



Smart Mills

Built with Expertise of Dynamic Accuracy and Rigidity





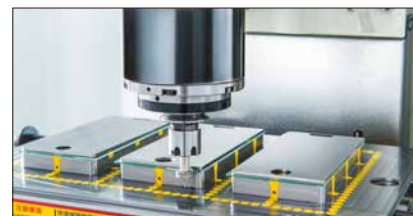
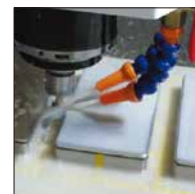
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S1 SMART MILLS GLASS ENGRAVING MACHINE



Oil Cooler



☞ Mobil Phone Glass Grinding

Perfect for streamlined

machining of small intricate shaped parts and jobs requiring high accuracy and high efficiency.

- Compactly constructed with small footprint.
- Highly rigid machine structure in combination with massive cast iron machine stand.
- 30,000RPM built-in type spindle assures low heat build-up and maximum stability.
- Choice of ER16, ER20 and ISO spindle tapers.
- Servo motor drive on X, Y and Z axes.
- Linear guide ways on X, Y and Z axes, featuring reduced stick-slip and improved positioning accuracy.
- Rapid traverse rates of 30 or 45m/min on X, Y and Z axes.
- Choice of fully enclosure with sheet metal or aluminium frame.



☞ Machine Frame is Available By Request



☞ Casting Stand



☞ S1+ATC

S5 AIDS RAPID MACHINING FOR SMALL PARTS

Designed for Efficient Drilling, Milling
and Engraving



Machine Frame is Available
by Request

S5+Sheet Metal Enclosure
(Aluminium Frame is Available)

Now, you can get the right CNC mill with outstanding features for precise and efficient operation year after year. Just consider Rong Fu Smart Mills. They are quality built throughout with many outstanding features, such as Windows

based conversational CNC control, 8,000 rpm spindle speed and linear ways on three axes that allows for high speed machining and lots more.

Optimal Structure Design Linear Ways on Three Axes

- The bed and column are manufactured from high quality Meehanite cast iron and stress relieved for a lifetime of accuracy.
- Box-type column construction, combined with scientific rib reinforcement for outstanding rigidity as well as excellent ability to dampen vibration, and reduce deflection and thermal displacement.
- Precision linear motion guides are used on X, Y, Z-axes, providing 10~15 M/min. of rapid traverse rates and 10 M/min. of cutting feed rates on X, Y, Z-axes.



Bench Top



S5+Aluminium Frame



Choice of Casting Stand



Automatic Tool Changer (optional)

- The carousel-type magazine allows for loading with 8 tools.
- Tool shank is BT30 or BT40.
- Tool change can be quickly accomplished in 8 seconds (tool to tool).

Applications

Perfect for mass production of PC boards, small workpieces, SOHO spare parts, molds development, school education, personal casual use for spare sampling and many other usages, etc.

The S5 Smart Mills are Especially Ideal for
Machining Small Precision Parts and Molds.

S8 SMART MILLS

Engineered Specifically for Precision
Parts and Molds Machining



⚡ S8+Drum type ATC



IN THE PICTURE SHOWN:

- Full enclosure splash guard
- With automatic tool changer
- CE version
- Aluminium frame is available

The Rong Fu S8 Smart Mills

are compact machines that meet the demands for drilling, milling and engraving of small parts and molds. The S8 possesses high thermal and mechanical stability to ensure a lifetime of

accuracy. It is equipped with an 8-tool carousel-type ATC for saving tool change time. For increased efficiency and accuracy, put Rong Fu S8 Smart Mills to work in your plant or shop.



⚡ Machine Frame is
Available By Request

Optimal Structure Design Assures
Maximum Rigidity and Stability with
Linear Ways on Three Axes

- The bed and column are manufactured from high quality Meehanite cast iron and stress relieved for a lifetime of accuracy.
- Box-type column construction, combined with scientific rib reinforcement, for outstanding rigidity as well as excellent ability to dampen vibration, and reduce deflection and thermal displacement.
- Precision linear motion guides are used on X, Y, Z-axes, providing 10~15 M/min. of rapid traverse rates and 10 M/min. of cutting feed rates on X, Y, Z-axes.

