

封底

封面



YSP[®]

**High Rigidity
High Accuracy**

CNC Heavy Duty
Vertical Lathe Series

The Power To Turn The World

CUTTING DIA.

● Ø 800

● Ø 1000

● Ø 1200

● Ø 1600

● Ø 2000

● Ø 2500

● Ø 3000

● Ø 4000

● Ø 5000



Yu Shine Precision Machine Co.,Ltd

No 538 Xiucai Rd Yangmei District Taoyuan City 32651

Tel +886 -3-288-8899 • Fax +886-3-288-8866 • Email inquiry@ysp.tw

www.yspcnc.com

www.yspcnc.com

Yu Shine Precision Machine Co.,Ltd

封面裡

Production & Manufacturing

- ◆ **Quality Stability**
Standardization of Production
- ◆ **Rapid Delivery**
Planned Inventory Production
- ◆ **Unique Machine to Meet Demand**
Customized Design Experience

Company Profile

High Rigidity · High Accuracy · Customized

Yu Shine established in 1983 and started from producing varied customized & special purpose machines. We develop & provide a machine for major manufacturers of Motorcycle, Automotive, Aerospace, Ship-building and Heavy Vehicles/Truck in Japan, USA, and Europe.

React to market demand, YSP gradually transfers as CNC vertical lathe manufacturer. Based on customized knowledge and experience in various industries which made YSP became the first Taiwan manufacturer who provides customer full automatic or semi-automatic robot production line in 1989 and turns the high risk, high pollution and high labor jobs to carry by robots.

YSP has a wealth of technical experience to offer customer complete solutions like customized design machines, improving work efficiency, optimizing production line layout, tooling selection, and design special tool holders...etc.

YSP has kept innovating and learning year by year to supply a machine that fulfills the customer requirement and creates profit for the customer, in order to establish win-win cooperation.

Products supplied by YSP has passed CE(European qualified certification), ISO9001(International standardization organization).

Our high precision, high rigidity, and stable quality products are reliable and recognized by worldwide customers and distributors. YSP has references over 56 countries in Germany, Japan, Russia, Italy, the United Kingdom, France, United State...etc. We also participate in major international machine tool exhibitions like Emo, CCMT, JIMTOF, IMTS, and TIMTOS which gain high evolution.

封底裡

AUXILIARY / SPINDLE SPEED FUNCTION

1. Costant Surface Speed Control	STD
2. Spindle Override	50~120%
3. Actual Spindle Speed Output	STD
4. Spindle Orientation	STD
5. Spindle Output Switching Function	STD
6. Spindle Positioning	STD
7. Ragid Tapping	STD
8. M Code Function	M2 Digit
9. S Code Function	S5 Digit
10. T Code Function	T4 Digit

TOOL FUNCTION / TOOL COMPENSATION

1. Tool Function	T7+1/T6+2/T5+3
2. Tool Offset Pairs	128
3. Tool Radius / Tool Nose Radius Compensation	STD
4. Tool Geometry / Wear Compensation	STD
5. Tool Offset Value Counter Input	STD
6. Automatic Tool Offset	STD
7. Direct Input of Tool Offset Value Measured	STD
8. Direct Input of Tool Offset Value Measured B	STD
9. Tool Life Management	STD
10. Extended Tool Life Management	STD

EDITING OPERATION

1. Part Program Storage Size	1Mbyte
2. Number of Registerable Programs	800
3. Part Program Editing	STD
4. Extended Part Program Editing	STD
5. Program Protect	STD
6. Password Function	STD
7. Background Editing	STD
8. High Speed Program Management	STD

SETTING AND DISPLAY

1. Status Display	STD
2. Clock Function	STD
3. Current Position Display	STD

SETTING AND DISPLAY

4. Program Comment Display	Program Name31Characters
5. Parameter Setting and Display	STD
6. Parameter Check Sum Function	STD
7. Alarm Display	STD
8. Alarm History Display	STD
9. Run Hour and Parts Count Display	STD
10. Actual Cutting Feedrate Display	STD
11. Display of Spindle Speed and T Code at All Screens	STD
12. Operation Monitor Screen	STD
13. Maintenance Information Screen	STD
14. Trouble Diagnosis	STD
15. Multi - Language Display	25 Kinds
16. Data Protection Key	STD
17. Erase CRT Screen Display	Manual or Automatic
18. Parameter Setting Support Screen	STD
19. Help Function	STD
20. Self - Diagnosis Function	STD
21. Periodic Manitenance Screen	STD
22. Servo Information Screen	STD
23. Spindle Information Screen	STD
24. Graphic Display	STD

DATA INPUT / OUTPUT

1. Memory Card Input / Output	STD
2. Interface	RS-232
3. External Workpiece Number	9999
4. Automatic Data Backup	STD

INTERFACE FUNCTION

1. Ethernet	STD
2. Enhanced Embedded Ethernet Function	STD

OPTIONAL

1. Manual Guide Function	
2. Part Program Storage Size	2 Mbyte

VL & VLF & 2VL Series



FANUC 0i-TF CNC Specifications

STANDARD

AXIS CONTROL

1. Max. Control Feed Axes	4 Axes
2. Max. Control Spindle Axes	2 Axes
3. Axis Synchronous Control	STD
4. Increment System	IS-A, IS-B
5. Increment System C	0.0001 mm 0.0001 deg 0.00001 inch
6. HRV 3 Control	STD
7. Inch / Metric Conversion	STD
8. Interlock	STD
9. Machine Lock	STD
10. Emergency Stop	STD
11. Overtravel	STD
12. Mirror Image	STD
13. Follow Up	STD

OPERATION

1. Automatic Operation (Memory)	STD
2. MDI Operation	STD
3. DNC Operation	STD
4. DNC Operation with Memory Card (CF Card and Card Attachment is Required)	STD
5. Schedule Function	STD
6. Sequence Number Search	STD
7. Sequence Number Comparison and Stop	STD
8. Program Restart	STD
9. Manual Intervention and Return	STD
10. Wrong Operation Prevention	STD
11. Buffer Register	STD
12. Dry Run	STD
13. Single Block	STD
14. Jog Feed	STD
15. Manual Reference Position Return	STD
16. Manual Handle Feed Rate	$\times 1, \times 10, \times 100$

ACCURACY COMPENSATION FUNCTION

1. Backlash Compensation	STD
2. Backlash Compensation for Each Rapid Traverse and Cutting feed	STD
3. Smooth Backlash Compensation	STD
4. Smart Backlash Compensation	STD

INTERPOLATION FUNCTIONS

1. Nano Interpolation	STD
2. Exat Stop Mode	G61
3. Tapping Mode	G63
4. Cutting Mode	G64
5. Exat Stop	G09
6. Linear Interpolation	STD
7. Circular Interpolation	STD
8. Dwell	Dwell in Seconds and dwell in revolution
9. Polar Coordinate Interpolation	STD
10. Cylindrical Interpolation	STD
11. Thread Cutting, Synchronous Cutting	STD
12. Multi Threading	STD
13. Thread Cutting Retract	STD
14. Continuous Threading	STD
15. Variable Lead Thread Cutting	STD
16. Polygon Turning	STD
17. Polygon Machining With Two Spindles	STD
18. Skip	G31
19. Multi-Step Skip	STD
20. High-Speed Skip	STD
21. Torque Limit Skip	STD
22. Reference Position Return	G28
23. Reference Position Return Check	G27
24. 2nd Reference Position Return	STD
25. 3rd/4th Reference Position Return	STD

FEED FUNCTION

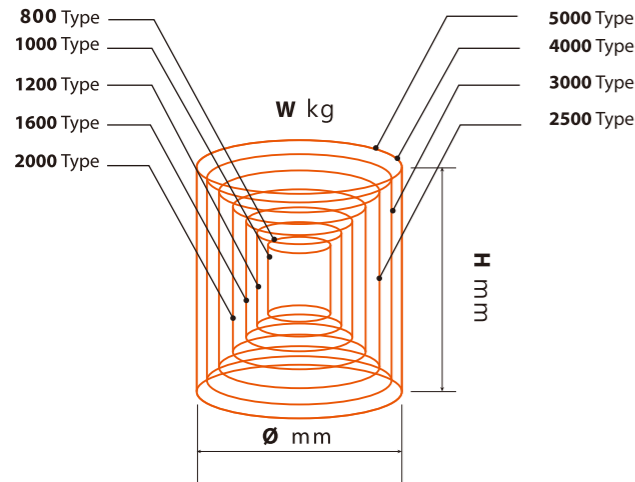
1. Rapid Traverse Override	F0、25、50、100%
2. Feed per Minute	G98
3. Feed per Revolution	G99
4. Tangential Speed Constant Control	STD
5. Cutting Feedrate Clamp	STD
6. Automatic Acceleration/Deceleration	STD
7. Linear Acceleration / Deceleration After Cutting feed Interpolation	STD
8. Bell-Type Acceleration / Deceleration After Cutting Feed Interpolation	STD
9. Feedrate Override	0~150%
10. Override Cancel	STD

