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ELEGANCE IN TECHNOLOGY

Vertical Machining Center



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AGENT

●●●●● Call/My 886-4-25633015 2023.03





MT-440V/VS
MT-640V/VS

*High Speed Cutting For
Smaller Sizes.*

series

- Belt type spindle : 10,000 RPM
- Direct drive spindle : 10,000 / 12,000 RPM
- Arm type 20 tools ATC
- Rapid feedrate : 48M/min.

features

- The base structure is reinforced by internal ribbing to ensure high rigidity and stability.
- The machine processing fast, high precision, three axes rapid feedrate 48m/min, it is save time to achieve economic efficiency.
- Applicable Industries : 3C industries, Communications industry, Molds, Automotive and motorcycle parts, Fixture of Semiconductor.
- The ATC of supporting seat and column are one-piece. It is stability when tool change tool.



MT-750V/VS
MT-850V/VS

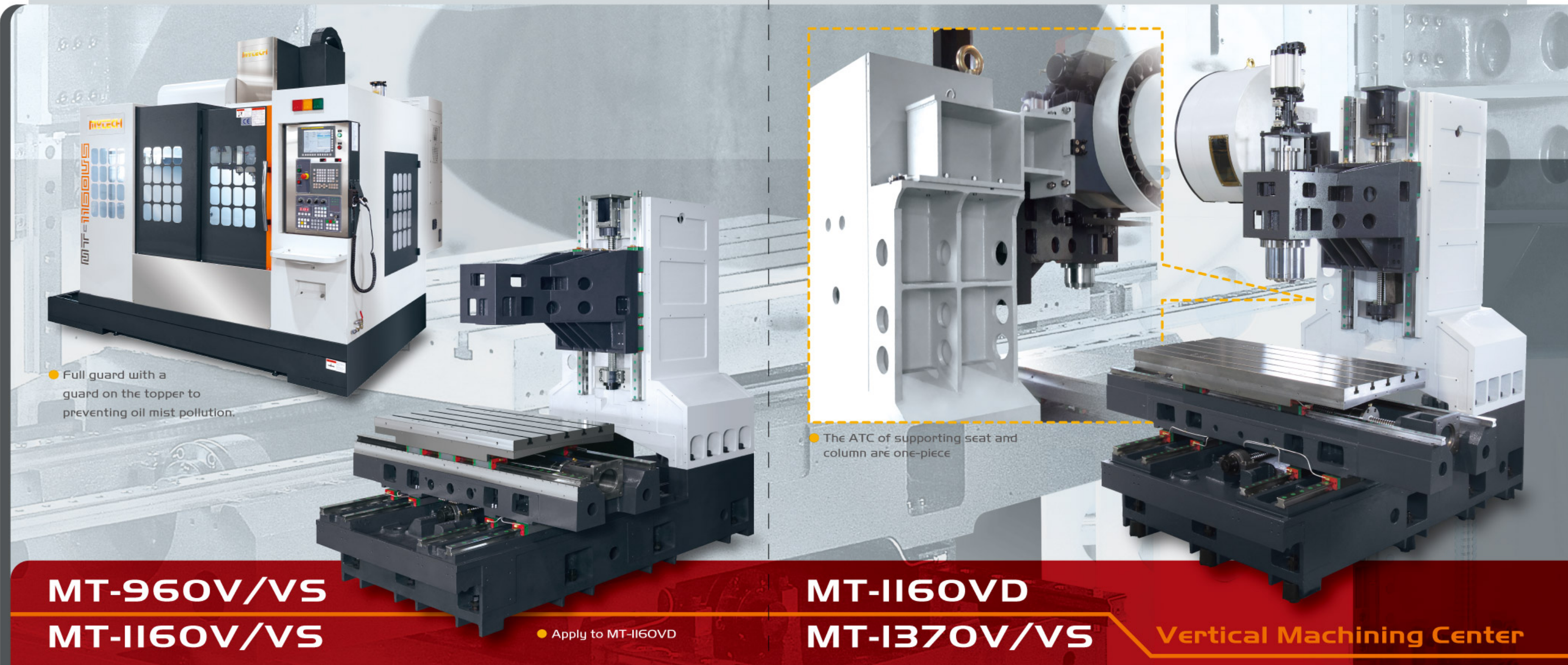
Vertical Machining Center

series

- Belt type spindle : 10,000 RPM
- Direct drive spindle : 10,000 / 12,000 RPM
- Arm type 24 tools ATC
- Feedrate is 36 M/min
- Roller type linear guideway and C3 ball screw on X, Y, Z - axis

features

- The ATC of supporting seat and column are one-piece. It is stability when tool change tool.
- High rigidity and Precision design, it is Suitable for heavy cutting and precision machining
- The base to easy drainage and Oil discharge system.



● Full guard with a guard on the topper to preventing oil mist pollution.

