

**EXCELLENCE
THROUGH
EXPERTISE**



**53030 / 500 / 6040
CNC TAPPING CENTER**

RES·SEIKI®

S Series

3030/500/6040 CNC DRILLING AND TAPPING CENTER

- HIGH SPEED SPINDLE ■ HIGH RESPONSE SERVO SYSTEM
- HIGH SPEED 3 AXES RAPID TRAVERSE ■ DIRECTLY COUPLED SPINDLE DRIVE SYSTEM
- FULL-TRAVEL COLUMN, DOUBLE WORK STATIONS & HIGHLY RIGID MACHINE STRUCTURE



A NEW GENERATION OF DRILLING & TAPPING CENTER

Spindle Speed

BT30: 10000rpm / 15000 rpm (OP)

BT40: 8000rpm / 12000 rpm (OP)

Number of Tools

BT30: 12 (S3030) / 20 (S500)

BT40: 24 (S6040)

Positioning Accuracy

JIS B6338: 0.005 / 300 mm

VDI3441 P: 0.012 mm

Repeatability Accuracy

JIS B6338: ±0.003 mm

VDI3441 P: 0.010 mm

Rigid Tapping

BT30: 4000 rpm

BT40: 3000 rpm

S6040



S500



S3030



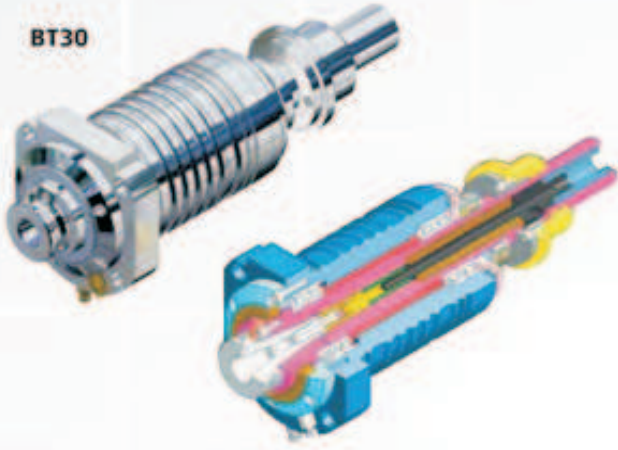
FULL-TRAVEL COLUMN STRUCTURE

Machine Structure : Manufactured from high rigidity cast iron, the ARES machine structure is computer analyzed for maximum rigidity, fast travel and heavy duty machining conditions.

Transmission System : Three axes are equipped with linear guide ways combined with extra long preloaded side blocks for maximum feeding stability.

