



Vium- V560/V760/V1000

Vertical Turning Lathes

- Box Slideways for heavy cutting
- Meehanite® Casting for high reliability
- High Rapid Feed for improved productivity
- Leakage Free Coolant System with optimum chip disposal

Vturn - V560

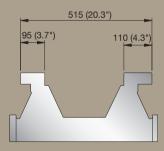
Compact VTL designed for heavy cutting

Following on from the Victor Taichung extremely successful range of horizontal lathes, our range of vertical lathes has been designed to meet higher roundness requirements.



Fast indexing hydraulic turret

- Curvic coupling for high accuracy positioning.
- Hydraulic clamping for heavy cutting.
- Fast indexing with bi-directional random selection.

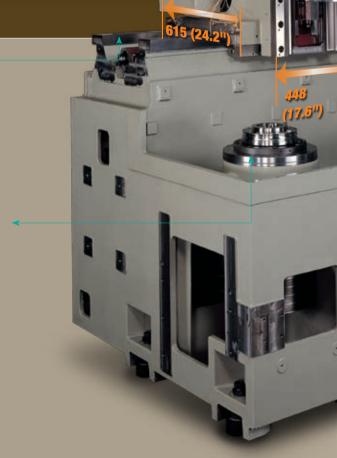


Wide Span for high rigidity

 Moving column with 515 mm (20.27") wide span sits on the machine base ensuring a stable structure for heavy cutting.

High power and high torque spindle

- Encased in a heavily ribbed headstock for maximum heat dissipation.
- A wide range spindle motor delivers maximum torque at a very low spindle speed of only 216 rpm.
- 12" hydraulic chuck as standard with an optional 10" chuck available for use at higher spindle speeds up to 3500 rpm.
- NN type roller bearings featuring large contact areas which facilitate heavy cutting, whilst an angular thrust bearing absorbs the cutting forces.
- An optional C-axis spindle with 0.001 degree indexing is available along with a VDI turret which allows secondary machining operations such as milling and drilling to be performed in one set up.





Box slideways for optimal dynamic stiffness

- A moving carriage with large base is fitted to the box slideways bolted on Z-axis column to ensure optimal rigidity and uniform cutting conditions at any location.
- 590/945 ipm rapid feed rate in X/Z axes bonded with Turcite-B and forced lubrication improve performance by eliminating stick-slip characteristics normally inherent in plain contact surface.
- The counter balanced design featuring powerful servo motors and large diameter ballscrews guarantee minimal wear to the box slideways thus prolonging the machines service life.
- The Z-axis motor incorporates a brake which prevents the turret falling should a sudden loss of power occur.







Leakage free coolant system with optimum chip disposal

- The rear disposal chip conveyor allows easy integration into a manufacturing cell.
- Coolant and chips are collected in the machine base, guaranteeing no coolant leakage during machining.
- The large coolant tank with a capacity of 68 gallons minimizes heat build up during continuous production.

Meehanite® cast iron structure

- The Meehanite[®] gray cast iron provides the structural stiffness and vibration damping properties which provide superior surface finishes and prolong the machines service life.
- The one piece box structure with box slideways provides the machine optimal structural rigidity.
- The steeply angled design of the machine base around the chuck and spindle areas minimizes swarf accumulation.
- The FEM (Finite Element Method) determined, optimized ribbed structure minimizes deformation during the machining operation.



Vturn - V760

High rigidity and high reliability VTL

With a maximum turning diameter of 760 mm (29.92") and a swing of 900 mm (35.4") the Vturn-V760 meets the increasing demands for large size and/or heavy part turning. The standard Fanuc α P40i wide range motor along with ZF gearbox provide high torque at extremely low spindle speeds.

Wide range spindle motor coupled with gearbox

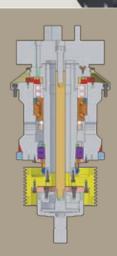
- Fanuc wide range motor αP40i offers 22 kW (30 HP) output.
- Optional motor α30i offers even higher output 37 kW (50 HP)
- The German made ZF gearbox which lowers the base speed to 83 rpm (αP40i motor) provides the capability to efficiently machine the most exotic alloys at low rpm.
- The 2 stage gearbox also allows for the machining of smaller parts at higher speeds.





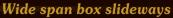
High power and high torque spindle

- Encased in a heavily ribbed headstock providing maximum heat dissipation.
- 18" solid chuck as standard and available with optional 15"/ 21"/ 24"/ 28"/ 32" chucks.
- NN type roller bearings featuring large contact areas which facilitate heavy cutting, whilst an angular thrust bearing absorbs the cutting forces.
- An optional C-axis spindle with 0.001 degree indexing is available along with a VDI turret which allows secondary machining operations such as milling and drilling to be performed in one set up.





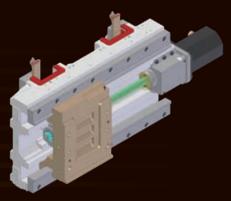
20 (24.4")

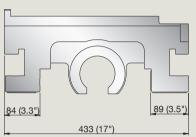


 The heavy column with a wide span of 850 mm (33.5") sits on the machine base providing a stable structure for heavy machining.

The carriage for the hydraulic turret also features a wide span of
 433 mm (17") ensuring the rigidity required for heavy machining.

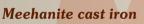
Z-axis motor of 7 kW
 (9.4 HP) ensures smooth operation and improves drilling capability.





Fast indexing hydraulic turret

- Curvic coupling for high accuracy positioning.
- Hydraulic clamping for heavy cutting.
- Fast indexing with bi-directional random selection provides quick tool selection.



- Supplied by Victor Taichung's own foundry, this Meehanite casting features superior vibration damping and high rigidity providing improved surface finishes.
- All castings are certificated by following Meehanite process for high quality nodular gray iron.

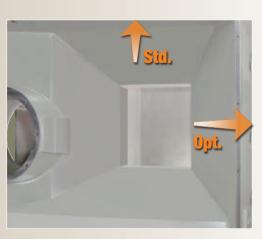
Leakage Free Coolant System with optimum chip disposal

- A Rear Disposal chip conveyor allows easy integration into a manufacturing cell.
- An optional Right Disposal chip conveyor is also available which is suitable for stand alone machines.
- The coolants and chips are collected by the cast base guaranteeing no leakage.
- The large coolant tank minimizes heat build up during continuous production.











Vturn - V1000

High reliability VTL with turning diameter 1000mm Following the success of our Vturn-V760, with a swing diameter of 1100mm (43.3") and a maximum turning diameter of 1000mm (39.4"), the VTL Vturn-V1000 with its powerful 45kW (60HP) spindle motor coupled to a 2 step Gearbox provides high torque at low rpm's.

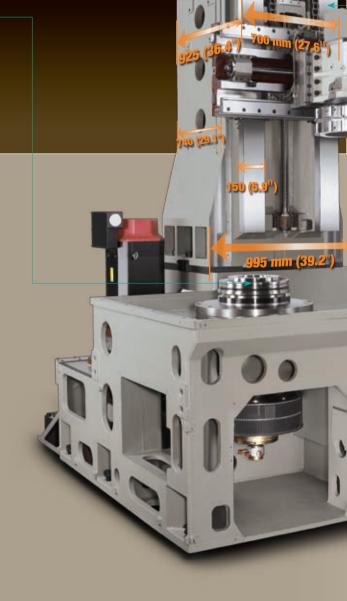
High rigidity spindle with NN type bearings

- NN type bearings featuring double rollers with double contact area facilitate heavy cutting and longer surface life.
- 24" solid chuck as standard and available with bigger chuck up to 40".