● The ATC of supporting seat and column are one-piece

MT-960V/VS
MT-1160V/VS

● Apply to MT-1160VD

MT-1160VD
MT-1370V/VS

Vertical Machining Center

series

- Belt type spindle : 10,000 RPM
- Direct drive spindle : 10,000 / 12,000 RPM
- Arm type 24 tools ATC
- Roller type linear guideway and C3 ball screw on X, Y, Z - axis

features

- The spindle is directly coupled to the main motor. No belt or gear is used. The noise, backlash and vibration effects are dramatically reduced.
- Three axes adopts roller type linear guideway. It ensures the characteristics of high rigidity, low noise and low friction. High speed federate and contour cutting accuracy are achieved.
- Three axes transmission adopts C3 class high precision double nut preloaded ballscrews Dia.40mm.
- Reinforced column base greatly increase structural strength.
- Two super large side windows are standard for installation and cleanness.
- There don't have counter weight balance design, It will get good and high precision when machine be high speed machining.

series

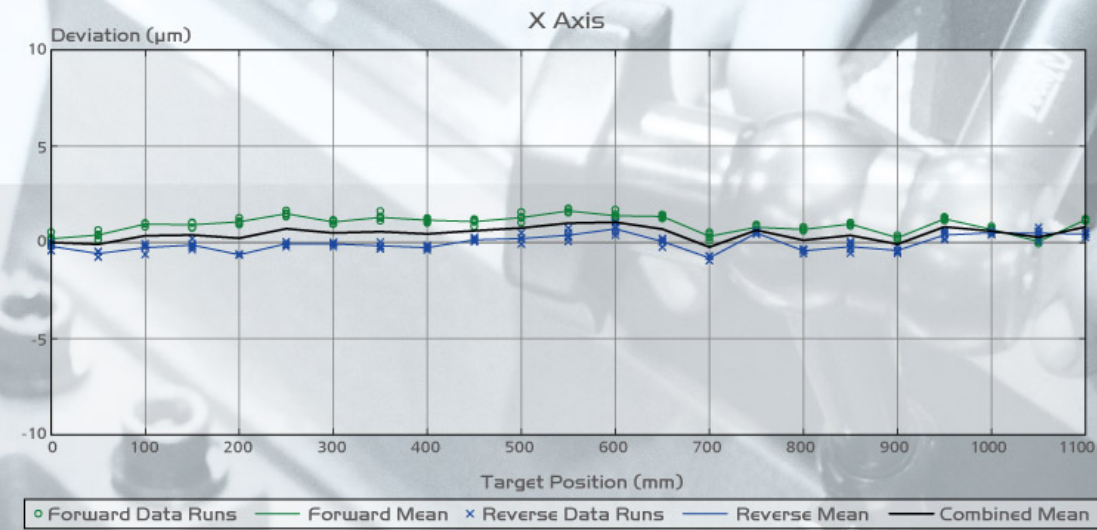
- Belt type spindle : 10,000 RPM
- Direct drive spindle : 10,000 / 12,000 RPM
- Table size : 1400 x 600mm
- Arm type 24 tools ATC
- C3 Ball Screw on X, Y, Z - axis

features

- Pneumatic counterweight system greatly lessens the ripple effect of inertia during the feed motion on Z axis.
- Six roller type slide blocks on X-axis, to ensure that the spindle accuracy and stable when machining cutting.
- Base frame consist of four heavy duty roller linear guides, greatly strengthened the fundamental structure of machine.
- Y axis used twin-chip auger (front-out). (Opt.)



Germany ZEISS 3D measuring System



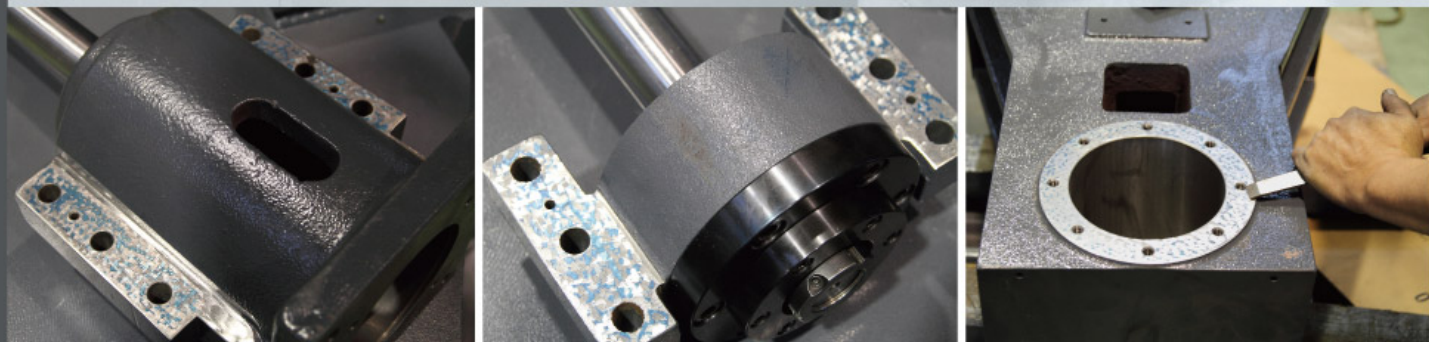
Renishaw Laser

● In order to ensure product quality and meet customer needs, Mytech use Renishaw high precision instruments to detect precision laser and Ball Bar for ensuring position accuracy and excellent roundness.

Quality Control

MYTECH is the manufacturing factory who had Germany ZEISS 3D measuring equipment in Taiwan. All precision components are produced by us. The spirit of MYTECH is "Customers first, Best service, Excellent quality." We are able to offer the varieties of our products and services to meet the different inquiries by customers.

MYTECH provides the customers the good quality and high-precision milling machines which are also upgrade the product competitiveness for our user customers. We will insist on quality to earn long-term collaboration and development.