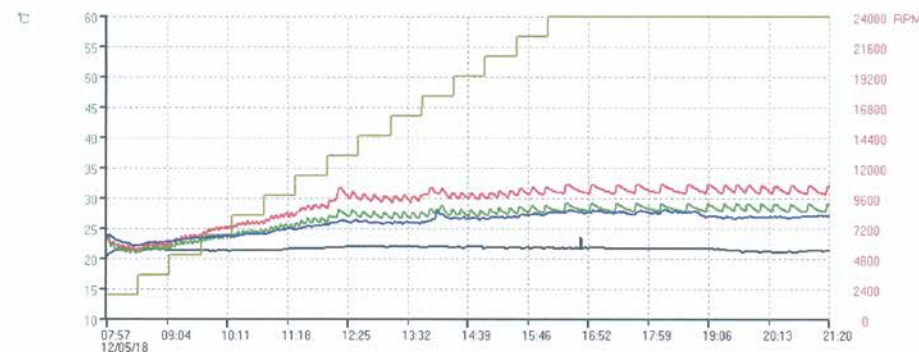


⚡ Rotary table + Air chuck (Options)

⚡ The machine is capable of fitting with an optional 4th axis rotary table and Robot Arm for further versatility in various milling jobs.

VERSATILE AND POWERFUL SPINDLE

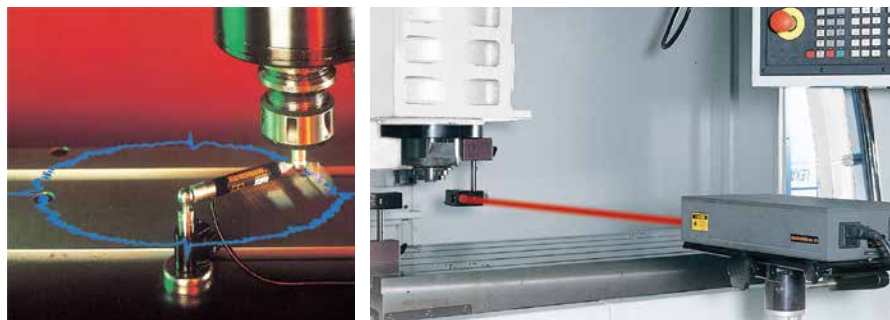
Rong Fu Smart Mills Series Mills Series Machines Offer High Quality Spindles that Provide Superb Cutting Performance.



Each spindle is strictly dry-run tested to ensure the best temperature rising stability when running the machine at the top speed.



S5/S8 Spindle



Laser and Ball Bar Testing (Not available for machine order without controller)



Dynamic Balance Calibration
Rong Fu employ a scope-type dynamic balancing machine for calibrating the balance of the spindle. This is minimized spindle vibration during high-speed running, while resulting in high machining accuracy.



Dynamic Balance Analyzer
Rong Fu also apply a dynamic balance analyzer to test the spindle vibration. The vibration condition is displayed by spectrum for accurate analysis.



Noise Test
To ensure the machine runs at low noise levels, each machine is subject to noise tests prior to shipping.



Vibration Test
Each spindle is subject to vibration test before it is assembled into the machine.

CHOICE OF CONTROLLERS

Compatible with All Major CNC Controllers
Shop Mill Assorted CNC Control

SHOP MILL ASSORTED CNC CONTROL:

- Windows based industrial conversational CNC control.
- 15" color LCD monitor.
- Automatic mill round or rectangular pockets.
- Graphics 2D & 3D
- Controller beyond FANUC, SIEMENS, SYNTEC system, we can provide machine frame for self-wiring.



SIEMENS



SYNTEC
Trusted Technical Service

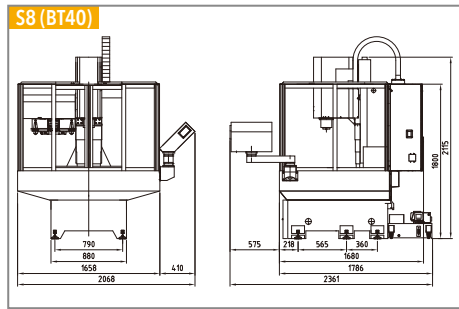
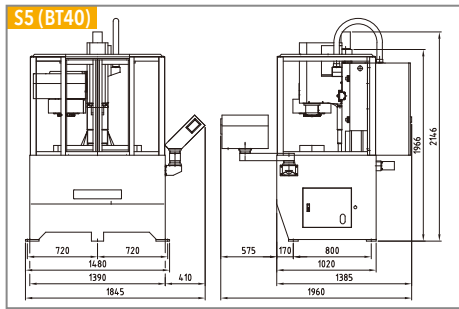
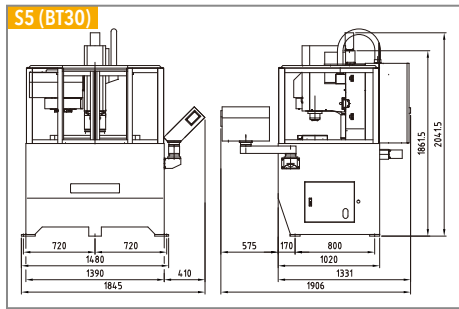
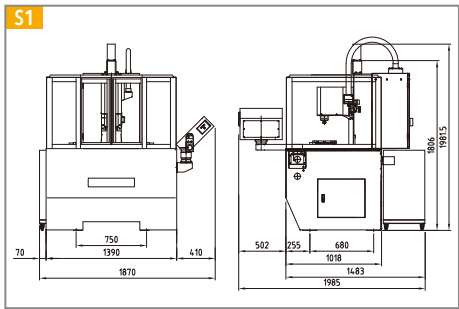