DIRECT DRIVE SPINDLE

BT30



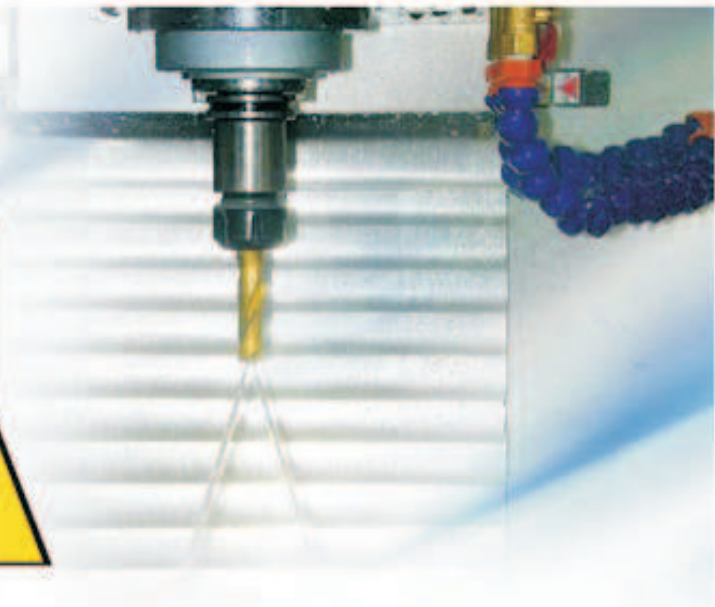
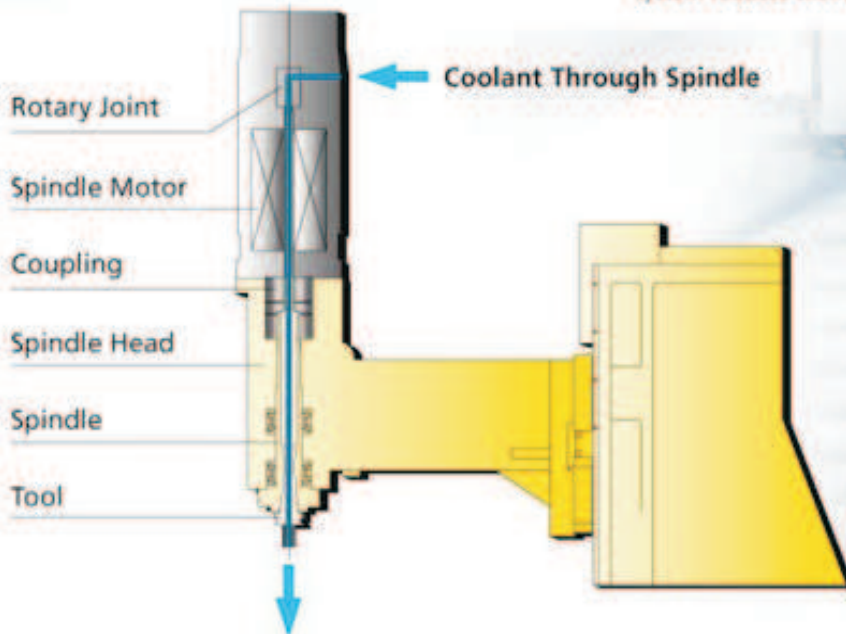
Spindle : The directly coupled spindle eliminates power transmission loss to develop the highest efficient of spindle motor. Spindle is mounted on four P4 high precision angular contact ball bearings combined with constant temperature device to provide outstanding richening rigidity.

BT40



COOLANT THROUGH SPINDLE

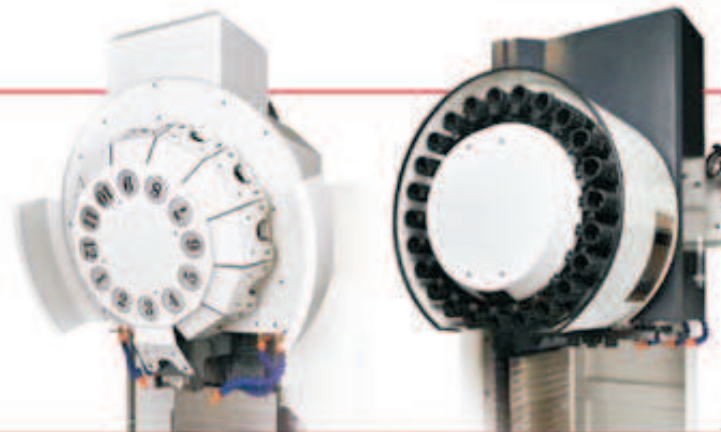
Coolant flow is fed by a high pressure pump through the spindle and out the tip of the cutting tool, immediately reducing any heat at the cut point. This substantially increases the cutting efficiency while extending tool life, this system reduces thermal deformation and provides stable accuracy.



THE FASTEST SPINDLE ACCELERATION

Reduced Non-cut Time and Spindle Acceleration / Deceleration

Special design is adopted all new spindle motor. This greatly reduces the response time for rigid tapping, powerful servo motors on 3 axes feature fast acceleration / deceleration time for 3 axes rapid traverses.



SWING TABLES

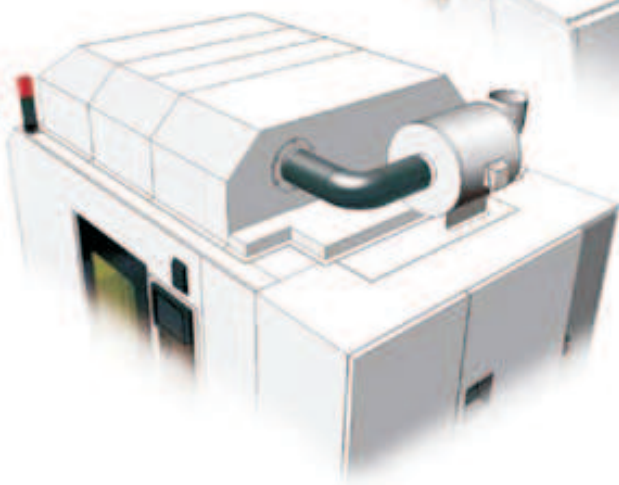
The machines are equipped with double work stations. Table changing is performed by 180 degree rotary table for fast and stable motion. The specially designed table positioning mechanism fully prevents chip accumulation that may affect positioning accuracy which usually occurs on a conventional table change system.