Ballbar diagnostics (%)

103319XY2

Operator : Yung

Date : 2014 - Nov - 22 11 : 58 : 51



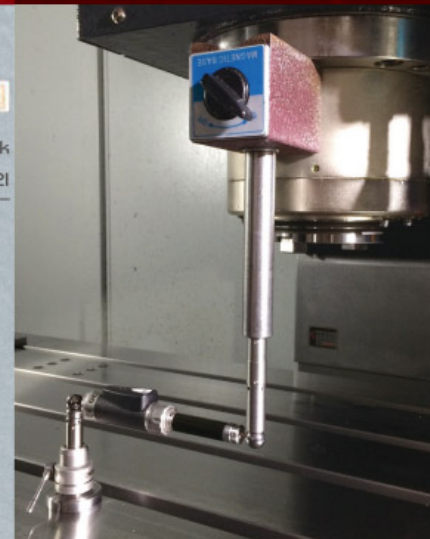
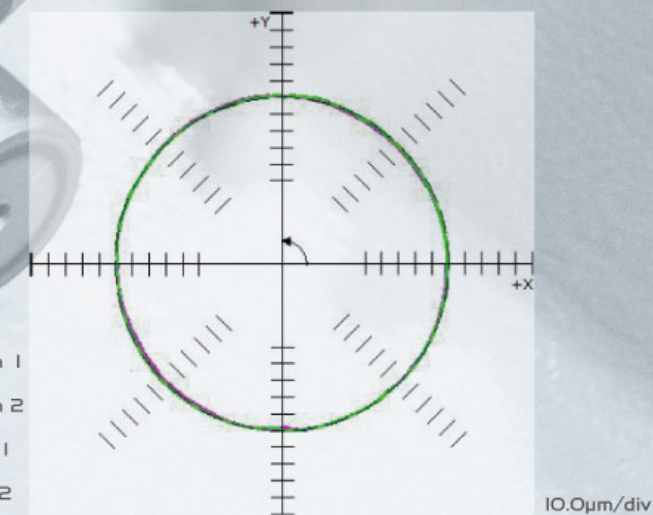
Machine : Quick check

QC20 - W : 453F12, Last calibrated 2014 - 08 - 21

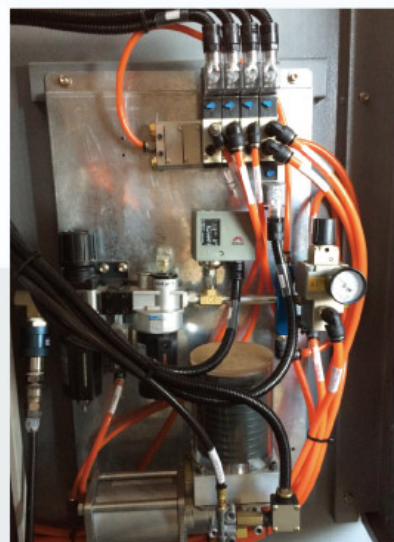
- 25% Reversal spikes Y
 - ▲ -1.0µm
 - ▼ -2.3µm
- 10% Lateral play Y
 - ▲ -0.1µm
 - ▼ -1.4µm
- 10% Squareness
 - 6.1µm/m
- 10% Scaling mismatch
 - 1.8µm
- 7% Cyclic error X
 - ↑ 0.7µm
 - ↓ 0.5µm

Circularity 3.4µm

- Run 1
- Run 2
- Fit 1
- Fit 2



Ball Bar



Lubrication and Pressure System

- Both save money and environmental protection of the lubricating mechanism, pneumatic pump to provide three axes lubrication and build centralized equipment of pressure system.



Tool cabinet



Spindle oil cooler system

- For continuous and very high spindle speeds, the spindle cooling system efficiently takes away spindle heat, reduces spindle thermal deformation and ensures high speed accuracy.



Chip conveyer system for cutting aluminum

- Aluminum user's first choice, easy to clear cutting aluminum scrap collecting box.

Standard Accessories



Arm type 24 tools ATC

- Arm type ATC with 24 tools capacity. Fast and reliable roller gear cam ATC allows ATC time in 1.5 second, lowers the idle time and enhances the machining efficiency.



Automatic tool length measuring device

- The automatic tool length measuring system can measure and offset the tool length data onto the CNC controller automatically.



Oil skimmer system

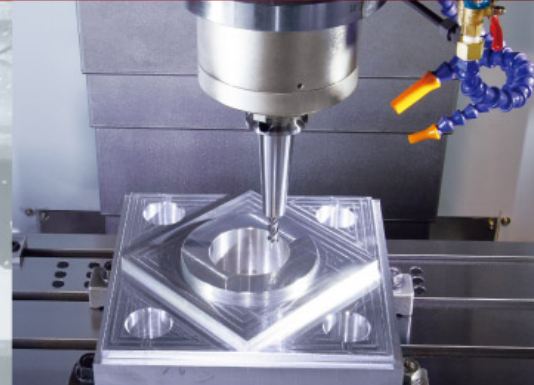
- The disc type oil skimmer system is used for removing floating oil on coolant, preventing coolant deterioration and odor.



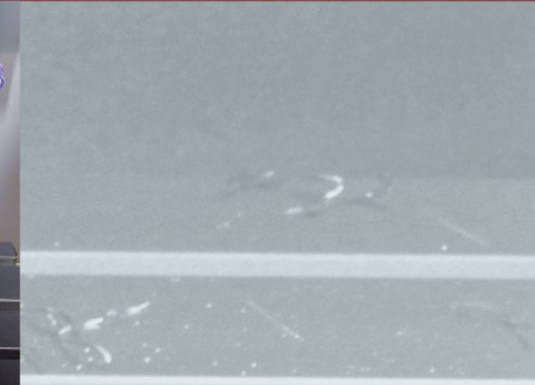
Full - closed splash guard

- Full guard with a guard on the top to preventing oil mist pollution.

