimensions (LxWxH)	mm	4700x3500x2950	6000x3500x2950	8200x3500x2950	13500x3600x2950
Machine weight	kg	10000	12000	14000	22000

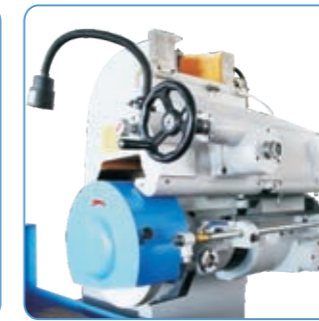
Optional accessory: Worktable bump prevention system is recommended for L type parts.

# Cantilever Moving Type Surface Grinder

- It is designed with cantilever moving type, reasonable structure and nice-looking.
- It is surface grinding machine with grinding workpiece around ground wheel, and it can also grinding side surface of workpiece by grinding wheel side-face. The workpiece can be clamped by electromagnetic chuck, or fixed directly on the worktable, or other fixtures .
- Wheelhead is equipped with a quick lifting mechanism, which can reduce labor intensity and improve work efficiency.
- The distance between the oil recovery point and the oil entry point in the oil pool is the longest, and the hydraulic oil is circulated to balance the oil temperature distribution and reduce the thermal deformation of the machine.
- Beautiful shape, good rigidity, stable and reliable performance and easy to maintenance.
- According to customer's need, can choose inverter driven on wheelhead cross movement, realize stepless speed adjustment.
- Optional magnetic separator and paper filter to reduce the dust of the cutting liquid and ensure the grinding process.



The large capacity water tank is equipped with large flow water pump to ensure enough cooling during the grinding process, the straight-line drainage prevents the blockage.



The transverse motion of the grinding head on the drag plate is hydraulic driven, and it can also be operated manually, with hand and hydraulic interlock device. The drag plate (along with the grinding head) is mounted on the column. The upper and lower vertical movement have the function of manual feed and maneuver (fast lifting), and interlocking devices.



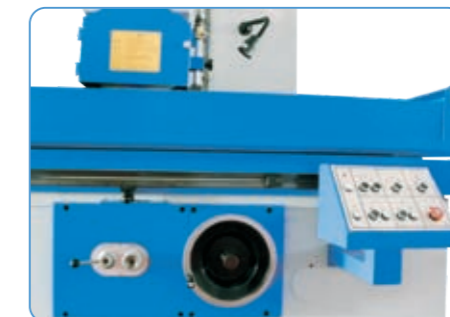
The spindle is driven by a built-in motor. In order to reduce vibration, the spindle must be dynamically balanced after being loaded into the rotor. The center of gravity offset must not exceed  $3.5\mu$ , and the grinding wheel must be statically balanced.



Well designed hydraulic station with air cooling eliminates the influence of oil temperature rise on the machine tool and improves machining accuracy.

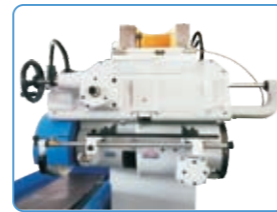


Safe and reliable electrical control, safety interlocking protection system, be designed according to CE tension electric requirement.

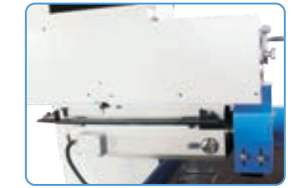


Integrated central operation panel and clear logo, simple and easy to operate. Adopt famous brand hydraulic parts, make sure stability of movement and reliable reversing action. The longitudinal movement of the table is hydraulic driven.

# Cantilever Moving Type Surface Grinder



Right hanging grinding head



Left hanging grinding head

**STANDARD ACCESSORIES:**

Grinding wheel, Wheel balancing arbor, Wheel extractor, Coolant system, Work lamp, Wheel flange, Wheel dresser, Leveling wedge and bolt, Tools and tool box, Operation manual (English edition).

**OPTIONAL ACCESSORIES:**

Diamond pen, Electrical magnetic chuck, Wheel balancing stand, Paper filter, Magnetic separator, Demagnetizer.

