Taiwan TAKISAWA Technology Co., Ltd.

Pingchen /
No. 505, Sec 3, Yenping Rd., Pingchen Dist.,
Taoyuan City 324, Taiwan
TEL: +886-3-4643166 FAX: +886-3-4642614

Yangmei /
No. 89, Sec. 1, Meishi Rd., Yangmei Dist.,
Taoyuan City 326, Taiwan
TEL.: +886-3-4813119 FAX: +886-3-4813185
E-mail: callcenter@takisawa.com.tw

Shanghai TAKISAWA Mechatronics Ltd.

Shanghai /
No. 1568, Yuanguo Road, Anting Town,
Jiading District, Shanghai
TEL: +86-21-59562955 FAX: +86-21-59562956

TAKISAWA Tech Corp

U.S.A /
15271 Fairfield Ranch Rd., Unit 130,
Chino Hills, CA 91709, U.S.A
TEL: +1-866-606-6143 / +1-909-308-0903
E-mail: joshua.huang@takisawatechcorp.com

TAKISAWA Tech Asia Co.,Ltd.

Thailand /
18/31 M.7, Bangchalong, Bangphi,
Samutprakan, 10540. Thailand
TEL: +66-20465900 FAX: +66-20465901
E-mail: nuttapong@ttakisawa.com

www.takisawa.com.tw

TAKISAWA TAIWAN

VTL Series

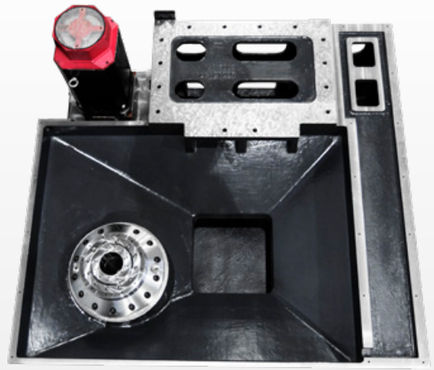
VTL-350 / VTL-450(M) / VTL-750A /
VTL-760(M) / VTL-950(M) / VTL-1100(M)

CNC Turning Center

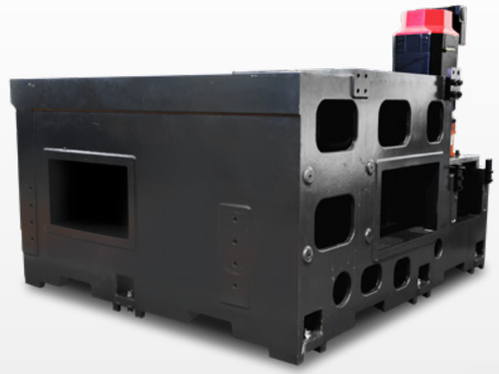
TAKISAWA TAIWAN

Heavy Duty Vertical Turning Center

- Excellent heavy duty cutting ability.
- Smooth chip flow designed bed.
- Productivity can be boosted with minimum investment by linking right and left units.



Designed for optimal chip disposal.



Provide side or rear chip conveyor to match plant layout.

01 Workpiece Size

	VTL-350	VTL-450	VTL-450M	VTL-750A	VTL-760	
Max. Turning Diameter	18.5	18.11	18.11	30.7	31.5	inch
Max. Turning Length	16.34	16.14	14.96	30.12	27.56	inch

	VTL-760M	VTL-950	VTL-950M	VTL-1100	VTL-1100M	
Max. Turning Diameter	31.5	37.4	37.4	47.24	47.24	inch
Max. Turning Length	26.77	33.86	33.86	38.78	38.78	inch

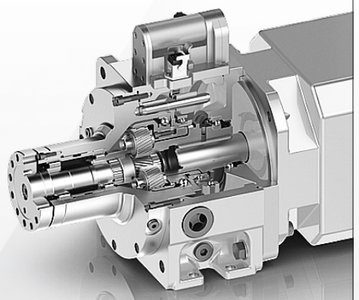
02 Travel & Rapid Traverse

	VTL-350	VTL-450	VTL-450M	VTL-750A	VTL-760	
X-Axis Travel	10.63	10.43	10.43	29.53	18.11	inch
X-Axis Rapid Traverse	787.4	787.4	787.4	787.4	787.4	ipm
Z-Axis Travel	18.5	18.5	18.5	33.46	30.31	inch
Z-Axis Rapid Traverse	787.4	787.4	787.4	590.55	590.55	ipm