Special Accessories



- Each machine are via standard test observing the cutting block completed Germany ZEISS 3D testing, strict quality control to ensure the accuracy guarantee.



CNC 4th Axis rotary table



CE

- Opening the front door and two side windows during machining will cause an emergency stop and ensures the operator's safety.

- The control panel meets the safety requirements easy to learn and operate.
- The controller has breakage detection system. (Optional Equipment)



Ethernet

- Using transmission network, centralized management by PC processing program, you can instantly edit and quickly transfer the program to the machine, shorten lead time to prepare.

Ethernet Support Function

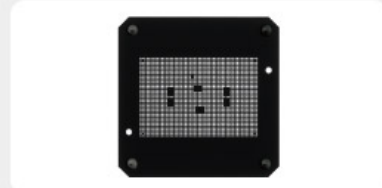
Cutting Capability

- Widely used in molds, auto parts, medical equipment and other processing.

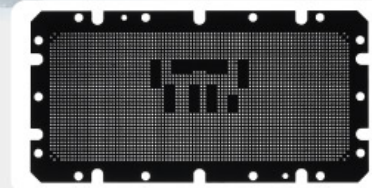


Artificial joints

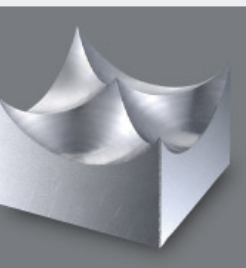
- Fixture of Semiconductor.



Material : EKH-I I
Tool : $\phi 0.32$ (mm)
 $\phi 0.22$ (mm)
Number of holes : 1,957 holes
Size : 2.7x30x30 (mm)



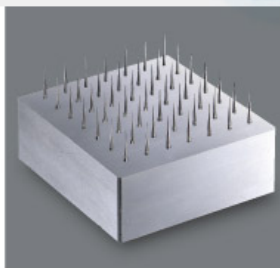
Material : EKH-I I
Tool : $\phi 0.38$ (mm)
 $\phi 0.32$ (mm)
Number of holes : 2,971 holes
Size : 2.7x63x3.2 (mm)



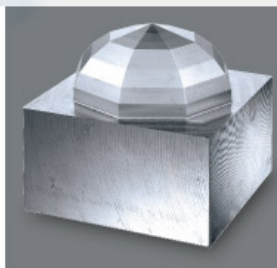
Workpiece



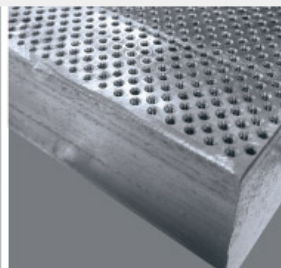
Spiral



Deep needle



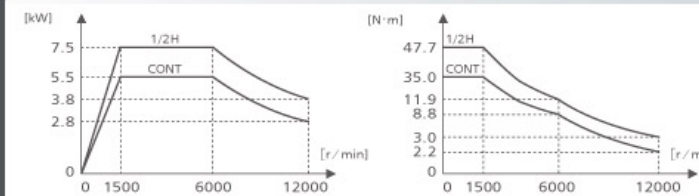
Lampshade



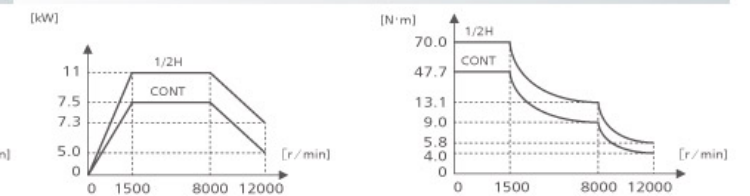
Tapping M2 x 0.4 pitch

Power Diagram / Spindle Torque

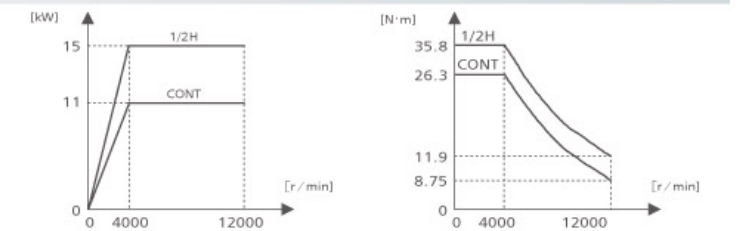
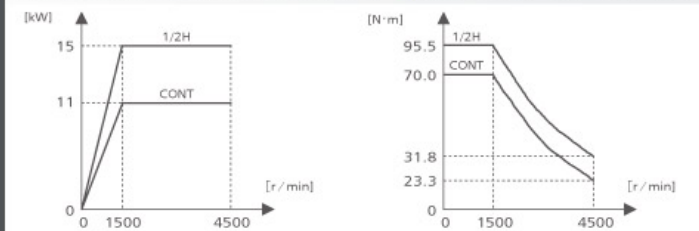
MITSUBISHI SJ-D7.5 / I20-OI ● Model : MT-440. MT-640



