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The text description, pictures and technical parameters in the sample are for reference only, and the changes due to technological development are subject to change without notice.

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HISION



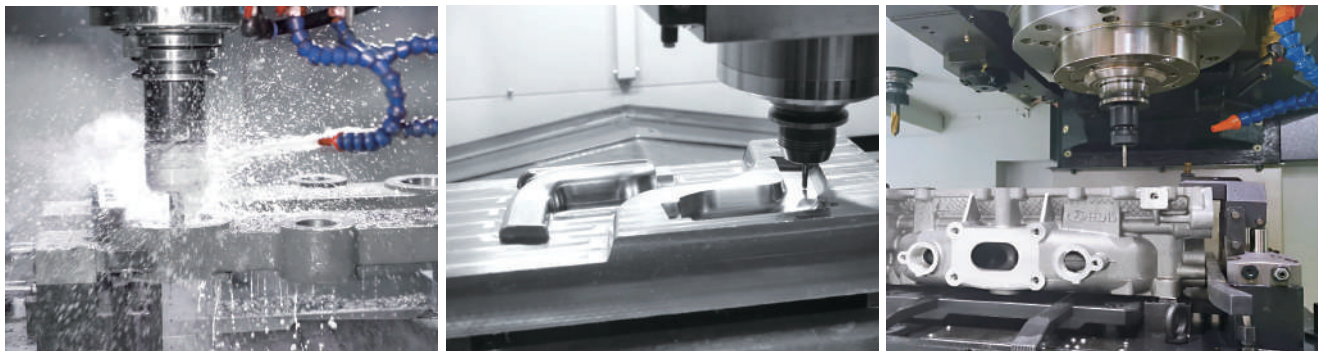
V SERIES MACHINE CENTER

V | VH | VQ | Z

V Series

Machining Center

The design of the machining center focuses on high efficiency, high precision, and high reliability. This series adopts a single-column fixed structure with a moving worktable, featuring a compact overall structure and small footprint. It is suitable for industries such as general machinery, automotive, instrumentation, textile machinery, and mold manufacturing.



V8H / V10H

P11



VQ6 / VQ9 / VQ11 / VQ13

P19



V6 / V8 / V10 / V12
V13 / V15

P01



Product
Catalogue

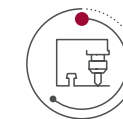
Z5 / Z7

P25



V SERIES

V series uses high-strength cast iron materials and adopts the large-span bed base and column structure to provide a solid foundation and stable performance for the machining tools. Equipped with mature spindle system and feed system, ensure the stability and reliability of the machine tool. Fully closed and capped protection, providing a good environment for operation.



1 High Rigidity Design

The bed and column has a large span, and all parts are made of high-quality cast iron to achieve superior shock absorption performance, support rigidity and excellent stability.



2 More Intelligent Design

Gravity axis power-off & emergency stop lifting:

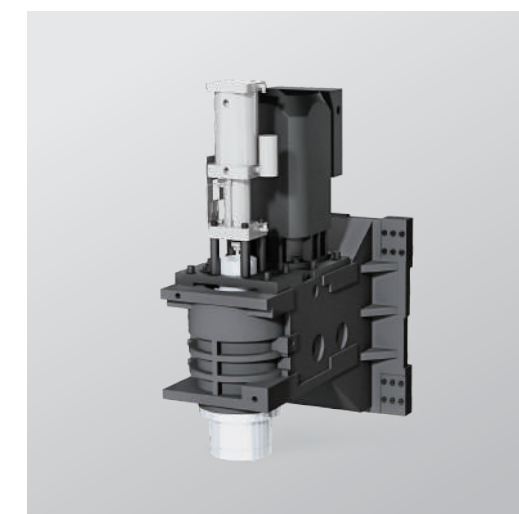
the gravity axis lifting protection function is added to prevent the spindle from colliding with the workpiece under the power-off&emergency stop condition.

Abnormal load detection function:

anti-collision protection function is added to the machine tool to reduce the damage to the spindle.

Intelligent tool preparation mode:

the tool magazine has the function of tool preparation in advance, preparing the next tool while processing, shortening the non processing time and improving the processing efficiency.



3 Full Enclosure

Full enclosure with the top cover:

optimized and upgraded, no oil leakage, water leakage, leakage chips.

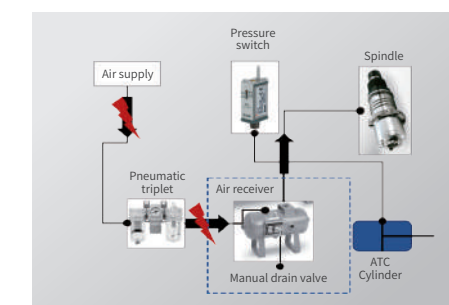
Tool magazine protection:

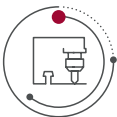
Equipped with tool magazine protection, reduce the risk of iron filings entering the tool sleeve, improve the stability of the machine tool.



4 Tool Change Stability

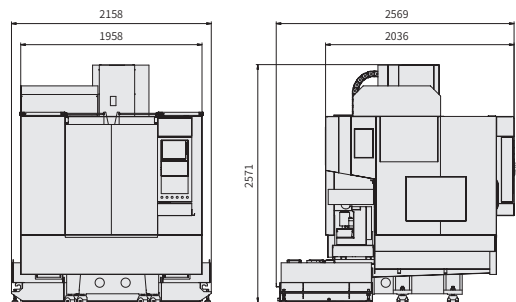
Standard gas storage tank, so that the machine's gas path is not affected by the factory's external air source, so as to improve the stability of spindle tool change.



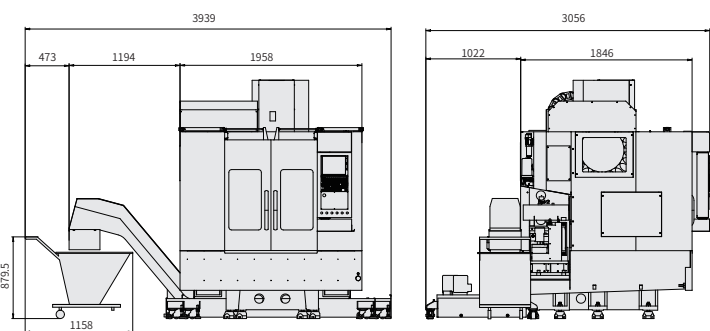


Machine Dimension

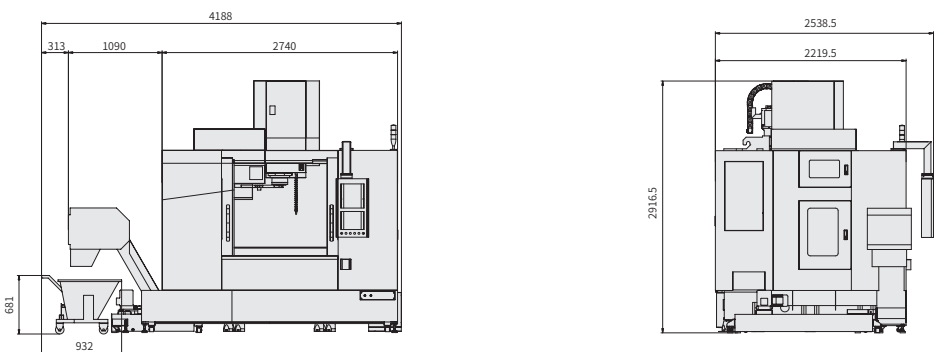
V6 Internal rear chip removal
(No external chip conveyor)



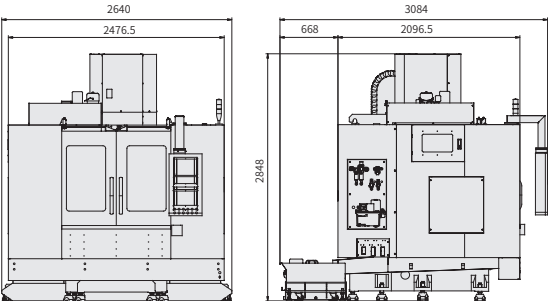
V6 Internal rear chip removal (External left chip conveyor)



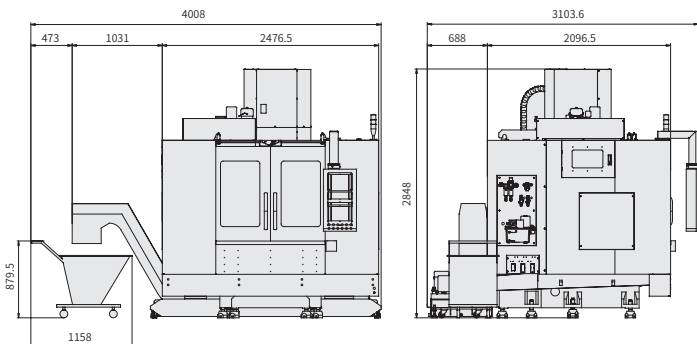
V10 Internal front chip removal (External left chip conveyor)



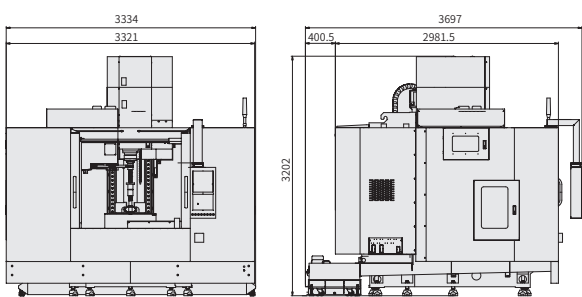
V8 Internal rear chip removal
(No external chip conveyor)



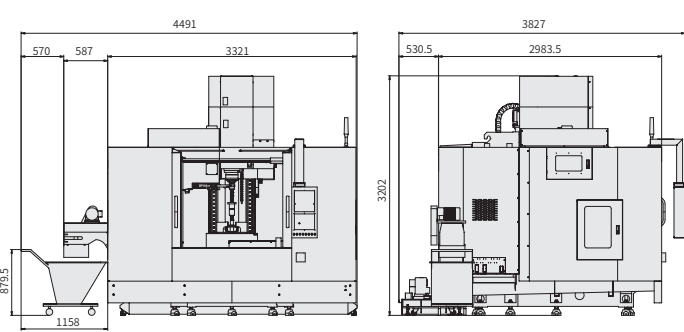
V8 Internal rear chip removal (External left chip conveyor)