PROGRAM INPUT

1. Program Code	EIA / ISO
2. Label Skip	STD
3. Parity Check (Horizontal and Vertical Parity)	STD
4. Control In/Out	STD
5. Optional Block Skip	9
6. Max. Programmable Dimension	± 9 Digit
7. Program File Name	32 Characters
8. Sequence Number	N8 Digit
9. Absolute / Incremental Programming	STD
10. Decimal Point Programming / Pocket Calculator Type Decimal Point Programming	STD
11. Input Unit 10 time Multiply	STD
12. Diameter/Radius Programming	STD
13. Plane Selection	G17、G18、G19
14. Rotary Axis Designation	STD
15. Rotary Axis Roll-Over	STD
16. Coordinate System Setting	STD
17. Automatic Coordinate System Setting	STD
18. Workpiece Coordinate System	G52~G59
19. Workpiece Coordinate System Preset	STD
20. Direct Input of Workpiece Origin Offset Value Measured	STD
21. Manual Absolute On and Off	STD
22. Direct Drawing Dimension Programming	STD
23. G Code System	A/B/C
24. Chamfering / Corner R	STD
25. Programmable Data Input	G10
26. Programmable Parameter Input	STD
27. Sub Program Call	10 Folds Nested
28. Custom Macro	STD
29. Addition of Custom Macro Common Variables	#100~#199 #500~#999
30. Canned Cycle	STD
31. Multiple Repetitive Cycle	STD
32. Multiple repetitive CycleII (Pocket Profile)	STD
33. Canned Cycles for Drilling	STD
34. Circular Interpolation by R Programming	R,J,K 12 Digit
35. Coordinate System Rotation	STD
36. Pattern Data Input	STD
37. Conversational Programming with Graphic Function	STD

Contents

01	Workpiece Size and Workpiece
02	VL Series Machine Specifications
03 04	VL Series Machine Specifications
05	VLF Series Machine Specifications
06	2VL Series Machine Specifications
07 08	VL Table Output Performance Chart
09	VLF Table Output Performance Chart
10	2VL Table Output Performance Chart
11 12	C Axis Motor Table Output Performance Chart
13	Tooling System
14	Working Range
15 16	VL&VLF&2VL Machine Dimensions
17 18	Optional Accessories
19 20	CNC Specifications

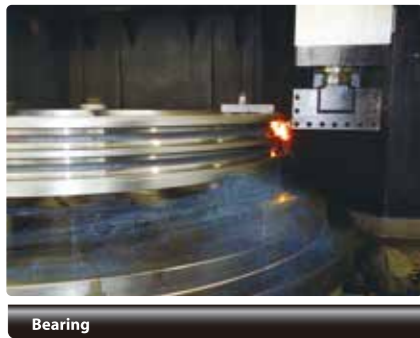


VL / 2VL Series								
Type	1000	1200	1600	2000	2500	3000	4000	5000
Ø mm	1150	1350	1800	2300	2800	3400	4500	5600
H mm	1070	1350	1350	1700	1700	1650	1800	2200
W kg	4000	5000	8000	10000	15000	20000	40000	50000

VLF 系列			
型號	1000	1200	1600
Ø mm	1150	1350	1800
H mm	500 (750/1000)	650 (1050/1450)	650(1050/1450)
W kg	4000	5000	8000

(Opt.) = Optional N/A = Not Available * Specifications are subject to change without notice.

Unit	VL-800ATC	VL-800ATC+C	VL-1000ATC	VL-1000ATC+C	
CAPACITY					
Table Diameter	mm	Ø 800	Ø 800	Ø 1,000	Ø 1,000
Max Swing Diameter	mm	Ø 1,100	Ø 1,100	Ø 1,350	Ø 1,350
Max Turning Diameter	mm	Ø 1,000	Ø 1,000	Ø 1,200	Ø 1,200
Max Turning Height	mm	700	700	1,070	1,070
Max Load on Table	kg	3,000	3,000	4,000	4,000
#1 SPINDLE-TABLE					
Spindle Speed-Low	rpm	2~181	2~181	2~200	2~200
Spindle Speed-Height	rpm	182~600	182~600	201~600	201~600
Max.Torque	N.m	9,438	9,438	13,000	13,000
#2 SPINDLE-C AXIS					
Spindle Speed	rpm	N/A	2,400	N/A	2,400
Max.Torque	N.m	N/A	550	N/A	550
TRAVEL / FEEDRATE					
X AXIS TRAVEL	mm	1,150	1,150	1,350	1,350
Z AXIS TRAVEL	mm	700	700	800	800
Vertical Travel of Crossrail	mm	N/A	N/A	500	500
X AXIS Rapid Feedrate	m/min	12,000	12,000	12,000	12,000
Z AXIS Rapid Feedrate	m/min	10,000	10,000	10,000	10,000
Cutting Feedrate	mm/rev	0.01~50	0.01~50	0.01~50	0.01~50
Manual Feedrate	m/min	0~1,260	0~1,260	0~1,260	0~1,260
TOOLING					
No. of Tools		12Tools	12Tools	16Tools	16Tools
Type of Tool Shank		BT50	BT50	BT50	BT50
Max.Tool Weight	kg	50	50	50	50
Max.Loading of ATC	kg	360	450	360	360
Tool Change Time (ATC)	sec	40	40	30	30
MOTOR					
# 1 Spindle Motor (Cont/30mins)	kw	37/45	37/45	37/45 (60/75)	37/45 (60/75)
# 2 Spindle Motor (Cont/30mins)	kw	N/A	7.5/11(11/15)	N/A	7.5/11(11/15)
X Axis Servo Motor	kw	7.0	7.0	7.0	7.0
Z Axis Servo Motor	kw	7.0	7.0	7.0	7.0
CF Axis Servo Motor	kw	N/A	7.0	N/A	7.0
Crossrail Hoist Motor	kw	N/A	N/A	1.5	1.5
Hydraulic Motor	kw	3.75	3.75	3.75	3.75
Conveyor Motor	kw	0.18	0.18	0.375	0.375
Coolant Pump	kw	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35
CAPACITY					
Hydraulic Tank	Liter	100	100	100	100
Coolant Pump	Liter	700	700	700	700
MANCHINE BODY					
Manchine (L1 x W1)	mm	3700x3800	3700x3800	4600x6100	4600x6100
Manchine (H1)	mm	5,000	5,000	5,300	5,300
Manchine Weight	kg	17,000	17,000	25,000	25,000
Power Requirement	kva	75	85	75	85



VL SERIES Machine Specifications

(Opt.) = Optional N/A = Not Available * Specifications are subject to change without notice.

