

**EXCELLENCE
THROUGH
EXPERTISE**



CNC TAPPING CENTER



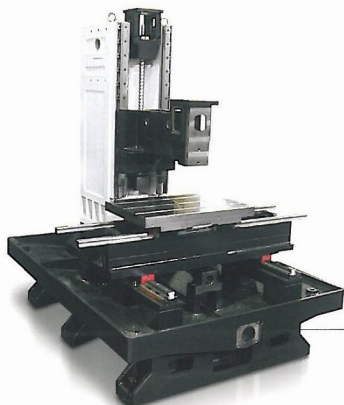
A Series

5630 / 7030 / 5640 / 7040 CNC DRILLING AND TAPPING CENTER



A NEW GENERATION OF DRILLING & TAPPING CENTER

DIRECT DRIVE SPINDLE ■ HIGH SPEED 3 AXES RAPID TRAVERSE ■ HIGH RESPONSE SERVO SYSTEM



■ Spindle Speed

BT30: 10000rpm / 15000rpm (OP)

BT40: 8000rpm / 12000rpm (OP)

■ Number of Tools

BT30: 20

BT40: 24

■ Rapid Traverse

BT30: 48 / 48 / 60m/min

BT40: 48 / 48 / 48m/min

■ Positioning Accuracy

JIS B6338: 0.005 / 300mm

VDI3441 P: 0.012mm

■ Rigid Tapping

BT30: 4000rpm

BT40: 3000rpm

■ Repeatability Accuracy

JIS B6338: ± 0.003 mm

VDI3441 P: 0.010mm

Transmission System : Three axes are equipped with C3 ball screw and linear guide ways combined with extra long preloaded side blocks for maximum stability of feeding.

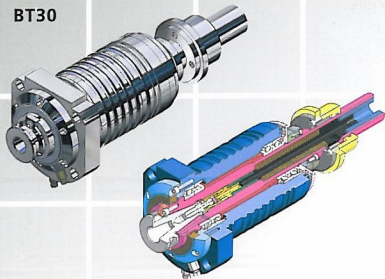
HIGH RIGIDITY

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



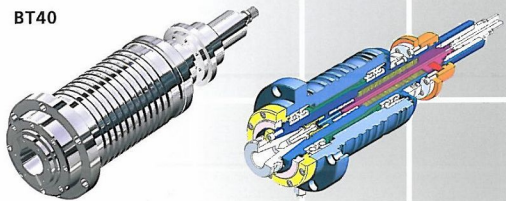
DIRECT DRIVE SPINDLE

BT30



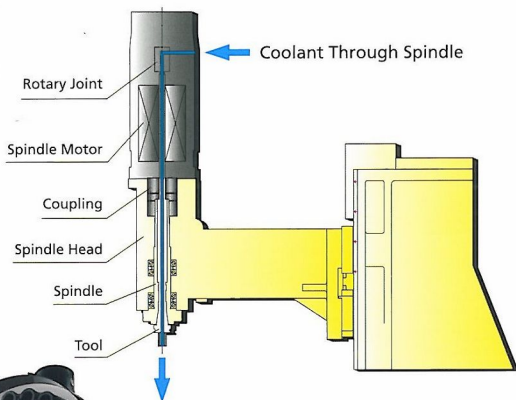
Spindle : The directly coupled spindle eliminates power transmission loss to develop the highest efficient of spindle motor. Spindle is mounted on four P4 high precision angular contact ball bearings combined with constant temperature device to provide outstanding richening rigidity.

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.

HIGH SPEED

Travel Speed : Provides 48m/min on X and Y axis, and 48 (BT40) / 60 (BT30)m/min on Z axis.

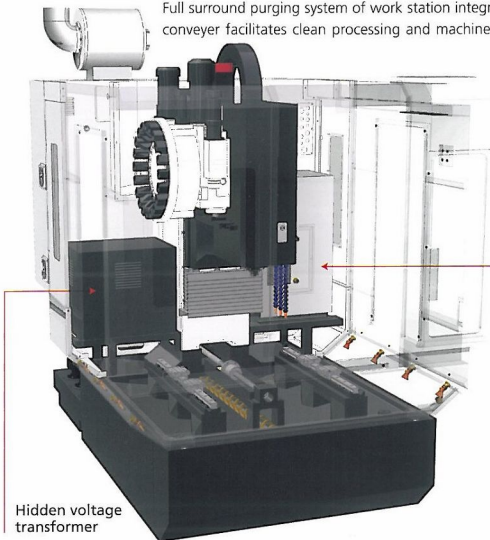
Tapping : The rigid spindle is directly coupled to the motor. This reduces transmission error and maximizes transmission power.

Tool Change : Incorporates a special structure which reduces electronic sensing time. Adjacent tool change time is only 1.6 seconds for BT30, 2.0 seconds for BT40.



CHIP PURGING SYSTEM

Full surround purging system of work station integrated with chip conveyor facilitates clean processing and machine maintenance.