Powerful spindle motor coupled with gearbox

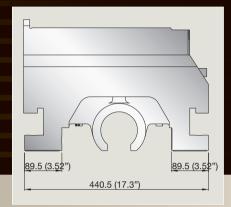
- Fanuc spindle motor a40i offers 45kW (60HP) output.
- German made ZF gearbox is included as standard to lower the base speed to 96 rpm for heavy cutting on steel parts with high torque 4490 Nm (3312 ft-lbf).
- 2 step gearbox facilates higher speed turning on the smaller parts.





Wide span box slideways

- The heavy duty column with a wide span of 995mm (33.5") attached to the machine base provides a stable structure for heavy machining.
- The hydraulic turret is also designed with a wide span of 440.5mm (17.3") to ensure sufficient rigidity for heavy machining.
- The 7kW (9.4HP) high torque Z-axis motor ensures heavy duty drilling capability.





Bolt Mounted Turret (BMT-85)

- Fast indexing BMT-85 turret with bi-directional random selection for quick selection.
- Hirth coupling in included for high positioning accuracy.

Integral chip disposal without coolant leakage

• **Rear disposal** chip conveyor can be bolted and fastened on the machine base without sitting on the coolant tank so the tank can be removed separately and easily for maintenance. .

- Optional Right Disposal chip conveyor is also available which can be useful for stand alone machines.
- Coolants and chips are collected by casted base guaratees no leakage onto the ground floor.
- Large coolant tank reduces the heat rise-up to affact machining accuracy.





Standard Accessories

Reliable Fanuc 0i-T control system

- The proven reliability of Fanuc 0i-T controller is combined with Victor's own designed PLC to offer the customer an integral control system with 8.4" LCD monitor for color graphic display.
- Large inside space design of electrical cabinet and fully protected cables assure optimal heat dissipation for long time machining.
- Optional 32i control also allows easier upgrade and the addition of full conversational programming.



Solid power chuck

- Autostrong® hydraulic solid chucks are included on all lathes.
- Chuck is foot operated for safe and easy operation.
- Kitagawa® chuck (optional) can be also specified if required.

Victor's lubrication pump

 Victor's own lube pump including Japanese-made pressure switch offers the required lubricants between contact surfaces of box slideways to ensure smooth and continuous movement.



Chip conveyor

Separate chip conveyor is positioned from the rear of machine to reduce machine width to facilitate line production.



Air conditioner for electrical cabinet

To prolong the service life on the costly control components, air conditioner is installed to remove heat away from the electrical cabinet.



Optional Accessories

Manual tool presetter (by Renishaw[®]):

The tedious time-consuming cuts to determine tool geometry can be reduced by manual tool presetter (M.T.P.) With Renishaw® repeatable arm with RP3 probe is employed, the tool offset value is compensated automatically to the according parameters. Detachable design enlarges the turning range on big diameter parts without interference.



VDI tool holders provide an accurate and fast method of affixing tool holders to the turret disk. The round serrated shank tool holders fit into the tool pockets located on the face of the tool disc to achieve precise, rigid and secure locking of the tool holder. Live tooling option is also available by VDI turret model (CV option).

High pressure Coolants

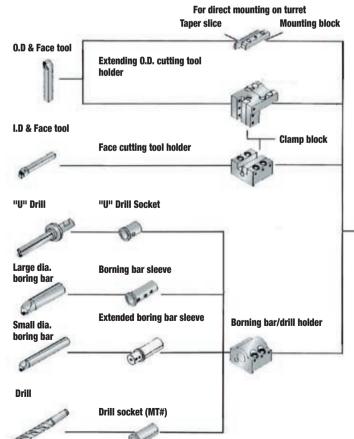
Higher pressure coolants help removing chips more efficiently to improve surface finish on the machined parts.







Standard tooling accessories (excl. live tools or VDI tool holders)





Turret disk (Vturn-V560/V760)



BMT-85 disk (Vturn-V1000)

	TOOLS \			\/T.\/1000					
	MODEL	VT-V560	VT-V760	VT-V1000					
	No. of tool stations	8	12	12					
	Tool shank for turret disk	1 1/4"	1 1/4"	1 1/4"					
-	Maximum boring bar dia,	2"	2 1/2"	2 1/2" (Opt. 3")					
	Taper slice + mounting block	6	7	-					
	Extending O.D. cutting tool holder	1	1	4					
	Face cutting tool holder	1	1	2					
	Boring bar holder								
	1 1/4"	-	-	-					
	1 1/2"	Opt.	-	-					
_	2"	5	Opt.	-					
à	2 1/2"	-	6	4					
	3"	-	-	Opt.					
	Boring bar sleeve								
-	3/8"	1	-	-					
	1/2"	1	-	-					
	5/8"	2	-	-					
	3/4"	2	2	2					
	1"	2	2	2					
	1 1/4"	2	2	2					
	1 1/2"	2	2	2					
	2"	-	2	2					
-	Extended boring bar sleeves	-	2	2					
	Drill socket								
-	MT1	-	-	-					
-	MT2	-	-	-					
-	MT3	Opt.	Opt.	Opt.					
	MT4	1	1	1					
-	U drill socket								
-	1"	1	-	-					
-	1 1/4"	1	2	2					
-	1 1/2"	-	2	2					
-									

