ENVISION



VERTICAL MACHINING CENTERS







ENVISION

Dragonflies are expert fliers. They can fly straight up and down, hover like a helicopter.

The flight of the dragonfly is so special that it has inspired engineers who dream of making robots that fly like dragonflies. Nearly all of the dragonfly's head is eye, so they have incredible vision that encompasses almost every angle except right behind them.

The dragonfly's ability to envision its surrounding is what makes it incredible. **STM** as a machine tool manufacturer in India draws Inspiration from the dragon fly. Our ability to envision the machinetool industry's needs has helped us deliver world class technology customized for Indian requirements .

S&T Machinery is a co-manufacturing venture of S&T India and MANFORD Taiwan.

Our brand name **STM** has become synonymous with precision machinery that has been installed across India and a few other Asian countries.



VL 550 / VL 610

#40 Belt Drive Spindle

8,000 rpm

10,000 rpm / 12,000 rpm (Optional)

#40 Direct Drive Spindle

10,000 - 15,000 rpm (Optional)

#40 Built-in Spindle

24,000 rpm (Optional)





Axis motors are direct coupled with ball screws, featuring highly efficient motion control, high response and low noise

The compact design of VL-610 has ensured smaller foot print, which is ideal for mould makers job shops where space is constraint. It has many innovative & first-in-class features, each of them contributing to enhanced reliability, performance & productivity.



VL 800 / VL1000

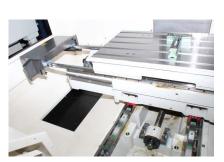
#40 Belt Drive Spindle 8,000 rpm

10,000 rpm / 12,000 rpm (Optional)

#40 Direct Drive Spindle
10,000 - 15,000 rpm (Optional)

VL 800

The enhanced rigidity of the Spindle head and machine structure is the solid platform for high speed cutting.



Increased inclination of base chute eliminate need of flush coolant



To match greater accuracy and higher reliability at higher speed, VL-1050 is developed with high dynamic structure support and rapid axis acceleration. Broad base and heavy column improves vibration damping and balance the machine during machining with heavy cutting parameter. Broad table supported by precision LM guideways to offer high load carrying capacity. The series is best suited for high material removal from casting and forging preferred in die mould application.



Direct Drive Spindle (Optional)

STM Machines can be equipped with Direct Drive Spindle (optional feature) which will have zero transmission loss, stable temperature, low thermal expansion, low noise and low vibration they are suitable for various high speed cutting applications on different materials.

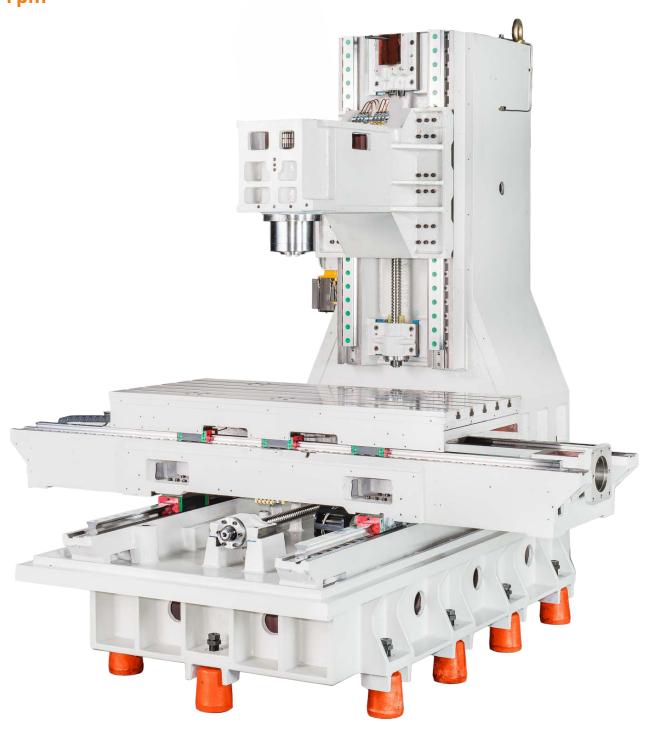


Balanced spindle ensures less vibration during heavy machining

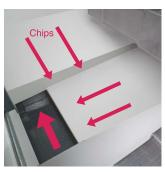


Large flow chip flushing function prevents cutting chips from accumulating inside the chip enclosure, bringing heat out of working area.

#40 Belt Drive Spindle
10,000 rpm
12,000 rpm / 15,000 rpm
#50 Belt Drive Spindle
6,000 rpm







Large flow chip flushing function prevents cutting chips from accumulating inside the chip enclosure, bringing heat out of working area



The Roller Type Linear Motion Guide ways features Low friction and free from stick-and-slip problems. Such the characteristics are especially suitable for high speed cutting and finishing. The quality of workpiece surface is increased; the need of manual polishing of workpiece surfaces is reduced.

#40 Belt Drive Spindle
8,000 rpm
10,000 rpm / 12,000 rpm (Optional)
#40 Direct Drive Spindle
10,000 - 15,000 rpm (Optional)

A UNIQUE FEATURE

The "A" Shaped Machine column which features extra Large conjunction area with the machine base so that the centre of gravity is Lowered. This enhances the cutting stability and damping co-efficient as well as achieving a high surface finish of work pieces.

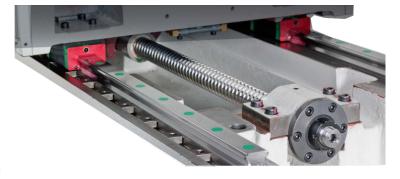




Roller Type Linear Guide Ways



The Roller Type Linear Motion Guide ways features Low friction and free from stick-and-slip problems. Such the characteristics are especially suitable for high speed cutting and finishing. The quality of workpiece surface is increased; the need of manual polishing of workpiece surfaces is reduced.



VL 1300 / VL 1600

#40 Belt Drive Spindle

8,000 rpm

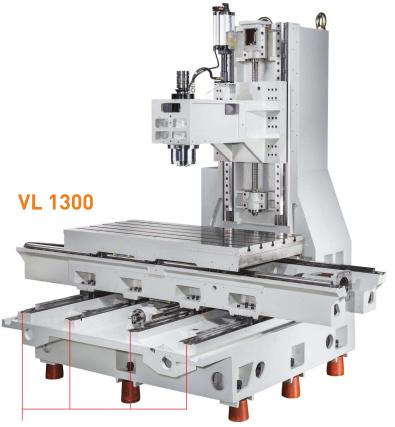
10,000 rpm / 12,000 rpm (Optional)

#40 Direct Drive Spindle 10,000 - 15,000 rpm

#50 Belt Drive Spindle 6,000 rpm



The sufficient depth from spindle center to machine column not only accommodates 700mm Y-axis travel but enables easy access for large diameter face milling cutter.



Full support on Y axis with 4 roller linear guide ways.