Models with swing tables are especially ideal for those work pieces requiring short machining time but frequent work piece change. The computer features safety protection software to lock table change commands while work pieces are being changed, ensuring fast and safe machining operations.

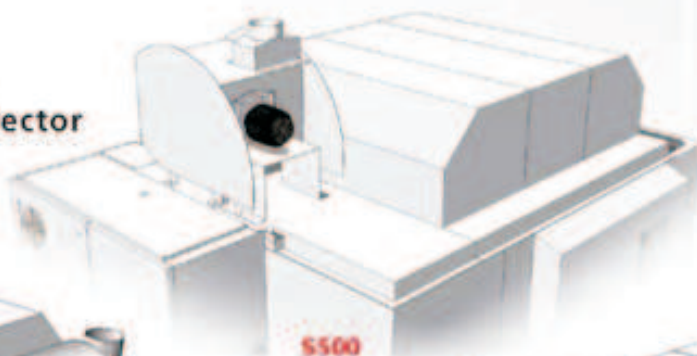


Full Enclosed Splash Guard & Oil Mist Collector

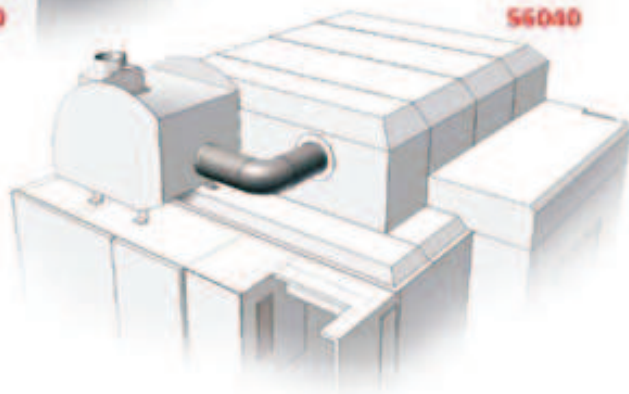
S3030



S500



S6040



Oil Cooler



Water Tank



CTS Filtration



CTS Spindle Motor



Mitsubishi M70
Controller



FANUC OiMD
Controller

CONTROL PANEL (8.4" TFT LCD)

STANDARD ACCESSORIES

- Toolbox and tools
- Auto-lubrication system
- Tool coolant system
- Spindle air blow system
- Leveling bolts and pads
- Direct spindle drive
- Traveling column machine structure
- Work light
- Dual-color alarm light
- Chip flush system
- Work table hydraulic system (S500)
- Chip conveyor with cart (S500)

OPTIONAL ACCESSORIES

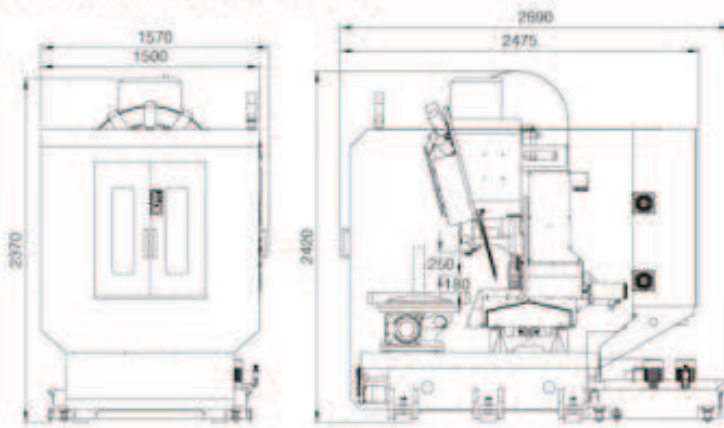
- Transformer / stabilizer
- Work piece air blow system
- 12,000 rpm high speed spindle / BT40
- 15,000 rpm high speed spindle / BT30 (with spindle oil cooling system)
- Coolant through spindle (CTS)
- Spindle oil cooling system
- CTS filtration
- Air gun / water gun
- Surround chip flushing system
- Work table hydraulic system (S6040)
- Chip conveyor with cart (S3030 / S6040)
- Oil / water partition
- Full enclosed splash guard (Top cover)
- Oil mist collector
- High speed & high accuracy machining control mode G05 P10000 (Mitsubishi M70-A)