Victor Taichung's Fanuc 0i-TF /32i-B Control Specifications

	SPECIFICATION IIed Axes:	DESCRIPTION			
1.	Controlled Axes	2 Axes(X, Z)	7.	1st Spindle Orientation	Std.
		Position/Linear interpolation/Circular interpolation	8.	1* Spindle Output Switching Function	Std.
2.	Simultaneous Controlled Axes	(2/2/2)	9.	M Code Function	M3 digit
3.	Least Input Increment	0.001mm / 0.0001 inch / 0.001 deg.	10.	S Code Function	S5 digit
4. 5.	Least Input Increment 1/10 Max, command value	0.0001mm / 0.00001 inch / 0.0001 deg. ±99999.999 mm (±9999.9999 in)	11.	T Code Function	T2 digit
6.	Fine Acceleration & Deceleration Control	Std.	12.	Rigid Tapping (Spindle)	Std.
7.	HRV Control	Std.	Tool Fu	oction & Tool Compensation:	
8.	Inch / Metric Conversion	Std. (G20/G21)	1.	Tool Function	T7+1/T6+2digits
9.	Interlock	All Axes / Each Axis / Cutting Block Start	2.	Tool Offset Pairs	± 7-digit 64 pairs
10.	Machine Lock	All Axes / Each Axis	3.	Tool Nose Radius Compensation	Std. (G40/G41/G42)
11.	Emergency Stop	Std.	4.	Tool Geometry/wear Compensation	Std.
12.	Over-travel	Std.	5.	Number of Tool Offsets (in total)	64 (0i-D) 99 sets (32i-B)
13.	Stored Stroke Check 1	Std.	6.	Automatic Tool Offset	Std.
14.	Mirror Image	Each Axis	7.	Direct Input of Tool Offset Value Measured B	Std.
15.	Chamfering on/off	Std.	Accurac	cy Compensation:	
16. 17.	Follow-up Unexpected disturbance torque detection function	Std. Std. (to be used to tool load monitoring)	1.	Backlash Compensation	Rapid Traverse / Cutting Feed
18.	Position switch (with Victor's own PLC)	Std. (to be used to tool load monitoring) Std. (to be used for security)	2.	Stored Pitch Error Compensation	Std.
	· · · · · · · · · · · · · · · · · · ·	Std. (to be used for security)	Edit Ope	pration	
erat	ion:		Luit opt		
1.	Automatic Operation	Std.	1.	Part Program Storage Length (in total)	1280m (512kB) (0i-D/32i-B) 400
2.	MDI Operation	MDI B	2.	Number of Register able programs (in total)	
3.	DNC Operation	Reader / Puncher Interface is Required	3.	Part Program Editing Program Protect	Std.
4.	DNC Operation with Memory Card	PCMCIA Card Attachment is Required	5.	Background Editing	Std.
5.	Program Number Search	Std.	6.	Memory card editing	Std.
6. 7.	Sequence Number Search	Std.			
7. 8.	Sequence number comparison and stop Buffer Register	Std.		and Display:	
8. 9.	Dry Run	Std.	1.	Status Display	Std.
9.	Single Block	Std.	2.	Clock Function	Std.
1.	JOG Feed	Std.	3.	Current Position Display	Std.
12.	Manual Reference Position Return	Std.	4.	Program Display	Program name 32 characters
3.	Manual Handle Feed	1 Unit / Each Path	5.	Parameter Setting and Display	Std.
14.	Manual Handle Feed Rate	X1, X10, X100	6.	Self Diagnosis Function	Std.
		,	7.	Alarm Display	Std.
erpo	olation:		8.	Alarm History Display	50 (0i), 60 (32i-B)
1.	Positioning	G00	9.	Operation History Display	Std.
2.	Threading synchronous cutting	Std.	10.	Help Function	Std.
3.	Multiple threading	Std.	12.	Run Hour and Parts Count Display Actual Cutting Feed rate Display	Std.
4.	Threading retract	Std.	13.	Display Spindle Speed and T Code At All Screens	Std.
5.	Continuous threading	Std. (G76)	14.	Dynamic Graphic Display	Std.(Available in MGI by anot
6.	Variable threading	Std. (G34)	15.	Servo Setting Screen	Std.
7.	Linear Interpolation	G01	16.	Display of Hardware and Software Configuration	Std.
8. 9.	Circular Interpolation Dwell	G02, G03 (multi-quadrant is possible) G04	17.	Multi-Language Display	Std.
10.	Skip Function	G31	18.	Data Protection Key	Std.
11.	Reference Position Return	G28	19.	Erase CRT Screen Display	Std.
12.	Reference Position Return Check	G27	20.	Spindle Setting Screen	Std.
13.	2 nd Reference Position Return	Std.	21.	Color LCD (MDI)	8.4" (0i-D), 10.4" (0i-D*1/32i-B)
ed:			Data Ini	out / Output:	
			1.	Reader / Puncher Interface	RS-232 interface
1.	Rapid Traverse Rate	Std.	2.	Memory Card Interface	Std.
2.	Rapid Traverse Override Feed Per Minute	F0, 25%, 50%, 100% G98 (mm/min)	3.	External Work piece number search	9999
4.	Feed Per Revolution	G99 (mm/rev)	4.	Embedded Ethernet (10Mbps)	Std.
5.	Tangential Speed Constant Control	Std.			
6.	Cutting Feed rate Clamp	Std.	G AXIS F	unction (used on CV models):	
7.	Automatic Acceleration / Deceleration	Rapid traverse: linear; Cutting feed: exponential	1.	Control Axes Expansion	Std.
			2.	Simultaneously Controlled Axes Expansion	Std.
8.	Linear accel / deceleration after cutting feed interpolation	Std.	3.	Coordinate System Rotation	Std.
9.	Feed rate Override	0~150%	4.	Rotary Axis Designation	Std.
10.	Jog Override				
		0~100%	5.	Rotary Axis Roll-over	Std.
	Feed Stop	0~100% Std.	5. 6.	Axis Control by PMC	Std.
11.			5. 6. 7.	Axis Control by PMC Control Axis Detach (for Cf axis)	Std. Std.
11. gra	Feed Stop m Input:	Std.	5. 6. 7. 8.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation	Std. Std. Std. (G112/G113)
11. gra 1.	Feed Stop m Input: EIA / ISO Automatic Recognition	Std.	5. 6. 7. 8. 9.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation	Std. Std. Std. (G112/G113) Std. (G107)
1. gra 1.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip	Std. Std. Std.	5. 6. 7. 8. 9.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Coordinate System Rotation	Std. Std. Std. (G112/G113) Std. (G107) Std. (32i-B only)
gra 1. 2.	Feed Stop m Input: EIA / ISO Automatic Recognition	Std.	5. 6. 7. 8. 9.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation	Std. Std. (G112/G113) Std. (G107)
11. gra 1. 2. 3.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check	Std. Std. Std. Std. Std.	5. 6. 7. 8. 9. 10.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC	Std. Std. Std. (G112/G113) Std. (G107) Std. (32i-B only)
11. gra 1. 2. 3. 4.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out	Std. Std. Std. Std. Std. Std. Std.	5. 6. 7. 8. 9.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC	Std. Std. Std. (G112/G113) Std. (G107) Std. (32i-B only)
11. 2. 3. 4. 5.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip	Std. Std. Std. Std. Std. Std. 1	5. 6. 7. 8. 9. 10.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC	Std. Std. Std. (G112/G113) Std. (G107) Std. (32i-B only)
1. 2. 3. 4. 5. 6.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension	Std. Std. Std. Std. Std. Std. 1 ±9-Digit	5. 6. 7. 8. 9. 10. 11. Optic	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC	Std. Std. Std. (G112/G113) Std. (G107) Std. (32i-B only)
1. 2. 3. 4. 5. 6. 7.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number	Std. Std. Std. Std. Std. Std. 1 ±9-Digit O4-Digit	5. 6. 7. 8. 9. 10. 11. Optic	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC CONS SPECIFICATION rdware included:	Std. Std. Std. (G112/G113) Std. (G107) Std. (G2i-B only) Std.
11. 2. 3. 4. 5. 6. 7. 8. 9.	Feed Stop Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Desimal Point Programming / Pocket Calculator Type	Std. Std. Std. Std. Std. Std. 1 ± 9-Digit O4-Digit N5-Digit G90/G91(G code System B,C)	5. 6. 7. 8. 9. 10. 11. Optic	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC PIS SPECIFICATION	Std. Std. Std. (G112/G113) Std. (G107) Std. (G2i-B only) Std.
11. 2. 3. 4. 5. 6. 7. 8. 9.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Blooks Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming	Std. Std. Std. Std. Std. 1 ±9-Digit O4-Digit N5-Digit G90/G91(G code System B,C) Std.	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC CONS SPECIFICATION retware Included: Conversational programming (Manual guide i)*1	Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (321-B only) Std. 0I-F
11. 2. 3. 4. 5. 6. 7. 8. 9.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Sequence Number Joed Theoremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply	Std.	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC DTS SPECIFICATION rdware included: Conversational programming (Manual guide i)*1 Conversational programming (Cap i)	Std. Std. Std. (G112/G113) Std. (G107) Std. (32i-B only) Std. 0i-F