Six Roller Shoes are employed on the machine column that firmly supports the headstock to perform heavy duty cutting.



The VL1300/1600 employs high precision fine ground ball screws for optimum motion control accuracy.





BT#50, 6000 R.P.M. Spindle (optional) BT#50 spindle is ideal for heavy cutting application that results in higher material removal rate. In additional, the spindle also features high precision and low thermal growth.



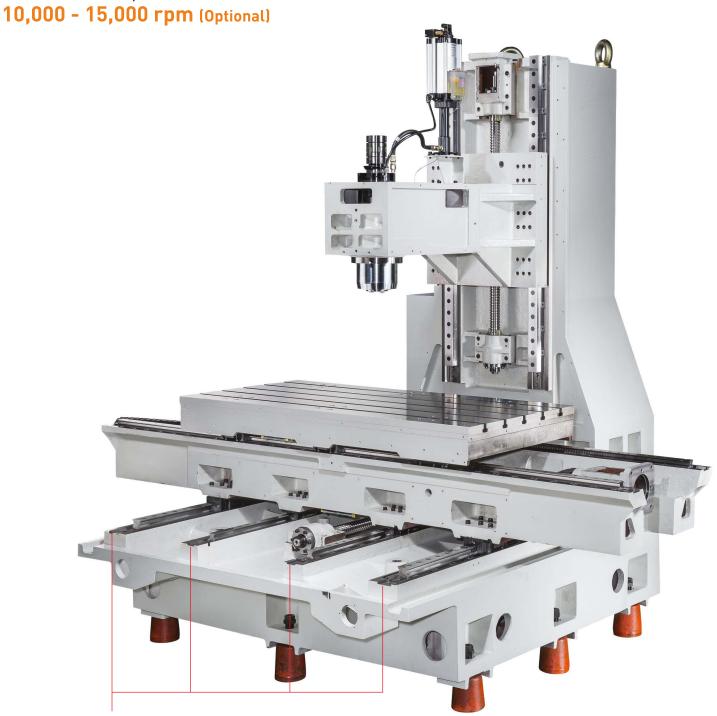
Double Chip Augers (Optional) The Double chip augers deliver

The Double chip augers deliver chips out of machine during cutting, that prevent chips from depositing in the machine. Another benefit is time saving in chip removal

#40 Belt Drive Spindle 8,000 rpm

10,000 rpm / 12,000 rpm (Optional)

#40 Direct Drive Spindle

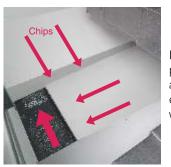


Full support on Y axis with 4 roller linear guide ways.





The Roller Type Linear Motion Guide ways features Low friction and free from stick-and-slip problems. Such the characteristics are especially suitable for high speed cutting and finishing. The quality of workpiece surface is increased; the need of manual polishing of workpiece surfaces is reduced.

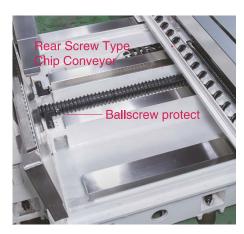


Large flow chip flushing function prevents cutting chips from accumulating inside the chip enclosure, bringing heat out of working area

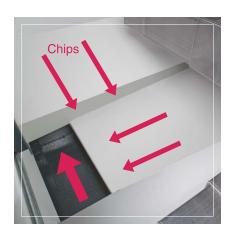
#40 Belt Drive Spindle
8,000 rpm
10,000 rpm / 12,000 rpm (Optional)
#40 Direct Drive Spindle
10,000 - 15,000 rpm (Optional)







Rear screw type chip conveyor and ball screw protect





Large flow chip flushing function prevents cutting chips from accumulating inside the chip enclosure, bringing heat out of working area

SPECIFICATIONS

Models	VL550	VL610	VL800	VL1000	VL1050
Travel					
X/Y/Z Travel	550/410/460 mm	610/460/510 mm	800/510/510 mm	1,020/510/560 mm	1,050/610/610mm
XYZ ballscrews	C3 32 mm	C3 40 mm	C3 40 mm	C3 40 mm	C3 40 mm
Spindle nose to table surface	130-590 mm	120~630 mm	140~650 mm	150~710 mm	150~760mm
Spindle center to column surface	430 mm	553 mm	556 mm	608 mm	717 mm
Table					
Table Size	600 x 320 mm	800 x 450 mm	950 x 500 mm	1,200 x 500 mm	1,150 x 600 mm
T-Slot(Size/Qty/Dist)	14 mm x 3 x 100 mm	18 mm x 5 x 100 mm	18 mm x 5 x 100 mm	18 mm x 5 x 100 mm	18 mm x 5 x 100 mm
Max.table load	500 kgs	600 kgs	800 kgs	900 kgs	1,000 kgs
Spindle					
Speed	8,000 rpm	8,000 rpm	8,000 rpm	8,000 rpm	8,000 rpm
Optional	(*10,000-24,000 rpm)	(10,000 - 15,000 rpm)	(10,000 - 15,000 rpm)	(10,000 - 15,000 rpm)	(10,000 - 15,000 rpm)
Taper	BT40	BT 40	BT 40	BT 40	BT 40
Spindle Power	3.5/5.5 KW (*5.5/7.5 KW)	5.5/7.5 KW (*7.5/11 KW)	7.5/11 KW (*11/15 KW)	7.5/11 KW (*11/5 KW)	7.5 / 11 KW (*11/15 KW)
Transmission	Belt Drive	Belt Drive	Belt Drive	Belt Drive	Belt Drive
Guide Ways Type	LM Guideways	LM Guideways	LM Guideways	LM Guideways	LM Guideways
Feed Rate		·			
Rapid feed rate of X/Y/Z Axis	36/36/36 m/min	36/36/36 m/min	36/36/36 m/min	36/36/36 m/min	36/36/36 m/min
Cutting feed rate	1-10,000 mm/min	1~10,000 mm/min	1~10,000 mm/min	1~10,000 mm/min	1~10,000 mm/min
Automatic Tool Changer					
Tool Storage Capacity	Arm 24 nos	Arm 24 nos	Arm 24 nos	Arm 24 nos	Arm 24 nos
Max.tool diameter (Arm Type)	Full: ø80 mm	Full: ø80 mm	Full: ø80 mm	Full: ø80 mm	Full: ø80 mm
	Next Empty: ø150 mm	Next Empty: ø150 mm	Next Empty: ø150 mm	Next Empty: ø150 mm	Next Empty: ø150 mm
Max.tool length (Arm Type)	300 mm	300 mm	300 mm	300 mm	300 mm
Max.tool Weight (Arm Type)	8 kgs	8 kgs	8 kgs	8 kgs	8 kgs
CNC Control & Motor					
CNC Control		M	itsubishi M80(*Fanuc/Siemo	ens)	
Axis Motors X/Y/Z	1.5 kW	2.0 / 2.0 / 3.0 KW	2.0 / 2.0 / 3.0 KW	2.0 / 2.0 / 3.0 KW	2.0 / 2.0 / 3.0 KW
Coolant					
Pressure	10 kg/cm ²	10 kg/cm²	10 kg/cm ²	10 kg/cm²	10 kg/cm²
Coolant Pump	0.75 Hp	0.75 HP	0.75 HP	0.75 HP	0.75 HP
Coolant Tank Capacity	180 L	230 L	230 L	230 L	380 L
Air & Power Supply					
Air Source	5-7 kg/cm ²	5-7 kg/cm²	5-7 kg/cm ²	5-7 kg/cm²	5-7 kg/cm ²
Power Supply	15 KVA	15 KVA	20 KVA	20 KVA	25 KVA
Machine Size					
Machine dimensions (LxWxH)	2,000 x 2,305 x 2,460 mm	2,170 x 2,450 x 2,840 mm	2,600 x 2,310 x 2,750 mm	2,900 x 2,420 x 2,840 mm	3,450 x 2,890 x 3,600 mm
Machine net weight (approx.)	4,000 kgs	4,500 kgs	5,000 kgs	5,500 kgs	6,800 kgs