**STANDARD ACCESSORIES:**

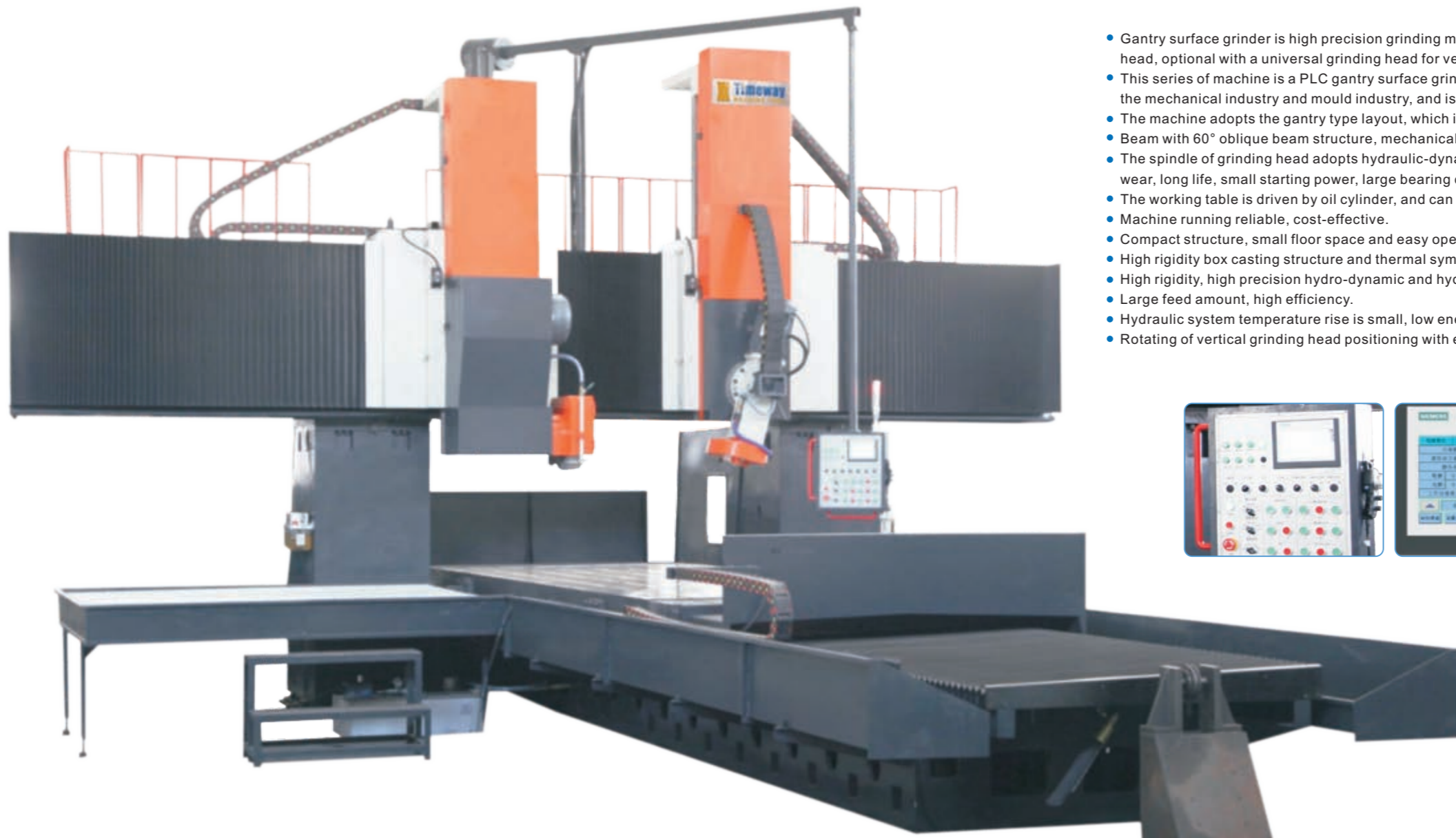
Grinding wheel, Wheel balancing arbor, Wheel extractor, Coolant system, Work lamp, Wheel flange, Wheel dresser, Leveling wedge and bolt, Tools and tool box, Operation manual (English edition).

**OPTIONAL ACCESSORIES:**

Diamond pen, Electrical magnetic chuck, Wheel balancing stand, Paper filter, Magnetic separator, Demagnetizer.

SPECIFICATION	UNIT	GS-300A	GS-320A	GS-400A
Table width	mm	300	320	400
Table length	mm	1000	1000	1000/1600/2200
Max. grinding width	mm	300	320	400
Max. grinding length	mm	1000	1000	1000/1600/2200
Max. grinding height	mm	400	400	400
Distance from spindle to table	mm	575	575	600
Longitudinal feed speed	m/min	5-25	5-25	5-25
T-slot (No./width)	mm	3/18	3/18	3/18
Cross continuous feed speed	m/min	0.5-4.5	0.5-4.5	0.5-4.5
Cross intermittent feed rate	mm/str	3-30	3-30	3-30
Cross feed of handwheel	mm/gra	-	-	0.02
Vertical rapid feed speed	mm/min	400	400	400
Vertical feed of handwheel	mm/gra	0.005	0.005	0.005
Main motor power	kw	5.5	5.5	7.5
Spindle speed	rpm	1440	1440	1440
Total power	kw	9	9/11	11/13.5
Loading capacity (include chuck)	kg	470	500	620/1000/1380
Grinding wheel size	mm	350x40x127	350x40x127	400x40x127
Machine length	mm	2860	2860	3110/4250/5750
Machine width	mm	1845	1865	1740
Machine height	mm	2030	2030	2230