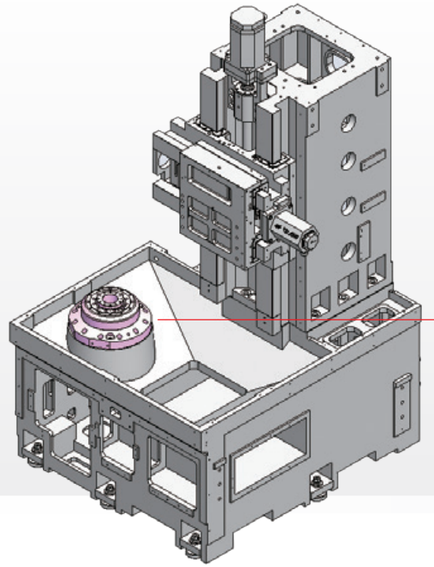
	VTL-760M	VTL-950	VTL-950M	VTL-1100	VTL-1100M	
X-Axis Travel	18.11	21.65	21.65	25.59	25.59	inch
X-Axis Rapid Traverse	787.4	787.4	787.4	787.4	787.4	ipm
Z-Axis Travel	30.31	35.43	35.43	44.88	44.88	inch
Z-Axis Rapid Traverse	590.55	590.55	590.55	590.55	590.55	ipm

Spindle

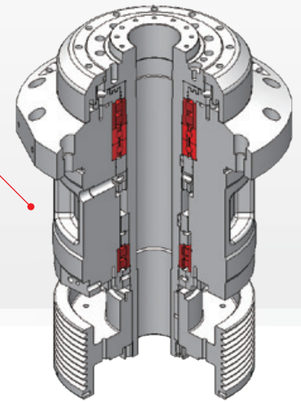
- The spindle has a symmetrical structure to minimize thermal deformation.
- The machine with a powerful spindle motor to provide more powerful cutting ability.

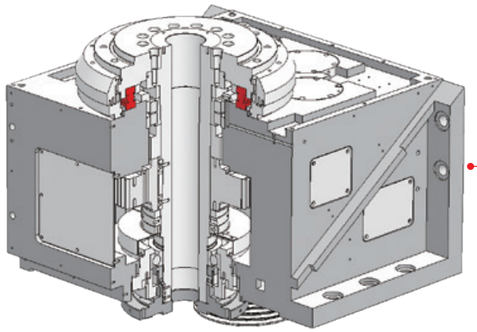


Can be matched with gear box to provide higher torque output.

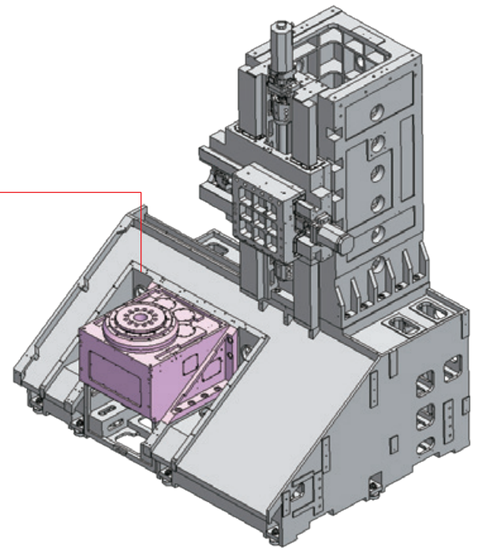


For VTL-350, VTL-450, VTL-750A, VTL-760, VTL-950 series, the spindle use of double-row cylindrical roller bearings and angular contact thrust ball bearings provides high speed and rigidity.





For VTL-1100 series, the design of spindle uses thrust bearing, which enable the large axial load and support more workpiece weights.