STANDARD ACCESSORIES

- Full Guarding
- Rigid Tapping
- Coolant Pump
- Transformer
- Handwheel
- Panel AC

- Auto Lubrication
- LED Work light
- Signal Lamp
- Coolant Gun
- Air Gun
- Head Coolant
- Cutting Air
- Spindle Air Blast
- Tools Box
- Manuals
- USB/RJ45/RS232 Interface



VL1100 H3	VL1200	VL1300	VL1000	VL107U	VL2070
1,100/700/610mm	1,200/610/610mm	1,300/700/700mm 1,600/700/700mm		1,600/900/750mm	2,000/900/850mm
C3 40 mm	C3 40 mm	C3 45	mm	C3 50 mm	C3 50 mm
120~730mm	150~760mm	BT40:130~830 mm (Opt. BT 50:100-800 mm		150~900mm	150~1000mm
730 mm	717 mm	750	mm	950 mm	975 mm
1,250 x 630 mm	1,300 x 600 mm	1,450 x 700 mm	1,750 x 700 mm	1,850 x 900 mm	2,050 x 900 mm
18 mm x 5 x 100 mm	18 mm x 5 x 100 mm	18 mm x 5	x 100 mm	18 mm x 5 x 145 mm	18 mm x 5 x 145 mm
1,100 kgs	1,200 kgs	1,400 kgs	1,700 kgs	2,000 kgs	2,200 kgs
10,000 rpm	8,000 rpm	8,000	•	8,000 rpm	8,000 rpm
(12,000 - 15,000 rpm)	(10,000 - 15,000 rpm)	(10,000 - 1	5,000 rpm)	(10,000 - 15,000 rpm)	
BT 40	BT 40	BT 40 (0	pt. BT50)	BT 40 (Opt. BT50) BT 40 (Opt. BT50)	
7.5/11 KW (*11/15 KW)	7.5 / 11 KW (*11 / 15 KW)	11 / 15 KW (*15 /	18.5 KW for BT50)	15 / 18.5 (*18.5 / 22 KW for BT50)	
Belt Drive	Belt Drive	Belt	Drive	Belt Drive	Belt Drive
LM Roller Guideways	LM Roller Guideways	LM Roller Guideways		LM Guideways	LM Roller Guideways
36/36/36 m/min	36/36/36 m/min	30/30/24 m/min		24/24/15 m/min	24/24/15 m/min
1~15,000 mm/min	1~10,000 mm/min	1~10,000 mm/min		1~10,000 mm/min	1~10,000 mm/min
Arm 24 nos	Arm 24 nos			Arm 24 nos	Arm 24 nos
Full: ø75 mm	Full: ø80 mm			Full: ø80 mm	Full: ø80 mm
Next Empty: ø150 mm	Next Empty: ø150 mm			Next Empty: ø150 mm	Next Empty: ø150 mm
300 mm	300 mm	300 mm 300 mm		300 mm	300 mm
8 kgs	8 kgs	8 kgs 8 kgs		8 kgs	8 kgs
			O(*Fanuc/Siemens)		
3.5 / 3.5 / 3.5 KW	3/3/3 KW	3/3/	3 KW	7.0 / 7.0 / 7.0 KW	7.0 / 7.0 / 7.0 KW
40.1.4.0					
10 kg/cm²	10 kg/cm²	10kg/cm ²		10 kg/cm²	10 kg/cm²
0.75 HP	0.75 HP	0.75 Hp		0.75 HP	0.75 HP
270 L	380 L	490 L		400 L	400 L
5.51 / 2	5 F 1 / 2			5 5 4 2	5.51. / 2
5-7 kg/cm ²	5-7 kg/cm ²	5-7 kg/cm ²	5-7 kg/cm ²	5-7 kg/cm ²	5-7 kg/cm ²
25 KVA	25 KVA	25 KVA 25 KVA		25 KVA	35 KVA
0.400 0.550 0.050	2 /50 - 2 000 - 2 /62	0.450 0.045 0.064	/ /00 0 000 0 000	F 000 / 000 0 /F0	F 000 / 000 0 /F0
3,400 x 2,550 x 2,950 mm	3,450 x 2,890 x 3,600 mm	, , , , , , , , , , , , , , , , , , , ,	4,400 x 2,800 x 3,200 mm	5,800 x 4,000 x 3,650 mm	5,800 x 4,000 x 3,650 mm
7,800 kgs	7,500 kgs	8,850 kgs	11.000 kgs	17,500 kgs	18,500 kgs

OPTIONAL ACCESSORIES

- Fanuc Oi-MF/Siemens 828D SL
- Spindle Chiller
- 20 Bar Coolant through Spindle
- 16/20T Armless ATC (Selected Model)
- 200 mm Raiser Block (Selected Model)
- TPM

VL1100 HS

- 20/24/30T Arm Type ATC
- Flush Coolant
- Scrapper Type Chip Conveyor
- Screw Type Chip Conveyor
- Dual Type Chip Conveyor
- Automatic Grease Lubrication
- Oil Skimmer
- 4th Axis Cable Preparation
- 4th Axis Rotary Table
- Automatic Tool & Workpiece Measurement
- CE Safety

VD510

HIGH DYNAMICS HIGH EFFICIENT

For the part production industry every second counts VD510 is the right answer with higher rapid rates and high spindle rpm, non cutting time is greatly reduced resulting in lesser cycle time.

BT 30 Direct Drive Spindle

10,000 rpm (Standard)

12,000 rpm (Optional)

20,000 rpm (Optional)



Rapid X&YAxis : 48m/min
Z Axis : 60m/min
Spindle : 10,000 rpm



DIRECT DRIVE SPINDLE



REAR CHIP COLLECTOR



CHIP AUGER



SHOWER COOLANT



GREASE LUBRICATION



14 TOOL SERVO DRIVEN ATC

TP510 APC

For high volume of components, machine is equipped with Rotary type Pallet Changer with reduced component handling time.