SPECIFICATION	UNIT	GS-500A	GS-630A	GS-800A
Table width	mm	500	630	800
Table length	mm	1000/1600/2200	1250/1600/2200/3000	1600/2200/3000
Max. grinding width	mm	500	630	800
Max. grinding length	mm	1000/1600/2200	1250/1600/2200/3000	1600/2200/3000
Max. grinding height	mm	500(800/1200)	500(800/1200)	500
Distance from spindle to table	mm	700(1000/1400)	700(1000/1400)	725(1025/1425)
Longitudinal feed speed	m/min	5-25	5-25	5-25
T-slot (No./width)	mm	3/22	3/22	3/22
Cross continuous feed speed	m/min	0.5-4.5	0.5-4.5	0.5-4.5
Cross intermittent feed rate	mm/str	3-30	3-30	3-30
Cross feed of handwheel	mm/gra	0.01	0.01	0.01
Vertical rapid feed speed	mm/min	400	400	400
Vertical feed of handwheel	mm/gra	0.005	0.005	0.005
Main motor power	kw	7.5	7.5	15
Spindle speed	rpm	1440	1440	1440
Total power	kw	12.25/13.75/15.75	13.75/15.75/15.75/19.25	25.25/25.25/28.75
Loading capacity (include chuck)	kg	700/1240/1410	1010/1290/1780/2430	1600/2200/3000
Grinding wheel size	mm	400x40x203	400x40x203	450x63x203
Machine length	mm	3110/4250/5750	3300/5320/5750/7880	4800/5600/8550
Machine width	mm	1900	1900	2500
Machine height	mm	2420(2720/3120)	2420(2720/3120)	2600(2900/3300)



- Gantry surface grinder is high precision grinding machine for large workpieces ground, standard single ram with a horizontal grinding head, optional with a universal grinding head for vertical & angle processing.
- This series of machine is a PLC gantry surface grinder with advanced technology of machine, electricity and liquid, which mainly serves the mechanical industry and mould industry, and is suitable for precise grinding of steel parts, cast iron and non-ferrous metals.
- The machine adopts the gantry type layout, which is composed of double column, beam and bed frame.
- Beam with 60° oblique beam structure, mechanical performance is good, strong rigidity.
- The spindle of grinding head adopts hydraulic-dynamic and static bush structure. It has the advantages of high motion accuracy, no wear, long life, small starting power, large bearing capacity and good vibration resistance.
- The working table is driven by oil cylinder, and can be stepless speed regulation, with smooth movement and low noise.
- Machine running reliable, cost-effective.
- Compact structure, small floor space and easy operation; high reliability as a working machine.
- High rigidity box casting structure and thermal symmetrical deformation structure.
- High rigidity, high precision hydro-dynamic and hydro-static spindle.
- Large feed amount, high efficiency.
- Hydraulic system temperature rise is small, low energy consumption.
- Rotating of vertical grinding head positioning with end gear plate  $\pm 110^\circ$  rotating table.



(optional)

SPECIFICATION	UNIT	DSG-1250 DSG-1250A	DSG-1600 DSG-1600A	DSG-2000 DSG-2000A
Table width	mm	1250	1600	2000
Table length	m	2/3/4/6/8	2/3/4/6/8	2/3/4/6/8
Gantry width	mm	1700	2200	2600
Max. grinding width	mm	1500	2000	2400
Max. grinding length	mm	2000-8000	2000-8000	2000-8000
Max. grinding height	mm	600/800/1000	600/800/1000	600/800/1000
Horizontal wheelhead intermittent feed rate	mm/str	3-30	3-30	3-30
Horizontal wheelhead feed of MPG	mm	0.005	0.005	0.005
Horizontal wheelhead motor power	kw	22	22	22
Horizontal grinding wheel size	mm	500x100x203	500x100x203	500x100x203
Horizontal spindle speed	rpm	1050	1050	1050
Vertical wheelhead swivel angle	°	$\pm 110^\circ$	$\pm 110^\circ$	$\pm 110^\circ$
Vertical wheelhead feed of MPG	mm	0.005	0.005	0.005
Vertical wheelhead motor power	kw	11/15	11/15	11/15
Vertical grinding wheel size	mm	400x40x127	400x40x127	400x40x127
Vertical spindle speed	rpm	1440	1440	1440

#### STANDARD ACCESSORIES:

PLC+SMART auto. grinding controller, Coolant tank, Work lamp, Balancing arbor, Wheel flange and extractor, Wheel dresser stand, Y/Z axis electronical handwheel(MPG), Splashing guard, Standard grinding wheel, Tools & tool-box, Leveling wedge and bolts, Operation manual (English edition).

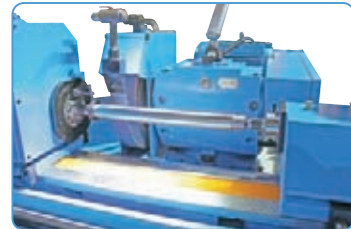
#### OPTIONAL ACCESSORIES:

Balancing stand, Electrical magnetic chuck, Parallel wheel dresser, 2 axis digital readout, Extra wheel flange, Oil tank guard, Magnetic separator, Paper filter.



## >> G-200H, UG-200H, GK-200H, UGK-200H

G-200H and UG-200H cylindrical grinding machine is suitable for outside grinding operations up to 200 mm in diameter. UG-200H comes complete with an inside grinding device to increase the application range significantly. Most commonly this model is used in machine construction, tool and mould shaping and in the production of small series.