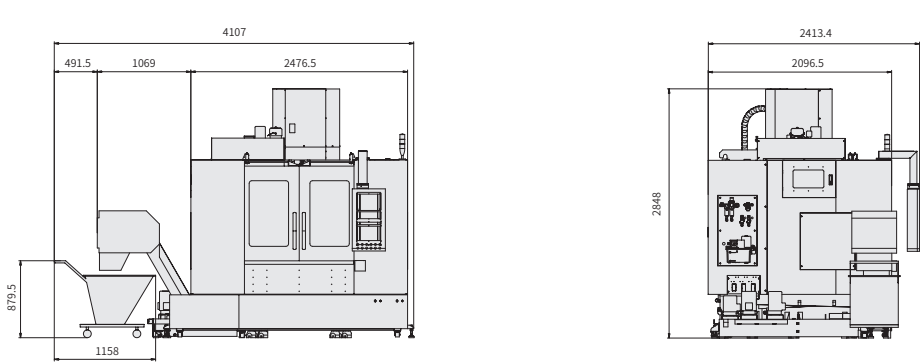
V13 Internal rear chip removal
(No external chip conveyor)



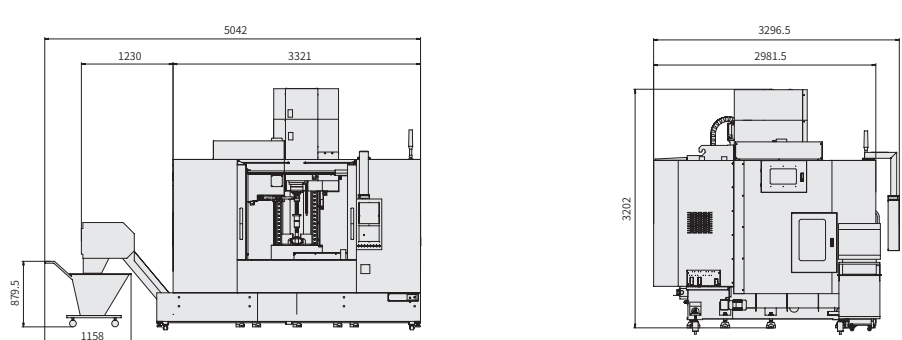
V13 Internal rear chip removal (External left chip conveyor)



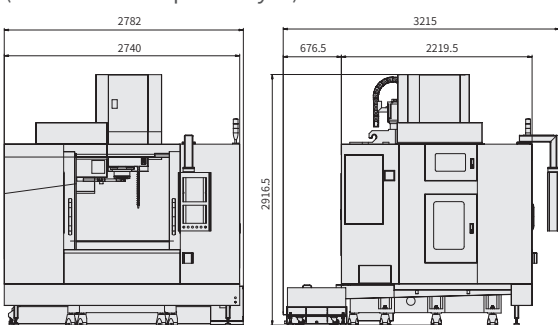
V8 Internal front chip removal (External left chip conveyor)



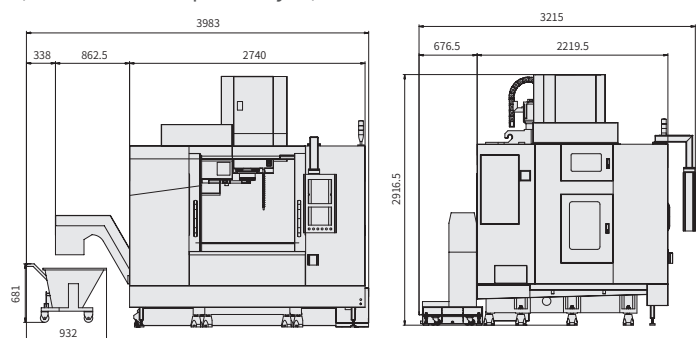
V13 Internal front chip removal (External left chip conveyor)



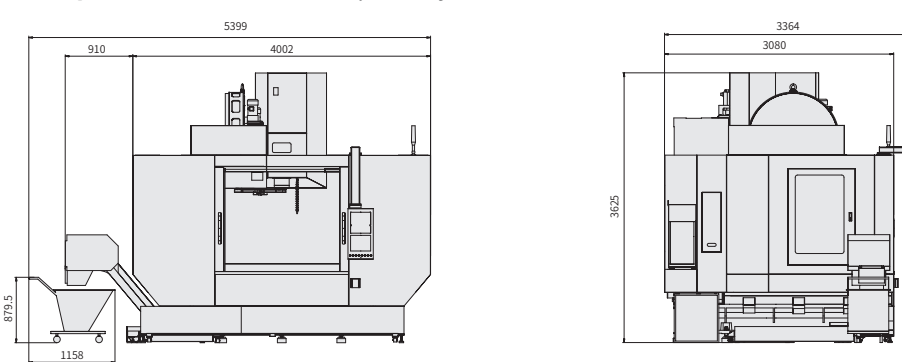
V10 Internal rear chip removal
(No external chip conveyor)

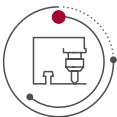


V10 Internal rear chip removal
(External left chip conveyor)



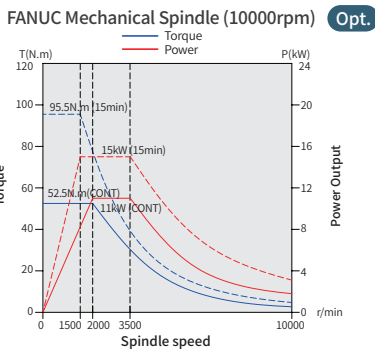
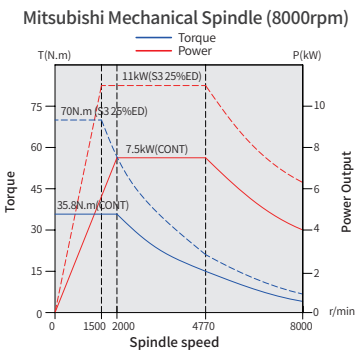
V15 Internal front chip removal (External left chip conveyor)



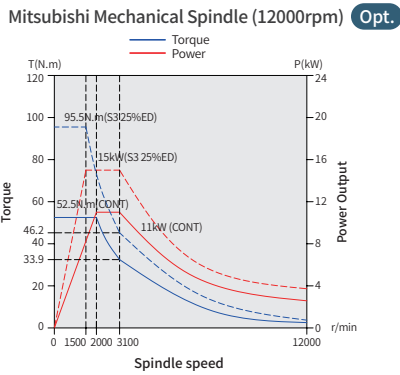
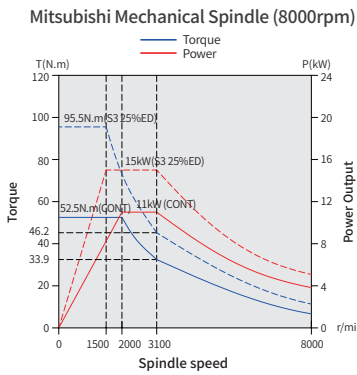


Power-Torque Curve

V6



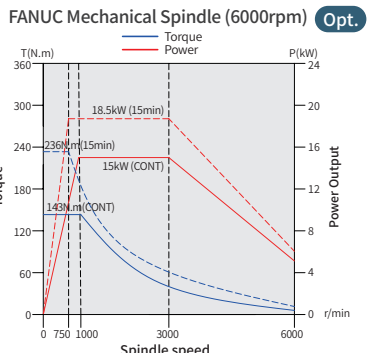
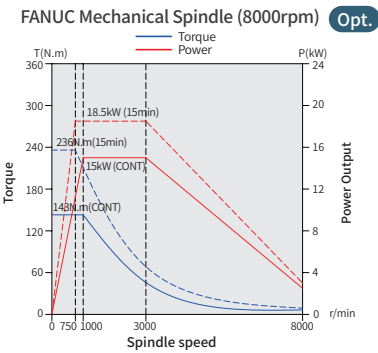
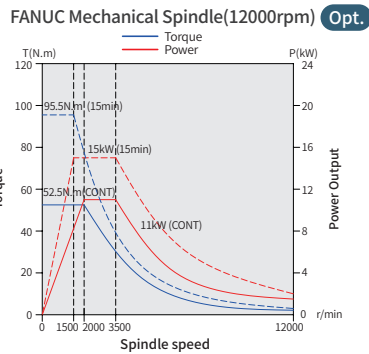
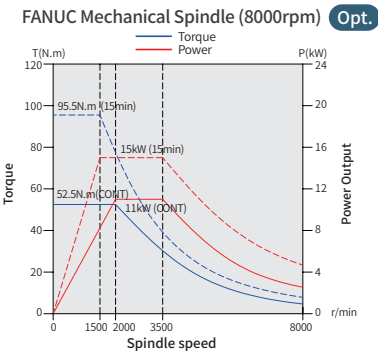
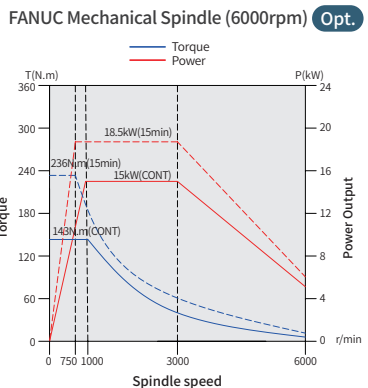
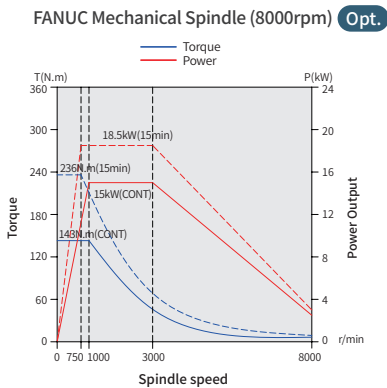
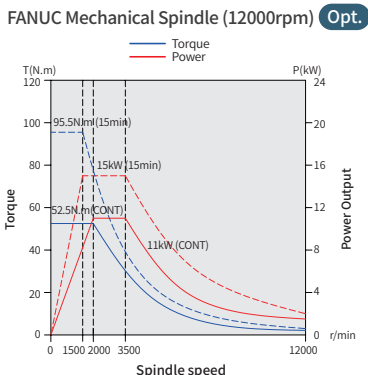
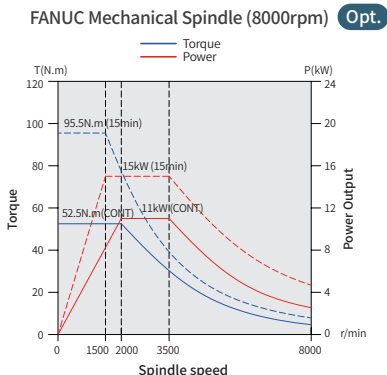
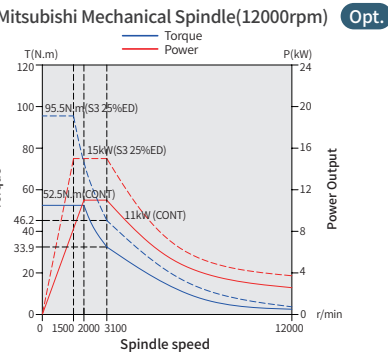
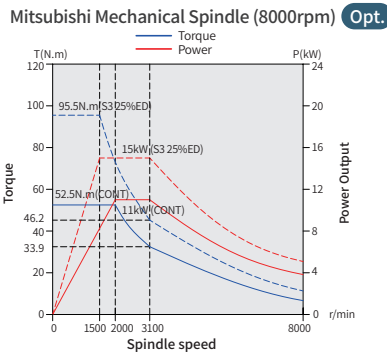
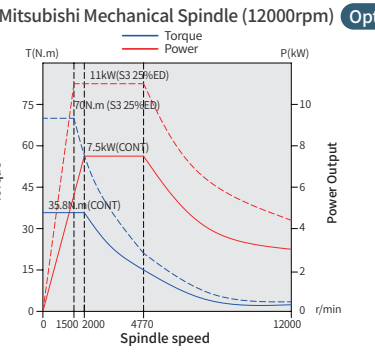
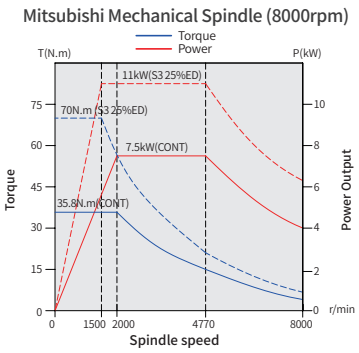
V13