FANUC

SPECIFICATIONS

Item	Unit		S1 (ENGRAVING MACHINE)		S5 (BT30)		S5 (BT30) W/Casting Stand		S5	(BT40)	S5 (BT40) W/Casting Stand		S8 (BT40)			
Travels																
XY/Z Travels	mm / in		350 / 210 / 340	13.779**8.268**13.385"	350 / 210 / 340	13.779**8.268**13.385"	350 / 210 / 340	13.779**8.268**13.385"	350 / 240 / 400	13.779**9.449**15.748"	350 / 240 / 400	13.779**9.449**15.748"	400 / 300 / 500	15.748**11.811**19.685"	400 / 300 / 500	15.748**11.811**19.685"
Spindle nose to table	mm / in		50-390	1.968"-15.354"	50-390	1.968"-15.354"	50-390	1.968"-15.354"	75-475	2.953**18.7"	75-475	2.953**18.7"	80-580	3.15**22.835"	80-580	3.15**22.835"
Spindle center to z-axis cover distance	mm / in		260	10.236"	260	10.236"	260	10.236"	260	10.236"	260	10.236"	330	12.992"	330	12.992"
Feed rates																
Ballscrew size (Dia x pitch)	mm / in		15	0.59"	5	0.197"	5	0.197"	5	0.197"	5	0.197"	5	0.197"	5	0.197"
x/y/z rapid traverse	M/min/M/ft	Siemens	30 × 30 × 30	98.4**98.4**98.4'	10 × 10 × 10	32.8**32.8**32.8'	10 × 10 × 10	32.8**32.8**32.8'	10 × 10 × 10	32.8**32.8**32.8'	10 × 10 × 10	32.8**32.8**32.8'	10 × 10 × 10	32.8**32.8**32.8'	10 × 10 × 10	32.8**32.8**32.8'
		Fanuc	45 × 45 × 45	147.6**147.6**147.6'	15 × 15 × 15	49.2**49.2**49.2'	15 × 15 × 15	49.2**49.2**49.2'	15 × 15 × 15	49.2**49.2**49.2'	15 × 15 × 15	49.2**49.2**49.2'	15 × 15 × 15	49.2**49.2**49.2'	15 × 15 × 15	49.2**49.2**49.2'
Cutting feed rate	mm/min /in/min		1 ~ 10000	0.039" ~ 393.7"	1 ~ 10000	0.039" ~ 393.7"	1 ~ 10000	0.039" ~ 393.7"	1 ~ 10000	0.039" ~ 393.7"	1 ~ 10000	0.039" ~ 393.7"	1 ~ 10000	0.039" ~ 393.7"	1 ~ 10000	0.039" ~ 393.7"
Spindle																
Spindle speed	RPM		30000	30000	8000/10000/12000/15000		8000/10000/12000/15000		8000/10000/12000/15000		8000/10000/12000/15000		8000/10000/12000/15000			
Spindle taper size			ER16/ISO20	ER16/ISO20	BT30	BT30	BT30	BT30	BT40	BT40	BT40	BT40	BT40	BT40	BT40	BT40
Drive system					Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt
Table																
Table size	mm / in		810 × 250	31.889**9.843"	810 × 250	31.889**9.843"	810 × 250	31.889**9.843"	810 × 250	31.889**9.843"	810 × 250	31.889**9.843"	300 × 600 (11.811**23.622") / OPTION 300 × 920 (11.811**36.22")			
Max table capacity	Kgs/lbs		80	176	80	176	80	176	80	176	80	176	150	330	150	330
T-slot (pitch x width x No.)	mm / in		80 x16 x 3T	3.15**0.63**3T	80 x16 x 3T	3.15**0.63**3T	80 x16 x 3T	3.15**0.63**3T	80 x16 x 3T	3.15**0.63**3T	80 x16 x 3T	3.15**0.63**3T	95 x16 x 3T	3.74**0.63**3T	95 x16 x 3T	3.74**0.63**3T
Automatic tool change system																
Capacity	Pcs		Single or 8T	Single or 8T	Armless type 8T	Armless type 8T	Armless type 8T	Armless type 8T	Armless type 8T	Armless type 8T	Armless type 8T	Armless type 8T	Armless type 8T		Drum Type 20T	
Max.tool diameter	mm / in		10	0.393"	80	3.15"	80	3.15"	125	4.921"	125	4.921"	130	5.118"	130	5.118"
Max.tool length	mm / in				200	7.874"	200	7.874"	260	10.236"	260	10.236"			150	5.9"
Max.tool weight	Kgs / lbs				3	6.6	3	6.6	7	15.4	7	15.4	8	17.6	8	17.6
Motor																
Spindle motor	Kw / Hp		2.2	2.93	1.5	2	1.5	2	2.2	3	2.2	3	3.7	5	3.7	5
XY/Z Axis motor	Kw / Hp		0.75×0.75×0.75	1*1*1	0.75×0.75×0.75	1*1*1	0.75×0.75×0.75	1*1*1	0.75×0.75×0.75	1*1*1	0.75×0.75×0.75	1*1*1	0.75 × 0.75 × 1.8 / 1*1*2.4 (For Fanuc)			
Coolant pump	Kw / Hp		0.09	1/8	0.09	1/8	0.09	1/8	0.09	1/8	0.09	1/8	0.09	1/8	0.09	1/8
Other																
Coolant water	L/G		32	8	32	8	32	8	32	8	32	8	80	20	80	20
Air supply	Kg/cm²/lb/in²		5.5	78.21	5.5	78.21	5.5	78.21	5.5	78.21	5.5	78.21	5.5	78.21	5.5	78.21
Power requirement	KVA		8	8	12	12	12	12	12	12	12	12	15	15	15	15
Machine dimension																
Machine dimension (L×W×H)	mm / in		1985 x 1870 x 1982	78.15**73.622**78.031"	1906*1845* 2042	75.039**72.637**80.393"	1906 x 1845 x 1982	75.039**72.637**78.031"	1960 x 1845 x 2300	77.165**72.637**90.551"	1960 x 1845 x 2300	77.165**72.637**90.551"	2361 x 2068 x 2300	92.952**81.417**90.551"	2361 x 2068 x 2300	92.952**81.417**90.551"
Machine weight	Kg / lbs		1335	2937	1060	2332	1400	3080	1150	2530	1490	3278	1840	4048	2040	4488