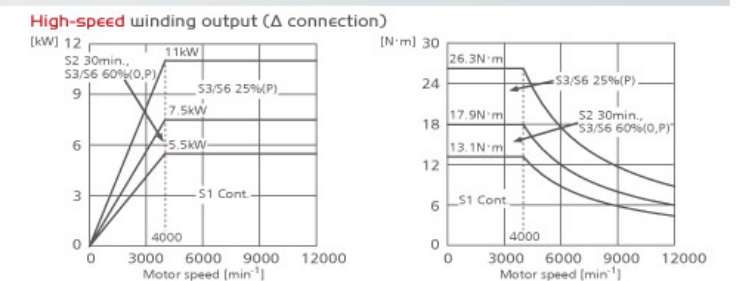
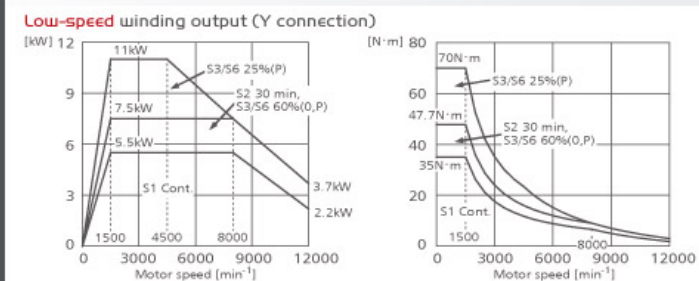
MITSUBISHI SJ-VII-08ZT-S02 (F) ● Model : MT-750. MT-850



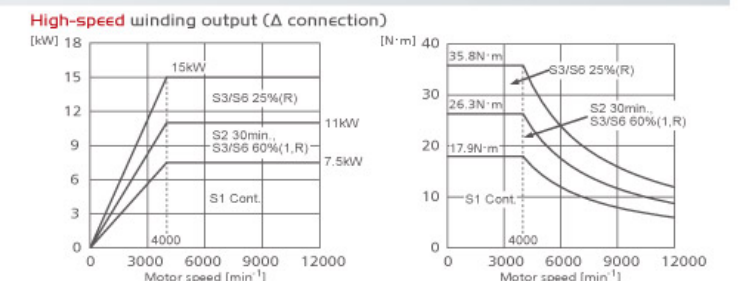
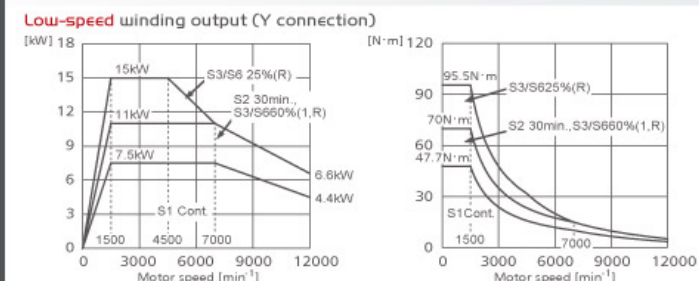
MITSUBISHI SJ-VK15-28FZT (F) ● Model : MT-1160. MT-1370



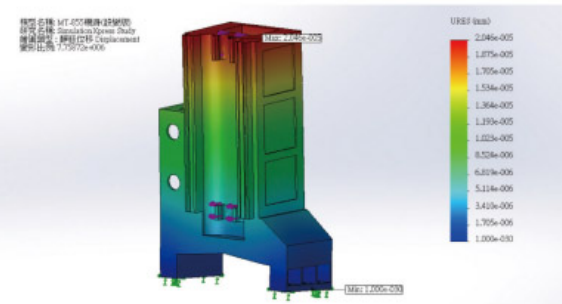
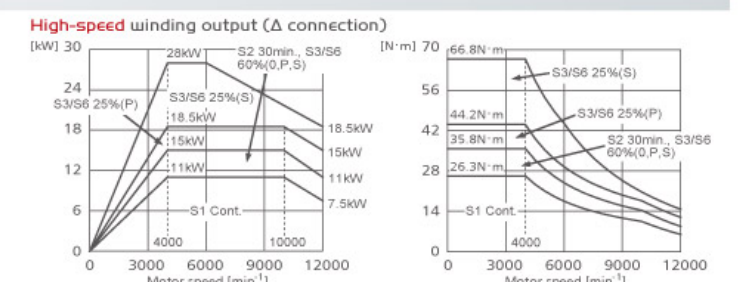
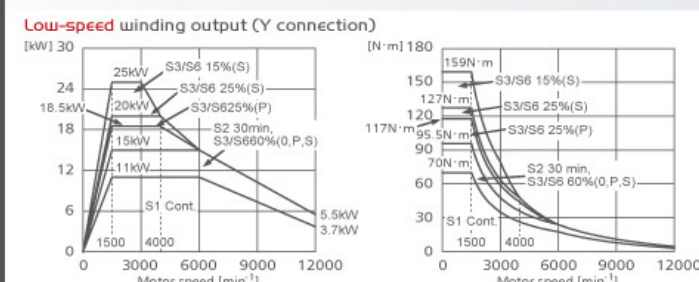
FANUC α 16 / I2000-B ● Model : MT-440. MT-640



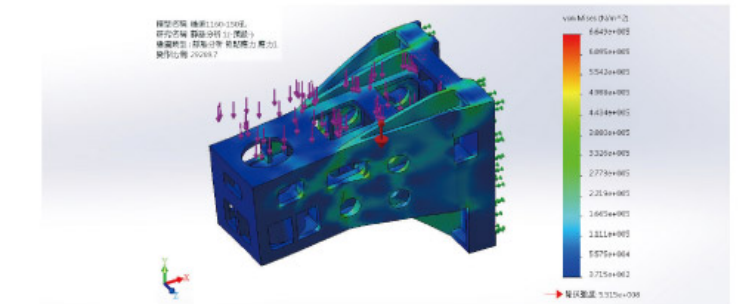
FANUC α 18 / I2000-B ● Model : MT-750. MT-850