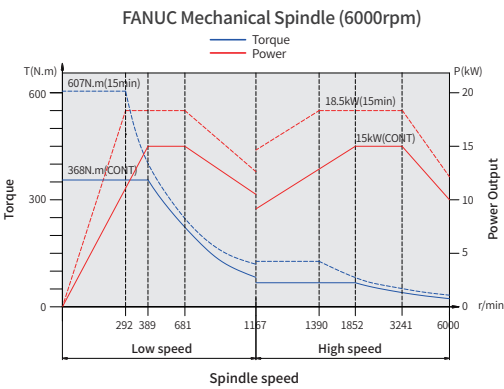
V8

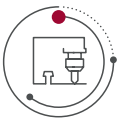
V10

V12



V15





V SERIES

		V6	V8	V10
Machining Range				
X travel	mm	600	850	1000
Y travel	mm	450	500	600
Z travel	mm	510	500	600
Spindle nose to table surface	mm	120-630	150-650	150-750
Table				
Table size	mm	700×450	1000×500	1200×600
Table load	kg	350	600	800
T slot	mm	5×18×80	5×18×80	5×18×100
Spindle				
Drive type		Belt drive	Belt drive	Belt drive
Max. spindle speed	rpm	8000	8000	8000
Spindle power (S1/S6)	kW	7.5/11	7.5/11	7.5/11
Spindle torque (S1/S6)	Nm	35.8/70	35.8/70	35.8/70
Spindle taper		BT40	BT40	BT40
Pull stud		MAS P40T-I (45°)	MAS P40T-I (45°)	MAS P40T-I (45°)
Feed				
Rapid traverse (X/Y/Z)	m/min	48/48/48	36/36/36	36/36/36
Cutting feedrate (X/Y/Z)	m/min	20/20/20	15/15/15	15/15/15
Tool Magazine				
Tool magazine capacity	T	24	24	24
Tool magazine type	-	Arm type	Arm type	Arm type
Max. tool dia. (Adjacent/vacant)	mm	Φ80/Φ150	Φ80/Φ150	Φ80/Φ150
Max. tool length	mm	300	300	300
Max. tool weight	kg	8	8	8
Tool change time	s	2.5	2.5	2.5
Other				
Power capacity	kVA	30	30	30
Machine weight	t	4.5	5.5	6
Machine size (L×W×H)	mm	2160×2600×2600	2640×3100×2850	2800×3300×2920

Standard Configuration (Except V15)

1. Controller: Mitsubishi M80VB

2. 8000rpm belt drive spindle

3. Spindle fluid/air cooling standard for V6

4. 24T ATC

5. Pneumatic and lubrication system

6. Cutting cooling

7. Internal rear flushing chip removal
8. Full enclosure with top cover

9. Air gun

10. 3-color signal lamp, working light

11. Standard accessories

12. External manual chip box

13. CE Mark (EU region)

Option Configuration (Except V15)

1. Controller: SIEMENS 828D (SW24)

2. Controller: FANUC 0i

3. 10000rpm belt drive spindle

4. 12000rpm directly drive spindle

5. Spindle oil chiller

6. CTS (2/3/7MPa)

7. Spindle ring spray

8. NC rotary table(4th)

9. Workpiece probe
10. Tool setter

11. ATC protection door

12. Water gun

13. Oil skimmer

14. Oil mist collector

15. External chain type chip conveyor and trolley

16. More suitable for Al chip of the water tank

17. AC for electric cabinet

18. Linear scale(except V6)

V SERIES

		V12	V13	V15
Machining Range				
X travel	mm	1200	1300	1500
Y travel	mm	600	700	800
Z travel	mm	600	700	800
Spindle nose to table surface	mm	150-750	100-800	200-1000
Table				
Table size	mm	1300×600	1400×700	1700×800
Table load	kg	600	1300	1500
T slot	mm	5×18×100	5×18×125	5×22×150
Spindle				
Drive type		Belt drive	Belt drive	Gear box
Max. spindle speed	rpm	8000	8000	6000
Spindle power (S1/S6)	kW	7.5/11	11/15	15/18.5
Spindle torque (S1/S6)	Nm	35.8/70	52.5/95.5	368/607
Spindle taper		BT40	BT40	BT50
Pull stud		MAS P40T-I (45°)	MAS P40T-I (45°)	MAS P50T-I (45°)
Feed				
Rapid traverse (X/Y/Z)	m/min	36/36/36	36/36/24	24/24/20
Cutting feedrate (X/Y/Z)	m/min	15/15/15	15/15/12	12/12/10
Tool Magazine				
Tool magazine capacity	T	24	24	24
Tool magazine type	-	Arm type	Arm type	Arm type
Max. tool dia. (Adjacent/vacant)	mm	Φ80/Φ150	Φ80/Φ150	Φ110/Φ200
Max. tool length	mm	300	300	350
Max. tool weight	kg	8	8	18
Tool change time	s	2.5	2.5	4
Other				
Power capacity	kVA	30	30	40
Machine weight	t	6.5	9	12
Machine size (L×W×H)	mm	3120×3300×2920	3400×3700×3210	5400×3400×3650

Standard Configuration (V15)

1. Controller: FANUC 0i

2. Gear box

3. Spindle oil chiller

4. 24T arm type tool magazine (BT50)

5. Pneumatic and lubrication system

6. Cutting cooling

7. Internal front screw chip removal

8. External chain chip conveyor
9. Full enclosure

10. Air gun

11. 3-color signal lamp, working light

12. Standard accessory

13. Z-axis nitrogen balance system (Z-axis box guide rail)

14. CE Mark (EU region)

Option Configuration (V15)

1. Controller: SIEMENS 828D (SW24)

2. CTS (2/3/7MPa)

3. Spindle ring spray

4. NC rotary table (4th)

5. Workpiece probe

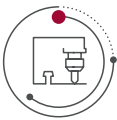
6. Tool setter
7. Water gun

8. Oil skimmer

9. Oil mist collector

10. AC for electric cabinet

11. Linear scale



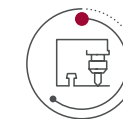
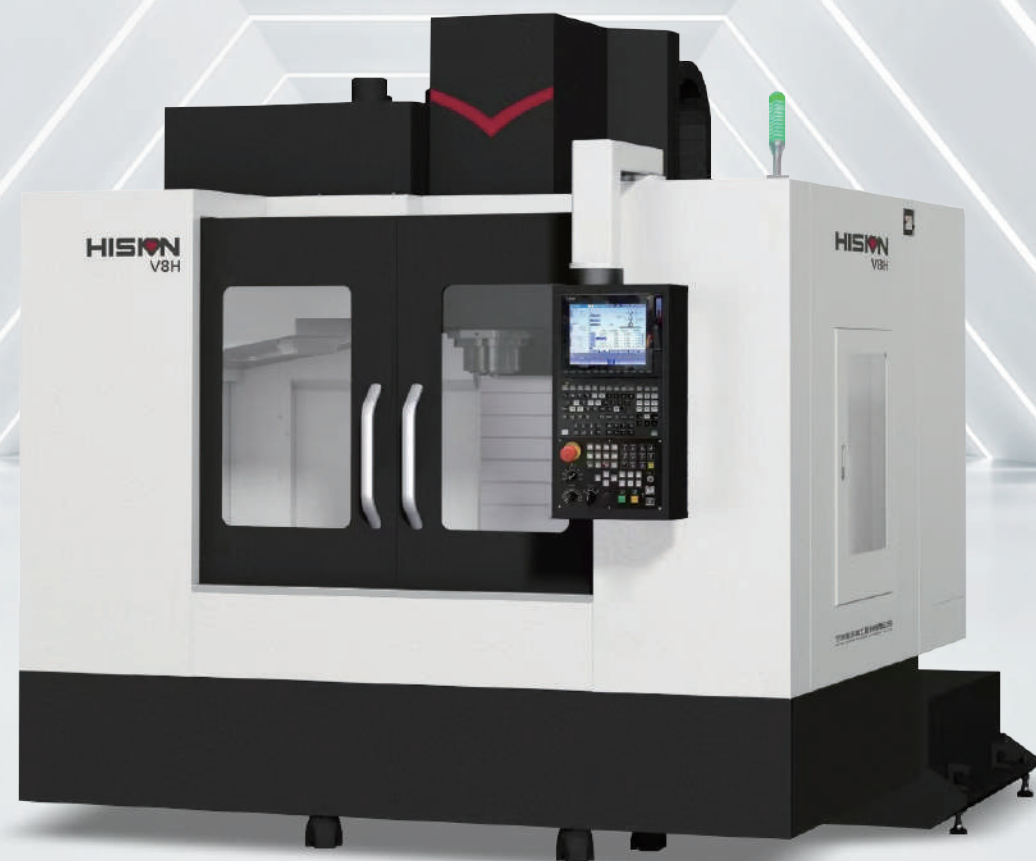
Configuration List