External grinding for rotating part



Grinding head can be rotated 180° to change from inside to outside grinding.



Headstock can swivel  $\pm 45^\circ$  for grinding inside conical cylinder.



Well designed perfect symmetrical structure, high quality cast-iron integrated casting bed insure the excellent stability of machine. "T" type structure reduces the effect of oil temperature rise on bed deformation ensures higher accuracy.



Grinding spindle with segmented high-precision bearings, adjustable and low maintenance. Grinding spindle adopts oil-bath lubrication and coolant (N2 oil). Workhead spindle speeds are infinitely variable and driven frequency motor and interver, can be easily adjusted and optimized during the machining process.



Table can swivel certain angle for grinding conical cylinder.



Adopts famous-brand components, safe and reliable electrical control, safety interlocking protection system, be designed according to CE tension electric requirement.



The centralized operator panel and reasonably distributed action handles are very clear and user-friendly on the front of the machine.



Standard tailstock can operate either manual by handle or hydraulic control by foot pedal, sometime hand wheel on the end of tailstock can adjustable clamping force.

## >> CNC TYPE:

- The machine tool standard adopts German SIEMENS CNC system, and the executive system is driven by the CNC servo driver and servo motor.
- Worktable longitudinal travel (Z) and wheelhead cross travel (X) which with the high infeed accuracy are realized by the servo motors driven the ball screw transmission.
- By setting the parameter of longitudinal grinding or plunge grinding by CNC control panel, an auto-grinding for the different workpiece is realized.
- This machine can automatically grind multiple steps of a workpiece. The multi-step can be arbitrarily arranged for longitudinal grinding and cutting into grinding sequence and grinding process parameters.
- CNC control system with the function of wheel dressing and compensation automatically.



With the SIEMENS CNC system programming and human-machine interface, simple and easy, and equipped with other CNC systems and configured online automatic measuring instruments for customers' choice.



### STANDARD ACCESSORIES:

Grinding wheel, Grinding wheel flange, Three jaw chuck (UG), Driving dog, Arbor for internal grinding (UG), Grinding wheel dresser, Wheel balancing arbor, Open type steady rest, Dead centers, Frequency inverter, Coolant system, Work lamp, Leveling wedge, Operation manual (English edition).

### OPTIONAL ACCESSORIES:

Wheel balancing stand, Radius dresser, Close type center rest, Digital readout, Paper filter, Magnetic separator.

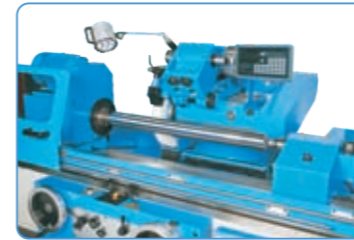
SPECIFICATION	UNIT	G-200H	UG-200H
Dia. ground (O.D)	mm	8~200	8-200
Dia. ground (I.D)	mm	-	13-100
Center height	mm	135	135
Workhead spindle speed	rpm	25~380	25~380
Max. table travel	mm	650 (950)	650 (950)
Table hydraulic feed speed	m/min	0.1~4	0.1~4
Loading capacity	kg	50	50
Grinding length (O.D/I.D)	mm	500/- (800/-)	500/125 (800/125)
Table swivel angle	°	-5~+9° (-3~+7°)	-5~+9° (-3~+7°)
Max. peripheral speed of grinding wheel	m/s	38	38
External wheel size	mm	Max: $\Phi 400 \times 50 \times \Phi 203$ ; Min: $\Phi 280 \times 50 \times \Phi 203$	Max: $\Phi 400 \times 50 \times \Phi 203$ ; Min: $\Phi 280 \times 50 \times \Phi 203$
Internal grinding spindle speed	rpm	-	16000
Workhead and tailstock center	-	MT4	MT4
Machine motor power	kw	5.625	5.625
Roundness (O.D/I.D)	um	1.5	1.5/2.5
Roughness (O.D/I.D)	um	Ra0.32	Ra0.32/Ra0.63
Uniformity of dia.in longitudinal section (O.D/I.D)	um	5	5/8
Machine dimemsions (LxWxH)	mm	2500 (3000) x1600x1500	2500 (3000) x1600x1500
Machine weight	kg	2500 (3000)	2500 (3000)

SPECIFICATION	UNIT	GK-200H	UGK-200H
Dia. ground (O.D)	mm	8-200	8-200
Grinding length (O.D)	mm	500/800	500/800
Center height	mm	135	135
Distance between centers	mm	550/850	550/850
Headstock center	-	MT4	MT4
Tailstock center	-	MT4	MT4
Loading capacity	kg	50	50
Grinding wheel size	mm	$\Phi 400 \times 50 \times \Phi 203$	$\Phi 400 \times 50 \times \Phi 203$
Max. peripheral speed of grinding wheel	m/s	38 (hydrodynamic-hydrostatic 45m/s)	38 (hydrodynamic-hydrostatic 45m/s)
Grinding spindle speed	rpm	2130	2130
Internal grinding spindle speed	rpm	-	16000
Dia. ground (I.D)	mm	-	13-100
X-axis min. feed unit	mm	0.001	0.001
Z-axis min. feed unit	mm	0.001	0.001
Total power	kw	10.825	10.825
Longitudinal servo motor power	kw	1.6 (6N.m)	1.6 (6N.m)
Cross servo motor power	kw	1.6 (6N.m)	1.6 (6N.m)
Roundness	um	1.5	1.5
Roughness	um	Ra0.32	Ra0.32
Uniformity of dia.in longitudinal section	um	5	5