Unit	VL-1200ATC	VL-1200ATC+C	VL-1600ATC	VL-1600ATC+C	VL-2000ATC	VL-2000ATC+C	VL-2500ATC	VL-2500ATC+C	VL-3000ATC	VL-3000ATC+C	VL-4000ATC	VL-4000ATC+C	VL-5000ATC	VL-5000ATC+C	
CAPACITY															
Table Diameter	mm	Ø 1,250	Ø 1,250	Ø 1,600	Ø 1,600	Ø 2,000	Ø 2,000	Ø 2,500	Ø 2,500	Ø 3,000	Ø 3,000	Ø 4,000	Ø 4,000	Ø 5,000	Ø 5,000
Max Swing Diameter	mm	Ø 1,600	Ø 1,600	Ø 2,000	Ø 2,000	Ø 2,500	Ø 2,500	Ø 3,000	Ø 3,000	Ø 3,400	Ø 3,400	Ø 5,000	Ø 5,000	Ø 6,000	Ø 6,000
Max Turning Diameter	mm	Ø 1,350	Ø 1,350	Ø 1,800	Ø 1,800	Ø 2,300	Ø 2,300	Ø 2,800	Ø 2,800	Ø 3,400	Ø 3,400	Ø 5,000	Ø 5,000	Ø 6,000	Ø 6,000
Max Turning Height	mm	1,350	1,350	1,350	1,350	1,700	1,700	1,700	1,700	1,650	1,650	1,800	1,800	2,200	2,200
Max Load on Table	kg	5,000	5,000	8,000	8,000	10,000	10,000	15,000	15,000	20,000	20,000	40,000	40,000	50,000	50,000
#1 SPINDLE-TABLE															
Spindle Speed-Low	rpm	2~100	2~100	2~64	2~64	2~50	2~50	2~43	2~43	2~40	2~40	1~26	1~26	1~13	1~13
Spindle Speed-Height	rpm	101 ~300	101 ~300	6 ~256	65~256	51~200	51~200	44~160	44~160	41~120	41~120	27~60	27~60	14~40	14~40
Max.Torque	n.m	16,000	16,000	26,000	26,000	46,000	46,000	59,000	59,000	64,500	64,500	133,000	133,000	191,000	191,000
#2 SPINDLE-C AXIS															
Spindle Speed	rpm	N/A	2,400	N/A	2400	N/A	2400	N/A	2400	N/A	2400	N/A	2500	N/A	2500
Max.Torque	n.m	N/A	550	N/A	550	N/A	730	N/A	730	N/A	730	N/A	900	N/A	900
TRAVEL / FEEDRATE															
X AXIS TRAVEL	mm	1,475	1,475	1,675	1,675	2,275	2,275	2,525	2,525	2,775	2,775	3,100	3,100	6,600	6,600
Z AXIS TRAVEL	mm	900(1,200)	900(1,200)	900(1,200)	900(1,200)	1,000(1,400)	1,000(1,400)	1,000(1,400)	1,000(1,400)	1,000(1,400)	1,000(1,400)	1,400	1,400	1,400	1,400
Vertical Travel of Crossrail	mm	800	800	800	800	1,150	1,150	1,150	1,150	1,200	1,200	1,200	1,200	1,200	1,200
X AXIS Rapid Feedrate	m/min	12,000	12,000	12,000	12,000	10,000	10,000	10,000	10,000	10,000	10,000	8,000	8,000	6,000	6,000
Z AXIS Rapid Feedrate	m/min	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Cutting Feedrate	mm/rev	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50
Manual Feedrate	m/min	0~1,260	0~1,260	0~1,260	0~1,260	0~1,260	0~1,260	0~1,260	0~1,260	0~1,260	0~1,260	0~1,260	0~1,260	0~1,260	0~1,260
TOOLING															
No. of Tools		16Tools	16Tools	16Tools	16Tools	16Tools	16Tools	16Tools	16Tools	16Tools	16Tools	12Tools	12/16Tools	12Tools	12/16Tools
Type of Tool Shank		BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50
Max.Tool Weight	kg	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Max.Loading of ATC	kg	360	450	360	450	360	450	360	450	360	450	360	360/1500	450	360/1500
Tool Change Time (ATC)	sec	30	45	30	45	45	45	45	45	45	45	45	45	45	45
MOTOR															
# 1 Spindle Motor (Cont/30mins)	kw	37/45 (60/75)	37/45 (60/75)	37/45 (60/75)	37/45 (60/75)	60/75 (75/100)	60/75 (75/100)	60/75 (75/100)	60/75 (75/100)	60/75 (75/100)	60/75 (75/100)	100/120	100/120	100/120	100/120
# 2 Spindle Motor (Cont/30mins)	kw	N/A	7.5/11(11/15)	N/A	7.5/11(11/15)	N/A	11/15	N/A	11/15	N/A	11/15	N/A	15/18.5	N/A	15/18.5
X Axis Servo Motor	kw	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	9.0	9.0	9.0	9.0
Z Axis Servo Motor	kw	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	9.0	9.0	9.0	9.0
CF Axis Servo Motor	kw	N/A	7.0	N/A	7.0	N/A	7.0	N/A	7.0	N/A	7.0	N/A	9.0	N/A	9.0
Crossrail Hoist Motor	kw	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	14	14	14	14
Hydraulic Motor	kw	3.75	3.75	3.75	3.75	7.5	7.5	7.5	7.5	7.5	7.5	5.5	5.5	5.5	5.5
Conveyor Motor	kw	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.75	0.75	0.75	0.75
Coolant Pump	kw	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35
CAPACITY															
Hydraulic Tank	Liter	100	100	100	100	130	130	130	130	130	130	180	180	180	180
Coolant Pump	Liter	700	700	700	700	700	700	1100	1100	1100	1100	1100	1100	1500	1500
MANCHINE BODY															
Manchine (L1 x W1)	mm	4700x6200	4700x6200	5050x6700	5050x6700	4950x7900	4950x7900	5400x8200	5400x8200	6100x9000	6100x9000	8470x14750	8470x14750	8970x15750	8970x15750
Manchine (H1)	mm	5,700	5,700	5,700	5,700	6,800	6,800	6,800	6,800	6,900	6,900	8,500	8,500	9,000	9,000
Manchine Weight	kg	32,000	33,000	35,000	36,000	51,000	52,000	53,000	54,000	68,000	69,000	80,000	82,000	120,000	122,000
Power Requirement	kva	80	90	80	90	140	150	140	150	140	150	320	320	320	320

(Opt.) = Optional N/A = Not Available * Specifications are subject to change without notice.

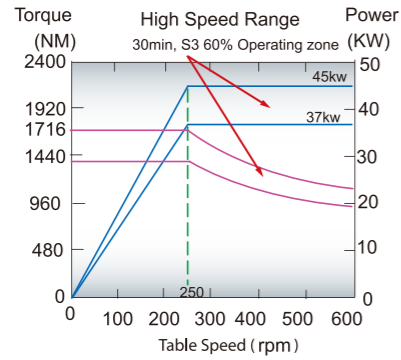
Unit	VLF-1000ATC	VLF-1000ATC+C	VLF-1200ATC	VLF-1200ATC+C	VLF-1600ATC	VLF-1600ATC+C	
CAPACITY							
Table Diameter	mm	Ø 1,000	Ø 1,000	Ø 1,250	Ø 1,250	Ø 1,600	Ø 1,600
Max Swing Diameter	mm	Ø 1,350	Ø 1,350	Ø 1,750	Ø 1,750	Ø 2,050	Ø 2,050
Max Turning Diameter	mm	Ø 1,150	Ø 1,150	Ø 1,400	Ø 1,400	Ø 1,800	Ø 1,800
Max Turning Height	mm	500 (750/1000)	500 (750/1000)	650 (1050/1450)	650 (1050/1450)	650 (1050/1450)	650 (1050/1450)
Max Load on Table	kg	4,000	4,000	5,000	5,000	8,000	8,000
#1 SPINDLE-TABLE							
Spindle Speed-Low	rpm	2~200	2~200	2~102	2~102	2~64	2~64
Spindle Speed-High	rpm	201~264	201~264	103~300	103~300	65~256	65~256
Max.Torque	n.m	13,000	13,000	18,000	18,000	25,000	25,000
#2 SPINDLE-C AXIS							
Spindle Speed	rpm	N/A	2,400	N/A	2,400	N/A	2,400
Max.Torque	n.m	N/A	410	N/A	410	N/A	410
TRAVEL / FEEDRATE							
X AXIS TRAVEL	mm	1,350	1,350	1,475	1,475	1,675	1,675
Z AXIS TRAVEL	mm	800	800	950(1350)	950(1350)	950(1350)	950(1350)
Vertical Travel of Crossrail	mm	N/A	N/A	N/A	N/A	N/A	N/A
X AXIS Rapid Feedrate	m/min	12,000	12,000	12,000	12,000	12,000	12,000
Z AXIS Rapid Feedrate	m/min	10,000	10,000	10,000	10,000	10,000	10,000
Cutting Feedrate	mm/rev	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50
Manual Feedrate	m/min	0~1,260	0~1,260	0~1,260	0~12,60	0~1,260	0~1,260
TOOLING							
No. of Tools		16Tools	16Tools	16Tools	16Tools	16Tools	16Tools
Type of Tool Shank		Special	BT50	Special	BT50	Special	BT50
Max.Tool Weight	kg	50	50	50	50	50	50
Max. Loading of ATC	kg	360	450	360	450	360	450
Tool Change Time (ATC)	sec	40	40	45	45	45	45
MOTOR							
# 1 Spindle Motor (Cont/30mins)	kw	37/45 (60/75)	37/45 (60/75)	37/45 (60/75)	37/45 (60/75)	37/45 (60/75)	37/45 (60/75)
# 2 Spindle Motor (Cont/30mins)	kw	N/A	7.5/11(11/15)	N/A	7.5/11(11/15)	N/A	7.5/11(11/15)
X Axis Servo Motor	kw	7.0	7.0	7.0	7.0	7.0	7.0
Z Axis Servo Motor	kw	7.0	7.0	7.0	7.0	7.0	7.0
CF Axis Servo Motor	kw	N/A	7.0	N/A	7.0	N/A	7.0
Hydraulic Motor	kw	1.5	1.5	1.5	1.5	1.5	1.5
Conveyor Motor	kw	0.375	0.375	0.375	0.375	0.375	0.375
Coolant Pump	kw	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35
CAPACITY							
Hydraulic Tank	Liter	70	100	100	100	100	100
Coolant Pump	Liter	500	600	700	700	700	700
MANCHINE BODY							
Manchine (L1 x W1)	mm	4600x6100	4600x6100	4700x6200 4900	4700x6200 4900	5050x6270 4900	5050x6700 4900
Manchine (H1)	mm	4600(4900)	4600(4900)	(5300/5700)	(5300/5700)	(5300/5700)	(5300/5700)
Manchine Weight	kg	20000(21000)	20500(21500)	24000	24000	26000	26000
Power Requirement	kva	70	80	80	90	80	90