11. 2. 3. 4. 5. 6. 7. 8. 9. 110.	Feed Stop Input: EIA / ISO Automatic Recognition Label SKip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Input Unit 10 Time Multiply Islameter / radius programming	Std. Std. Std. Std. Std. Std. Std. 1 ± 9-Digit O4-Digit N5-Digit S5-Digit	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC DTS SPECIFICATION rdware included: Conversational programming (Manual guide i)*1 Conversational programming (Cap i) Data server (with PCB and ATA card) Fast Ethernet (100Mbps, available in Data server) Tool life management	Std. Std. Std. (Std. (G112/G113) Std. (G107) Std. (32i-B only) Std. 0i-F
11. 11. 12. 13. 14. 15. 16. 17. 18. 19. 110. 111. 112. 113.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection	Std. Std. Std. Std. Std. Std. Std. 1 ±9-Digit 04-Digit N5-Digit G90/G91(G code System B,C) Std.	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3. 4.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC DIS SPECIFICATION rdware Included: Conversational programming (Manual guide i)*1 Conversational programming (Cap i) Data server (with PCB and ATA card) Fast Ethernet (100Mbps, available in Data server)	Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (321-B only) Std. OI-F NA.
11. gra 1. 2. 3. 4. 5. 6. 7. 8. 9. 110. 111. 112. 113. 114.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incemental Programming Decimal Point Programming / Pocket Calculator Type Becimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Setting	Std.	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3. 4. 5.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC ONS SPECIFICATION rdware Included: Conversational programming (Manual guide i)*1 Conversational programming (Cap i) Data server (with PCB and ATA card) Fast Ethernet (100Mbps, available in Data server) Tool life management Part Program Storage Length 5120m/2MB (in total) Part Program Storage Length 5120m/2MB (in total)	Std. Std. Std. (G112/G113) Std. (G107) Std. (G20-B only) Std. 01-F N.A.
11. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15.	Feed Stop m Input: EIA I SO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Assolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Beclimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Setting Work piece Coordinate System	Std. Std. Std. Std. Std. Std. Std. 1 ± 9-Digit 04-Digit N5-Digit G90/G91(G code System B,C) Std. G17, G18, G19 Std. Std. Std. G52-G59	5. 6. 7. 8. 9. 10. 111. Optic ITEM With ha 1. 2. 3. 4. 5. 6.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC DIS SPECIFICATION Industrial Conversational programming (Manual guide i)* Conversational programming (Manual guide i)* Conversational programming (Gap i) Data server (with PCB and ATA card) Fast Ethernet (100Mips, available in Data server) Tool life management Part Program Storage Length 2560m/1MB (in total)	Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (32i-B only) Std. 0i-F N.A. N.A.
11. 11. 12. 13. 14. 15. 16. 17. 18. 19. 11. 12. 13. 14. 15. 16. 16. 17. 18. 19. 19. 19. 19. 19. 19. 19. 19	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Setting Work piece Coordinate System Direct Drawling Dimension Programming	Std. Std. Std. Std. Std. Std. Std. 1	6. 6. 7. 8. 9. 10. 11. Optic ITEM With ha. 2. 3. 4. 5. 6. 7.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC DIS SPECIFICATION rdware Included: Conversational programming (Manual guide i)* Conversational programming (Gap i) Data server (with PCB and ATA card) Fast Ethernet (100Mbps, available in Data server) Tool life management Tool life management Part Program Storage Length 2560m/1MB (in total) Part Program Storage Length 5120m/2MB (in total) Optional block skip 2-9 blocks Polygon turning (by C-axis) with Victor's own PLC	Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (321-B only) Std. OI-F NA. NA. NA. NA.
11. 11. 12. 13. 14. 15. 10. 11. 12. 13. 14. 15. 16. 17.	Feed Stop Input: ElA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Uret Drawing Dimension Programming Orect Drawing Dimension Programming	Std. Std. Std. Std. Std. Std. Std. Std. 1 ± 9-Digit 04-Digit N5-Digit C90/C91(G code System B,C) Std.	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3. 4. 5. 6. 7. 8. 9.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC PIS SPECIFICATION rdware Included: Corversational programming (Manual guide i)*1 Corversational programming (Cap i) Data server (with PCB and ATA card) Fast Ethernet (100Mbps, available in Data server) Tool life management Part Program Storage Length 5560m/1MB (in total) Part Program Storage Length 5120m/2MB (in total) Optional block skip 2-9 blocks Polygon turning (by C-axis) with Victor's own PLC Manual handle feed 2 (2md MPG)	Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (321-B only) Std. OI-F NA NA NA NA NA NA
11. gra 1. 2. 3. 4. 5. 6. 7. 8. 9. 110. 112. 113. 114. 115. 116. 117. 118.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Setting Work piece Coordinate System Direct Drawing Dimension Programming G code System A Chamfering/corner R	Std. Std. Std. Std. Std. Std. Std. 1 ±9-Digit 04-Digit N5-Digit G90/G91(G code System B,C) Std.	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3. 4. 5. 6. 7. 8. 8. 9. 10.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC DDS SPECIFICATION Interpolation Conversational programming (Manual guide i)*1 Conversational programming (Cap i) Data server (with PCB and ATA card) Fast Ethernet (100Mbps, available in Data server) Tool life management Part Program Storage Length 5120m/2MB (in total) Part Program Storage Length 5120m/2MB (in total) Optional block skip 2-9 blocks Polygon turning (by C-axis) with Victor's own PLC Manual handle feed 2 (2nd MPG) Reader/Puncher interface 2 (2" RS232 interface)	Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (G107) Std. (32HB only) Std. OI-F N.A. N.A. N.A. N.A. N.A.
11. gra 1. 2. 3. 4. 5. 6. 7. 8. 9. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Setting Work piece Coordinate System Direct Drawing Dimension Programming G code System A Chamfering/corner R Programmable Data Input	Std. Std. Std. Std. Std. Std. Std. 1 ± 9-Digit C4-Digit N5-Digit G90/G91(G code System B,C) Std.	6. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3. 4. 6. 7. 8. 9. 10. 11.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC DIS SPECIFICATION Triware Included: Conversational programming (Manual guide i)** Conversational programming (Manual guide i)** Conversational programming (Qap i) Data server (with PCB and ATA card) Fast Ethernet (100Mbps, available in Data server) Tool life management Part Program Storage Length 550m/1MB (in total) Part Program Storage Length 5120m/2MB (in total) Part Program Storage Length 5120m/2MB (in total) Part Program Storage Length 520m/2MB (in total) Poblogon turning (by O-axis) with Victor's own PLC Manual handle feed 2 (2nd MPG) Reader/Puncher interface 2 (2 nd RS232 interface) External data input	Std. Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (321-B only) Std. Oi-F N.A.
11. gra 1. 2. 3. 4. 5. 6. 7. 8. 9. 110. 112. 113. 114. 115. 116. 117. 118. 119. 20.	Feed Stop Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System System United Drawing Dimension Programming G code System A Chamfering/comer R Programmable Data Input Sub Program Call	Std. Std. Std. Std. Std. Std. Std. 1 ±9-Digit 04-Digit N5-Digit G90/G91(G code System B,C) Std.	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3. 4. 4. 5. 6. 7. 8. 9. 10. 11. 12.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC PIS SPECIFICATION rdware Included: Conversational programming (Manual guide i)*1 Conversational programming (Cap i) Data server (with PCB and ATA card) Fast Ethernet (100Mbps, available in Data server) Tool life management Part Program Storage Length 5560m/1MB (in total) Part Program Storage Length 5120m/2MB (in total) Optional block skip 2-9 blocks Polygon turning (by C-axis) with Victor's own PLC Manual handle feed 2 (2md MPG) Reader/Puncher interface 2 (2* RS232 interface) External data input	Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (G107) Std. (32i-B only) Std. OI-F NA NA NA NA NA NA NA