● Standard ○ Option – Not available

		V6	V8	V10	V12	V13	V15
Controller	Mitsubishi M80VB	●	●	●	●	●	○
	Mitsubishi M80VA	—	○	○	○	○	○
	Spindle power upgraded by one level (For Mitsubishi M80)	—	○	○	○	—	—
	FANUC 0i β5 (Spindle power 11/15kW)	○	○	○	○	○	—
	FANUC 0i α3 (Spindle power 7.5/11kW)	—	○	○	○	—	—
	FANUC 0i β5 (Spindle power 15/18.5kW)	—	—	○	○	○	●
	FANUC 0i β3 (Spindle power 11/15kW)	○	○	○	○	○	—
	FANUC 0i β3 (Spindle power 15/18.5kW)	—	—	○	○	○	○
Spindle	Belt-driven spindle, 8000 rpm	●	●	●	●	●	—
	Direct-driven spindle, 12000 rpm	○	○	○	○	○	○
	Belt-driven spindle, 10000 rpm	○	○	○	○	○	—
	BT50 mechanical spindle, 6000 rpm	—	—	○	○	○	—
	HISION built-in spindle, 12000 rpm (BT40)	—	—	—	○	○	—
Spindle cooling	Spindle fluid/air cooling system	●	○	○	○	○	—
	Spindle oil chiller	○	○	○	○	○	●
Column	Integrated column height increased by 200mm	○	○	○	○	○	—
Tool magazine	24-tool BT40 arm-type tool magazine	●	●	●	●	●	—
	30-tool BT40 arm-type tool magazine	○	○	○	○	○	—
	24-tool BT50 arm-type tool magazine	—	—	○	○	○	●
	30-tool BT50 arm-type tool magazine	—	—	—	—	○	○
	Tool magazine omitted	○	○	○	○	○	○
	Pneumatic door for tool magazine	○	○	○	○	○	○
CTS	2MPa	○	○	○	○	○	○
	3MPa	○	○	○	○	○	○
	3-7MPa	○	○	○	○	○	○
Chip conveyor	Internal rear flushing chip removal	●	●	●	●	●	—
	Internal rear screw chip removal	○	○	○	○	○	—
	Internal front flushing chip removal	○	○	○	○	○	—
	Internal front screw chip removal	○	○	○	○	○	●
	Chain type chip conveyor	○	○	○	○	○	●
	Magnetic scraper chip conveyor	○	○	○	○	○	—
	Backflush drum chain type chip conveyor	○	○	○	○	○	—
	Backflush drum magnetic scraper chip conveyor	○	○	○	○	○	—
Cooling / Chip removal	Water gun	○	○	○	○	○	○
	Oil skimmer	○	○	○	○	○	○
	Spindle ring spray	○	○	○	○	○	○
	Top coolant spray	○	○	○	○	○	○
	Cutting fluid temperature control function	○	○	○	○	○	○
	Automatic coolant tank level detection function	○	○	○	○	○	○
Precision	3-axis HEIDENHAIN linear scales	—	○	○	○	○	○
Electrical system	AC for electrical cabinet	○	○	○	○	○	○
	Electrical cabinet heat exchanger	○	○	○	○	○	○
	Automatic power-off function	○	○	○	○	○	○
	PROFIBUS data bus transmission function	○	○	○	○	○	○
	PROFINET data bus transmission function	○	○	○	○	○	○
	Auxiliary buttons on operation panel	○	○	○	○	○	○
	8 sets of M-codes and I/O interfaces	○	○	○	○	○	○
	16 sets of M-codes and I/O interfaces	○	○	○	○	○	○
Automatic door	Pneumatic automatic door	○	○	○	○	○	○
	Right-side automatic lifting door	○	○	○	○	○	○
Machine foundation	Installation with secondary grouting	○	○	○	○	○	●
	Press-plate type foundation installation	○	○	○	○	○	—

VH SERIES

VH series machine center is an upgraded version based on the V series, representing a new generation of high-speed machining centers. Equipped with a high-performance built-in spindle and a high dynamic response servo system, it delivers enhanced speed and efficiency in machining operations. This machine is widely applicable for high-speed precision machining of components in industries such as automotive, aerospace, and general machinery.



1 Long-Span Bed

Long-span cast bed and columns ensure machining stability.



2 High-Speed, High-Performance Spindle

Standard built-in spindle with low rotational inertia, rapid start-stop response, high machining efficiency, and constant power output at high speeds.

Equipped with synchronized water-cooling circulation technology to effectively reduce thermal deformation of the spindle.



3 Excellent Chip Evacuation Capability

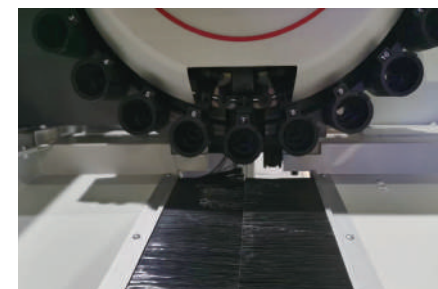
Standard with Y-axis rear protection chip flushing and a high-flow flushing pump, effectively preventing material chip accumulation on the Y-axis rear protection.

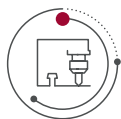


4 Enhanced Tool Magazine Protection

The tool magazine features a sloped guard for efficient chip and fluid management, minimizing contamination risks and boosting machine stability.

Brush systems further block chips and moisture, ensuring higher reliability.



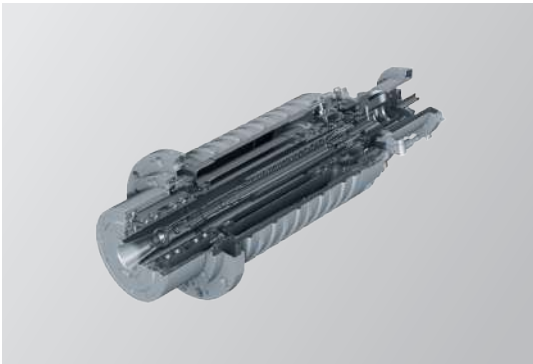


VH SERIES



- Robust manufacturing performance
- High rigidity structure
- Huge machining space
- Automation-ready and fixture-ready

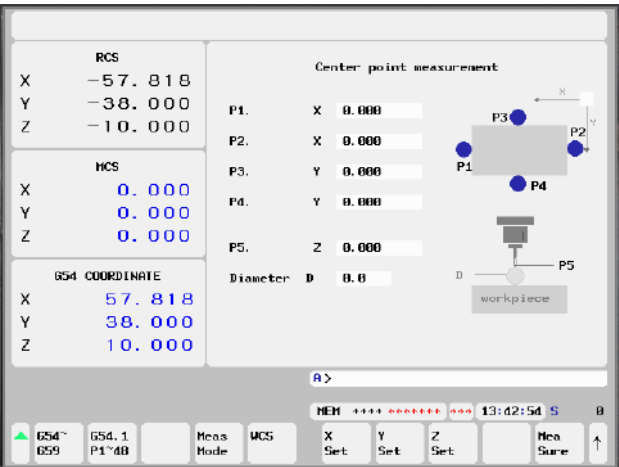
- HISION developed high rigidity built-in spindle. Precision-matched integration for enhanced machine tool performance
- Superior structural, equipped with optional CTS, offers higher cost-effectiveness compared to direct-drive spindles.



Function Upgrade

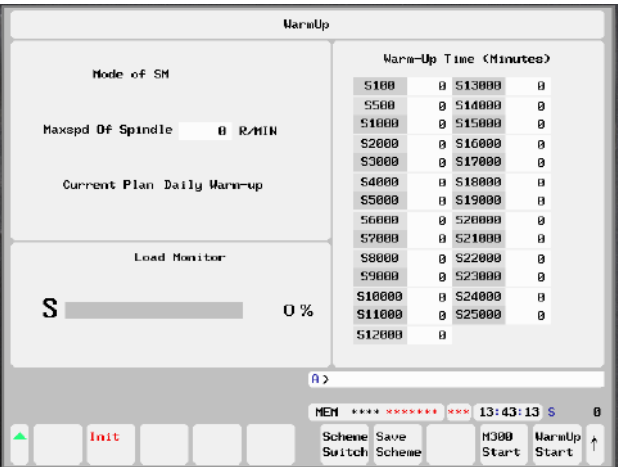
Automatic centering function

Align circles, squares, and polygons, or perform oblique angle calculations.



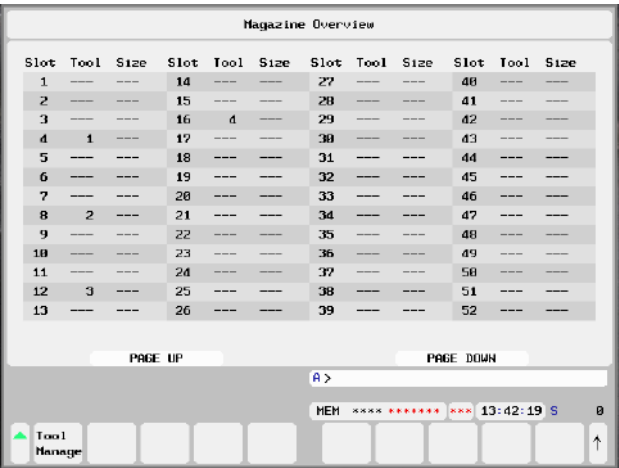
Spindle warm-up function

Warming up the built-in spindle is more convenient with button operation, and the warm-up time can be set by oneself, which can be modified according to actual needs.



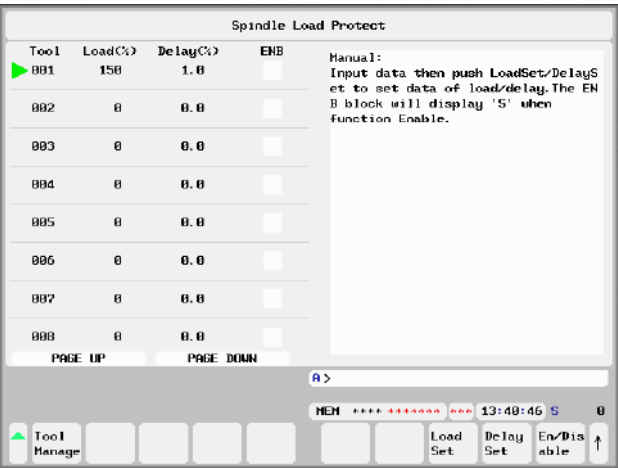
Tool magazine viewing function

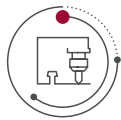
Under the random tool magazine, the current corresponding tool position can be viewed, making it more intuitive and convenient to operate.