Unit	2VL-1600ATC	2VL-1600ATC+C	2VL-2000ATC	2VL-2000ATC+C	2VL-2500ATC	2VL-2500ATC+C	2VL-3000ATC	2VL-3000ATC+C	
CAPACITY									
Table Diameter	mm	Ø 1,600	Ø 1,600	Ø 2,000	Ø 2,000	Ø 2,500	Ø 2,500	Ø 3,000	Ø 3,000
Max Swing Diameter	mm	Ø 2,000	Ø 2,000	Ø 2,500	Ø 2,500	Ø 3,000	Ø 3,000	Ø 3,500	Ø 3,500
Max Turning Diameter	mm	Ø 1,800	Ø 1,800	Ø 2,300	Ø 2,300	Ø 2,800	Ø 2,800	Ø 3,400	Ø 3,400
Max Turning Height	mm	1,350	1,350	1,700	1,700	1,700	1,700	1,700	1,700
Max Load on Table	kg	8,000	8,000	10,000	10,000	15,000	15,000	20,000	20,000
#1 SPINDLE-TABLE									
Spindle Speed-Low	rpm	2~64	2~64	2~50	2~50	2~43	2~43	2~40	2~40
Spindle Speed-High	rpm	65~256	65~256	51~200	51~200	44~160	44~160	41~120	41~120
Max.Torque	n.m	32,000	32,000	46,000	46,000	57,000	57,000	64,500	64,500
#2 SPINDLE-C AXIS									
Spindle Speed	rpm	N/A	2,400	N/A	2400	N/A	2,400	N/A	2400
Max.Torque	n.m	N/A	550	N/A	730	N/A	730	N/A	730
TRAVEL / FEEDRATE									
X AXIS TRAVEL	mm	1,675	1,675	2,275	2,275	2,525	2,525	2,775	2,775
Z AXIS TRAVEL	mm	900(1200)	900(1200)	1000(1400)	1000(1400)	1000(1400)	1000(1400)	1000(1400)	1000(1400)
Vertical Travel of Crossrail	mm	800	800	1,150	1,150	1,150	1,150	1,200	1,200
X AXIS Rapid Feedrate	m/min	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Z AXIS Rapid Feedrate	m/min	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Cutting Feedrate	mm/rev	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50	0.01~50
Manual Feedrate	m/min	0~1260	0~1260	0~1260	0~1260	0~1260	0~1260	0~1260	0~1260
TOOLING									
No. of Tools		16Toolsx2	16Toolsx2	16Toolsx2	16Toolsx2	16Toolsx2	16Toolsx2	16Toolsx2	16Toolsx2
Type of Tool Shank		BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50
Max.Tool Weight	kg	50	50	50	50	50	50	50	50
Max. Loading of ATC	kg	360	450	360	450	360	450	360	450
Tool Change Time (ATC)	sec	45	45	45	45	45	45	45	45
MOTOR									
# 1 Spindle Motor (Cont/30mins)	kw	60/75	60/75	60/75 (100)	60/75 (100)	60/75 (100)	60/75 (100)	60/75 (100)	60/75 (100)
# 2 Spindle Motor (Cont/30mins)	kw	N/A	7.5/11	N/A	(11/15)	N/A	11/15	N/A	11/15
X Axis Servo Motor	kw	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Z Axis Servo Motor	kw	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
CF Axis Servo Motor	kw	N/A	7.0	N/A	7.0	N/A	7.0	N/A	7.0
Crossrail Hoist Motor	kw	3.75	3.75	5.5	5.5	5.5	5.5	7.5	7.5
Hydraulic Motor	kw	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
Conveyor Motor	kw	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375
Coolant Pump	kw	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35	3.6+1.35
CAPACITY									
Hydraulic Tank	Liter	130	130	130	130	130	130	130	130
Coolant Pump	Liter	1100	1100	1300	1300	1300	1300	1300	1300
MANCHINE BODY									
Manchine (L1 x W1)	mm	4800x7900	4800x7900	5500x9450	5500x9450	5970x9800	5970x9800	6700x10700	6700x10700
Manchine (H1)	mm	6100(6400)	6100(6400)	7300(7600)	7300(7600)	7300(7600)	7300(7600)	7400(7700)	7400(7700)
Manchine Weight	kg	38500	39500	55000	56000	58000	59000	71000	72500
Power Requirement	kva	140	175	145	185	140	185	140	185

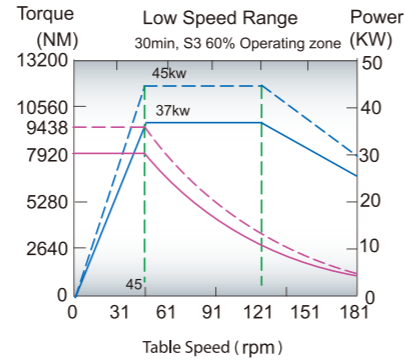
VL Table Output Performance Chart

VL-800

30 min ---
Cont. —



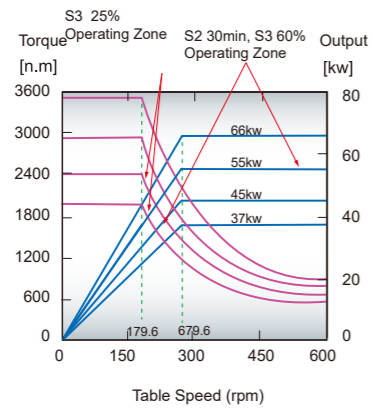
- Fanuc - α 40 / 7000i + Gear Box(1/1)
- 37 / 45 kw (50 / 60 hp)
- 2~600rpm/min



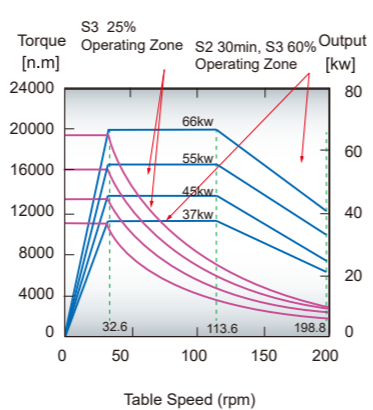
- Fanuc - α 40 / 7000i + Gear Box(1/4)
- 37 / 45 kw (50 / 60 hp)
- 2~181 rpm/min

VL-1000

30 min ---
Cont. —



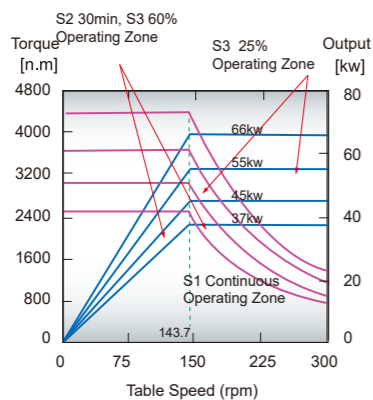
- Fanuc- α 40/7000i + Gear box (1/1)
- 37/45 kw
- 141~600 rpm (High Speed)



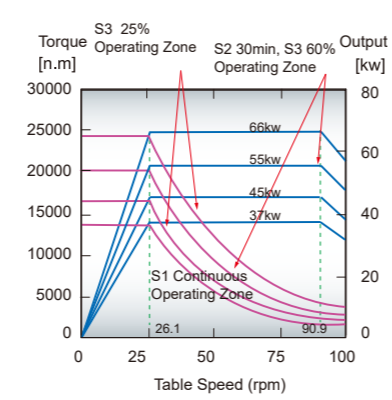
- Fanuc- α 40/7000i + Gear box (1/5.5)
- 37/45 kw
- 2~140 rpm (Low Speed)

VL-1200

30 min ---
Cont. —



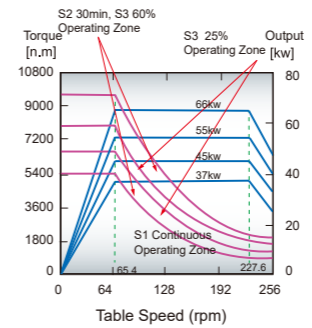
- Fanuc- α 40/7000i + Gear box (1/1)
- 37/45 kw
- 103~300 rpm (High Speed)



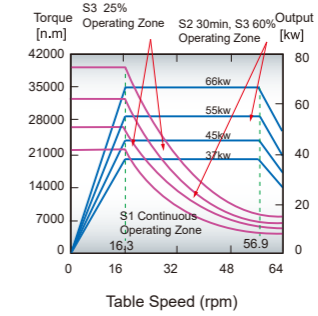
- Fanuc- α 40/7000i + Gear box (1/5.5)
- 37/45 kw
- 2~102 rpm (Low Speed)

VL-1600

30 min ---
Cont. —



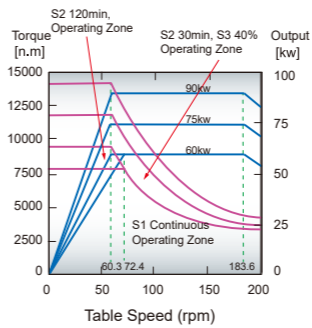
- Fanuc- α 40/7000i + Gear box (1/1)
- 37/45 kw
- 65~256 rpm (High Speed)