11. gra 1. 2. 3. 4. 5. 6. 7. 8. 9. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 220. 221.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Setting Work piece Coordinate System Direct Drawing Dimension Programming G code System A Chamfering/corner R Programmable Data Input	Std. Std. Std. Std. Std. Std. Std. 1 ± 9-Digit 04-Digit N5-Digit G90/G91(G code System B,C) Std. O17, G18, G19 Std. Std. G52-G59 Std. Std. Std. Std. Std. O10 o	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC DIS SPECIFICATION Industrial Conversational programming (Manual guide i)** Conversational programming (Manual guide i)** Conversational programming (Eap i) Data server (with PCB and ATA card) Fast Ethernet (100Mips, available in Data server) Tool life management Part Program Storage Length 2560m/1MB (in total) Part Program Storage Length 5120m/2MB (in total) Optional block skip 2-9 blocks Polygon turning (by C-axis) with Victor's own PLC Manual handle feed 2 (2nd MPG) Reader/Puncher interface 2 (2nd RS232 interface) External data input USB port Porgram restart	Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (32+B only) Std. OI-F NA. NA. NA. NA. Std. Std. Std. Std.
111. 1. 2. 3. 4. 5. 6. 7. 8. 9. 110. 111. 115. 116. 117. 118. 119. 220. 221.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Setting Work piece Coordinate System Direct Drawing Dimension Programming G code System Direct Drawing Dimension Programming Chamfering/Corner R Programmable Data Input Sub Program Call Custom Macro B	Std. Std. Std. Std. Std. Std. Std. Std. Std. 1	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3. 4. 4. 5. 6. 7. 8. 9. 10. 11. 12.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC PIS SPECIFICATION rdware Included: Conversational programming (Manual guide i)*1 Conversational programming (Cap i) Data server (with PCB and ATA card) Fast Ethernet (100Mbps, available in Data server) Tool life management Part Program Storage Length 5560m/1MB (in total) Part Program Storage Length 5120m/2MB (in total) Optional block skip 2-9 blocks Polygon turning (by C-axis) with Victor's own PLC Manual handle feed 2 (2md MPG) Reader/Puncher interface 2 (2* RS232 interface) External data input	Std. Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (321-B only) Std. Oi-F N.A.
11. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22.	Feed Stop Input: ElA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Setting Work piece Coordinate System Direct Drawing Dimension Programming G code System A Chamfering/comer R Programmable Data Input Sub Program Call Custom Macro B Canned Oycles	Std.	6. 6. 7. 8. 9. 10. 111. Optic ITEM With ha 1. 2. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC DIS SPECIFICATION Interpolation Conversational programming (Manual guide i)*1 Conversational programming (Manual guide i)*1 Conversational programming (Eap i) Data server (with PCB and ATA card) Fast Ethernet (100Mips, available in Data server) Tool life management Part Program Storage Length 2560m/1MB (in total) Part Program Storage Length 5120m/2MB (in total) Part Program Storage Length 5120m/2MB (in total) Poptional block skip 2-9 blocks Polygon turning (by C-axis) with Victor's own PLC Manual handle feed 2 (2nd MPG) Reader/Puncher interface 2 (2nd RS232 interface) External data input USB port Porgram restart	Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (32+B only) Std. OI-F NA. NA. NA. NA. Std. Std. Std. Std.
111. 111. 112. 13. 4. 5. 6. 7. 8. 9. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 220. 221. 222.	Feed Stop Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Setting Work piece Coordinate System Direct Drawing Dimension Programming G code System A Chamfering/comer R Programmable Data Input Sub Programmable Data Input Sub Programmable Custom Macro B Canned Cycles Multiple Repetitive Cycle	Std. Std. Std. Std. Std. Std. Std. Std. 1 1	6. 6. 7. 8. 9. 10. 111. Optic ITEM With ha 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. Without	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC DIS SPECIFICATION Triware Included: Conversational programming (Manual guide i)** Conversational programming (Manual guide i)** Conversational programming (Gap i) Data server (with PCB and ATA card) Fast Ethernet (100Mbps, available in Data server) Tool life management Part Program Storage Length 2560m/1MB (in total) Part Program Storage Length 5120m/2MB (in total) Optional block skip 2-9 blocks Polygon turning (by C-axis) with Victor's own PLC Manual handle feed 2 (2nd MPG) Reader/Puncher interface 2 (2** RS232 interface) External data input USB port Porgram restart Profibus Chardware Included:	Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (G21-B only) Std. OI-F N.A. N.A. N.A. N.A. Std. Std. Std.
11. 2. 3. 4. 5.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Blooks Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Input Unit 10 Time Multiply Diameter / Tadius programming Plane Selection Automatic Coordinate System Setting Work piece Coordinate System Direct Drawing Dimension Programming G code System A Chamfering/corner R Programmable Data Input Sub Program Call Custom Macro B Canned Cycles Multiple Repetitive Cycle	Std. 1 1 ±9-Digit O4-Digit N5-Digit G90/G91(G code System B,C) Std. Std. Std. Std. Std. G17, G18, G19 Std. G52-G59 Std.	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3. 4. 4. 5. 6. 7. 7. 8. 9. 10. 11. 12. 13. 14. 15. Without	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC DIS SPECIFICATION rdware Included: Conversational programming (Manual guide i)*1 Conversational programming (Cap i) Data server (with PCB and ATA card) Fast Ethernet (100Mbps, available in Data server) Tool life management Part Program Storage Length 2560m/1MB (in total) Part Program Storage Length 5560m/1MB (in total) Optional block skip 2-9 blocks Polygon turning (by C-axis) with Victor's own PLC Manual handle feed 2 (2nd MPG) Reader/Puncher interface 2 (2** RS232 interface) External data input USB port Porgram restart Profibus hardware included: Program number O8-digit	Std. Std. Std. Std. (S112/G113) Std. (G112/G113) Std. (G107) Std. (321-B only) Std. OI-F NA. NA. NA. NA. NA. NA. NA. NA. NA. NA
111. 111. 111. 111. 111. 111. 111. 111	Feed Stop Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Setting Work piece Coordinate System Direct Drawing Dimension Programming G code System A Chamfering/comer R Programmable Data Input Sub Program Call Custom Macro B Canned Gycles Multiple Repetitive Cycle Multiple Repetitive Cycle (Pocket profile) Canned Gycles To Zilling	Std.	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 44. 15. Without	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Rigid Tapping (C-axis) with Victor's own PMC DIS SPECIFICATION Industrial Conversational Programming (Manual guide i)** Conversational programming (Manual guide i)** Conversational programming (Eap i) Data server (with PCB and ATA card) Fast Ethernet (100Mbps, available in Data server) Tool life management Part Program Storage Length 2560m/1MB (in total) Part Program Storage Length 5120m/2MB (in total) Poptional block skip 2-9 blocks Polygon turning (by C-axis) with Victor's own PLC Manual handle feed 2 (2nd MPG) Reader/Puncher interface 2 (2" RS232 interface) External data input USB port Porgram nestart Profibus hardware included: Program number O8-digit Oircular thread cutting (G35)	Std. Std. Std. Std. (Std. (G112/G113) Std. (G107) Std. (32i-B only) Std. Oi-F N.A. N.A.