BT 30 Direct Drive Spindle

10,000 rpm (Standard) 12,000 rpm (Optional) 20,000 rpm (Optional)



Rapid X & Y Axis : 48m/min Z Axis : 60m/min Spindle : 10,000rpm



ROTARY PALLET CHANGER



REAR CHIP COLLECTOR



DUAL CHIP AUGER (OPT.)



HEAD COOLANT



14 TOOL SERVO DRIVEN ATC

VL610 APC

For high volume of components, machine is equipped with hydraulic clamping with rack and pinion rotary type pallet changer with reduced pallet changing time.

BT 40 Belt Drive Spindle

8,000 rpm (Standard) 10,000 rpm (Optional)





AUTO SHIELD DOOR FOR APC



AUTO PALLET CHANGER



COOLANT FLUSH DEVICE FOR APC SHIELD



LINEAR MOTION GUIDEWAYS

SPECIFICATIONS



Taper BT 30 BT 30 BT 40 Transmission Direct Drive Direct Drive Belt Drive (Opt. Direct Drive) Feed Rate Rapid Feed Rate X,Y,Z Axes 48/48/60 m/mm 48/48/60 m/mm 36/36/36 m/mm Cutting Feed Rate 1~12,000 mm/min 1~20,000 mm/mm 1-10,000 mm/mm Automatic Tool Changer Type Disc Type *(Servo Driven) Arm Type Tool Storage Capacity 14 Tools 14 tools (Opt. 21 Tools) 24 Tools Max. Tool Diameter Ø 80 mm Ø 80 mm Ø 80 mm Max. Tool Length 200 mm 200 mm 300 mm Max. Tool Weight 3 kgs 3 kgs 8 kgs CNC Controller Mistubishi M80 (*Fanuc / Siemens) Spindle Motor 3.5/5.5 kW 3.5/5.5 kW 5.5/7.5 (*7.5/11) Axis Motors 1.5/1.5/3.0 kW 1.5/1.5/3.0 kW 2.0/2.0/3.0 kW Coolant Pressure 10 kg/cm² 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP 0.75 HP Tank Capacity 15 KVA 20 KVA	SPECIFICATION	VD510	TP510 APC	VL610 APC
X Y Z Ball Screws C3 32 mm C3 32 mm C3 32 mm Spindle Nose To Pallet Surface 170 - 500 mm 200 - 530 mm 120 - 580 mm Spindle Center To Column Surface 460 mm 429 mm 510 mm Table Size 650 X 400 mm 600 x 400 mm 600 x 400 mm T-Slot [Size / Oty / Dist.] 14mm x 3 x 125 mm 14mm x 3 x 100 mm Max. Table Load 300 kgs 250 kgs 200 kgs x 2 Pallet Spindle Speed 10,000 [Opt.12,000] rpm 10,000 [Opt. 12,000 / 20,000] rpm 8,000 [Opt. 10,000/15,000] rpm Taper BT 30 BT 30 BT 30 BT 40 Transmission Direct Drive Belt Drive [Opt. Direct Drive] Feed Rate Rapid Feed Rate 48/48/60 m/mm 48/48/60 m/mm 36/36/36 m/mm Cutting Feed Rate 1-12,000 mm/min 1-20,000 mm/mm 1-10,000 mm/mm Automatic Tool Changer Type Disc Type *[Servo Driven] Arm Type Tool Storage Capacity 14 Tools 14 tools [Opt. 21 Tools] 24 Tools Max. Tool Length 30 mm	Travel			
Spindle Nose To Pallet Surface 170 - 500 mm 200 - 530 mm 120 - 580 mm Spindle Center To Column Surface 460 mm 429 mm 510 mm Table Size 650 X 400 mm 600 x 400 mm 600 x 400 mm T-Slot (Size / Qty / Dist.) 14mm x 3 x 125 mm 14mm x 3 x 100 mm 14mm x 3 x 100 mm Max. Table Load 300 kgs 250 kgs 200 kgs x 2 Pallet Spindle Speed 10,000 (0pt.12,000) rpm 10,000 (0pt. 12,000 / 20,000) rpm 8,000 (0pt. 10,000/15,000) rpm Taper BT 30 BT 30 BT 40 Transmission Direct Drive Direct Drive Belt Drive (Opt. Direct Drive) Feed Rate Rapid Feed Rate 48/48/60 m/mm 48/48/60 m/mm 36/36/36 m/mm Cutting Feed Rate 1 ~ 12,000 mm/min 1 ~ 20,000 mm/mm 1 ~ 10,000 mm/mm Automatic Tool Changer Type Disc Type "(Servo Driven) Arm Type Tool Storage Capacity 14 tools (Opt. 21 Tools) 24 Tools Max. Tool Length 200 mm 200 mm 30 mm Max. Tool Weight <td>X/Y/Z Travel</td> <td>510 / 406 / 330 mm</td> <td>510 / 400 / 330 mm</td> <td>550/400/460 mm</td>	X/Y/Z Travel	510 / 406 / 330 mm	510 / 400 / 330 mm	550/400/460 mm
Spindle Center To Column Surface 460 mm 429 mm 510 mm Table Size 650 X 400 mm 600 x 400 mm 600 x 400 mm T-Slot (Size / Oty / Dist.) 14mm x 3 x 125 mm 14mm x 3 x 100 mm 14mm x 3 x 100 mm Max. Table Load 300 kgs 250 kgs 200 kgs x 2 Pallet Spindle Speed 10,000 (Opt.12,000) rpm 10,000 (Opt. 12,000 / 20,000) rpm 8,000 (Opt. 10,000/15,000) rpm Taper BT 30 BT 30 BT 40 Transmission Direct Drive Belt Drive (Opt. Direct Drive) Feed Rate Petransmission Belt Drive (Opt. Direct Drive) Feed Rate 48/48/60 m/mm 48/48/60 m/mm 36/36/36 m/mm Cutting Feed Rate 1-12,000 mm/min 1-20,000 mm/mm 1-10,000 mm/mm Automatic Tool Changer Type Disc Type "(Servo Driven) Arm Type Tool Storage Capacity 14 Tools 14 tools (Opt. 21 Tools) 24 Tools Max. Tool Diameter Ø 80 mm Ø 80 mm Ø 80 mm Ø 80 mm Max. Tool Length 3 kgs 3 kgs 8 kgs <	X Y Z Ball Screws	C3 32 mm	C3 32 mm	C3 32 mm
Table Size 650 X 400 mm 600 x 400 mm 600 x 400 mm T-Slot [Size / Qty / Dist.] 14mm x 3 x 125 mm 14mm x 3 x 100 mm 14mm x 3 x 100 mm Max. Table Load 300 kgs 250 kgs 200 kgs x 2 Pallet Spindle 5 200 kgs x 2 Pallet Speed 10,000 (Opt.12,000) rpm 8,000 (Opt. 10,000/15,000) rpm Taper BT 30 BT 40 Transmission Direct Drive Belt Drive (Opt. Direct Drive) Feed Rate 84/48/60 m/mm 36/36/36 m/mm Cutting Feed Rate 1~12,000 mm/min 36/36/36 m/mm Automatic Tool Changer Type Disc Type "(Servo Driven) Arm Type Tool Storage Capacity 14 Tools 14 tools (Opt. 21 Tools) 24 Tools Max. Tool Diameter Ø 80 mm Ø 80 mm Ø 80 mm Ø 80 mm Max. Tool Length 3 kgs 3 kgs 8 kgs CNC Controller Spindle Motor 3.5/5.5 kW 3.5/5.5 kW 5.5/7.5 (*7.5/11) Axis Motors 1.5/1.5/3.0 kW 1.5/1.5/3.0 kW 2.0/2.0/3.0 kW Coolant 150	Spindle Nose To Pallet Surface	170 - 500 mm	200~530 mm	120~580 mm
T-Slot (Size / Qty / Dist.) 14mm x 3 x 125 mm 14mm x 3 x 100 mm 14mm x 3 x 100 mm 1200 kgs x 2 Pallet 200 kg A 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Spindle Center To Column Surface	460 mm	429 mm	510 mm