FANUC α 12 / I2000-B ● Model : MT-1160. MT-1370

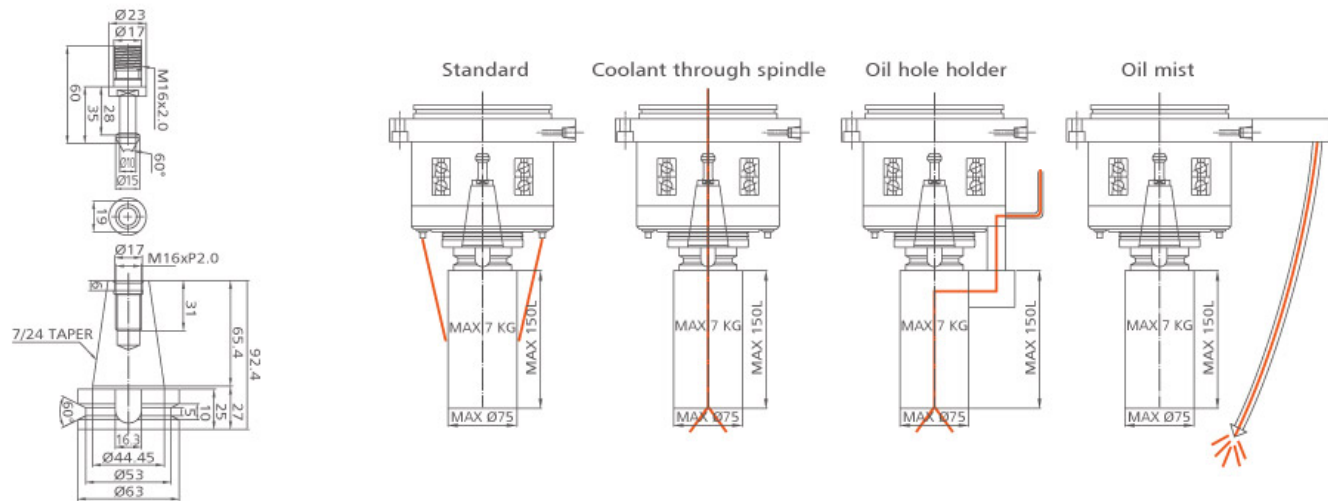


Column strain analysis



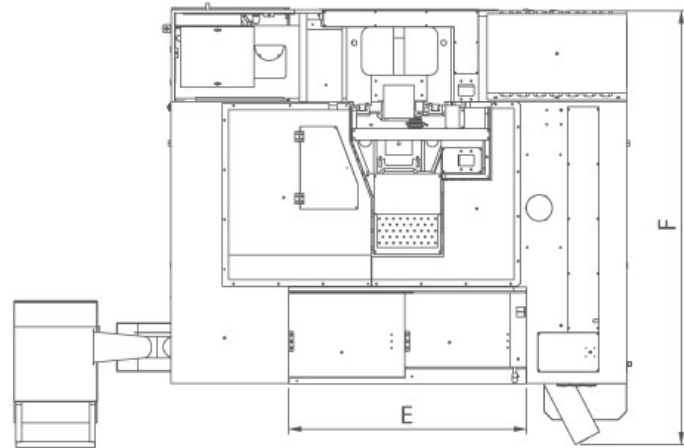
Spindle head strain analysis

Tool shanks & Pull studs

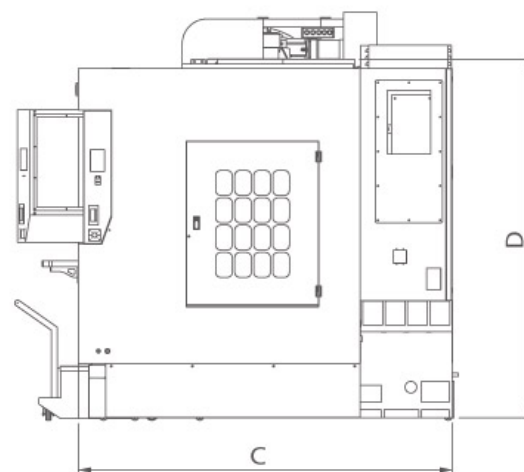
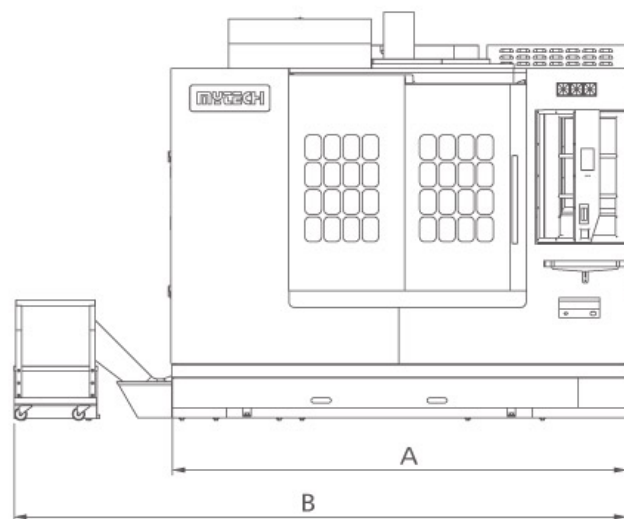