11. ggra 11. 22. 3. 44. 55. 66. 77. 88. 99. 10. 11. 122. 133. 144. 155. 166. 177. 188. 199. 199. 199. 199. 199. 199. 199	Feed Stop Input: EIA I ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Assolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Bedimal Point Programming / Pocket Calculator Type Bedimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Setting Work piece Coordinate System Direct Drawing Dimension Programming G code System A Chamfering/comer R Programmable Data Input Sub Program Call Custom Macro B Canned Cycles Multiple Repetitive Cycle Multiple Repetitive Cycle Multiple Repetitive Cycle Multiple Repetitive Cycle Multiple Repetitive Cycle Information Format Format Format	Std. Std. Std. Std. Std. Std. Std. Std. 1 1 ±9-Digit O4-Digit N5-Digit G90/G91(G code System B,C) Std. St	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3. 4. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. Without	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Coordinate System Rotation Rigid Tapping (C-axis) with Victor's own PMC DIS SPECIFICATION Triware Included: Conversational programming (Manual guide i)** Conversational programming (Gap i) Data server (with POB and ATA card) Fast Ethernet (100Mbps, available in Data server) Tool life management Part Program Storage Length 2560m/1MB (in total) Part Program Storage Length 5120m/2MB (in total) Optional block skip 2-9 blocks Polygon turning (by C-axis) with Victor's own PLC Manual handle feed 2 (2nd MPG) Reader/Puncher interface 2 (2nd RS232 interface) External data input USB port Porgram restart Profibus Inardware Included: Program number O8-digit Circular thread cutting (G35) Number of registered program 1000 (in total)	Std. Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (321-B only) Std. OI-F NA NA NA NA NA NA NA NA NA N
111. 111. 111. 111. 111. 111. 111. 111	Feed Stop Input: ElA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Setting Work piece Coordinate System Setting Work piece Coordinate System Direct Drawing Dimension Programming G code System A Chamfering/comer R Programmable Data Input Sub Program Call Custom Macro B Canned Cycles Multiple Repetitive Cycle Multiple Repetitive Cycle Multiple Repetitive Cycle Canned Cycles for Program End Circular interpolation by 9-digit R designation	Std.	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3. 4. 4. 5. 6. 7. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Rigid Tapping (C-axis) with Victor's own PMC DDS SPECIFICATION rdware included: Conversational programming (Manual guide i)*1 Conversational programming (Cap. i) Data server (with PCB and ATA card) Fast Ethernet (100Mbps, available in Data server) Tool life management Part Program Storage Length 2560m/1MB (in total) Part Program Storage Length 2560m/1MB (in total) Part Program Storage Length 2560m/2MB (in total) Poptional block skip 2-9 blocks Polygon turning (by C-axis) with Victor's own PLC Manual handle feed 2 (2nd MPG) Reader/Puncher interface 2 (2* RS232 interface) External data input USB port Porgram restart Profibus hardware included: Program number 08-digit Circular thread cutting (G35) Number of registered program 1000 (in total) G code system B/C	Std. Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (321-B only) Std. OI-F NA. NA. NA. NA. NA. NA. NA. NA. NA. NA
111. 111. 112. 113. 110. 111. 111. 111. 111. 111. 111	Feed Stop Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Setting Work piece Coordinate System Direct Drawing Dimension Programming G code System A Chamfering/comer R Programmable Data Input Sub Program Call Custom Macro B Canned Oycles Multiple Repetitive Cycle Multiple Repetitive Cycle 2 (Pocket profile) Canned Oycles for Drilling Program Stop / Program End Circular interpolation by 9-digit R designation rry Spindle Speed Function:	Std. Std. Std. Std. Std. Std. Std. Std. Std. 1 1 ± 9-Digit	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. Without 16. 17. 18.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Rigid Tapping (C-axis) with Victor's own PMC DDS SPECIFICATION rdware included: Conversational programming (Manual guide i)*1 Conversational guide i) Fast Ethernet (100Mbps, available in Data server) Tool life management Part Program Storage Length 5120m/2MB (in total) Polygon turning (by C-axis) with Victor's own PLC Manual handle feed 2 (2nd MPG) Reader/Puncher interface 2 (2nd MPG) Reader/Punche	Std. Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (32+B only) Std. Oi-F NA. NA. NA. NA. NA. NA. NA. NA. NA. NA
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111. 111. 111. 111. 111. 111. 111. 111	Feed Stop Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Block Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Setting Work piece Coordinate System Direct Drawing Dimension Programming G code System A Chamfering/comer R Programmable Data Input Sub Program Call Custom Macro B Canned Oycles Multiple Repetitive Cycle Multiple Repetitive Cycle 2 (Pocket profile) Canned Oycle for Philing Program Stop / Program End Circular interpolation by 9-digit R designation Pry Spindle Speed Function: Auxiliary Function Lock High Speed M / S / T Interface Spindle Speed Function	Std.	5. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3. 4. 4. 5. 6. 6. 7. 8. 9. 9. 10. 11. 12. 13. 14. 15. Without 16. 17. 18.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Rigid Tapping (C-axis) with Victor's own PMC DIS SPECIFICATION Triving Conversational programming (Manual guide I)** Conversational programming (Manual guide I)** Conversational programming (Gap I) Data server (with PCB and ATA card) Fast Ethernet (100Mbps, available in Data server) Tool Iffe management Part Program Storage Length 2560m/1MB (In total) Part Program Storage Length 5120m/2MB (In total) Part Program Storage Length 5120m/2MB (In total) Part Program Storage Length 5120m/2MB (In total) Pertonal block skip 2-9 blocks Polygon turning (by C-axis) with Victor's own PLC Manual handle feed 2 (2nd MPG) Reader/Puncher interface 2 (2* RS232 interface) External data input USB port Porgram nestart Profibus hardware Included: Program number O8-digit Circular thread cutting (G35) Number of registered program 1000 (in total) G code system B/C Type format for FS 10/11 Play back 3-dimensional coordinate system conversion Direct input of offset value measured for 2 spindle lathe	Std. Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (32i-B only) Std. Oi-F N.A. Std. Std. Std. Std. Std.
11. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 220. 221. 222. 23. 244. 25. 26. 27. 28.	Feed Stop m Input: EIA / ISO Automatic Recognition Label Skip Parity Check Control In / Out Optional Blook Skip Max. Programmable Dimension Program Number Sequence Number Absolute / Incremental Programming Decimal Point Programming / Pocket Calculator Type Decimal Point Programming / Pocket Calculator Type Decimal Point Programming Input Unit 10 Time Multiply Diameter / radius programming Input Unit 10 Time Multiply Diameter / radius programming Plane Selection Automatic Coordinate System Setting Work piece Coordinate System Direct Drawing Dimension Programming G code System A Chamfering/corner R Programmable Data Input Sub Program Call Custom Macro B Canned Cycles Multiple Repetitive Cycle Multiple Repetitive Cycle 2 (Pocket profile) Canned Cycles for Drilling Program Stop / Program End Circular interpolation by 9-digit R designation rry Spindle Speed Function: Auxiliary Function Lock High Speed M / S / T Interface	Std.	6. 6. 7. 8. 9. 10. 11. Optic ITEM With ha 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. Without 16. 17. 18. 19. 20. 21. 22.	Axis Control by PMC Control Axis Detach (for Cf axis) Polar Coordinate Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Cylindrical Interpolation Rigid Tapping (C-axis) with Victor's own PMC DDS SPECIFICATION rdware included: Conversational programming (Manual guide i)*1 Conversational programming (Cap. i) Data server (with PCB and ATA card) Fast Ethernet (100Mbps, available in Data server) Tool life management Part Program Storage Length 2560m/1MB (in total) Part Program Storage Length 2560m/1MB (in total) Part Program Storage Length 2560m/1MB (in total) Part Program Storage Length 2560m/2MB (in total) Poptional block skip 2-9 blocks Polygon turning (by C-axis) with Victor's own PLC Manual handle feed 2 (2nd MPG) Reader/Puncher interface 2 (2* RS232 interface) External data input USB port Porgram nestart Profibus hardware included: Program number 08-digit Circular thread cutting (G35) Number of registered program 1000 (in total) G code system B/C Type format for FS 10/11 Play back 3-dimensional coordinate system conversion	Std. Std. Std. Std. Std. (G112/G113) Std. (G107) Std. (32I-B only) Std. Oi-F NA NA NA NA NA NA NA NA NA N