Max. Table Load 300 kgs 250 kgs 200 kgs x 2 Pallet Speed 10,000 (Opt. 12,000 / 20,000) rpm 10,000 (Opt. 12,000 / 20,000) rpm 8,000 (Opt. 10,000/15,000) rpm Taper BT 30 BT 30 BT 40 Transmission Direct Drive Belt Drive (Opt. Direct Drive) Feed Rate Peed Rate Rapid Feed Rate (Alg./48/60 m/mm 48/48/60 m/mm 36/36/36 m/mm Cutting Feed Rate 1-12,000 mm/min 1-20,000 mm/mm 1-10,000 mm/mm Automatic Tool Changer Type Disc Type *(Servo Driven) Disc Type *(Servo Driven) Arm Type Tool Storage Capacity 14 Tools 14 tools (Opt. 21 Tools) 24 Tools Max. Tool Diameter Ø 80 mm Ø 80 mm Ø 80 mm Ø 80 mm Max. Tool Length 200 mm 300 mm 8 kgs CNC Controller Mistubishi M80 (*Fanuc / Siemens) Spindle Motor 3.5 / 5.5 kW 3.5/5.5 kW 5.5 / 7.5 (*7.5/11) Axis Motors 1.5 / 1.5 / 3.0 kW 1.5 / 1.5 / 3.0 kW 2.0 / 2.0 / 3.0 kW Coolant Pressure 10 kg/cm² 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP	Table Size	650 X 400 mm	600 x 400 mm	600 x 400 mm
Spindle Spindle Speed 10,000 (Opt.12,000) rpm 10,000 (Opt. 12,000 / 20,000) rpm 8,000 (Opt. 10,000/15,000) rpm Taper BT 30 BT 30 BT 40 Transmission Direct Drive Belt Drive (Opt. Direct Drive) Feed Rate Feed Rate 8,000 (Opt. 10,000/15,000) rpm Rapid Feed Rate 48/48/60 m/mm 48/48/60 m/mm 36/36/36 m/mm Cutting Feed Rate 1~12,000 mm/min 1~20,000 mm/mm 1-10,000 mm/mm Automatic Tool Changer Type Disc Type *(Servo Driven) Arm Type Tool Storage Capacity 14 Tools 14 tools (Opt. 21 Tools) 24 Tools Max. Tool Diameter Ø 80 mm Ø 80 mm Ø 80 mm Max. Tool Diameter Ø 80 mm Ø 80 mm Ø 80 mm Max. Tool Weight 3 kgs 3 kgs 8 kgs CNC Controller Niistubishi M80 (*Fanuc / Siemens) 5.5 / 7.5 (*7.5/11) Axis Motors 1.5 / 1.5 / 3.0 kW 3.5 / 5.5 kW 5.5 / 7.5 (*7.5/11) Axis Motors 1.5 / 1.5 / 3.0 kW 1.0 kg/cm² 10 kg/cm² Pump Pow	T-Slot (Size / Qty / Dist.)	14mm x 3 x 125 mm	14mm x 3 x 100 mm	14mm x 3 x 100 mm
Speed 10,000 (Opt.12,000) rpm 10,000 (Opt. 12,000 / 20,000) rpm 8,000 (Opt. 10,000/15,000) rpm Taper BT 30 BT 30 BT 40 Transmission Direct Drive Direct Drive Belt Drive (Opt. Direct Drive) Feed Rate Rapid Feed Rate 1~12,000 mm/mm 48/48/60 m/mm 36/36/36 m/mm Cutting Feed Rate 1~12,000 mm/min 1~20,000 mm/mm 1-10,000 mm/mm Automatic Tool Changer Type Disc Type *(Servo Driven) Arm Type Tool Storage Capacity 14 Tools 14 tools (Opt. 21 Tools) 24 Tools Max. Tool Diameter Ø 80 mm Ø 80 mm Ø 80 mm Max. Tool Length 200 mm 200 mm 300 mm Max. Tool Weight 3 kgs 3 kgs CNC Controller Mistubishi M80 (*Fanuc / Siemens) Spindle Motor 3.5/5.5 kW 3.5/5.5 kW 5.5/7.5 (*7.5/11) Axis Motors 1.5/1.5/3.0 kW 2.0/2.0/3.0 kW Coolant Pressure 10 kg/cm² 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP	Max. Table Load	300 kgs	250 kgs	200 kgs x 2 Pallet
Taper BT 30 BT 30 BT 40 Transmission Direct Drive Direct Drive Belt Drive (Opt. Direct Drive) Feed Rate Rapid Feed Rate X,Y,Z Axes 48/48/60 m/mm 48/48/60 m/mm 36/36/36 m/mm Cutting Feed Rate 1~12,000 mm/min 1~20,000 mm/mm 1-10,000 mm/mm Automatic Tool Changer Type Disc Type *(Servo Driven) Arm Type Tool Storage Capacity 14 Tools 14 tools (Opt. 21 Tools) 24 Tools Max. Tool Diameter Ø 80 mm Ø 80 mm Ø 80 mm Max. Tool Length 200 mm 200 mm 300 mm Max. Tool Weight 3 kgs 3 kgs 8 kgs CNC Controller Mistubishi M80 (*Fanuc / Siemens) 5.5 / 7.5 (*7.5/11.) Spindle Motor 3.5 / 5.5 kW 3.5 / 5.5 kW 5.5 / 7.5 (*7.5/11.) Axis Motors 1.5 / 1.5 / 3.0 kW 1.5 / 1.5 / 3.0 kW 2.0 / 2.0 / 3.0 kW Coolant Pressure 10 kg/cm² 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP 0.75 HP Tank Capacity 15 KVA <td>Spindle</td> <td></td> <td></td> <td></td>	Spindle			
Transmission Direct Drive Direct Drive Belt Drive (Opt. Direct Drive) Feed Rate Fe	Speed	10,000 (Opt.12,000) rpm	10,000 (Opt. 12,000 / 20,000) rpm	8,000 (Opt. 10,000/15,000) rpm
Feed Rate 48/48/60 m/mm 48/48/60 m/mm 36/36/36 m/mm Cutting Feed Rate 1~12,000 mm/min 1~20,000 mm/mm 1-10,000 mm/mm Automatic Tool Changer Type Disc Type *(Servo Driven) Disc Type *(Servo Driven) Arm Type Tool Storage Capacity 14 Tools 14 tools (Opt. 21 Tools) 24 Tools Max. Tool Diameter Ø 80 mm Ø 80 mm Ø 80 mm Max. Tool Length 200 mm 300 mm 300 mm Max. Tool Weight 3 kgs 3 kgs 8 kgs CNC Controller Mistubishi M80 (*Fanuc / Siemens) Spindle Motor 3.5 / 5.5 kW 3.5 / 5.5 kW 5.5 / 7.5 (*7.5/11) Axis Motors 1.5 / 1.5 / 3.0 kW 5.5 / 7.5 (*7.5/11) Axis Motors 1.5 / 1.5 / 3.0 kW 2.0 / 2.0 / 3.0 kW Colant Pressure 10 kg/cm² 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP 0.75 HP Tank Capacity 15 KVA 15 KVA 20 KVA Machine Size Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm	Taper	BT 30	BT 30	BT 40
Rapid Feed Rate X,Y,Z Axes 48/48/60 m/mm 36/36/36 m/mm Cutting Feed Rate 1~12,000 mm/min 1~20,000 mm/mm 1-10,000 mm/mm Automatic Tool Changer Type Disc Type *(Servo Driven) Arm Type Tool Storage Capacity 14 Tools 14 tools (Opt. 21 Tools) 24 Tools Max. Tool Diameter Ø 80 mm Ø 80 mm Ø 80 mm Max. Tool Length 200 mm 300 mm 300 mm Max. Tool Weight 3 kgs 8 kgs CNC Controller Mistubishi M80 (*Fanuc / Siemens) Spindle Motor 3.5 / 5.5 kW 3.5/5.5 kW 5.5 / 7.5 (*7.5/11) Axis Motors 1.5 / 1.5 / 3.0 kW 1.5 / 1.5 / 3.0 kW 2.0 / 2.0 / 3.0 kW Coolant Pressure 10 kg/cm² 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP 0.75 HP Tank Capacity 15 L 150 L 150 L Power Supply 15 KVA 15 KVA 20 KVA Machine Size Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	Transmission	Direct Drive	Direct Drive	Belt Drive (Opt. Direct Drive)
Cutting Feed Rate 1~12,000 mm/min 1~20,000 mm/mm 1-10,000 mm/mm Automatic Tool Changer Type Disc Type *(Servo Driven) Disc Type *(Servo Driven) Arm Type Tool Storage Capacity 14 Tools 14 tools (Opt. 21 Tools) 24 Tools Max. Tool Diameter Ø 80 mm Ø 80 mm Ø 80 mm Max. Tool Length 200 mm 300 mm 300 mm Max. Tool Weight 3 kgs 8 kgs CNC Controller Mistubishi M80 (*Fanuc / Siemens) Spindle Motor 3.5 / 5.5 kW 3.5 / 5.5 kW 5.5 / 7.5 (*7.5/11) Axis Motors 1.5 / 1.5 / 3.0 kW 2.0 / 2.0 / 3.0 kW Coolant 10 kg/cm² 10 kg/cm² 10 kg/cm² Pressure 10 kg/cm² 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP 0.75 HP Tank Capacity 15 KVA 15 KVA 20 KVA Machine Size 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	Feed Rate			