# Cylindrical Grinder

>> G-200, G-320/G-320A, G-500/G-500A, G-630/G-630A, G-800  
UG-200, UG-320/UG-320A, UG-500/UG-500A, UG-630/UG-630A

- G-series cylindrical grinder is suitable for grinding outer cylindrical and conical surface; UG-series universal cylindrical grinder is suitable for grinding outer and inner cylindrical and conical surface.
- For UG-series, the workhead can be rotate to any position within its counterclock direction 90°, so it can be suitable for grinding inner or outer conical surface.
- For UG-series, the cylindrical grinding machine has internal grinding apparatus, internal grinding spindle is supported by precise roll-bearing.
- The workhead spindle, wheelhead spindle, internal grinding spindle, coolant pump, hydrodynamic and hydrostatic oil pump are driven by separate motors.
- Each moving parts of the machine has electric, hydraulic and mechanic interlock structure the machine is well designed with pleasing appearance, all control lever are centralized in panel make operating easy.
- The wheel dresser can be mounted on the tailstock.



External grinding for rotating part

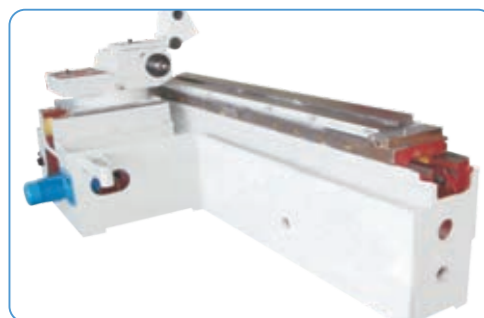
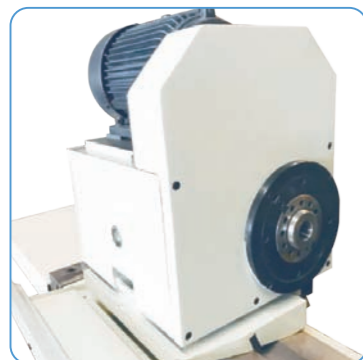


Comes complete with removable internal grinding device.



Wheelhead spindle is supported by bimetal shell bearing, which make the spindle have high rigidity and stability, ensure heavy, excellent finishing surface.

The workhead adopts inverter motor to realize stepless speed adjustment.



The one-piece bed is made of high quality cast iron, rails surface hardened and precision grinding, high stability and high rigidity. Times testify: The well designed structure ensure excellent processing capability.  
The base table slide way with TF material and been precision manual scraped; The wheel head slide way is V-flat rails with liner-roller, high precision and low motion friction.



Hydraulic tailstock with high accuracy and stability, moveable by foot pedal.



The longitudinal movement of the worktable is driven by hydraulic or by handwheel. The worktable can rotate to a certain degree so as to be suitable for grinding taper.  
The wheelhead cross feed is driven by hydraulic, which realizes automatic periodical feed and rapid feed. It can also do rough and fine feed through handwheel.



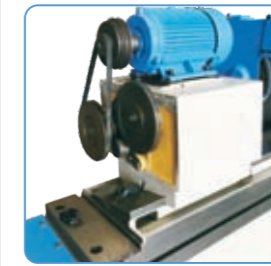


**STANDARD ACCESSORIES:**

Measuring bridge plate, Open steady rest, Wheel flange, Wheel extractor, Balancing arbor, Grinding wheel, Coolant tank, Carbide tripped center, Driving dog, Wheel dresser (Without diamond pen), Work lamp, Internal grinding attachment (UG), 3-jaw chuck (UG), Extension shaft (UG), Internal grinding wheel (UG), Full set tools, Leveling wedge, Operation manual (English edition).

**OPTIONAL ACCESSORIES:**

Balancing stand, Digital readout, Close steady rest, End wheel dresser, Radius wheel dresser, Center grinding attachment (G), Magnetic separator, Paper filter.