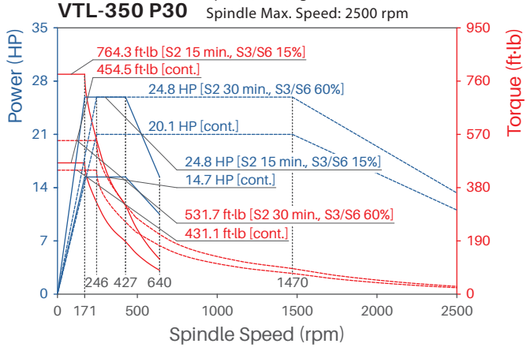
	VTL-350	VTL-450(M)	VTL-750A	VTL-760(M)	VTL-950(M)	VTL-1100(M)	
Spindle Nose	A2-8	A2-8	A2-11	A2-11	A2-11	A2-20	
Spindle Speed	2500	2500	1500	2000	850	850	rpm
Through Hole Diameter	2.76	2.76	4.33	3.03	4.33	4.33	inch
Bearing Inside Diameter	4.72	4.72	7.87	6.3	7.87	7.87	inch
Motor Output	24.8 / 20.1 (29.5 / 24.8)	34.9 / 29.5	49.6 / 40.2	49.6 / 40.2	49.6 / 40.2	73.7 / 60.3	hp
Max. Torque	764.3 (909)	297.9 / 1170.4	566.6 / 2493.1	631.3 / 2319.8	566.6 / 2493.1	5390.5	ft·lb
Standard Chuck Size	12	12	24	15	32	32	inch

Spindle Output Diagram

VTL-350

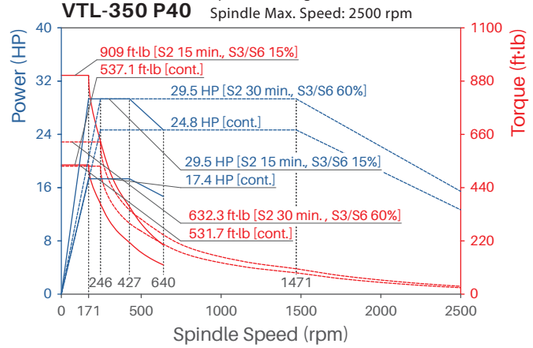
VTL-350 P30

Motor: aiIP 30/6000-B
Spindle Through Hole: Φ2.76 inch
Spindle Max. Speed: 2500 rpm



VTL-350 P40

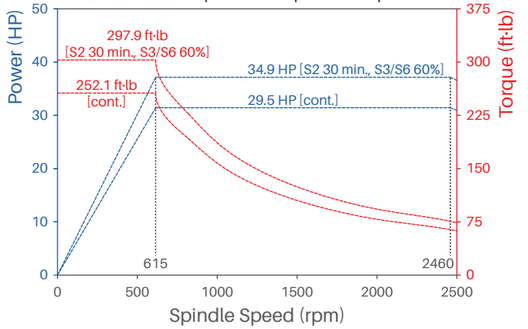
Motor: aiIP 40/6000-B
Spindle Through Hole: Φ2.76 inch
Spindle Max. Speed: 2500 rpm



VTL-450(M)

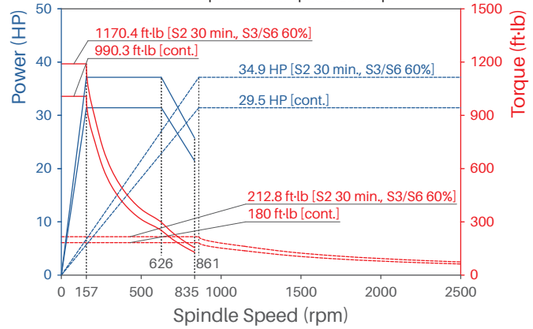
VTL-450(M)

Motor: aii 22/8000-B
Spindle Through Hole: Φ2.76 inch
Spindle Max. Speed: 2500 rpm



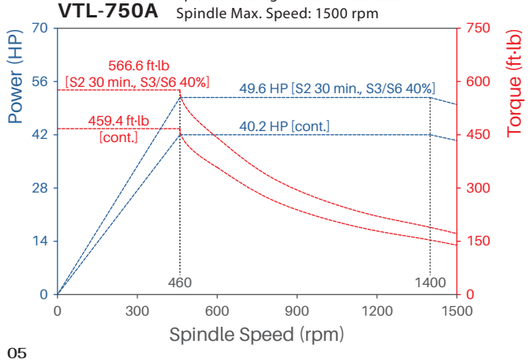
VTL-450(M) + 2K250

Motor: aii 22/8000-B + ZF Gear Box
Spindle Through Hole: Φ2.76 inch
Spindle Max. Speed: 2500 rpm