Automatic Tool Changer Type Disc Type *(Servo Driven) Disc Type *(Servo Driven) Arm Type Tool Storage Capacity 14 Tools 14 tools (Opt. 21 Tools) 24 Tools Max. Tool Diameter Ø 80 mm Ø 80 mm Ø 80 mm Max. Tool Length 200 mm 300 mm 300 mm Max. Tool Weight 3 kgs 8 kgs CNC Controller Mistubishi M80 (*Fanuc / Siemens) Spindle Motor 3.5 / 5.5 kW 3.5 / 5.5 kW 5.5 / 7.5 (*7.5/11.) Axis Motors 1.5 / 1.5 / 3.0 kW 1.5 / 1.5 / 3.0 kW 2.0 / 2.0 / 3.0 kW Coolant Pressure 10 kg/cm² 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP 0.75 HP Tank Capacity 150 L 150 L 150 L Power Supply 15 KVA 15 KVA 20 KVA Machine Size Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	Rapid Feed Rate X,Y,Z Axes	48/48/60 m/mm	48/48/60 m/mm	36/36/36 m/mm
Tool Storage Capacity 14 Tools 14 tools (Opt. 21 Tools) 24 Tools Max. Tool Diameter Ø 80 mm Ø 80 mm Ø 80 mm Max. Tool Length 200 mm 300 mm 300 mm Max. Tool Weight 3 kgs 8 kgs CNC Controller Mistubishi M80 (*Fanuc / Siemens) Spindle Motor 3.5 / 5.5 kW 5.5 / 7.5 (*7.5/11) Axis Motors 1.5 / 1.5 / 3.0 kW 2.0 / 2.0 / 3.0 kW Coolant Pressure 10 kg/cm² 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP 0.75 HP Tank Capacity 150 L 150 L 150 L Power Supply 15 KVA 15 KVA 20 KVA Machine Size Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	Cutting Feed Rate	1~12,000 mm/min	1~20,000 mm/mm	1-10,000 mm/mm
Max. Tool Diameter Ø 80 mm Ø 80 mm Ø 80 mm Max. Tool Length 200 mm 300 mm 300 mm Max. Tool Weight 3 kgs 8 kgs CNC Controller Mistubishi M80 (*Fanuc / Siemens) Spindle Motor 3.5 / 5.5 kW 5.5 / 7.5 (*7.5/11) Axis Motors 1.5 / 1.5 / 3.0 kW 2.0 / 2.0 / 3.0 kW Coolant Pressure 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP 0.75 HP Tank Capacity 150 L 150 L 150 L Power Supply 15 KVA 15 KVA 20 KVA Machine Size Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	Automatic Tool Changer Type	Disc Type *(Servo Driven)	Disc Type *(Servo Driven)	Arm Type
Max. Tool Length 200 mm 300 mm Max. Tool Weight 3 kgs 8 kgs CNC Controller Mistubishi M80 (*Fanuc / Siemens) Spindle Motor 3.5 / 5.5 kW 3.5 / 5.5 kW 5.5 / 7.5 (*7.5/11) Axis Motors 1.5 / 1.5 / 3.0 kW 2.0 / 2.0 / 3.0 kW Coolant Pressure 10 kg/cm² 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP 0.75 HP Tank Capacity 150 L 150 L 150 L Power Supply 15 KVA 15 KVA 20 KVA Machine Size Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	Tool Storage Capacity	14 Tools	14 tools (Opt. 21 Tools)	24 Tools
Max. Tool Weight 3 kgs 8 kgs CNC Controller Mistubishi M80 (*Fanuc / Siemens) Spindle Motor 3.5 / 5.5 kW 5.5 / 7.5 (*7.5/11) Axis Motors 1.5 / 1.5 / 3.0 kW 2.0 / 2.0 / 3.0 kW Coolant Pressure 10 kg/cm² 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP 0.75 HP Tank Capacity 150 L 150 L 150 L Power Supply 15 KVA 15 KVA 20 KVA Machine Size Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	Max. Tool Diameter	Ø 80 mm	Ø 80 mm	Ø 80 mm
CNC Controller Mistubishi M80 (*Fanuc / Siemens) Spindle Motor 3.5 / 5.5 kW 5.5 / 7.5 (*7.5/11) Axis Motors 1.5 / 1.5 / 3.0 kW 2.0 / 2.0 / 3.0 kW Coolant Pressure 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP Tank Capacity 150 L 150 L Power Supply 15 KVA 15 KVA Machine Size 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	Max. Tool Length	200 mm	200 mm	300 mm
Spindle Motor 3.5 / 5.5 kW 3.5 / 5.5 kW 5.5 / 7.5 (*7.5/11) Axis Motors 1.5 / 1.5 / 3.0 kW 2.0 / 2.0 / 3.0 kW Coolant V Pressure 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP Tank Capacity 150 L 150 L Power Supply 15 KVA 15 KVA Machine Size V Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm	Max. Tool Weight	3 kgs	3 kgs	8 kgs
Axis Motors 1.5 / 1.5 / 3.0 kW 2.0 / 2.0 / 3.0 kW Coolant 10 kg/cm² 10 kg/cm² Pressure 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP Tank Capacity 150 L 150 L Power Supply 15 KVA 15 KVA Machine Size Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	CNC Controller		Mistubishi M80 (*Fanuc / Siemens)	
Coolant Pressure 10 kg/cm² 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP 0.75 HP Tank Capacity 150 L 150 L 150 L Power Supply 15 KVA 15 KVA 20 KVA Machine Size Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	Spindle Motor	3.5 / 5.5 kW	3.5/5.5 kW	5.5 / 7.5 (*7.5/11)
Pressure 10 kg/cm² 10 kg/cm² 10 kg/cm² Pump Power 0.75 HP 0.75 HP 0.75 HP Tank Capacity 150 L 150 L 150 L Power Supply 15 KVA 15 KVA 20 KVA Machine Size Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	Axis Motors	1.5 / 1.5 / 3.0 kW	1.5 / 1.5 / 3.0 kW	2.0 / 2.0 / 3.0 kW
Pump Power 0.75 HP 0.75 HP 0.75 HP Tank Capacity 150 L 150 L 150 L Power Supply 15 KVA 15 KVA 20 KVA Machine Size Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	Coolant			
Tank Capacity 150 L 150 L 150 L Power Supply 15 KVA 15 KVA 20 KVA Machine Size Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	Pressure	10 kg/cm ²	10 kg/cm²	10 kg/cm ²
Power Supply 15 KVA 15 KVA 20 KVA Machine Size Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	Pump Power	0.75 HP	0.75 HP	0.75 HP
Machine Size Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	Tank Capacity	150 L	150 L	150 L
Machine Dimensions (LxWxH) 1600 x 2150 x 2320 mm 3197 x 1650 x 2435 mm 2000 x 2960 x 2740 mm	Power Supply	15 KVA	15 KVA	20 KVA
	Machine Size			
Machine Weight 2800 kgs 3500 kgs 4200 kgs	Machine Dimensions (LxWxH)	1600 x 2150 x 2320 mm	3197 x 1650 x 2435 mm	2000 x 2960 x 2740 mm
- J J.	Machine Weight	2800 kgs	3500 kgs	4200 kgs