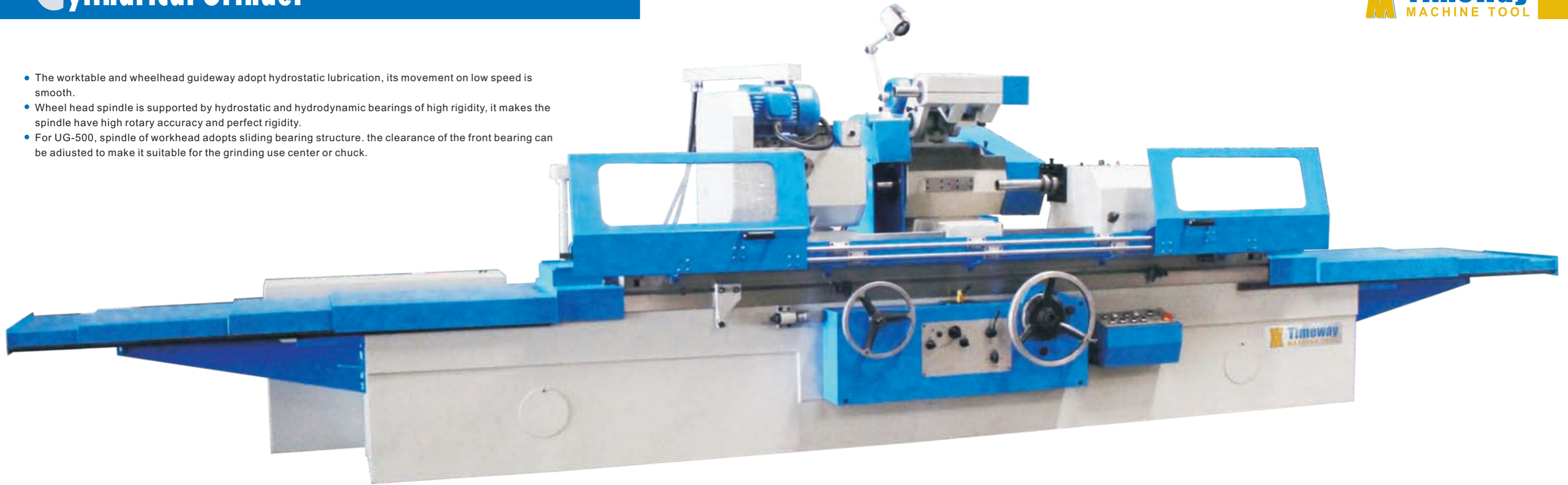


For G-320 (G-320A), work head adopts double-speed motor and its speed can be changed by changing the position of belt; For UG-320 (UG-320A), the workhead adopts inverter motor to realize stepless speed adjustment.

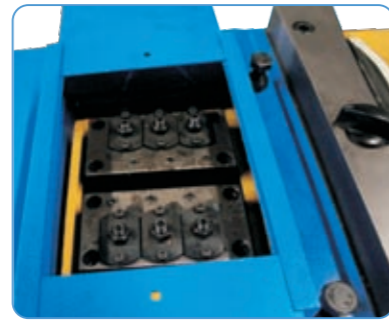
SPECIFICATION	UNIT	G-200	UG-200
Distance between centers	mm	500/750	500/750
Center height	mm	135	135
Dia. ground (O.D)	mm	5-200	5-200
Dia. ground (I.D)	mm	-	25-100
Grinding length (O.D)	mm	500/750	500/750
Grinding length (I.D)	mm	-	125
Loading capacity	kg	100	100
Workhead swivel angle	°	-	+ 90°
Workhead spindle taper	-	MT4	MT4
Workhead spindle speed	rpm	25-380 (stepless)	25-380 (stepless)
Wheelhead spindle speed	rpm	1335	1670
Wheelhead rapid feed travel	mm	50	50
Wheelhead cross travel	mm	205	205
Wheelhead swivel angle	°	-	±10°
Wheelhead feed of handwheel per rev. (rough/fine)	mm	2/0.5	2/0.5
Wheelhead feed of handwheel per gra. (rough/fine)	mm	0.01/0.0025	0.01/0.0025
External grinding wheel size	mm	500x50x203	400x50x203
Max. peripheral speed of grinding wheel	m/s	35	35
Internal grinding spindle speed	rpm	-	10000/15000
Internal grinding wheel size	mm	-	Max: 50x25x13, Min: 17x20x6
Table feed of handwheel per rev.	mm	6	6
Table swivel angle (CW)	°	3°	3°
Table swivel angle (CCW)	°	9° /8°	9° /8°
Table longitudinal feed speed	m/min	0.1-4	0.1-4
Tailstock quill taper	-	MT4	MT4
Tailstock quill travel	mm	30	30
External grinding motor power	kw	5.5	4
Internal grinding motor power	kw	-	1.1
Workhead motor power	kw	1.1	1.1
Gross weight	kg	3000/3100	3000/3200
Packing size (LxWxH)	cm	235/275x203x205	235/275x203x205