Tool load function

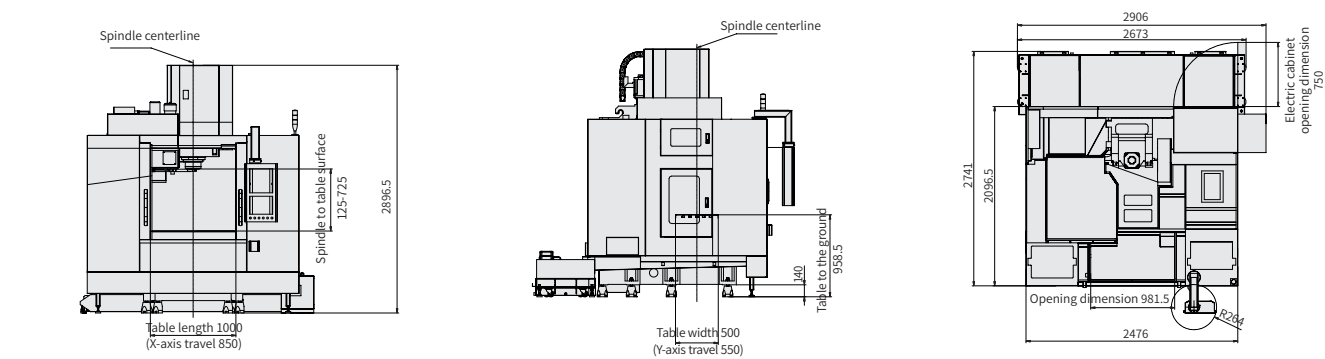
According to different tool settings, if the set load is exceeded during actual machining, the program can be stopped in a timely manner to prevent further damage to the workpiece or tool, reduce losses, and ensure the safety of machining.



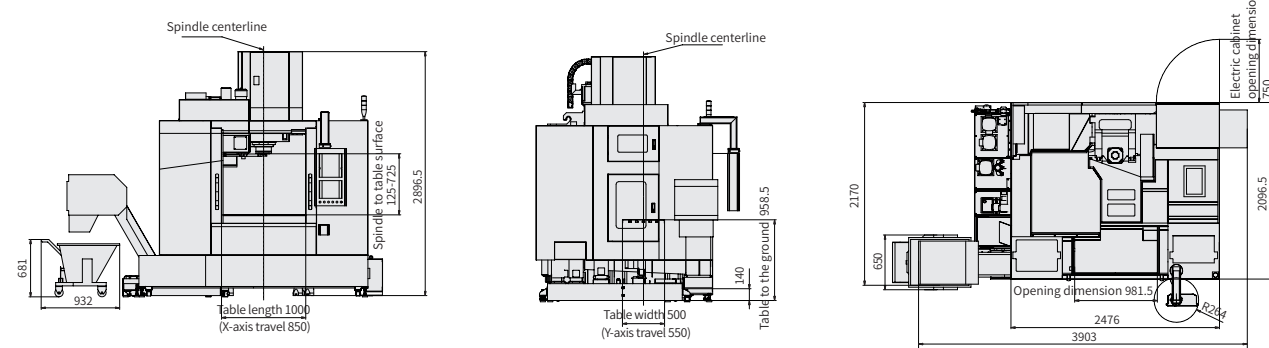


Machine Dimension

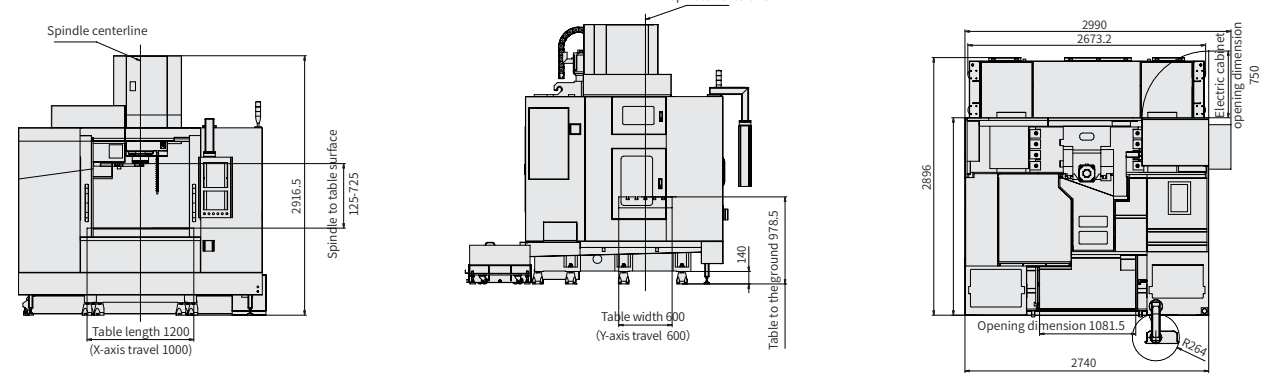
V8H with rear chip conveyor (ST)



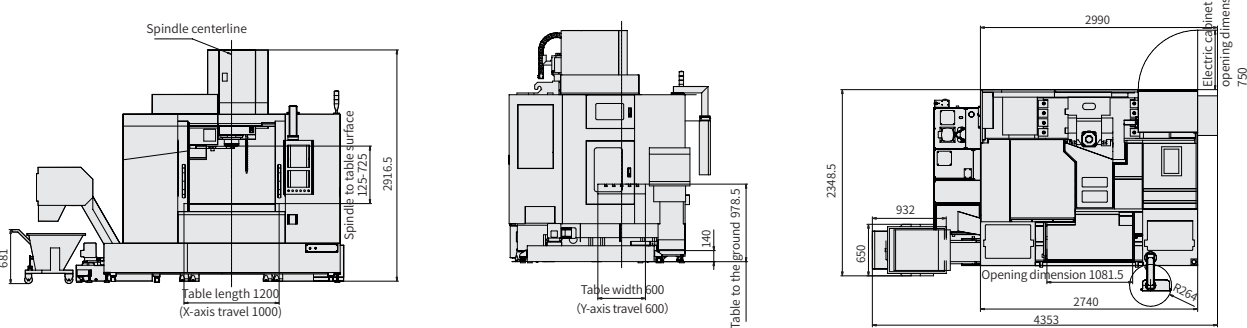
V8H with front left chip conveyor (OP)



V10H with rear chip conveyor (ST)

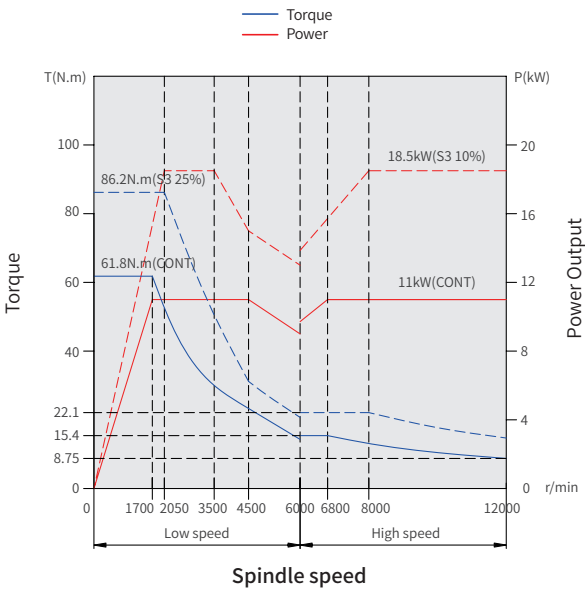


V10H with front left chip conveyor (OP)



Power-Torque Curve

Mitsubishi / FANUC Built-In Spindle (12000rpm)



Typical Parts



Calipers



Motor housing



Steering knuckle



lower link



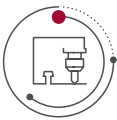
Joint flange



Electrical control box



Clutch housing



VH SERIES

		V8H	V10H
Machining Range			
X travel	mm	850	1000
Y travel	mm	550	600
Z travel	mm	600	600
Spindle nose to table surface	mm	125-725	125-725
Table			
Table size	mm	1000×500	1200×600
Table load	kg	500	800
T slot	mm	5×18×80	5×18×100
Spindle			
Drive type		Built-in spindle	Built-in spindle
Spindle speed	rpm	12000	12000
Spindle power (S1/S3)	kW	11/18.5	11/18.5
Spindle torque (S1/S3)	Nm	61.8/86.2	61.8/86.2
Spindle taper		BT40	BT40
Pull stud		MAS P40T-I (45°)	MAS P40T-I (45°)
Feed			
Rapid traverse (X/Y/Z)	m/min	48/48/48	36/36/36
Cutting feed rate (X/Y/Z)	m/min	20/20/20	20/20/20
Tool Magazine			
Capacity	T	24	24
Type	-	Arm type	Arm type
Max. tool dia. (Adjacent/vacant)	mm	Φ80/Φ150	Φ80/Φ150
Max. tool length	mm	300	300
Max. tool weight	kg	8	8
Tool change time (T-T)	s	2	2
Other			
Power capacity	kVA	30	30
Machine weight	t	5.5	6
Machine size (L×W×H)	mm	2680×3100×2900	2800×3300×2920

Standard Configuration		Option Configuration	
1. Controller: Mitsubishi M80VB	7. Internal rear flushing chip removal	1. Controller:	7. Water gun
2. 12000rpm built-in spindle	8. External hopper type rear water tank	Mitsubishi M80VA / FANUC 0i	8. Oil skimmer
3. 24T arm type tool magazine	9. Full enclosure	2. CTS (2/3/7MPa)	9. Oil mist collector
4. Spindle cooling	10. 3-color signal lamp, working light	3. Spindle ring spray	10. AC for electric cabinet
5. Cutting cooling	11. Air gun	4. NC rotary table(4th)	11. Linear scale
6. Tool magazine protection	12. CE Mark (EU region)	5. Workpiece probe	12. Roller linear guideway
		6. Tool setter	