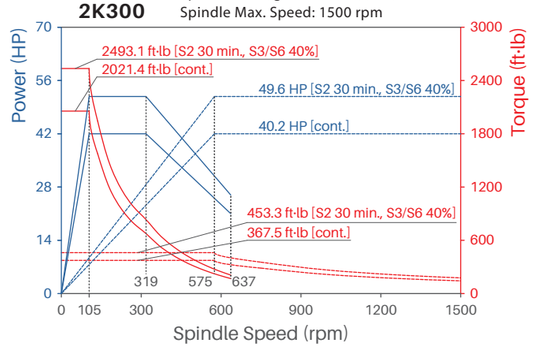
VTL-750A

Motor: aii 30/7000-B
Spindle Through Hole: Φ4.33 inch
Spindle Max. Speed: 1500 rpm



VTL-750A + 2K300

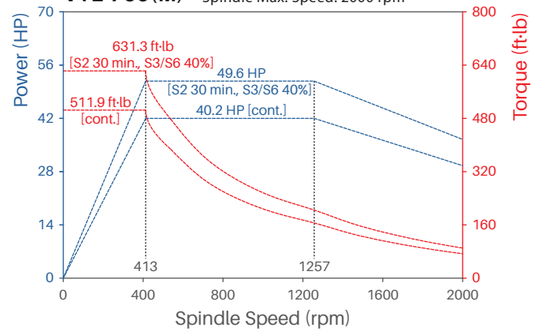
Motor: aii 30/7000-B + ZF Gear Box
Spindle Through Hole: Φ4.33 inch
Spindle Max. Speed: 1500 rpm



VTL-760(M)

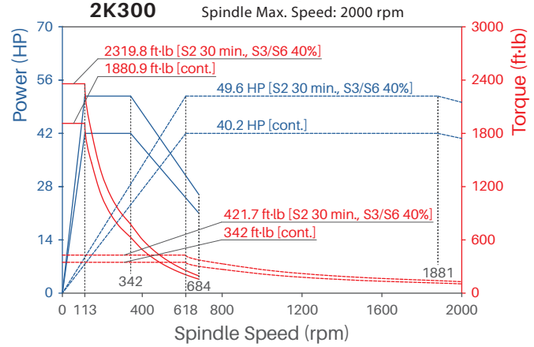
VTL-760(M)

Motor: aii 30/7000-B
Spindle Through Hole: Φ3.03 inch
Spindle Max. Speed: 2000 rpm



VTL-760(M) + 2K300

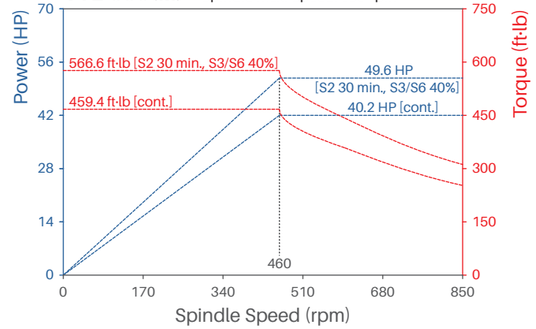
Motor: aii 30/7000-B + ZF Gear Box
Spindle Through Hole: Φ3.03 inch
Spindle Max. Speed: 2000 rpm



VTL-950(M)

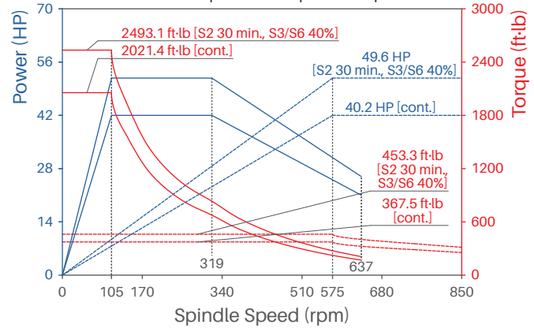
VTL-950(M)

Motor: aii 30/7000-B
Spindle Through Hole: Φ4.33 inch
Spindle Max. Speed: 850 rpm



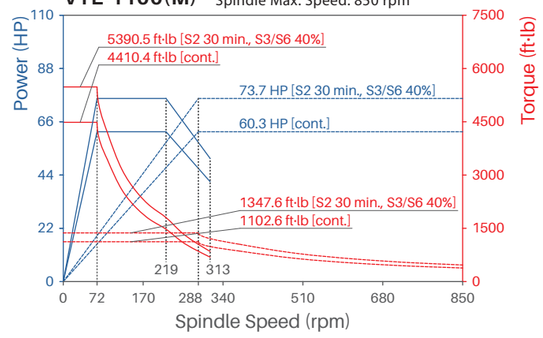
VTL-950(M) + 2K300

Motor: aii 30/7000-B + ZF Gear Box
Spindle Through Hole: Φ4.33 inch
Spindle Max. Speed: 850 rpm