SPECIFICATION	UNIT	G-320 (G-320A)	UG-320 (UG-320A)
Distance between centers	mm	1000/1500/2000/3000	1000/1500/2000/3000
Center height	mm	180	180
Dia. ground (O.D)	mm	8-320	8-320
Dia. ground (I.D)	mm	-	30-100
Grinding length (O.D)	mm	1000/1500/2000/3000	1000/1500/2000/3000
Grinding length (I.D)	mm	-	125
Loading capacity	kg	150 (500)	150 (500)
Workhead swivel angle	°	-	+ 90°
Workhead spindle taper	-	MT5	MT4
Workhead spindle speed	rpm	26/52/90/130/180/260	25-220 (stepless)
Wheelhead spindle speed	rpm	1100	1670
Wheelhead rapid feed travel	mm	50	50
Wheelhead cross travel	mm	235	246
Wheelhead swivel angle	°	-	±30°
Wheelhead feed of handwheel per rev. (rough/fine)	mm	2/0.5	2/0.5
Wheelhead feed of handwheel per gra. (rough/fine)	mm	0.01/0.0025	0.01/0.0025
External grinding wheel size	mm	600x75x305	400x50x203
Max. peripheral speed of grinding wheel	m/s	35	35
Internal grinding spindle speed	rpm	-	10000/15000
Internal grinding wheel size	mm	-	Max: 50x25x13, Min: 17x20x6
Table feed of handwheel per rev.	mm	6	6
Table swivel angle (CW)	°	3° /3°/2°/2°	3°/3°/2°/2°
Table swivel angle (CCW)	°	7° /6° /5° /3°	7°/6°/5°/3°
Table longitudinal feed speed	m/min	0.1-4	0.1-4
Tailstock quill taper	-	MT4	MT4
Tailstock quill travel	mm	30	30
External grinding motor power	kw	11	5.5
Internal grinding motor power	kw	-	1.1
Workhead motor power	kw	0.75/1.5 (1.5/2.4)	1.5
Gross weight	kg	3500/4600/5600/7500	5300/6100/7900/9900
Packing size (LxWxH)	cm	322/422/540/739x200x205	322/422/540/739x200x205

- The worktable and wheelhead guideway adopt hydrostatic lubrication, its movement on low speed is smooth.
- Wheel head spindle is supported by hydrostatic and hydrodynamic bearings of high rigidity, it makes the spindle have high rotary accuracy and perfect rigidity.
- For UG-500, spindle of workhead adopts sliding bearing structure. the clearance of the front bearing can be adjusted to make it suitable for the grinding use center or chuck.



The workhead spindle, wheelhead spindle, internal grinding spindle are driven by separate motors.



Worktable with hydrostatic pressure support for large loading and low wear.



Independent hydraulic station assembles with air cooling, running stably with small temperature rise, provide enough power for precision grinding.

#### STANDARD ACCESSORIES:

Measuring bridge plate, Open steady rest, Wheel flange, Wheel extractor, Balancing arbor, Grinding wheel, Coolant tank, Carbide tripped center, Driving dog, Wheel dresser (Without diamond pen), Work lamp, Internal grinding attachment (UG), 3-jaw chuck (UG), Extension shaft (UG), Internal grinding wheel (UG), Full set tools, Leveling wedge, Operation manual (English edition).

#### OPTIONAL ACCESSORIES:

Balancing stand, Digital readout, Close steady rest, End wheel dresser, Radius wheel dresser, Center grinding attachment (G), Magnetic separator, Paper filter.

SPECIFICATION	UNIT	G-500 (G-500A)	UG-500 (UG-500A)
Distance between centers	mm	1500/2000/3000/4000	1500/2000/3000/4000
Center height	mm	270	270
Dia. ground (O.D)	mm	25-500	25-500
Dia. ground (I.D)	mm	-	30-200
Grinding length (O.D)	mm	1500/2000/3000/4000	1500/2000/3000/4000
Grinding length (I.D)	mm	-	320
Loading capacity	kg	1000 (2000)	1000 (2000)
Workhead swivel angle	°	-	+ 90°
Workhead spindle taper	-	MT6	MT6
Workhead spindle speed	rpm	18-180 (10-100)	20-224
Wheelhead spindle speed	rpm	870	1330/665
Wheelhead rapid feed travel	mm	100	100
Wheelhead cross travel	mm	438	370
Wheelhead swivel angle	°	-	30°
Wheelhead feed of handwheel per rev. (rough/fine)	mm/rev	4/0.5	4/0.5
Wheelhead feed of handwheel per gra. (rough/fine)	mm/gra	0.02/0.0025	0.02/0.0025
External grinding wheel size	mm	750x75x305	500x75x305
Max. peripheral speed of grinding wheel	m/s	35	35/17.5
Internal grinding spindle speed	rpm	-	10000
Internal grinding wheel size	mm	-	Max:175x32x32; Min:30x25x10
Table feed of handwheel per rev.	mm	5	5
Table swivel angle (CW)	°	3° /2°/2° /1°	3°/2°/2°/1°
Table swivel angle (CCW)	°	6° /5° /3° /2°	6°/5°/3°/2°
Table longitudinal feed speed	m/min	0.1-3	0.1-3
Tailstock quill taper	-	MT6	MT6
Tailstock quill travel	mm	70	70
External grinding motor power	kw	15	5/7.5
Internal grinding motor power	kw	-	1.5
Workhead motor power	kw	4 (7.5)	4 (7.5)
Gross weight	tons	10/11/13/17	10/11/13/17
Packing size (LxWxH)	cm	510/585/785/1000x228x210	510/585/785/1000x228x210