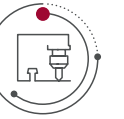
Configuration List

● Standard ○ Option – Not available

		V8H	V10H
Controller	Mitsubishi M80VB	●	●
	Mitsubishi M80VA	○	○
	FANUC 0i β3, 12000 rpm built-in spindle, 11/18.5kW	○	○
	FANUC 0i β5, 12000 rpm built-in spindle, 11/18.5kW	○	○
Spindle	HISION built-in spindle, 12000 rpm (BT40)	●	●
Spindle cooling	Spindle fluid/air cooling system	●	●
	Spindle oil chiller	○	○
Column	Integrated column height increased by 200mm	–	○
Tool magazine	24-tool BT40 arm-type tool magazine	●	●
	30-tool BT40 arm-type tool magazine	○	○
	24-tool BT40 single-servo tool magazine	○	○
	30-tool BT40 dual-servo tool magazine	○	○
	Tool magazine omitted	○	○
	Pneumatic door for tool magazine	○	○
CTS	2MPa	○	○
	3MPa	○	○
	3-7MPa	○	○
Chip conveyor	Internal rear flushing chip removal	●	●
	Internal rear screw chip removal	○	○
	Internal front flushing chip removal	○	○
	Internal front screw chip removal	○	○
	Chain type chip conveyor	○	○
	Magnetic scraper chip conveyor	○	○
	Backflush drum chain type chip conveyor	○	○
	Backflush drum magnetic scraper chip conveyor	○	○
Cooling / Chip removal	Water gun	○	○
	Oil skimmer	○	○
	Spindle ring spray	○	○
	Top coolant spray	○	○
	Cutting fluid temperature control function	○	○
	Automatic coolant tank level detection function	○	○
Precision	3-axis HEIDENHAIN linear scales	○	○
Electrical system	AC for electrical cabinet	○	○
	Electrical cabinet heat exchanger	○	○
	Automatic power-off function	○	○
	PROFIBUS data bus transmission function	○	○
	PROFINET data bus transmission function	○	○
	Auxiliary buttons on operation panel	○	○
	8 sets of M-codes and I/O interfaces	○	○
Automatic door	16 sets of M-codes and I/O interfaces	○	○
	Pneumatic automatic door	○	○
	Right-side automatic lifting door	○	○
Machine foundation	Installation with secondary grouting	○	○
	Press-plate type foundation installation	○	○

VQ SERIES

VQ series innovative technology fully meets the needs of users, and its consistent aim is high efficiency, high precision, and high reliability; the series are equipped with advanced built-in spindle series and high dynamic response drive systems to enable processing Higher speed, high precision, and efficiency; and endows environmental protection and energy saving characteristics, which is widely used in the processing of components and mold markets.



1 Optimized Component Design

High-rigid base components:
large-span bed base, thickened column.

Lightweight moving parts:
the total weight of the spindle box and built-in spindle 30% lower than the conventional machines.



2 High Speed, High Precision Built-In Spindle

High precision: built-in spindle direct drive, no other vibration source.

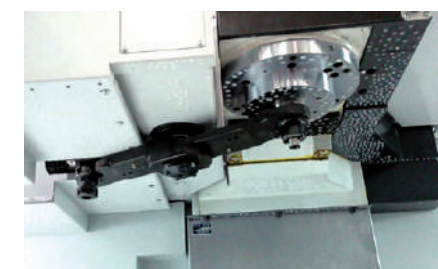
High torque: two-speed automatic transmission, low speed and high torque, high speed and constant power.

Efficient start and stop: zero drive chain, small inertia, starting from 0 to 8000 rpm in just 0.8 seconds.



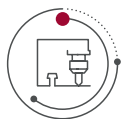
3 24T Servo Tool Magazine

- **Intelligent preparation tool mode:** shorten non-machining time.
- Max.180mm dia. bridge type boring tool.
- Automatic protection door.
- Heavy tool mode: auto slow tool change in this mode.



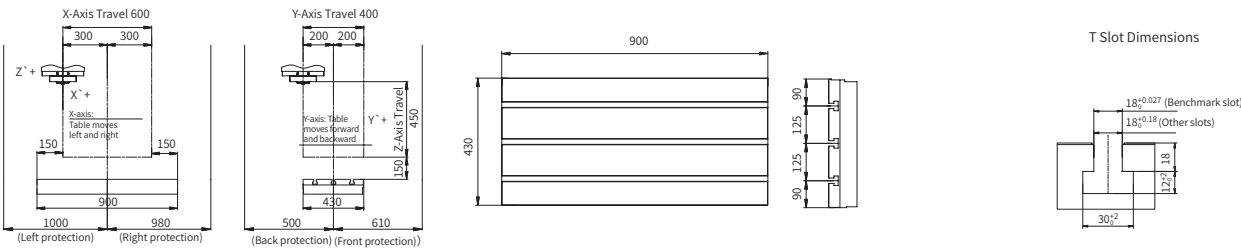
4 Professional Automation Interface

- Automatic door.
- Automatic line communication interface.
- Tool automatic compensation & life management.
- Tool magazine broken tool detection.
- Workpiece detecting device.
- Option 4th axis & 5th axis.

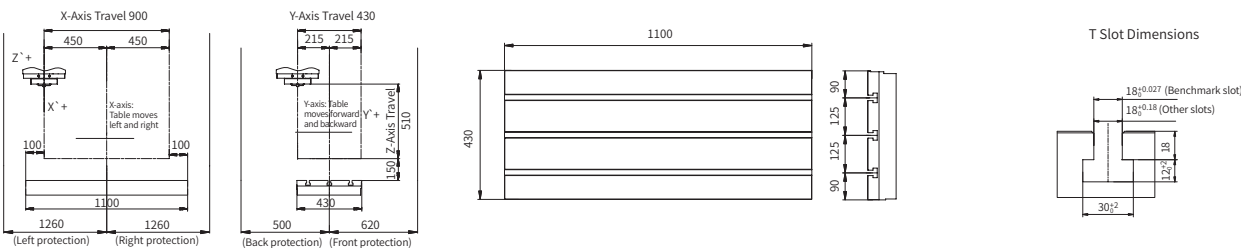


Machining Range

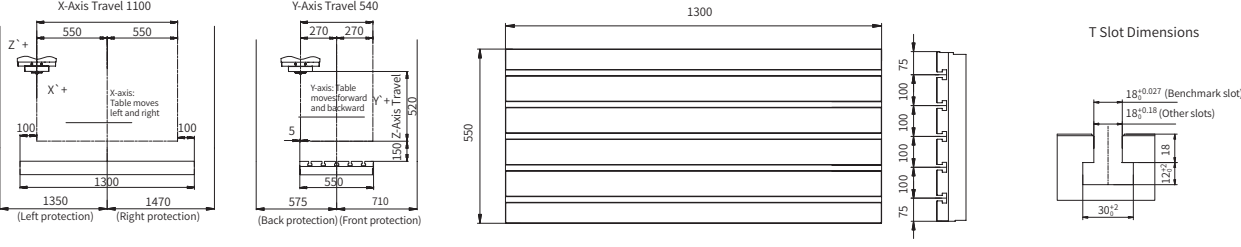
VQ6



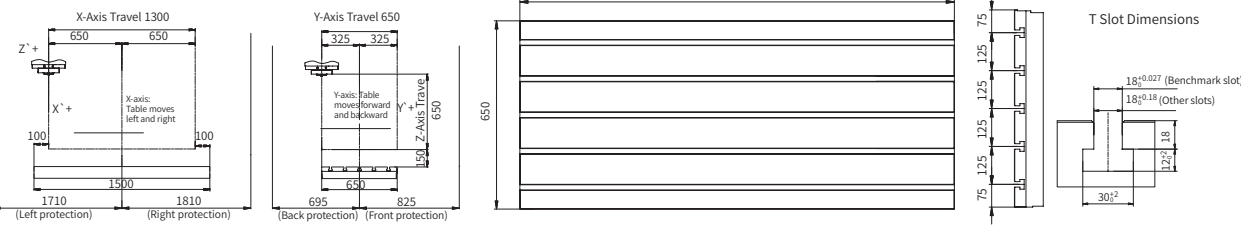
VQ9



VQ11

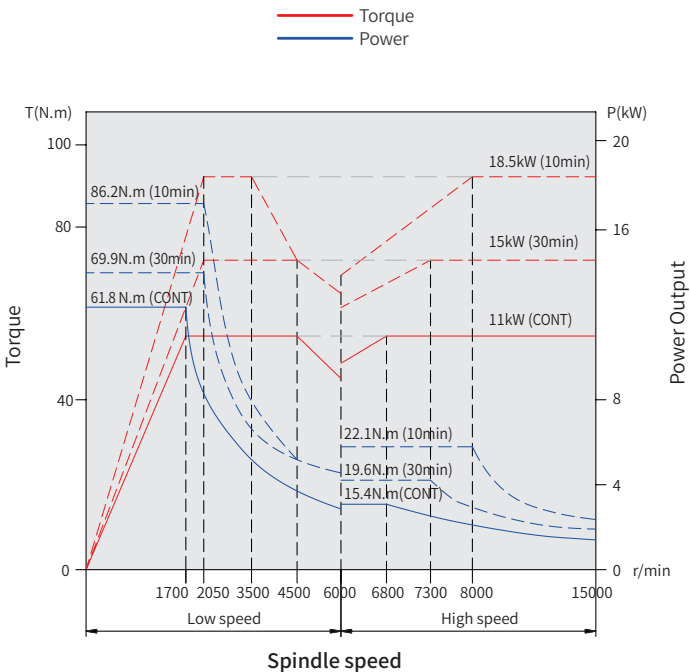


VQ13

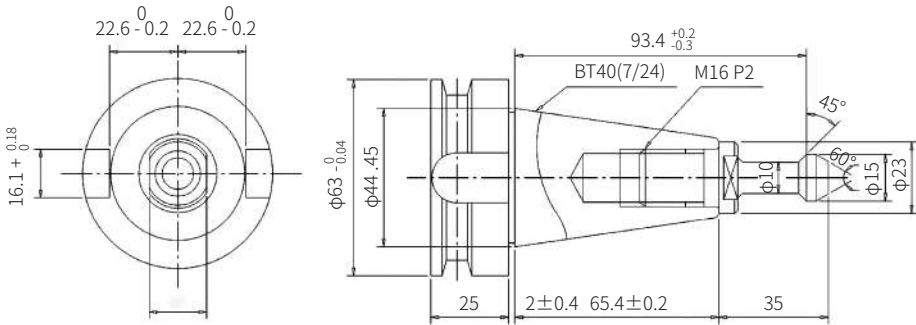


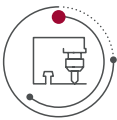
Power-Torque Curve

Mitsubishi / FANUC β Built-In Spindle(12000rpm)