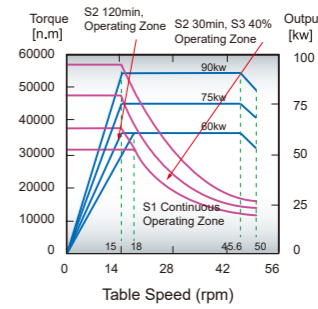
- Fanuc- α 40/7000i + Gear box (1/4)
- 37/45 kw
- 2~64 rpm (Low Speed)

VL-2000

30 min ---
Cont. —



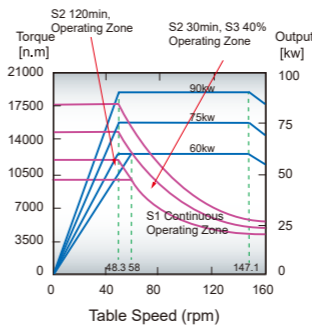
- Fanuc- α 60/5000i + Gear box (1/1)
- 65/75 kw
- 51~200 rpm (High Speed)



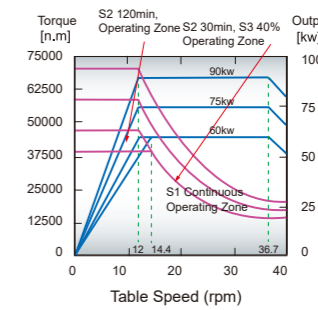
- Fanuc- α 60/5000i + Gear box (1/4)
- 60/75 kw
- 2~50 rpm (Low Speed)

VL-2500

30 min ---
Cont. —



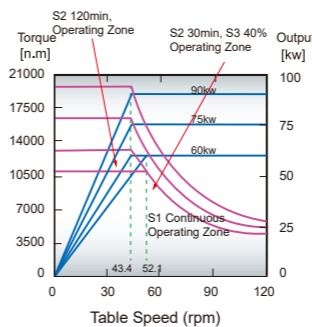
- Fanuc- α 60/5000i + Gear box (1/1)
- 65/75 kw
- 44~160 rpm (High Speed)



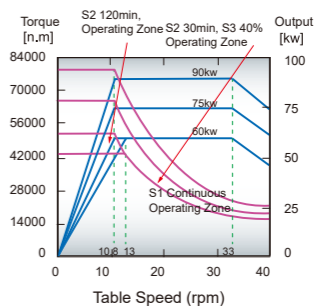
- Fanuc- α 60/5000i + Gear box (1/4)
- 60/75 kw
- 2~43 rpm (Low Speed)

VL-3000

30 min ---
Cont. —



- Fanuc- α 60/5000i + Gear box (1/1)
- 65/75 kw
- 41~120 rpm (High Speed)

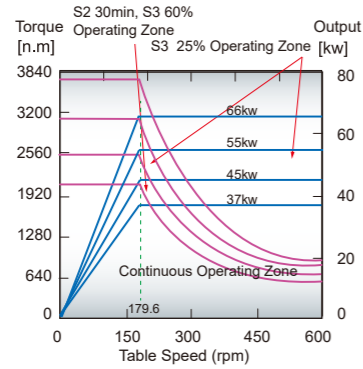


- Fanuc- α 60/5000i + Gear box (1/4)
- 60/75 kw
- 2~40 rpm (Low Speed)

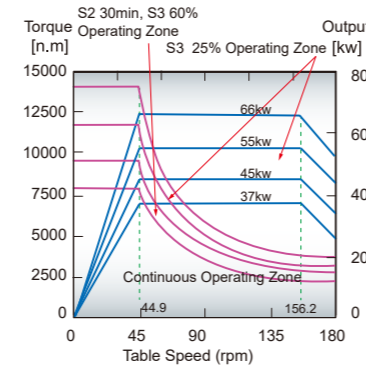
VLF Table Output Performance Chart

VLF - 1000

30 min ---
Cont. —



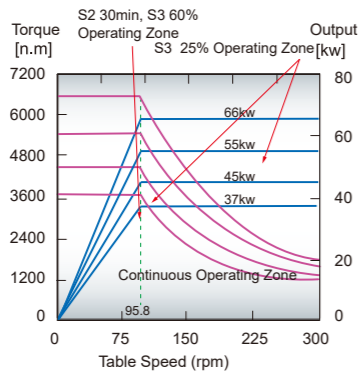
- Fanuc-α40/7000i + Gear box (1/1)
- 37/45/55/66 kw
- 141~600 rpm (High Speed)



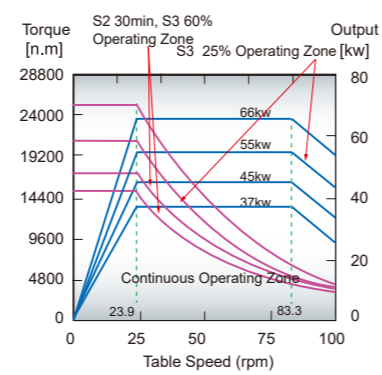
- Fanuc-α40/7000i + Gear box (1/4)
- 37/45/55/66 kw
- 2~140 rpm (Low Speed)

VLF-1200

30 min ---
Cont. —



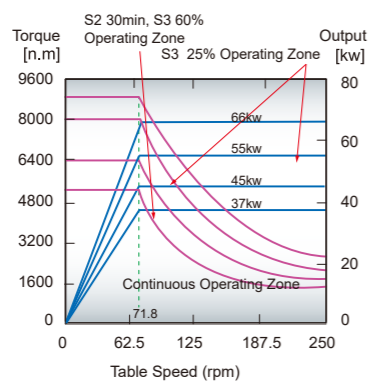
- Fanuc-α40/7000i + Gear box (1/1)
- 37/45/55/66 kw
- 103~300 rpm (High Speed)



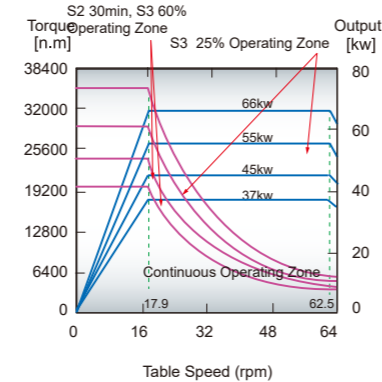
- Fanuc-α40/7000i + Gear box (1/4)
- 37/45/55/66 kw
- 2~102 rpm (Low Speed)

VLF -1600

30 min ---
Cont. —



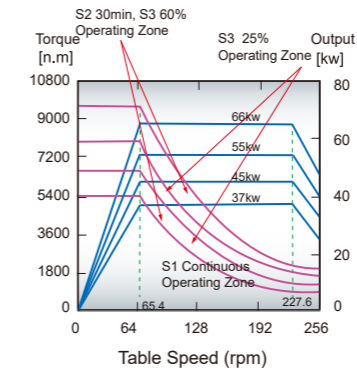
- Fanuc-α40/7000i + Gear box (1/1)
- 37/45/55/66 kw
- 65~256 rpm (High Speed)



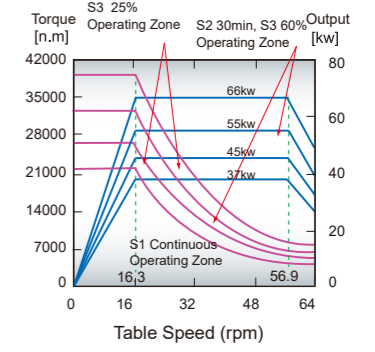
- Fanuc-α40/7000i + Gear box (1/4)
- 37/45/55/66 kw
- 2~64 rpm (Low Speed)

2VL-1600

30 min ---
Cont. —



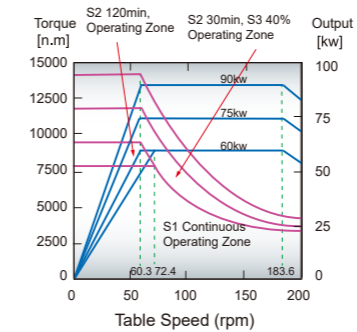
- Fanuc – α 60 / 4500HV_i + Gear Box (1/1)
- 60 / 75 kw (80 / 100 hp)
- 65~256 rpm (High Speed)



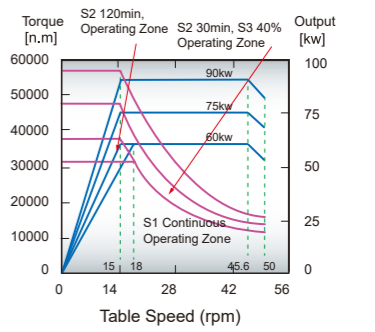
- Fanuc – α 60 / 4500HV_i + Gear Box (1/4)
- 60 / 75 kw (80 / 100 hp)
- 2~64 rpm (Low Speed)