- G-630/G-800 cylindrical grinder is suitable for grinding outer cylindrical and conical surface; UG-630 universal cylindrical grinder is suitable for grinding outer and inner cylindrical and conical surface.
- The longitudinal movement of the worktable is driven by hydraulic or by handwheel. The worktable can rotate to a certain degree so as to be suitable for grinding taper.
- The wheelhead cross feed is driven by hydraulic, which realizes automatic periodical feed and rapid feed. It can also do rough and fine feed through handwheel.
- The worktable and wheelhead guideway adopt hydrostatic lubrication, its movement on low speed is smooth.
- The spindle is supported by hydrostatic and hydrodynamic bearings of high rigidity, it makes the spindle have high rotary accuracy and perfect rigidity.
- The workhead adopts inverter motor to realize stepless speed adjustment.
- For UG-630, spindle of workhead adopts sliding bearing structure. the clearance of the front bearing can be adjusted to make it suitable for the grinding use center or chuck.
- For UG-630, the workhead can be rotate to any position within its conterclock direction 90°, so it can be suitable for grinding inner or outer conical surface .
- For UG-630, the cylindrical grinding machine has internal grinding apparatus, internal grinding spindle is supported by precise roll-bearing.
- The workhead spindle, wheelhead spindle, internal grinding spindle, coolant pump, hydrodynamic and hydrostatic oilpump are driven by separate motors.
- Each moving parts of the machine has electric, hydraulic and mechanic interlock structure the machine is well designed with pleasing appearance, all control lever are centralized in panel make operating easy
- The wheel dresser can be assembled on the worktable surface of on the tailstock.



SPECIFICATION	UNIT	G-630 (G-630A)	UG-630 (UG-630A)	G-800
Distance between centers	mm	2000/3000/4000/5000	2000/3000/4000/5000	3000/4000/5000
Center height	mm	350 (370)	350(370)	500
Dia. ground (O.D)	mm	30-630	30-630	50-800
Dia. ground (I.D)	mm	-	30-250	-
Grinding length (O.D)	mm	2000/3000/4000/5000	2000/3000/4000/5000	3000/4000/5000
Grinding length (I.D)	mm	-	320	-
Loading capacity	kg	1500 (3000)	1500 (3000)	3000
Workhead swivel angle	°	-	+ 90°	-
Workhead spindle taper	-	MT6 (Metric 80)	MT6	Metric 80
Workhead spindle speed	rpm	10-100	14-140	10-100
Wheelhead spindle speed	rpm	870	1100/550	870
Wheelhead rapid feed travel	mm	100	100	100
Wheelhead cross travel	mm	438 (475)	450	550
Wheelhead swivel angle	°	-	±30°	-
Wheelhead feed of handwheel per rev. (rough/fine)	mm/rev	4/0.5	4/0.5	4/0.5
Wheelhead feed of handwheel per gra. (rough/fine)	mm/gra	0.02/0.0025	0.02/0.0025	0.02/0.0025
External grinding wheel size	mm	750x75x305	600x75x305	900x75x305
Max. peripheral speed of grinding wheel	m/s	35	35/17.5	35
Internal grinding spindle speed	rpm	-	10000	-
Internal grinding wheel size	mm	-	Max:175x32x32; Min:30x25x10	-
Table feed of handwheel per rev.	mm	5	5	5
Table swivel angle (CW)	°	2°/1° /1°/1°	2°/1°/1°/1°	1° /1°/1°
Table swivel angle (CCW)	°	4°/3° /2° /1.5°	4° /3° /2.5°/1.5°	3° /2° /1.5°
Table longitudinal feed speed	m/min	0.1-3 (0.1-2.5)	0.1-2.5	0.1-2.5
Tailstock quill taper	-	MT6 (Metric 80)	MT6 (Metric 80)	Metric 80
Tailstock quill travel	mm	70	70	70
External grinding motor power	kw	18.5 (22)	7/11	22
Internal grinding motor power	kw	-	1.5	-
Workhead motor power	kw	5.5 (15)	5.5 (15)	15
Gross weight	tons	10/11/17.4/20 (18/22/23/26)	11/12/18.4/21 (19/23/24/27)	30/36/41
Packing size (LxWxH)	cm	695/890/1100/1500x242x226	695/890/1100/1500x242x226	890/1100/1500x260x230

#### STANDARD ACCESSORIES:

Measuring bridge plate, Open steady rest, Wheel flange, Wheel extractor, Balancing arbor, Grinding wheel, Coolant tank, Carbide tripped center, Driving dog, Wheel dresser (Without diamond pen), Work lamp, Internal grinding attachment (UG), 3-jaw chuck (UG), Extension shaft (UG), Internal grinding wheel (UG), Full set tools, Leveling wedge, Operation manual (English edition).

#### OPTIONAL ACCESSORIES:

Balancing stand, Digital readout, Close steady rest, End wheel dresser, Radius wheel dresser, Center grinding attachment (G), Magnetic separator, Paper filter.