BT40(7: 24) Pull Stud Specification





VQ SERIES

		VQ6	VQ9
Machining Range			
X travel	mm	600	900
Y travel	mm	430	430
Z travel	mm	510	510
Spindle nose to table surface	mm	150-660	150-660
Table			
Table size	mm	900×430	1100×430
Table loading	kg	500	700
T slot size	mm	3×18×125	3×18×125
Spindle			
Drive type		Built-in spindle	Built-in spindle
Max. spindle speed	rpm	12,000	12,000
Spindle power	kW	11/18.5	11/18.5
Spindle torque	N.m	61.8/86.2	61.8/86.2
Spindle taper		BT40	BT40
Pull Stud		MAS P40T-I (45°)	MAS P40T-I (45°)
Feed			
Rapid traverse (X/Y/Z)	m/min	36/36/36	36/36/36
Cutting feedrate (X/Y/Z)	m/min	20/20/20	20/20/20
Tool Magazine			
Tool magazine capacity	T	24	24
Tool change type		Servo	Servo
Max. tool dia. (Adjacent/vacant)	mm	Φ80/Φ150	Φ80/Φ150
Max. tool length	mm	300	300
Max. tool weight	kg	8	8
Tool change time (T-T)	s	1.5	1.5
Other			
Power capacity	kVA	35	35
Machine weight	t	6	7
Machine size (L×W×H) (without conveyor)	mm	2060×2750×2660	2600×2420×2580

Standard Configuration		Option Configuration	
1. Controller: Mitsubishi M80VB	8. External manual chip box (VQ6)	1. Controller: FANUC 0i	7. Linear scale
2. 12000rpm built-in spindle	9. 24T servo ATC (arm type)	2. Kessler 20000rpm built-in spindle (HSK-A63)	8. Air gun
3. Full enclosure with top cover	10. ATC pneumatic door	3. CTS (2/3/7MPa)	9. Oil skimmer
4. Internal flush chip removal	11. Hydraulic & grease lubrication system	4. NC rotary table (4th)	10. Oil mist collector
5. 3 color signal lamp	12. Spindle oil chiller	5. Workpiece probe	11. AC for electric cabinet
6. Water gun	13. CE Mark (EU region)	6. Tool setter	
7. External chain type chip conveyor & trolley (left side)(VQ9、VQ11、VQ13)			

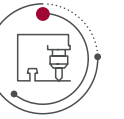
VQ SERIES

		VQ11	VQ13
Machining Range			
X travel	mm	1100	1300
Y travel	mm	540	650
Z travel	mm	520	650
Spindle nose to table surface	mm	150-670	150-800
Table			
Table size	mm	1300×550	1500×650
Table loading	kg	1200	1200
T slot size	mm	5×18×100	5×18×125
Spindle			
Drive type		Built-in spindle	Built-in spindle
Max. spindle speed	rpm	12,000	12,000
Spindle power	kW	11/18.5	11/18.5
Spindle torque	N.m	61.8/86.2	61.8/86.2
Spindle taper		BT40	BT40
Pull Stud		MAS P40T-I (45°)	MAS P40T-I (45°)
Feed			
Rapid traverse (X/Y/Z)	m/min	36/36/36	36/36/30
Cutting feedrate (X/Y/Z)	m/min	20/20/20	20/20/20
Tool Magazine			
Tool magazine capacity	T	24	24
Tool change type		Servo	Servo
Max. tool dia. (Adjacent/vacant)	mm	Φ80/Φ150	Φ80/Φ150
Max. tool length	mm	300	300
Max. tool weight	kg	8	8
Tool change time (T-T)	s	1.5	1.5
Other			
Power capacity	kVA	35	35
Machine weight	t	8	9
Machine size (L×W×H) (without conveyor)	mm	2900×2890×2680	3800×3300×2950

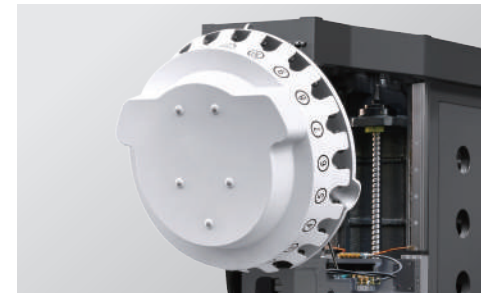
Standard Configuration		Option Configuration	
1. Controller: Mitsubishi M80VB	8. External manual chip box (VQ6)	1. Controller: FANUC 0i	7. Linear scale
2. 12000rpm built-in spindle	9. 24T servo ATC (arm type)	2. Kessler 20000rpm built-in spindle (HSK-A63)	8. Air gun
3. Full enclosure with top cover	10. ATC pneumatic door	3. CTS (2/3/7MPa)	9. Oil skimmer
4. Internal flush chip removal	11. Hydraulic & grease lubrication system	4. NC rotary table (4th)	10. Oil mist collector
5. 3 color signal lamp	12. Spindle oil chiller	5. Workpiece probe	11. AC for electric cabinet
6. Water gun	13. CE Mark (EU region)	6. Tool setter	
7. External chain type chip conveyor & trolley (left side)(VQ9、VQ11、VQ13)			

Z SERIES

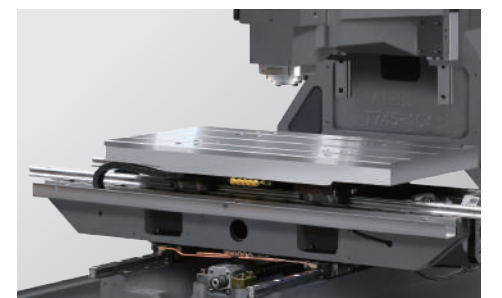
Z series machine center developed by Haitian Precision through integration of global advanced technologies, is a compact machine with minimized footprint, engineered for high rigidity and superior vibration damping. Widely used for drilling and tapping in non-ferrous metals, 3C industry, and aluminum substrates. Compared to conventional machining centers, it delivers multi-fold improvements in efficiency and quality, making it particularly suitable for 3C and telecommunications industries.



- 1 • Disc type 21T servo tool magazine achieves tool changing through Z-axis movement, making tool changing faster.
- The rotating arm cam-type tool clamping and releasing mechanism realizes tool clamping and releasing through Z-axis movement, providing faster and more stable performance.



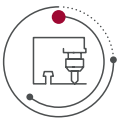
- 2 • The synchronous moving covers, where the outer layer and table move while the inner layer remains stationary, ensures a low failure rate of the axis covers.
- The axis covers are compact, and the machine tool occupies a small footprint.



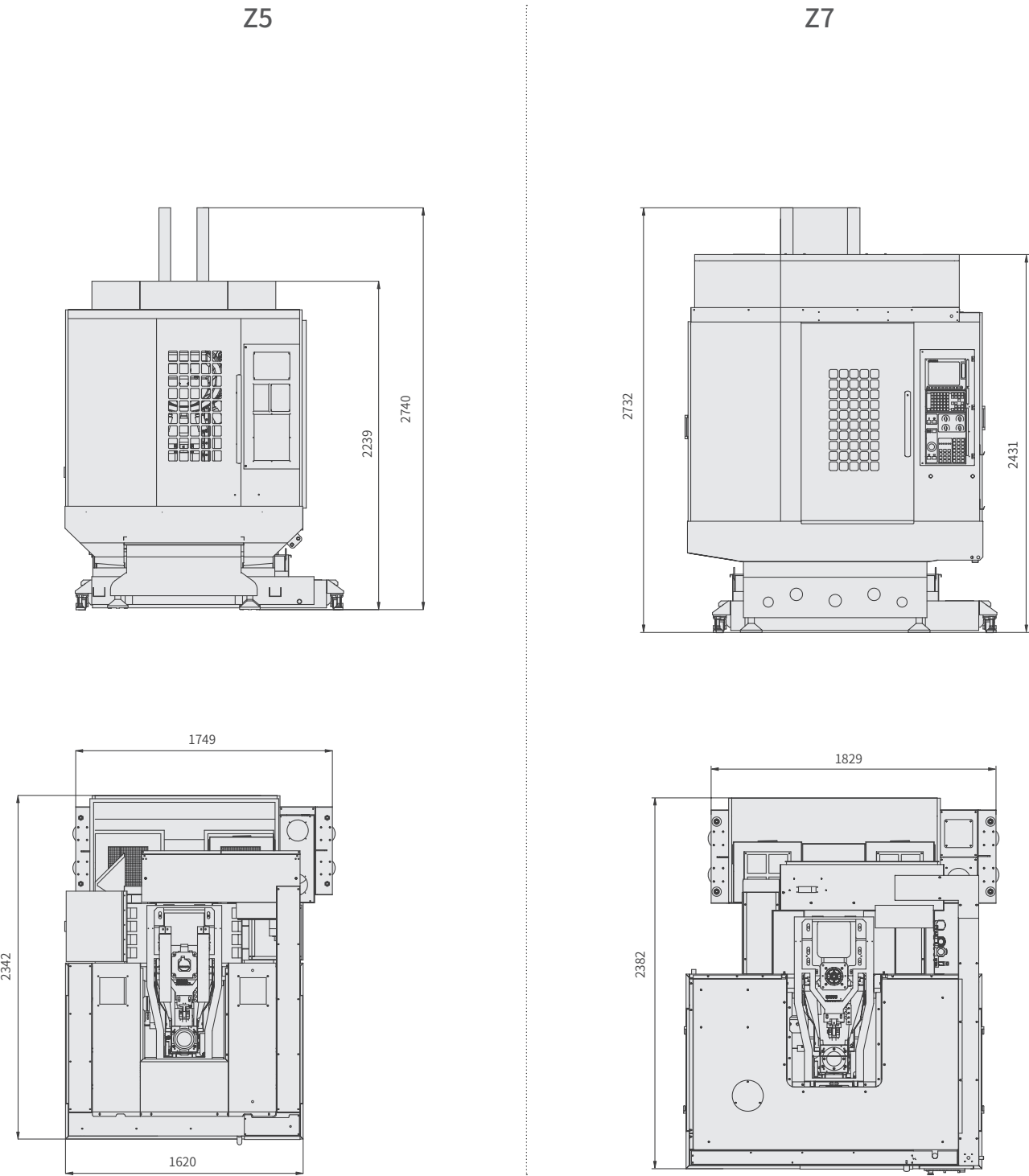
- 3 • The adoption of high-speed direct-drive spindle, which is especially ideal for the machining of parts and molds made from copper, aluminum, and magnesium alloys.