2VL-2000

30 min ---
Cont. —



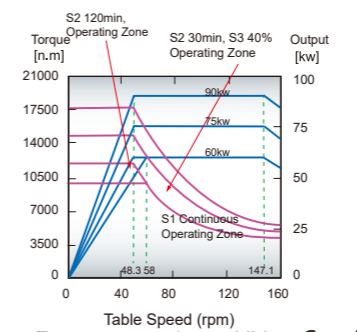
- Fanuc – α 60 / 4500HV_i + Gear Box (1/1)
- 60 / 75 kw (80 / 100 hp)
- 51~200 rpm (High Speed)



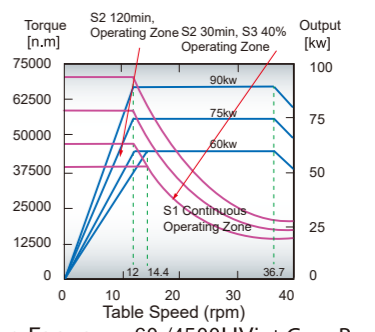
- Fanuc – α 60 / 4500HV_i + Gear Box (1/4)
- 60 / 75 kw (80 / 100 hp)
- 2~50 rpm (Low Speed)

2VL-2500

30 min ---
Cont. —



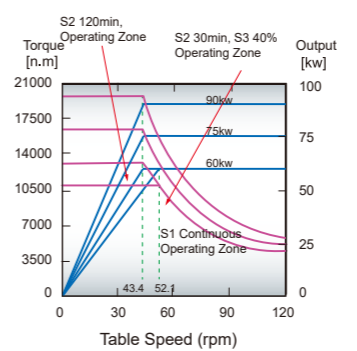
- Fanuc – α 60 / 4500HV_i + Gear Box (1/1)
- 60 / 75 kw (80 / 100 hp)
- 44~160 rpm (High Speed)



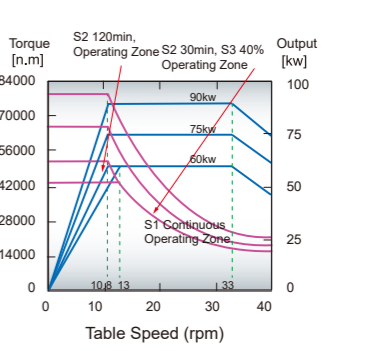
- Fanuc – α 60 / 4500HV_i + Gear Box (1/4)
- 60 / 75 kw (80 / 100 hp)
- 2~43 rpm (Low Speed)

2VL-3000

30 min ---
Cont. —



- Fanuc – α 60 / 4500HV_i + Gear Box(1/1)
- 60 / 75 kw (80 / 100 hp)
- 41~120 rpm (High Speed)



- Fanuc – α 60 / 4500HV_i + Gear Box(1/4)
- 60 / 75 kw (80 / 100 hp)
- 2~40 rpm (Low Speed)

C Axis Motor Table Output Performance Chart

C Axis

Power spindle combines the spindle motor and a 2 step transmission to provide powerful face milling, end milling, drilling, tapping and grinding.



CF Axis

High resolution servo motor with precision worm and worm gear assure high precision indexing up to 6 arc seconds. A second power spindle for multi-side machining and complex parts machining (e.g. cam) is also available. Turning, milling, drilling and tapping are accomplished in a single set up. This greatly reduces workpiece set-up time and saves machine related costs.

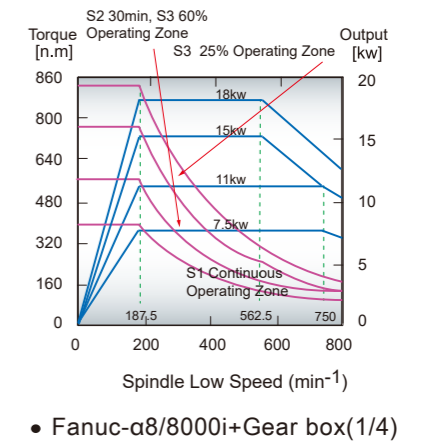
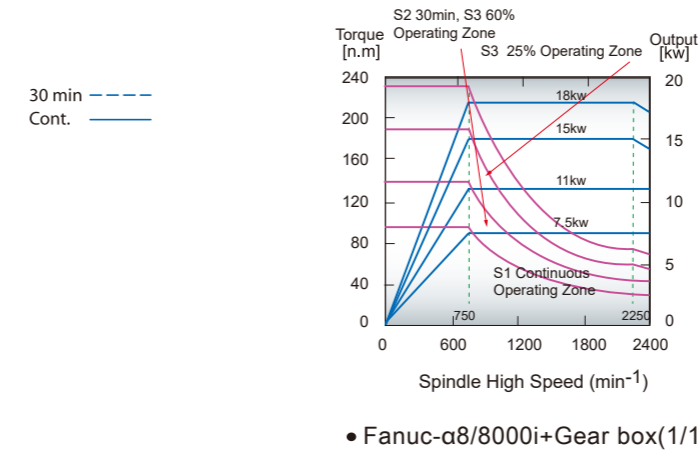


Multi-function Machining

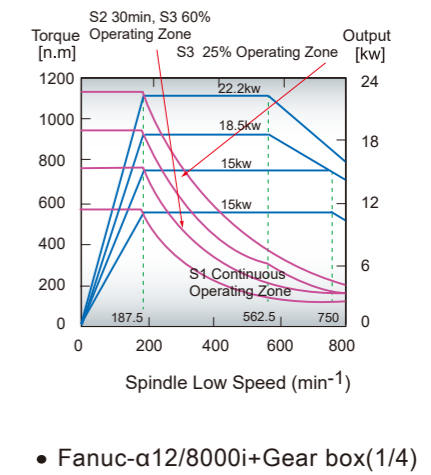
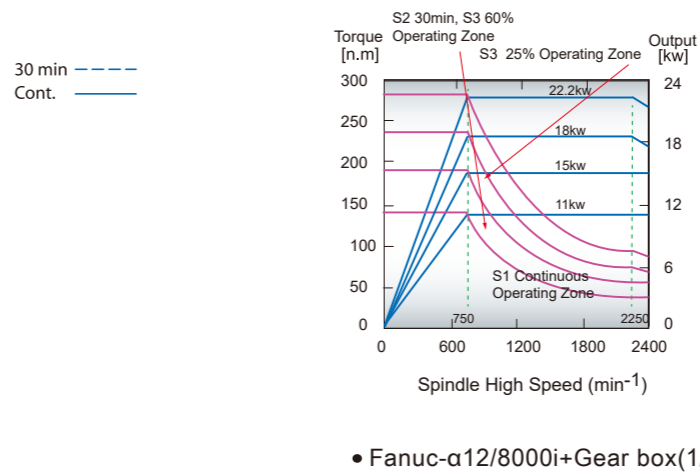
Equipped with a second power spindle, the C and CF axis provide turning, face milling, side milling, drilling, grinding and tapping operations all in a single set-up.



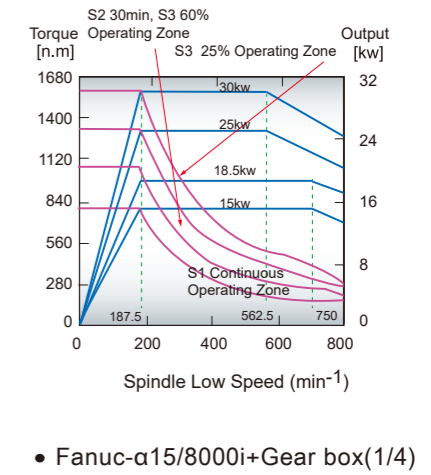
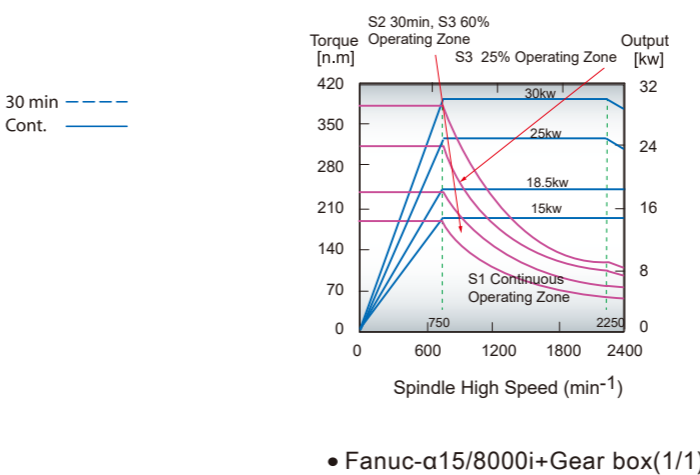
VL - 1000/1200/1600 Series