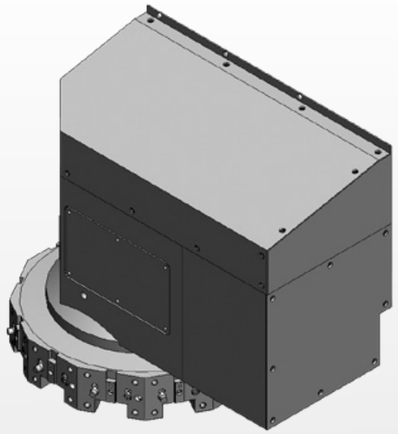
VTL-1100(M)

Motor: aii 50/5000-B
Spindle Through Hole: Φ4.33 inch
Spindle Max. Speed: 850 rpm



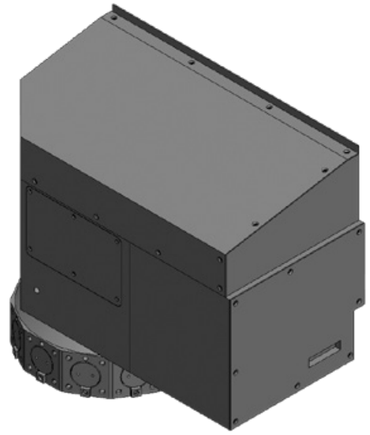
Turret

- Inside the turret, the large diameter of curvic coupling provides high rigidity and high accurcy.



01 Turning Turret

	VTL-350	VTL-450	VTL-760	VTL-950	VTL-1100	
Number of Tools	10	12	12	12	12	
O.D Tool Shank Dimension	1	1-1/4	1-1/4	1-1/4	1-1/4	inch
I.D Tool Shank Diameter	1-1/2	2	2	3 (4)	3 (4)	inch

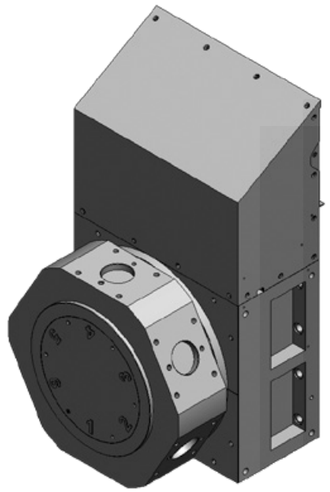


02 Milling Turret

	VTL-450M	VTL-760M	VTL-950M	VTL-1100M	
Number of Tools	12	12	12	12	
O.D Tool Shank Dimension	1	1-1/4	1-1/4	1-1/4	inch
I.D Tool Shank Diameter	1-1/2	2	3 (4)	3 (4)	inch
Milling Shank Diameter	25 / 32	1	1-5/16	1-5/16	inch
Milling Spindle Speed	4000	3500	3000	3000	rpm
Motor Output	7.4 / 5	10 / 7.4 (14.7 / 10)	14.7 / 10	14.7 / 10	hp
Max. Torque	48.2	70.4 (103.3)	103.3	103.3	ft·lb

03 A Type Turning Turret

	VTL-750A	
Number of Tools	6	
O.D Tool Shank Dimension	1-1/4	inch
I.D Tool Shank Diameter	2	inch



Milling Tool Holders

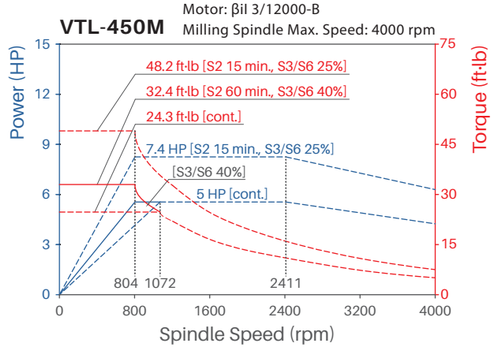
01	X-Axis Milling Tool Holder
02	Z-Axis Milling Tool Holder

Special Tool Holders

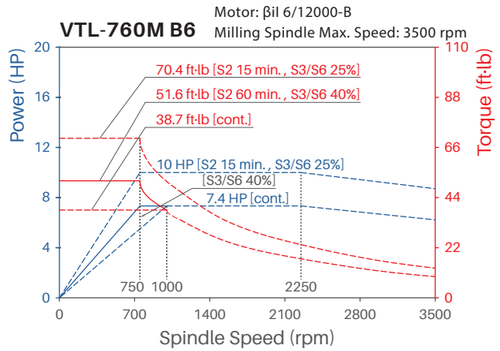
01	Gear Hobbing
02	Broaching
03	Power Skiving
04	Adjustable Angle Milling