Machine Specification



Item \ mod	lel	Unit	Vturn-V560 (CV)	Vturn-V760 (CV)	Vturn-V1000 (CM)	
	Swing over bed	inch	23.6	35.4	39.3	
0 14	Max. turning dia.	inch	22	29.9	39.3	
Capacity	Max. turning length	inch	20.5	29.9	33.4 (32.4)	
	Std. turning dia.	inch	18.5	24.8	34.8 (29.7)	
To an and	X axis stroke	inch	11+5.1	14.9+1.57 (15+1.2 for CV)	19.6+1.57	
Travel	Z axis stroke	inch	21.3 (20.5)	31.4	33.4	
	Max. spindle speed	rpm	2000	2000	1500	
	Spindle base speed	rpm	83	83	96	
	Spindle nose	inch	A2-8	A2-11	A2-15	
Spindle	Spindle bore	inch	3.4	4.1	4.1	
	Inner bearing (front)	inch	5.1	6.3	7.8	
	Chuck diameter	inch	12" (opt. 10"/15"/18")	18" (opt. 15"/21"/24"/28")	24" (opt. 28"/32"/36"/40")	
	Max. part weight	lbs	1305	2552	2755	
	No. of tools	no.	8	12	12	
	No. of live tools (opt.)	no.	8 (VDI-40) (DIN-5482, axial type, left-hand)	12 (VDI-50) (DIN-5480, radial type, left-hand)	12 (BMT-85)	
Turret	Tool shank size	inch	1 1/4"	1 1/4"	1 1/4"	
	Max. boring bar dia.	inch	2"	2 1/2"	2 1/2" (opt. 3")	
	Exchange time	sec.	1 (hydraulic)	1 (hydraulic) (0.2 servo for CV)	1 (hydraulic) (0.2 servo for CM)	
	Rapid feedrate	ipm	X/Z=590/945	X/Z=787/787	X/Z=787/787	
E to t -	X axis ballscrew	inch	Ø2 x P0.39	Ø1.57 x P0.39	Ø2 x P0.31	
Feedrate	Z axis ballscrew	inch	Ø1.57 x P0.39	Ø1.57 x P0.39 Ø2 x P0.31 Ø2 x P0.39 Ø2 x P0.31		
	JOG feedrate	ipm	X/Z=0~49.6	29.9 33.4 (32.4) 24.8 34.8 (29.7) 14.9+1.57 (15+1.2 for CV) 19.6+1.57 31.4 33.4 2000 1500 83 96 A2-11 A2-15 4.1 4.1 6.3 7.8 18" (opt. 15"/21"/24"/28") 24" (opt. 28"/32"/36"/40") 2552 2755 12 12 12 12 (VDI-50) 11/4" 21/2" 21/2" (opt. 3") 1 (hydraulic) (0.2 servo for CV) X/Z=787/787 Ø1.57 x P0.39 Ø2 x P0.31		
	Spindle motor	HP	20/25 (α P30i) opt. 25/30 (α P40i)		50/60 (α 40i)	
Motor	Gearbox		ZF Gearbox (std.)	ZF Gearbox (std.)	ZF Gearbox (std.)	
	X/Z axis servo motor	HP	X:5.4, Z:5.4	X:5.4, Z:9.4	X:5.4, Z:9.4	
	Milling motor (opt.)	HP	5.4	9.4	9.4	
	Fanuc controller		0i-T	0i-T	0i-T	
	Coolant tank	Gallon	68	79	105	
Machine	$W \times L \times H$ (including chip conveyor)	inch	60 x 128 x 115	80 x 154 x 134	99 x 164 x 140	
	Power requirement	kVA	40 (45 for CV)	48 (56 for CV, 65 for α 30i)	83 (90 for CM)	
	Net weight	lbs	13420	27500	35280	

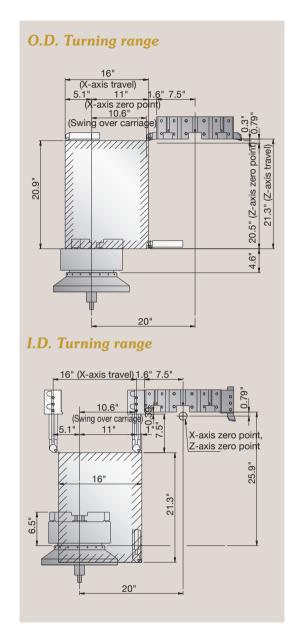
Standard accessories

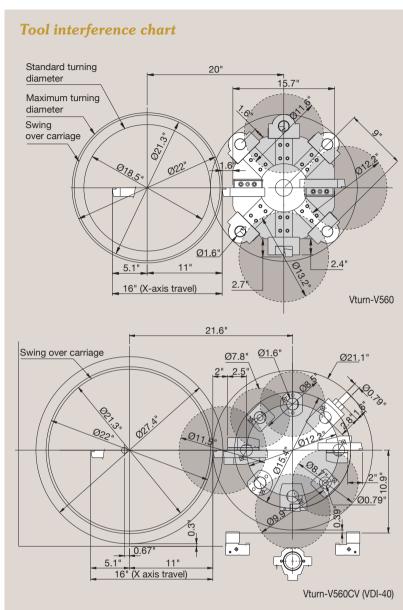
- · Solid chuck with soft jaws
- $\cdot \text{ Chip conveyor (rear disposal)}$
- · Automatic forced lubrication
- · Fully enclosed splash guarding
- · Tool holders (exch VDI tooling)
- · 3 step warning light
- · Fanuc 0i-T control
- · Remote MPG (handwheel) (except Vturn-V560)
- · Oil cooler for gearbox (Vturn-V760/V1000)
- · Fanuc e-book (CD)

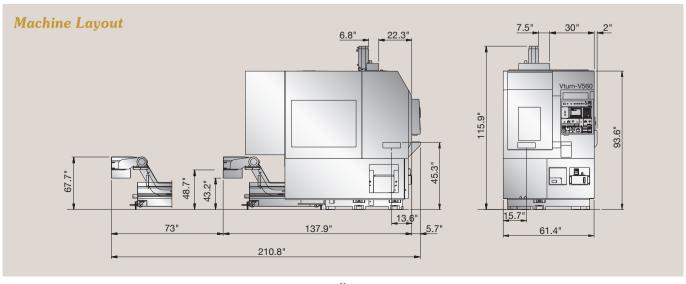
Optional accessories

- · Bigger chucks (21" chuck/1700rpm, 24" chuck/1400rpm, 28" chuck/1200rpm, 32" chuck/1100rpm, 36" chuck/1000rpm, 40" chuck/800rpm)
- · Oil skimmer
- · Bigger spindle motor
- \cdot Renishaw tool presetter (detachable) (Max. 15" chuck for VT-V560, 24" chuck for VT-V760, 36" chuck for V1000)
- · High pressure coolant
- · Auto door
- · VDI turret (except Vturn-V1000)
- · Higher column (3.93" more)
- · Fanuc 32i control
- · Right disposal chip conveyor (for Vturn-V760/V1000)
- \cdot Detachable chip conveyor (to reduce the floor space when cleaning)
- · Fanuc Manuals