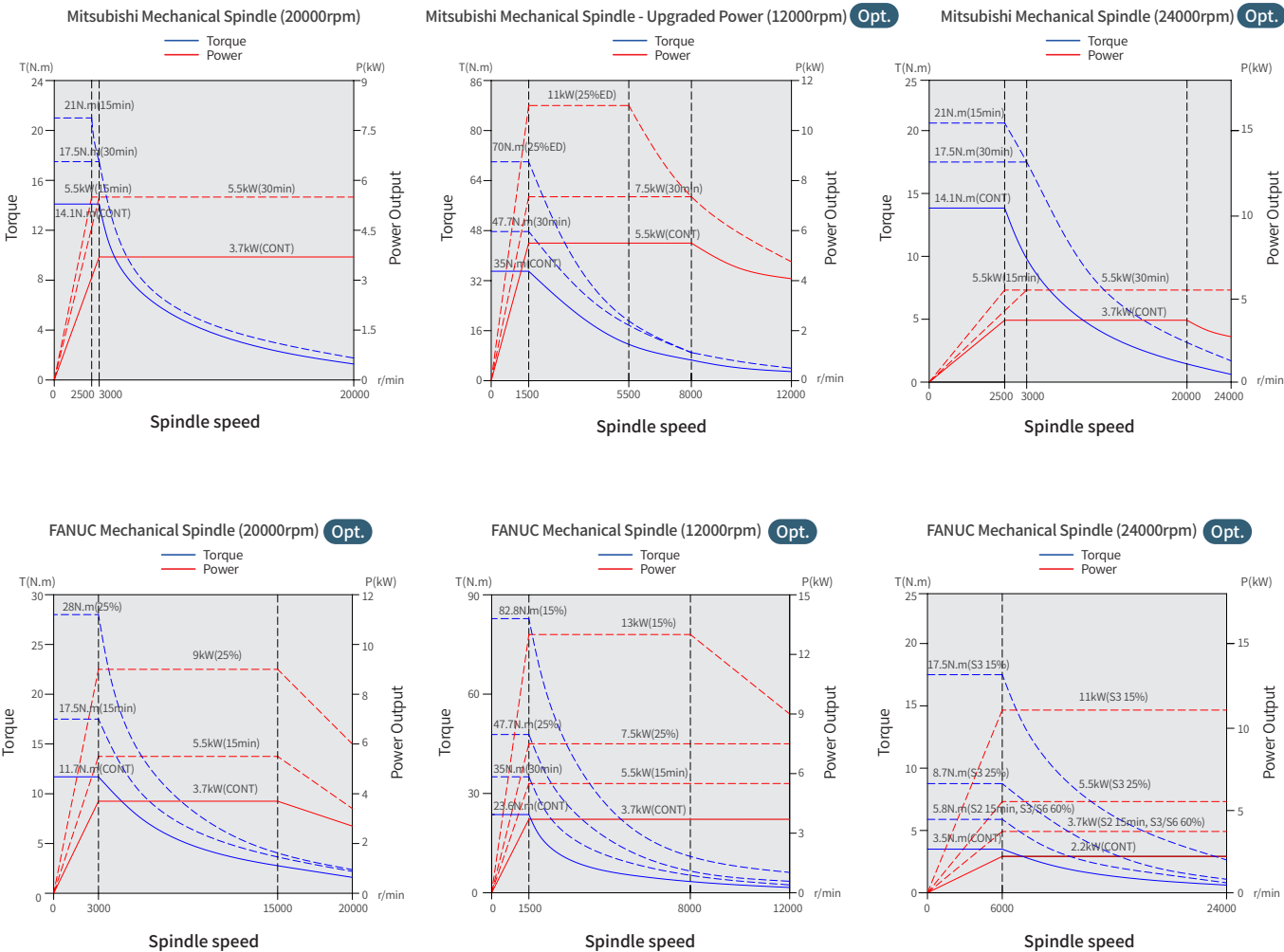
- 4 • The oversized foot width of 1000mm ensures stability during high-speed machining



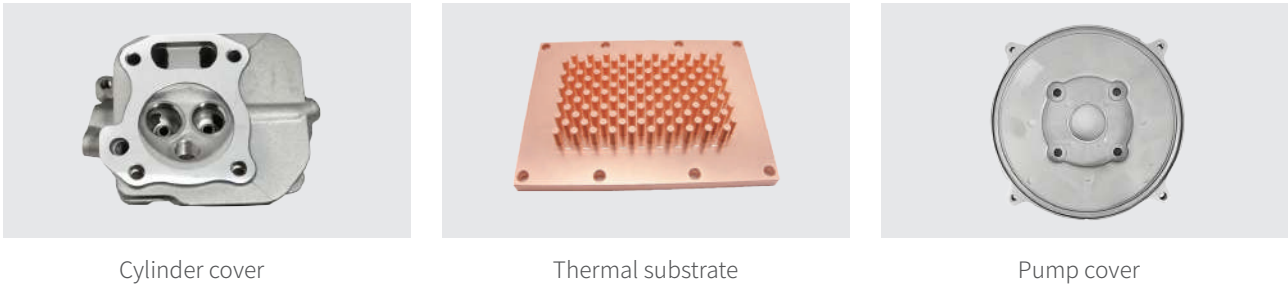
Machine Dimension

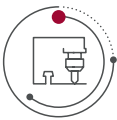


Power-Torque Curve



Typical Parts





Z SERIES

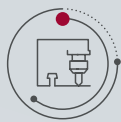
		Z5
» Machining Range		
X travel	mm	500
Y travel	mm	400
Z travel	mm	350
Spindle nose to table surface	mm	145-495
» Table		
Table size	mm	700×420
Max. table load	kg	250
T slot	mm	3×14×125
» Feed		
Rapid traverse (X/Y/Z)	m/min	48/48/48
Cutting feedrate (X/Y/Z)	m/min	30/30/30
Motor power (X/Y/Z)	kW	1.5/1.5/3
» Spindle		
Drive type	-	Direct-drive
Max. spindle speed	rpm	20000
Spindle power (S1/S3)	kW	3.7/5.5
Spindle torque (S1/S3)	Nm	11.7/21
Spindle taper	-	BT30
» Tool Magazine		
Capacity	T	21
Type	-	Servo
Max. tool dia. (Adjacent/Vacant)	mm	Φ60/Φ80
Max. tool length	mm	200
Max. tool weight	kg	3kg/T (Total 25kg)
Tool change time (T-T)	s	2
» Other		
Power capacity	kVA	20
Machine weight	t	2.6
Machine size	mm	1749×2342×2740

Standard Configuration		Option Configuration	
1. Controllor: MITSUBISHI M80VB	8. Pneumatic, lubrication	1. Controllor:FANUC 0i	5. Oil mist collector
2. 20000rpm directly drive spindle	9. Air gun	2. Directly drive spindle	6. Workpiece probe
3. 21T servo type ATC	10. Water gun	12000/24000rpm	7. Tool setter
4. X/Y/Z axis splash cover	11. 3-color signal lamp and working light	3. AC for electrical cabinet	
5. Oil chiller	12. Standard accessories	(0.3kW)	
6. Full enclosure with top cover	13. Manual chip hopper	4. External chain type chip	
7. Internal rear flushing chip removal	14. CE Mark (EU region)	conveyor with iron chip trolley	
		(rear&middle)	

Z SERIES

	Z7	
» Machining Range		
X travel	mm	700
Y travel	mm	450
Z travel	mm	350
Spindle nose to table surface	mm	145-495
» Table		
Table size	mm	800×420
Max. table load	kg	300
T slot	mm	3×14×125
» Feed		
Rapid traverse (X/Y/Z)	m/min	48/48/48
Cutting feedrate (X/Y/Z)	m/min	30/30/30
Motor power (X/Y/Z)	kW	1.5/1.5/3
» Spindle		
Drive type	-	Direct-drive
Max. spindle speed	rpm	20000
Spindle power (S1/S3)	kW	3.7/5.5
Spindle torque (S1/S3)	Nm	11.7/21
Spindle taper	-	BT30
» Tool Magazine		
Capacity	T	21
Type	-	Servo
Max. tool dia. (Adjacent/Vacant)	mm	Φ60/Φ80
Max. tool length	mm	200
Max. tool weight	kg	3kg/T (Total 25kg)
Tool change time (T-T)	s	2
» Other		
Power capacity	kVA	20
Machine weight	t	2.9
Machine size	mm	1829×2382×2732

Standard Configuration		Option Configuration	
1. Controllor: MITSUBISHI M80VB	8. Pneumatic, lubrication	1. Controllor:FANUC 0i	5. Oil mist collector
2. 20000rpm directly drive spindle	9. Air gun	2. Directly drive spindle	6. Workpiece probe
3. 21T servo type ATC	10. Water gun	12000/24000rpm	7. Tool setter
4. X/Y/Z axis splash cover	11. 3-color signal lamp and working light	3. AC for electrical cabinet	
5. Oil chiller	12. Standard accessories	(0.3kW)	
6. Full enclosure with top cover	13. Manual chip hopper	4. External chain type chip	
7. Internal rear flushing chip removal	14. CE Mark (EU region)	conveyor with iron chip trolley	
		(rear&middle)	



Ningbo Haitian Precision Machinery Co., Ltd. is a listed enterprise specializing in the manufacturing of CNC machine tools. It owns modern temperature-controlled processing and assembly plants totaling 570,000 square meters across its manufacturing bases in Ningbo Dagang, Ningbo Yanshan, Dalian Haitian Precision, Haitian Mountain Plant, and Haitian South China. With nearly 2,300 employees, the company is recognized as a National Major Technical Equipment Enterprise, a National High-Tech Enterprise, and a Provincial High-Tech R&D Center. Its main products include various series such as double machining centers, vertical machining centers, horizontal machining centers, CNC lathes/turning centers, CNC horizontal boring and milling machines, and CNC vertical lathes. These products are widely used in industries including automotive, rail transportation, civil aviation, mold manufacturing, marine diesel engines, engineering machinery, and general machinery manufacturing. Adhering to the advanced management philosophy of the Haitian Group developed over half a century, Haitian Precision maintains a customer-centric approach. Through pre-sales, mid-sales, and after-sales services, it provides customers with cost-effective solutions, ensuring optimal product performance and creating industrial value exactly as desired.

MORE THAN **PRECISION**



CHINA
Manufacturing Base

Overseas
Manufacturing Base

Overseas Subsidiary

Overseas Market



Ningbo Dagang Manufacturing Center



Ningbo Yanshan Manufacturing Center



Dalian Manufacturing Center



Shandi Manufacturing Center



Huanan Manufacturing Center