Internal spindle oil cooling system

CONTROL PANEL (8.4 TFT LCD)



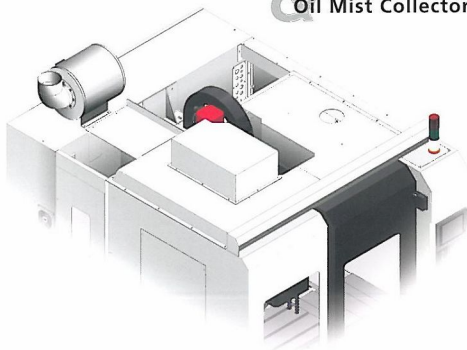
Mitsubishi M70
Controller



FANUC 0iMD
Controller

CTS FEATURES

Full Enclosed Splash Guard
& Oil Mist Collector



The 4th Axis



Oil Cooler



CTS Filtration with Water Tank

PRECISION TESTING

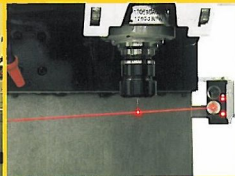
Laser Interferometer
Tap Calibrator



Bar Testing



Damaged Cutting Tool Sensor



A Series 5630 / 7030 / 5640 / 7040

DIRECT DRIVE SPINDLE ■ HIGH SPEED 3 AXES RAPID TRAVERSE ■ HIGH RESPONSE SERVO SYSTEM

MACHINE SPECIFICATIONS

	Unit	A5630	A7030	A5640	A7040
Table size	mm	650x430	800x430	650x430	800x430
Max. table load	kg	250	250	250	250
X, Y, Z axis travel	mm	560x400x350	700x400x350	560x400x550	700x400x550
Table to spindle nose	mm	180~530	180~530	120~670	120~670
Spindle taper		BT30	BT30	BT40	BT40
Pull stud		MAS403 P30T-1 (45°)		MAS403 P40T-1 (45°)	
Spindle motor	Mitsubishi kW	5.5	5.5	7.5	7.5
	FANUC kW	5.5	5.5	7.5	7.5
X drive motor	Mitsubishi kW	1.5	1.5	1.5	1.5
	FANUC kW	1.6	1.6	1.6	1.6
Y drive motor	Mitsubishi kW	3.5	3.5	3.5	3.5
	FANUC kW	3.0	3.0	3.0	3.0
Z drive motor	Mitsubishi kW	3.5	3.5	3.5	3.5
	FANUC kW	4.0	4.0	4.0	4.0
Spindle speeds	rpm	60~10000	60~10000	60~8000	60~8000
X, Y, Z axis rapid traverse	m/min	48 / 48 / 60	48 / 48 / 60	48 / 48 / 48	48 / 48 / 48
Magazine capacity		20	20	24	24
Max. tool weight	kg	4	4	5	5
Max. tool length	mm	200	200	250	250
ATC time	sec	1.6 (T-T)	1.6 (T-T)	2.0 (T-T)	2.0 (T-T)
	sec	3.0 (C-C)	3.0 (C-C)	4.6 (C-C)	4.6 (C-C)
Net weight	kg	3720	3810	3920	3980
Shop space required (Please see the following machine dimensions)				Unit : mm	

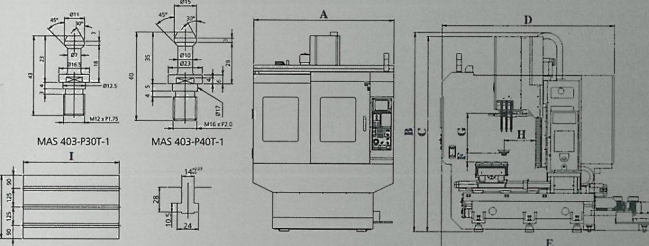
CONTROLLER SPECIFICATIONS

	Mitsubishi	FANUC
	M70-B	0iMD
Max. controlled axis	4	4
Max. simultaneous axis	4	4
Standard controlled axis	3	3
Program storage length	600m	640m
Work piece coordinates	54	54
Macro common variables	400	700
Tool offset pairs	400	400
Conversational programming	NAVI	Manual guide 0i
Monitor	8.4" TFT LCD	
Multi-language display	O	O
ABS servo motor	O	O
Tool length compensation	O	O
Tool path compensation	O	O
On-screen drafting	O	O
High speed data serve & Ethernet	O	OP
High speed & high accuracy machining control mode	G05.1 Q1	
Interface	RS232 / RJ45	RS232
Memory card input / output	O	O

O: Standard OP: Option

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

MACHINE DIMENSIONS



	A5630	A5640	A7030	A7040
A	1700	1900	1900	1900
B	2465	2700	2465	2700
C	2415	2650	2415	2650
D	2340	2340	2340	2340
E	2910	2910	2910	2910
F	180	120	180	120
G	350	550	350	550
H	430	430	430	430
I	650	650	800	800

STANDARD ACCESSORIES

- Toolbox and tools
- Auto. lubrication system
- Spindle air blow system
- Leveling bolts and pads
- Direct drive spindle system
- Dual-color alarm light
- Dual electric cases. (Heat insulated)
- Auto. surround chip purging system
- High speed arm type tool change system
- Tool coolant system
- Work light
- TFT LCD

OPTIONAL ACCESSORIES

- Transformer / stabilizer
- Work piece air blow system
- 12,000rpm(BT40) / 15,000rpm(BT30)
- High speed spindle (With spindle oil cooling system)
- Auto. tool length measurement
- Damaged cutting tool sensor
- The 4th axis (NC indexing table)
- Coolant through spindle (CTS)
- Full enclosed splash guard
- Chip conveyor with cart
- High speed & high accuracy machining control mode G05 P10000 (Mitsubishi M70-A)
- Oil / water partition
- Oil mist collector
- Air gun
- Water gun
- Auto. door
- CTS filtration

★ ARES-SEIKI reserves the right to change the specifications of it's machines as technology develops without prior notice.

A Series



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