STANDARD ACCESSORIES

(* optional)

Air Gun

Signal Lamp

Tools Box

Electronic Counter Balance

Panel AC

Full Guarding

Manuals

Cutting Air

Automatic Centralized Lubrication System

Work light

Rigid Tapping

Spindle Air Blast

Coolant Gun

Remote Handwheel

Head Coolant system

Transformer

USB/RJ45/RS232 Interface

OPTIONAL ACCESSORIES

- Oil Skimmer
- 200 mm Raiser Column
- Flush Coolant
- Dual Type Chip Conveyor
- Rotary Indexer
- Spindle Power 5.5/7.5 KW
- Oil Mist Collector
- Scrapper Type Chip Conveyor
- Spindle Oil Cooler Steel Belt Type Chip Conveyor
- Automatic Workpiece Measurement

Coolant Through Spindle 30 Bar

- Automatic Tool Length Measurement
- 4th Axis Rotary table with cable preparation

INSPECTION STANDARDS



BALLBAR TEST All machines are inspected by a Ballbar test to ensure machining accuracy.



LASER INSPECTION SYSTEM
All 3 axis are checked by a Laser test to ensure positioning and repeating accuracy.



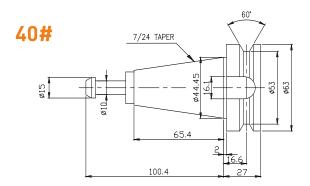
SPINDLE NOISE & VIBRATION INSPECTION
All spindles are balanced

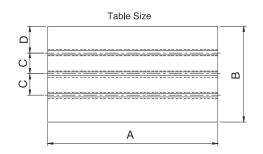
All spindles are balanced less than 3μ at 8000 rpm

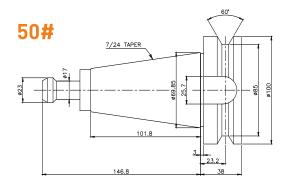


SPINDLE MOTOR BALANCING

Spindle motors are balanced after assembling pulley and coupling this enhance the life of the spindle and motor.