Dimensions

Unit : mm



MODEL	A	B	C	D	E	F
440V/VS	1700	2261	1860			2300
640V/VS	1800	2761	1860	MAX2500 MIN 2110	655	2300
750V/VS	2200	3285	2050	MAX2710 MIN2210	740	2550
850V/VS	2200	3285	2050	MAX2729 MIN2229	740	2550
960V/VS	2400	3350	2250	MAX2810 MIN2210	1210	2876
1160V/VS	2750	3700	2250	MAX2810 MIN2210	1410	2876
1370V/VS	3300	4250	2250	MAX2920 MIN2220	1630	2876



Specification

MODEL		MT-440V	MT-440VS	MT-640V	MT-640VS	MT-750V
TABLE	UNIT					
Size	mm	550x450	550x450	750x450	750x450	800x450
T-slot (width x no x distance)	mm x T	18x5x90	18x5x90	16x5x87.5	16x5x87.5	18x5x90
Maximun table load	kgs	200	200	300	300	500
TRAVEL						
X, Y, Z -axis	mm	450x400x400	450x400x400	600x430x450	600x430x450	700x500x500
Table top surface to spindle nose	mm	120-520	120-520	120-570	120-570	100-600
Distance between spindle center and column surface	mm	490	490	490	490	580
X, Y, Z-Axis linear guideway	mm	25/25/30	25/25/30	25/25/30	25/25/30	30/35/35
X, Y, Z-Axis ball screw		28/28/32	28/28/32	28/28/32	28/28/32	32/32/32
SPINDLE						
Spindle holder		BELT	DIRECT	BELT	DIRECT	BELT
Taper		BT40	BT40	BT40	BT40	BT40
Diameter	mm	φ 60	φ 60	φ 60	φ 60	φ 70
Spindle speed	rpm	10000	10000	10000	10000	10000
FEED						
Three axes		Roller type linear guideway	Roller type linear guideway	Roller type linear guideway	Roller type linear guideway	Roller type linear guideway
Cutting feedrate X / Y / Z (G01)	m/min	10/10/10	10/10/10	10/10/10	10/10/10	10/10/10
Rapid feedrate X / Y / Z (G0)	m/min	48/48/36	48/48/36	48/48/36	48/48/36	36/36/36
ATC						
Type		ARM	ARM	ARM	ARM	ARM
Max. tool Dia	mm	φ 75 / φ 150	φ 75 / φ 150	φ 75 / φ 150	φ 75 / φ 150	φ 75 / φ 150
Max. tool length	mm	200	200	200	200	300
Max. tool weight	kgs	7	7	7	7	7
Tool type		BT40	BT40	BT40	BT40	BT40
Tool magazine capacity	T	20	20	20	20	24
MOTORS						
Spindle (Cont./30 min./max.)	kw	5.5/7.5	5.5/7.5	5.5/7.5/11	5.5/7.5/11	7.5/11/15
X / Y / Z-Axis	kw	1.5/1.5/3.0 (Mitsubishi)	1.5/1.5/3.0 (Mitsubishi)	1.5/1.5/3.5 (Mitsubishi)	1.5/1.5/3.5 (Mitsubishi)	2.0/2.0/3.0 (Mitsubishi)
		1.4/1.4/3.0 (FANUC)	1.4/1.4/3.0 (FANUC)	1.6/1.6/4.0 (FANUC)	1.6/1.6/4.0 (FANUC)	3.0/3.0/4.0 (FANUC)
Coolant pump	kw	0.75	0.75	0.75	0.75	0.75
ATC motor	w	350	350	350	350	350
Air conditioner	w	500	500	500	500	500
Spindle oil cooler	w	600	600	600	600	600
Chip flush motor	w	1290	1290	1290	1290	2580
OTHER						
Machine space (L x W)	mm	1700x1860	1700x1860	1800x1860	1800x1860	2200x2050
Splash guard		Full-closed splash guard	Full-closed splash guard	Full-closed splash guard	Full-closed splash guard	Full-closed splash guard
Coolant tank capacity	L	220	220	220	220	250
Net weight	kgs	3400	3400	3700	3700	5000
Total power consumption	kw	15	15	15	15	20