VL - 1000/1200/1600 Series VL - 2000/2500/3000 Series

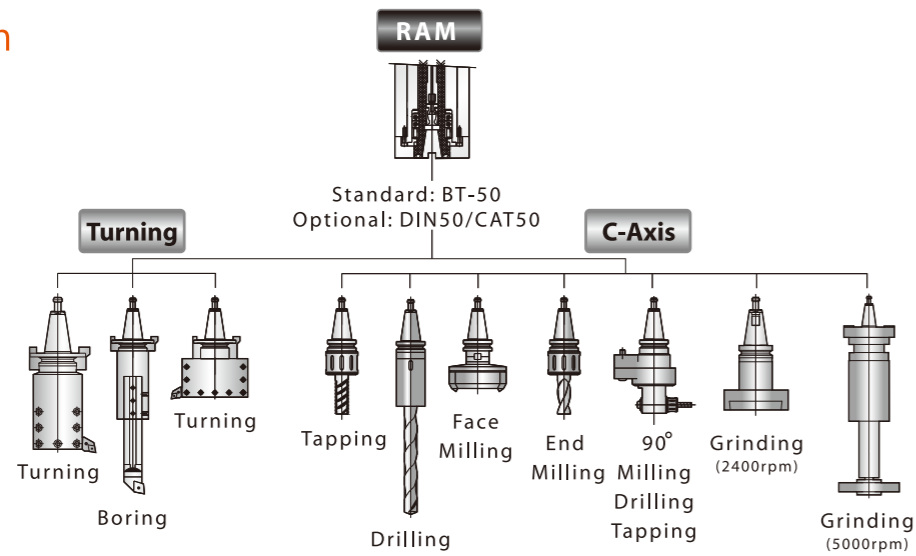


VL - 1000/1200/1600 Series VL - 2000/2500/3000 Series



Tooling System

Tool System

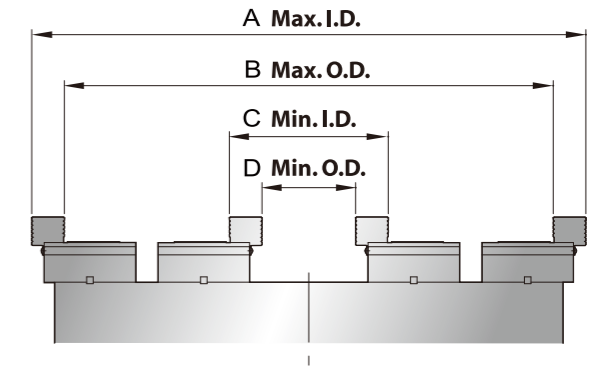


Working Range

Jaw Clamping Range

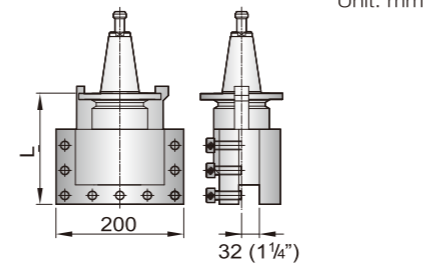
Unit: mm

	A	B	C	D
VL / VLF - 1000	1090	940	370	220
VL / VLF - 1200	1340	1195	390	240
VL / VLF - 1600	1660	1515	390	240
VL - 2000	2060	1915	390	240
VL - 2500	2550	2375	485	310
VL - 3000	3030	2860	485	310
VL - 4000	4030	3860	1000	830

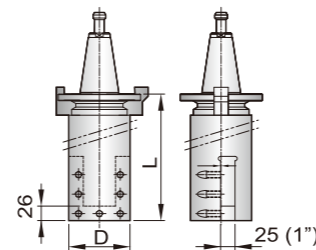


Tool Holder

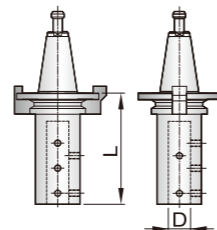
	L	Tool Type
XA-32-160	160	□ 32 x 32
XA-32-200	200	□ 32 x 32
XA-32-250	250	□ 32 x 32
XA-1 1/4"-160	160	□ 1 1/4" x 1 1/4"
XA-1 1/4"-200	200	□ 1 1/4" x 1 1/4"
XA-1 1/4"-250	250	□ 1 1/4" x 1 1/4"



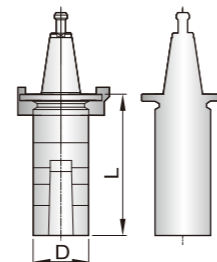
	L	D	Tool Type
XB-25-200	200	ø110	□ 25 x 25
XB-25-250	250	ø110	□ 25 x 25
XB-25-350	350	ø110	□ 25 x 25
XB1-25-200	200	ø130	□ 25 x 25
XB1-25-250	250	ø130	□ 25 x 25
XB1-25-350	350	ø130	□ 25 x 25
XB-1"-200	200	ø110	□ 1" x 1"
XB-1"-250	250	ø110	□ 1" x 1"
XB-1"-350	350	ø110	□ 1" x 1"
XB1-1"-200	200	ø130	□ 1" x 1"
XB1-1"-250	250	ø130	□ 1" x 1"
XB1-1"-350	350	ø130	□ 1" x 1"



	L	D		L	D
XC-25-170	170	ø25		XC-1"-170	ø1"
XC-32-180	180	ø32		XC-1 1/4"-180	ø1 1/4"
XC-40-200	200	ø40		XC-1 1/2"-200	ø1 1/2"
XC-50-250	250	ø50		XC-2"-250	ø2"
XC-63-280	280	ø63		XC-2 1/2"-280	ø2 1/2"

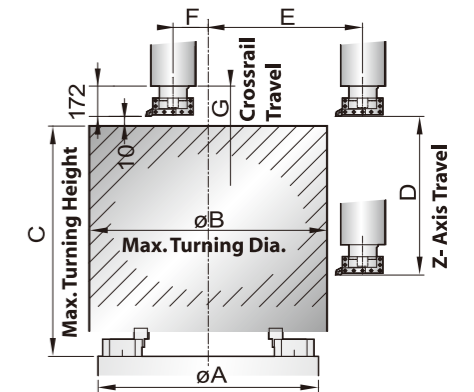


	L	D	Tool Type
XD-MT5-230	230	ø85	MT5
XD-MT6-300	300	ø100	MT6

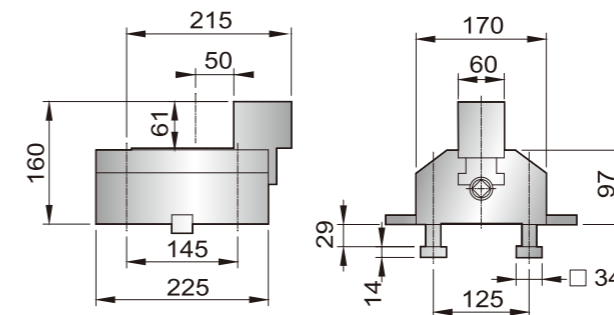


Axis Travel & Tooling Interference

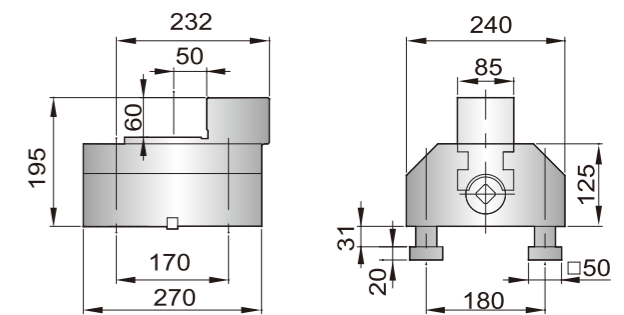
	A	B	C	D	E	F	G
VL - 1000	1000	1150	1070	800	775	220	500
VLF - 1000	1000	1150	1000	800	775	220	N/A
VL - 1200	1250	1350	1350	900	875	200	800
VLF - 1200	1250	1350	1450	950	900	100	N/A
VL - 1600	1600	1800	1350	900	1125	150	800
VLF - 1600	1600	1800	1450	950	1100	100	N/A
VL - 2000	2000	2300	1700	1000	1375	200	1150
VL - 2500	2500	2800	1700	1000	1625	200	1150
VL - 3000	3000	3400	1650	1000	1925	200	1200
VL - 4000	4000	5000	2500	1800	2900	200	1120