MACHINE DIMENSIONS



*Specifications are Subject to Change Without Notice.

S1

Standard Equipment

- Linear guide ways, ball screws
- Servo motors (X, Y, Z)
- Spindle motor
- Auto lubricator
- ER16 spindle
- 220V, 3 phase
- With enclosure (Sheet metal / Aluminum frame)
- Coolant system (8G)
- Limit switch for 3 axes
- MPG
- Controller (Fanuc / Siemens / Syntec)
- Oil cooler

Optional Equipment

- CE version
- Manual air gun
- LED work light
- Oil skimmer (For 8G / 15G only)
- Coolant system (15G)
- ATC (Auto Tool Changer)
- ER20, ISO20

S5/S8

Standard Equipment

- Machine bench top, tray and stand
- PMI linear guide way, ball screws
- AC servo motors (X, Y, Z Spindle)
- BT-30 / BT-40 taper
- 220V, 3 phase
- S5/S8 – 8000 RPM
- Coolant system (8G)
- Rigid tapping (Alu. M3~M8 / Steel M4~M8)
- Alarm lamp
- Chip bucket

Options

- Armless tool magazine (8 Tools)
- Auto oiler
- Limit switch for 3 axis
- CE version
- Full enclosure
- LED work light
- Manual air gun
- Coolant system (15G)
- Oil Skimmer (For 8G/15G only)
- NR12 door interlock (For Brazil only)
- 4th Axis rotary table/Air Chuck (Not for 808D)
- Screw type or link type chip conveyor
- Transformer
- Door lock
- 10000/12000/15000 rpm spindle (belt type)
- Robot arm
- Drum type ATC (20 Tools)
- 900 x 300 mm table

*Machine Frame is Available By Request.