Vturn-V560

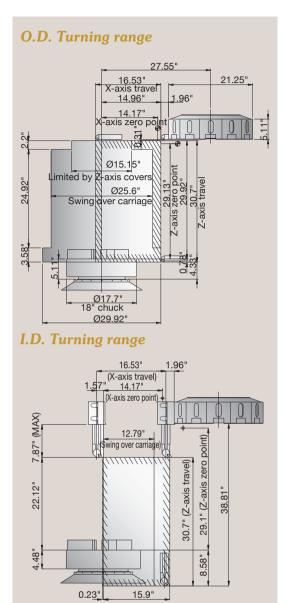


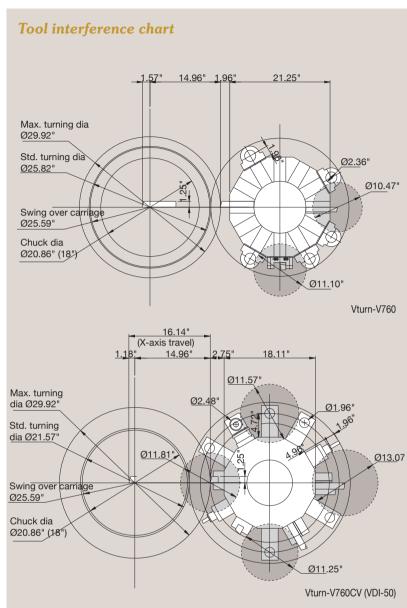


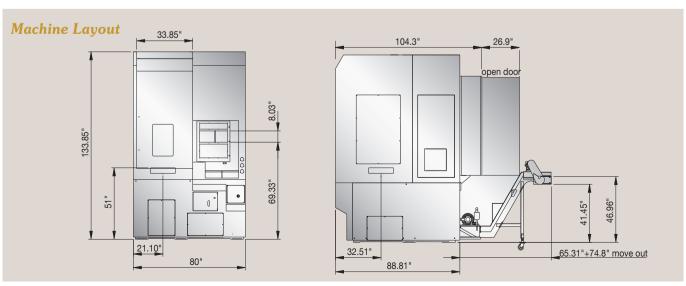


Vturn-V760

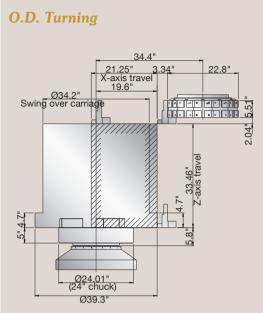




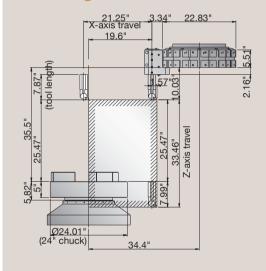


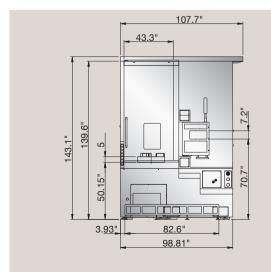


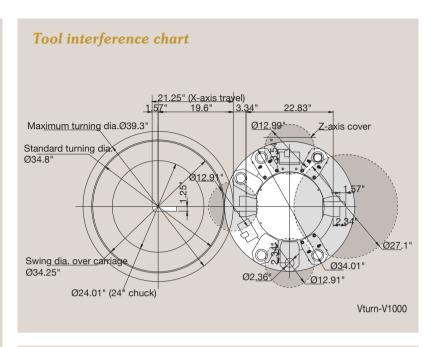
Vturn-V1000



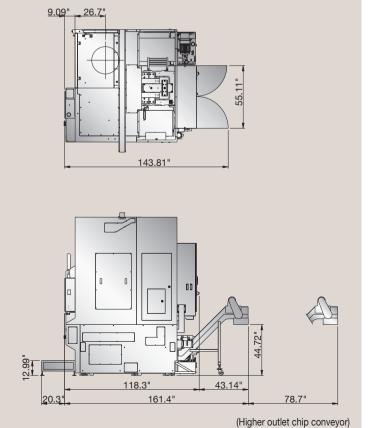
I.D. Turning





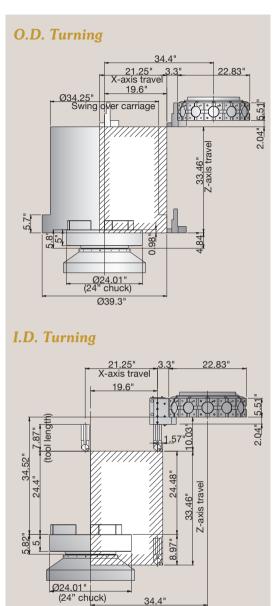


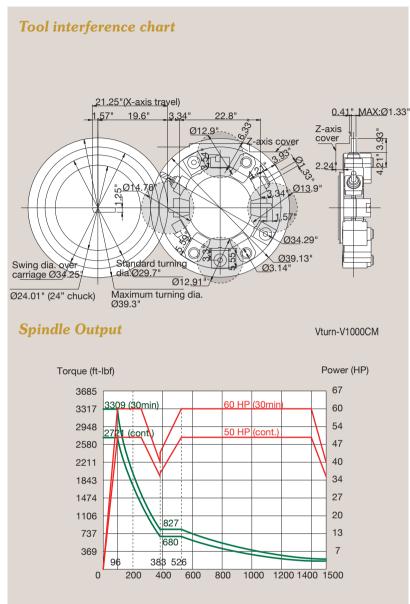
Machine Layout (excl. Transformer)

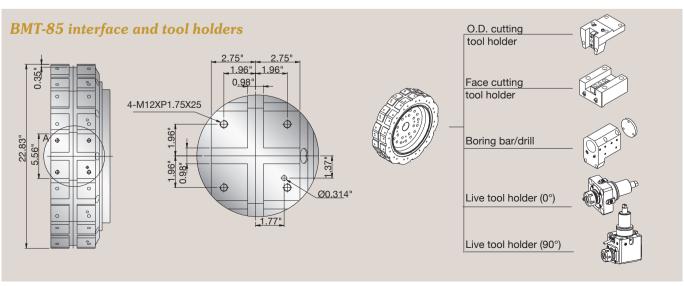


Vturn-V1000CM









P1(*30 min. in low winding) P2(cont. in low winding) P3(*30 min. in high winding) P4(cont. in high winding)

S1(base RPM in low winding) S2(base RPM in high winding) S3(max. RPM in low winding) S4(max. RPM in high winding)

Torque (ft-lbf) T3 T2 S1 S3 (rpm)

T1(*30 min. in low winding) T2(cont. in low winding) T3(*30 min. in high winding) T4(cont. in high winding)

S1(base RPM in low winding) S2(base RPM in high winding) S3(max. RPM in low winding) S4(max. RPM in high winding)

*30 min. may be replaced by 15%, 15 min. or 20 min. according to Fanuc technical specification.

Model	Spindle Motor	Base Speed (rp	om)	Max. Speed (rpm)	P Cont. kW (HP)	P. kW (HP)	TorCont. (ff-lbf)	Tor. (ff-lbf)
Vturn-V560	α P30 i	Low winding	216	1500	11 (15)	18.5 [25] (30 min.)	358.7	603.9 (30 min.)
Vturri-voou		High winding	310	2500	15 (20)	18.5 [25] (30 min.)	340.6	420.2 (30 min.)
Ont	αP40i	Low winding	216	1500	13 (17.4)	22 [30] (30 min.)	423.8	718.2 (30 min.)
Opt.		High winding	310	2500	18.5 (25)	22 [30] (30 min.)	420.2	499.07 (30 min.)
Ont (with groups)	α30i	1st step	155	809	30 (40)	37 [50] (30 min.)	1361.9	1676.6 (30 min.)
Opt. (with gearbox)		2 nd step	621	2500	30 (40)	37 [50] (30 min.)	340.6	419.5 (30 min.)
Vturn-V760	αP40i	1 st step	83	L: 10~250 H: 251~500	18.5 (25)	22 [30] (30 min.)	L: 1099.4 H: 513.5	L: 1858.8 (15%) H: 614.8 (15%)
viurn-v760		2 nd step	501	L: 501~1000 H: 1001~2000	18.5 (25)	22 [30] (30 min.)	L: 180.8 H: 130.1	L: 303.7 (60%) H: 151.8 (60%)
Ont	α30i	1st step	144	575	30 (40)	37 [50] (30 min.)	1492.8	1828.5
Opt.		2 nd step	438	2000	30 (40)	37 [50] (30 min.)	416.6	457.1

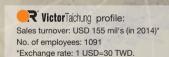
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VTL







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