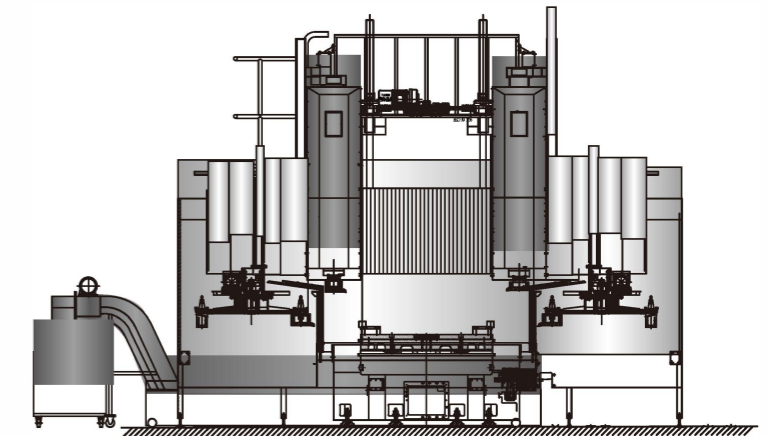
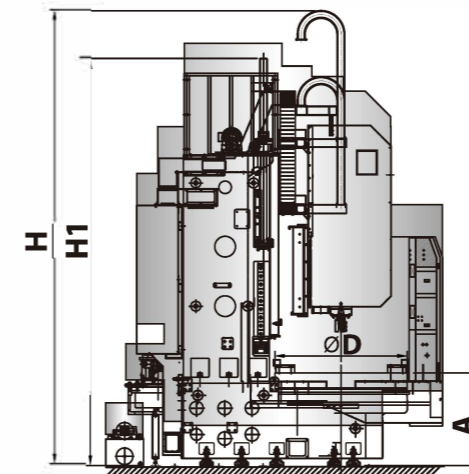
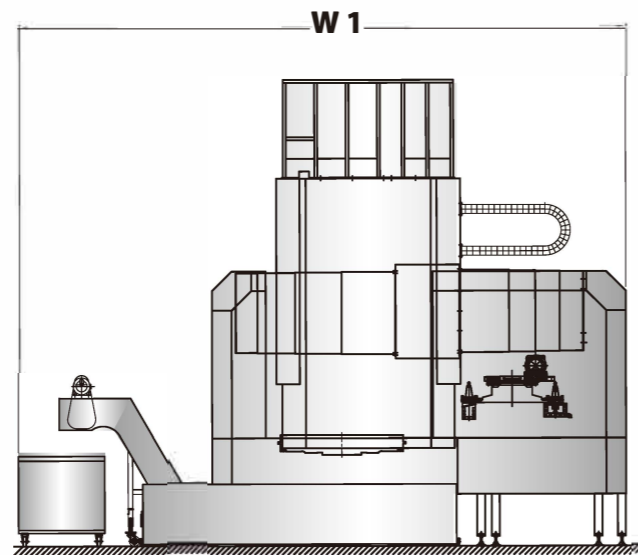
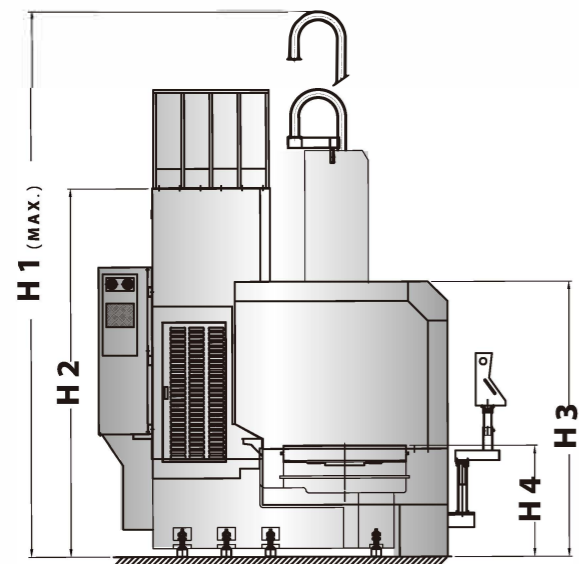
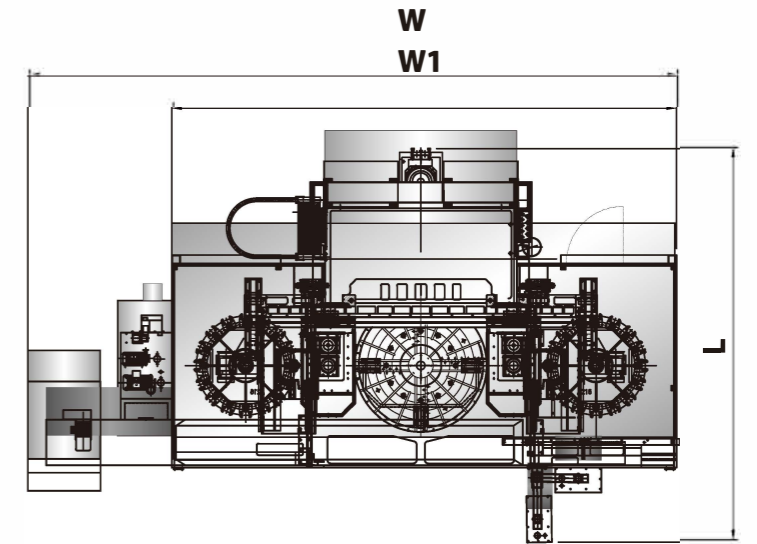
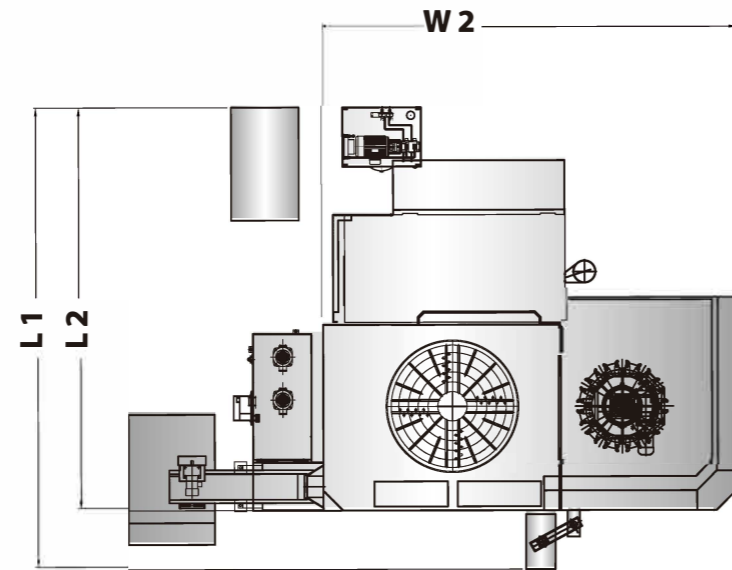
Power Jaws Dimensions



VL-1000 / VL-1200 / VL-1600 / VL-2000



VL-2500 / VL-3000 / VL-4000



	L1	L2	W1	W2	H1	H2	H3	H4
VL/VLF-1000	4,600	3,690	5,600	3,950	5,300	3,700	2,800	1,164
VL/VLF-1200	4,400	3,700	6,350	4,250	5,500	3,750	2,900	1,075
VL/VLF-1600	4,700	4,000	6,700	4,510	5,500	3,750	3,100	1,120
VL-2000	5,120	4,350	7,350	5,800	6,800	4,325	3,550	1,145
VL-2500	5,400	4,850	8,250	6,000	6,800	4,325	3,550	1,170
VL-3000	5,500	5,550	8,830	7,100	6,700	4,560	3,850	1,280
VL-4000	8,470	7,870	14,750	13,000	8,500	6,060	4,500	1,400

	W	W1	L	H	H1	A	ØD
2VL-1600	7,900	6,200	4,800	5,700	4,900	1,200	1,600
2VL-2000	9,450	7,450	5,500	6,800	6,600	1,140	2,040
2VL-2500	9,800	7,750	5,970	6,800	6,600	11,40	2,500
2VL-3000	10,700	8,700	6,700	6,800	1,280	12,80	3,000

Optional Accessories

A. Measuring System



Automatic Tool Measuring System
Probing System for Workpiece

B. Chuck



Combination chuck (3 jaw power/ 4 jaw manual) 3/4/6 jaws power chuck 4 jaws manual chuck

C. Magazine



12/16 tools
32/60/90 tools

D. RAM



180x180
230x230
250x250
280x280

Optional Accessories

D. Tooling System



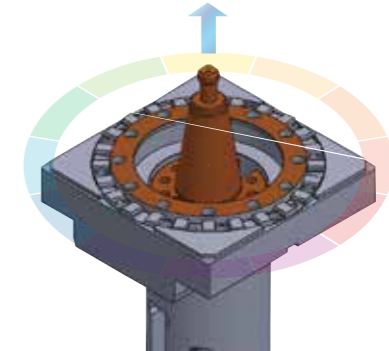
CAPTO Tool Holder



Side Milling Unit



Hirth Coupling



Curvic Coupling
BT50/CAT50/ISO50/DIN50

E. Other



Fully Enclosed Machine Guard



Automatic Pallet Changer (APC)



X&Z Gearbox



Control system
FANUC 0iTF
SIEMENS 828/840-SL



High Pressure Coolant Pump
7/20/50/70bars



Linear Scale



Oil Mist