MODEL		MT-750VS	MT-850V	MT-850VS	MT-960V	MT-960VS	MT-1160V	MT-1160VS	MT-1160VD	MT-1370V	MT-1370VS	
TABLE		UNIT										
Size	mm	800x450	900x500	900x500	1000x600	1000x600	1200x600	1200x600	1200x600	1400x600	1400x600	
T-slot (width x no x distance)	mm x T	18x5x90	18x5x90	18x5x90	18x5x110	18x5x110	18x5x110	18x5x110	18x5x110	18x5x110	18x5x110	
Maximun table load	kgs	500	500	500	800	800	800	800	800	800	800	
TRAVEL												
X, Y, Z -axis	mm	700x500x500	810x520x520	810x520x520	900x570x570	900x600x600	1100x570x570	1100x600x600	1100x600x600	1300x700x700	1300x700x700	
Table top surface to spindle nose	mm	100-600	100-600	100-600	120-690	110-710	120-690	110-710	110-710	120-790	105-805	
Distance between spindle center and column surface	mm	580	580	580	620	650	620	650	650	670	690	
X, Y, Z-Axis linear guideway	mm	30/35/35	35/35/35	35/35/35	35/45/45	35/45/45	35/45/45	35/45/45	45/35, 45/45	35/35, 45/45	35/35, 45/45	
X, Y, Z-Axis ball screw		32/32/32	40/40/40	40/40/40	40/40/40	40/40/40	40/40/40	40/40/40	45/45/45	40/40/40	40/40/40	
SPINDLE												
Spindle holder		DIRECT	BELT	DIRECT	BELT	DIRECT	BELT	DIRECT	DIRECT	BELT	DIRECT	
Taper		BT40	BT40	BT40	BT40	BT40	BT40	BT40	BT40	BT40	BT40	
Diameter	mm	φ 70	φ 70	φ 70	φ 60	φ 70	φ 60	φ 70	φ 70	φ 60	φ 70	
Spindle speed	rpm	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	
FEED												
Three axes		Roller type linear guideway	Roller type linear guideway	Roller type linear guideway	Roller type linear guideway	Roller type linear guideway	Roller type linear guideway	Roller type linear guideway	Roller type linear guideway	Roller type linear guideway	Roller type linear guideway	
Cutting feedrate X / Y / Z (G01)	m/min	10/10/10	10/10/10	10/10/10	10/10/10	10/10/10	10/10/10	10/10/10	10/10/10	10/10/10	10/10/10	
Rapid feedrate X / Y / Z (G0)	m/min	36/36/36	36/36/36	36/36/36	36/36/36	30/30/30	36/36/36	30/30/30	30/30/30	36/36/36	30/30/30	
ATC												
Type		ARM	ARM	ARM	ARM	ARM	ARM	ARM	ARM	ARM	ARM	
Max. tool Dia	mm	φ 75 / φ 150	φ 75 / φ 150	φ 75 / φ 150	φ 75 / φ 150	φ 75 / φ 150	φ 75 / φ 150	φ 75 / φ 150	φ 75 / φ 150	φ 75 / φ 150	φ 75 / φ 150	
Max. tool length	mm	300	300	300	300	300	300	300	300	300	300	
Max. tool weight	kgs	7	7	7	7	7	7	7	7	7	7	
Tool type		BT40	BT40	BT40	BT40	BT40	BT40	BT40	BT40	BT40	BT40	
Tool magazine capacity	T	24	24	24	24	24	24	24	24	24	24	
MOTORS												
Spindle (Cont./30 min./max.)	kw	7.5/11/15	7.5/11/15	7.5/11/15	11/15/28	11/15/28	11/15/28	11/15/28	11/15/28	11/15/28	11/15/28	
X / Y / Z-Axis	kw	2.0/2.0/3.0 (Mitsubishi)	2.0/2.0/3.0 (Mitsubishi)	2.0/2.0/3.0 (Mitsubishi)	3.0/3.0/3.5 (Mitsubishi)	3.0/3.0/3.5 (Mitsubishi)	3.0/3.0/3.5 (Mitsubishi)	3.0/3.0/3.5 (Mitsubishi)	4.5/4.5/7.0 (Mitsubishi)	3.0/3.0/3.5 (Mitsubishi)	3.0/3.0/4.5 (Mitsubishi)	
		3.0/3.0/4.0 (FANUC)	3.0/3.0/4.0 (FANUC)	3.0/3.0/4.0 (FANUC)	3.0/3.0/4.0 (FANUC)	3.0/3.0/4.0 (FANUC)	3.0/3.0/4.0 (FANUC)	3.0/3.0/4.0 (FANUC)	4.0/4.0/7.0 (FANUC)	3.0/3.0/4.0 (FANUC)	3.0/3.0/4.0 (FANUC)	
Coolant pump	kw	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
ATC motor	w	350	350	350	350	350	350	350	350	350	350	
Air conditioner	w	500	500	500	500	500	500	500	500	500	500	
Spindle oil cooler	w	600	600	600	600	600	600	600	600	600	600	
Chip flush motor	w	2580	2580	2580	2580	2580	2580	2580	2580	2580	2580	
OTHER												
Machine space (L x W)	mm	2200x2050	2200x2050	2200x2050	2400x2250	2400x2250	2750x2250	2750x2250	2750x2250	3300x2250	3300x2250	
Splash guard		Full-closed splash guard	Full-closed splash guard	Full-closed splash guard	Full-closed splash guard	Full-closed splash guard	Full-closed splash guard	Full-closed splash guard	Full-closed splash guard	Full-closed splash guard	Full-closed splash guard	
Coolant tank capacity	L	250	250	250	280	280	280	280	280	350	350	
Net weight	kgs	5000	5300	5300	7000	7000	7300	7300	8200	8000	8000	
Total power consumption	kw	20	20	20	25	25	25	25	25	30	30	

Standard Accessories

- Full- closed splash guard
- X,Y,Z-Axis telescopic guideway cover
- Oil skimmer system
- Water gun and air gun
- Chips flush system
- Tools box
- LED work lamp
- Arm type 20/24 tools ATC
- Automatic lubrication system
- Heat exchanger for electric cabinet
- 3 color Alarm light
- MITSUBISHI Controller M80
- Screw type chip conveyer
- Automatic tool length measuring device
- Spindle oil cooler system
- Spindle splash ring

Option Accessories

- FANUC system controller
- SIEMENS system controller
- Direct type spindle 12,000/ 15,000 RPM
- Built type spindle 20,000/ 24,000 RPM
- Coolant through spindle
- Air conditioner
- Transformer
- Voltage regulator
- Flat type chip conveyer
- CE norm
- 3-Axes optical scale
- Breakage detection system
- Oil mist collector
- Inverter ATC system
- X and Y Axis coolant through ball screws
- CNC 4th Axis rotary table
- CNC 4th & 5th Axis rotary table