S Series 3030 / 500 / 6040 CNC DRILLING & TAPPING CENTER

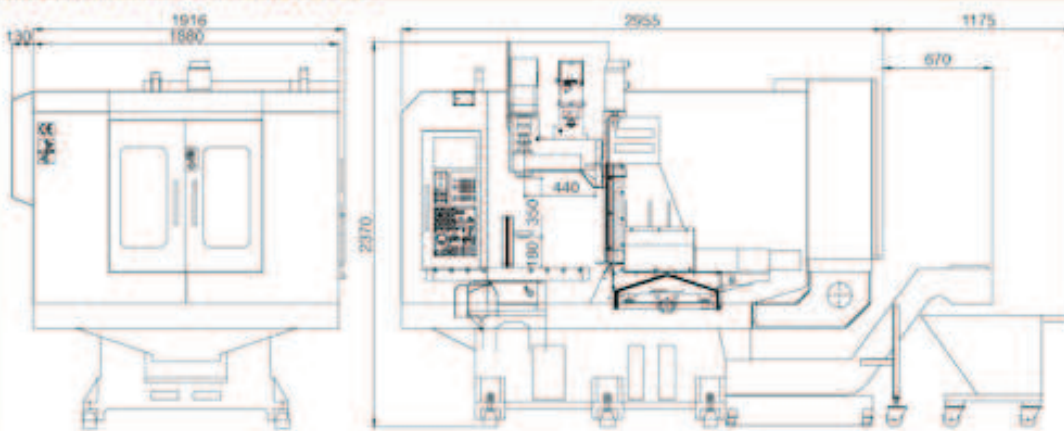
S3030 MACHINE DIMENSIONS

Unit : mm



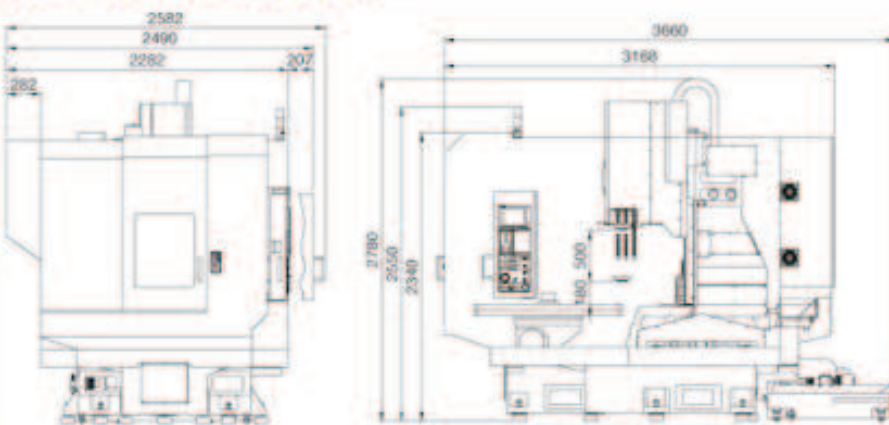
S500 MACHINE DIMENSIONS

Unit : mm



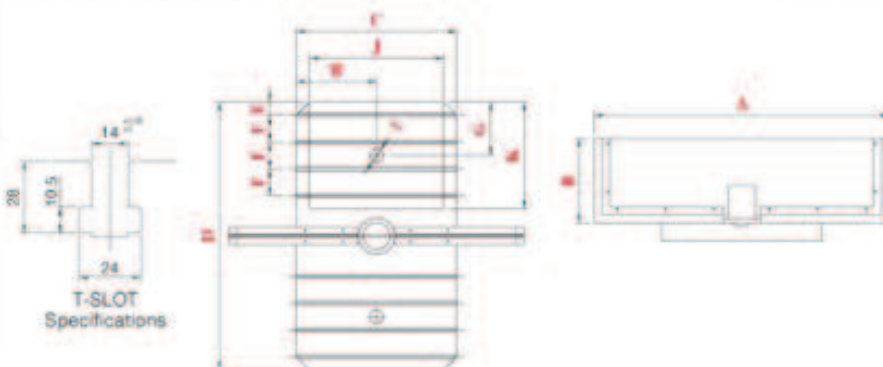
S6040 MACHINE DIMENSIONS

Unit : mm



SWING TABLES DIMENSIONS

Unit : mm



	S3030	S500	S6040
T-SLOT	3 pcs	4 pcs	4 pcs
A	800	1100	1400
B	290	315	415
C	400	600	700
D	700	1000	1200
E	45	50	55
F	80	100	125
G	—	200	180
H	—	300	350
I	—	Ø50 ^{+0.03} _{-0.03}	Ø50 ^{+0.03} _{-0.03}
J	300	500	600
K	250	400	400

S Series 3030 / 500 / 6040 CNC DRILLING & TAPPING CENTER

MACHINE SPECIFICATIONS

		Unit	S3030	S500	S6040
Table size		mm	400 x 250 x 2 pcs	600 x 400 x 2 pcs	700 x 400 x 2 pcs
Max. table load		kg	100	250	250
X, Y, Z axis travel		mm	300 x 250 x 250	500 x 400 x 350	600 x 400 x 500
Table to spindle nose		mm	180 - 430	180 - 530	180 - 680
Spindle taper			BT30	BT30	BT40
Pull stud			MAS403 P30T-1 (45°)	MAS403 P30T-1 (45°)	MAS403 P40T-1 (45°)
Spindle motor	Mitsubishi	kW	5.5 / 3.7	5.5 / 3.7	7.5 / 5.5
	FANUC	kW	3.7 / 2.2	3.7 / 2.2	7.5 / 5.5
X drive motor	Mitsubishi	kW	1.5	1.5	3.5
	FANUC	kW	1.6	1.6	3.0
Y drive motor	Mitsubishi	kW	1.5	1.5	3.5
	FANUC	kW	1.6	1.6	3.0
Z drive motor	Mitsubishi	kW	1.5	1.5	3.5
	FANUC	kW	1.6	1.6	4.0
Spindle speeds		rpm	60 - 10,000	60 - 10,000	60 - 8,000