MODEL	Α	В	С	D	T-slot Q'ty
VL 510	600	320	100	60	3
VL 310	000	320	100	00	<u> </u>
VL610	800	450	100	125	3
VL800	1000	500	100	50	5
VL1000	1200	500	100	50	5
VL1050	1150	600	100	100	5
VL1200	1300	600	100	100	5
VL1300	1450	700	125	100	5
VL1600	1750	700	125	100	5

CHIP CONVEYOR ▼	TYPES OF CHIPS►	Curly Iron	Metallic	Non-Curly	Foundry	Curly Aluminum	Aluminum	Brass	Non-Metallic
Steel belt / Standard Model		©	©			©			0
Scraper Type / Standard model (Suitable for dry chip under 60mm)				©	©		©	©	
Scraper Type / Precision model (Suitable for chips between 2 - 60 mm)				©	©		©	©	
Scraper Type / Magnetic Model (Suitable for dry chip under 60mm)				©	©				
Scraper Type / Precision Magnetic Model (Suitable for chips between 2 - 60 mm)				©	©				
Roller T (Internal / External) (Suital				©	©		©	©	©
Dual Be	elt Type	©	©	©	©	©	©	©	©

OPTIONAL







ROTARY TABLE



RING COOLANT



TOOL LENGTH MEASUREMENT SYSTEM



CHIP CONVEYOR



FLUSH COOLANT



THROUGH COOLANT (CTS - COOLANT THROUGH SPINDLE)



WORK PIECE MEASUREMENT SYSTEM



GREASE LUBRICATION



REAR CHIP DISPOSAL ON VL800 MACHINES



Semi Guarding

*Optional Selected Model

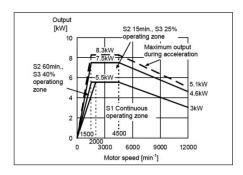


Stand Alone Operating Panel

*Optional Selected Model

SPINDLE SPEED VS TORQUE CHART

FANUC



Output [kW]

15

S2 15min., S3 25% operating zone

12 kW

Maximum output during acceleration s3 40% operating zone

2.4kW

3 coperating zone

2.4kW

3 coperating zone

15 Continuous

3 coperating zone

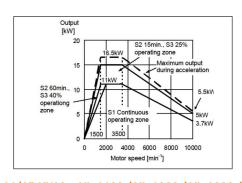
1.5kW

2.4kW

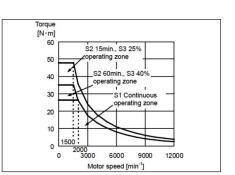
3 coperating zone

1.5kW

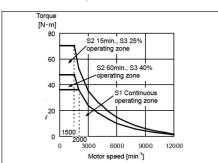
Modor speed [min⁻¹]



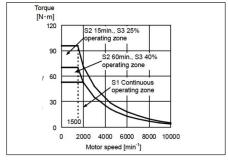
5.5/7.5 KW for VL550



7.5/11 KW for VL 610 / VL 800 / VL 1000 / VL1050



11/15 KW for VL 1100 / VL 1200 / VL 1300 / VL 1600 / VL 1690 / 2090

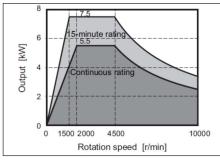


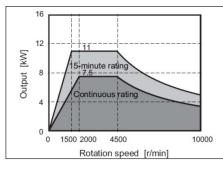
5.5/7.5 KW for VL550

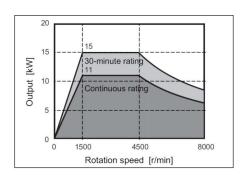
7.5/11 KW for VL 610 / VL 800 / VL 1000 / VL1050

11/15 KW for VL 1100 / VL 1200 / VL 1300 / VL 1600 / VL 1690 / 2090

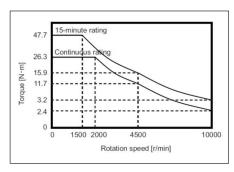
MITSUBISHI



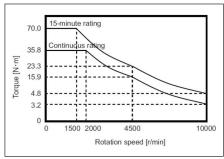




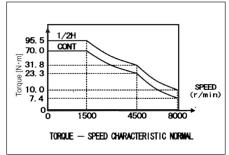
5.5/7.5 KW for VL550



7.5/11 KW for VL 610 / VL 800 / VL 1000 / VL1050



11/15 KW for VL 1100 / VL 1200 / VL 1300 / VL 1600 / VL 1690 / 2090



5.5/7.5 KW for VL550

7.5/11 KW for VL 610 / VL 800 / VL 1000 / VL1050

11/15 KW for VL 1100 / VL 1200 / VL 1300 / VL 1600 / VL 1690 / 2090

CORPORATE OFFICE



S & T MACHINERY PVT LTD

Corporate Office: 22, Vasanth Nagar, Singanallur, Coimbatore - 641 005. INDIA. **Factory**: 60/4, 2,3, Mahatma Gandhi Road, Near SIHS Colony, Coimbatore-641014. Phone No 0422 - 2590810

S&T SALES & SERVICE NETWORK



AHMEDABAD

Shed No.115,Parisikhar Cottage Industrial Estate, Part - I, Near Ramol Toll Plaza, Ramol, SP Ring Road, Ahmedabad (East) – 382 449. Phone No: 9909010389



BENGALURU

Site No. 12 1st Main, 1st Cross, Sharadhamba Nagar Jalahalli, Bangalore: 560 013. Phone No: 9901213827



CHENNAI

Bo: 12/30 4th Pillayar Koil Street, Ekkatuthangal, Chennai -97. Phone No : 9789989655



COIMBATORE

1st Floor, 22, Vasanth Nagar, Singanallur, Coimbatore - 641 005. INDIA. Phone No: 9842257363



HOSUR

No.4/318, Moovendar Nagar, Bagalur Road, Hosur- 635 109. Phone No : 9972500090



HYDERABAD

Plot no: 175, Prashanthi Nager, I.E, Kukkatpully, Hyderabad – 500 072. Phone No : 9000012586



KERALA

40/90/F, Second Floor, Pimco Tower Eloor Road, Appolo Tyres Junction, North Kalamassery, Ernakulam-683104. Phone No: 9947201511



KOLKATA

Gitangali Apartment, Flat no-6-C-3, 406 Garfa Main Road, Kolkata-700075. Phone No: 8420017311



PUNJAB

Chandigarh Phone No: 9988426614



MUMBAI

Unit No. 220, 2nd floor, Blue Rose Industrial Estate, Western Express Highway, Borivali East, Mumbai 400 066. Phone No: 7506418256



PUNE

No: 17, Jai Tulje Bhavani Industrial Premises, Plot No:bg- 74(a) Midc, Bhosari, Pune- 411039.

Phone No: 9970764621



VAPI

18, 1st Floor, Mohid Tower, Beside HDFC Bank, Daman Road Chala. Vapi, Gujarat. 396191. Phone No : 9099096705



NOIDA

C/o S&T Welcare pvt Ltd B-40, sector -65 noida -201307 Phone No : 9718883008



FARIDABAD & GURGAON

3A/169 NIT Faridabad -121001 Phone No : 9718883196, 9718889219



- **** 0422 2590810, 2591470, 2593487 **⊕** 0422 2573629

BRANCHES

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