X, Y, Z axis rapid traverse		m/min	48 / 48 / 48	36 / 36 / 48	36 / 36 / 48
Magazine capacity			12	20	24
Max. tool weight		kg	3	3	5
Max. tool length		mm	200	200	250
ATC time		sec	1.6 (T-T)	1.6 (T-T)	2.0 (T-T)
APC time		sec	3	4.5	5
Net weight		kg	3,300	5,250	6,600
Floor space		mm	2690 x 1570 x 2420	4130 x 2046 x 2370	3660 x 2582 x 2780

CONTROLLER SPECIFICATIONS

○ : Standard OP : Option

	Mitsubishi	FANUC		Mitsubishi	FANUC
	M70-B	0iMD	Multi-language display	○	○
Max. controlled axis	4	4	ABS servo motor	○	○
Max. simultaneous axis	4	4	Tool length compensation	○	○
Standard controlled axis	3	3	Tool path compensation	○	○
Program storage length	600m	1280m	On-screen drafting	○	○
Work piece coordinates	54	54	High speed data serve & Ethernet	○	OP
Macro common variables	400	700	High speed & high accuracy machining control mode	G05.1 Q1	
Tool offset pairs	400	400	Interface	RS232 / RJ45	
Conversational programming	NAVI	Manual guide 0i	Memory card input / output	○	○
Monitor	8.4" TFT LCD				

★ Tool change time supplied with standard 3 phase 220V, 60Hz power.
For electrical requirements other than this standard, please contact one of our personnel.

ARES-SEIKI®



ARES MACHINERY CO., LTD.

No. 256, Tu-Cheng Rd., Da-Li City, Taichung, Taiwan 41274

Tel: +886-4-2492-5555 ares999@ms16.hinet.net

Fax: +886-4-2496-6959 www.ares-seiki.com.tw