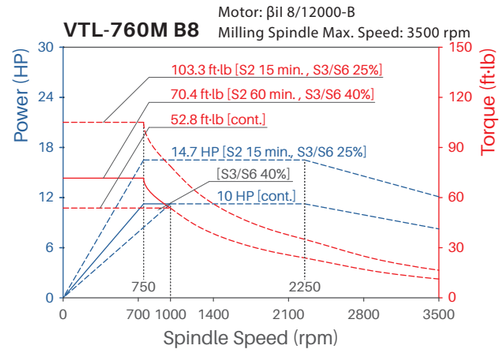
Spindle Output Diagram

VTL-450M

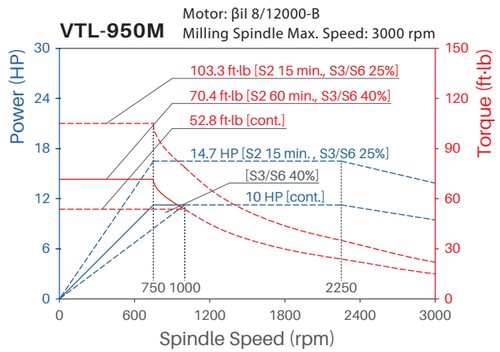


VTL-760M

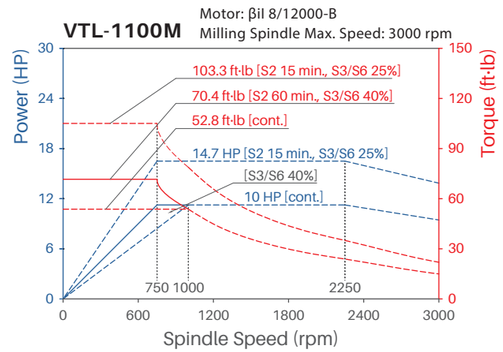




VTL-950M

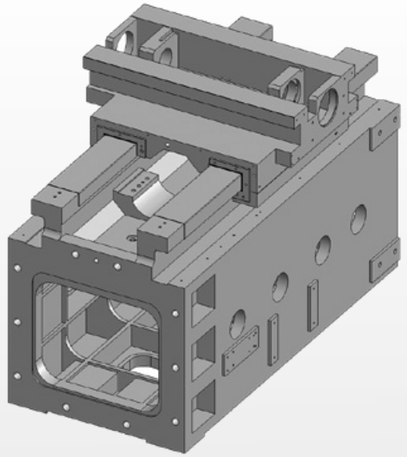


VTL-1100M

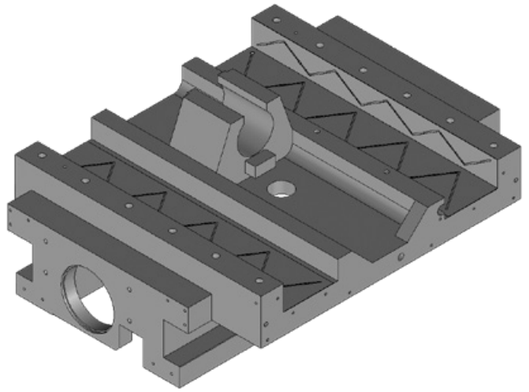


Structure

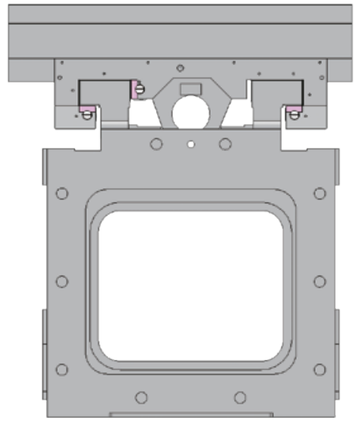
- The high rigidity box type column is fixed on the bed, so that can exert the cutting ability.
- The high rigidity structure can resist static and dynamic torsion.
- Symmetrical design greatly reduces the thermal deformation.



- The wide box guideway design can provide stable heavy cutting ability, and the hardness of the box guideway surface can reach HRC56 or more.



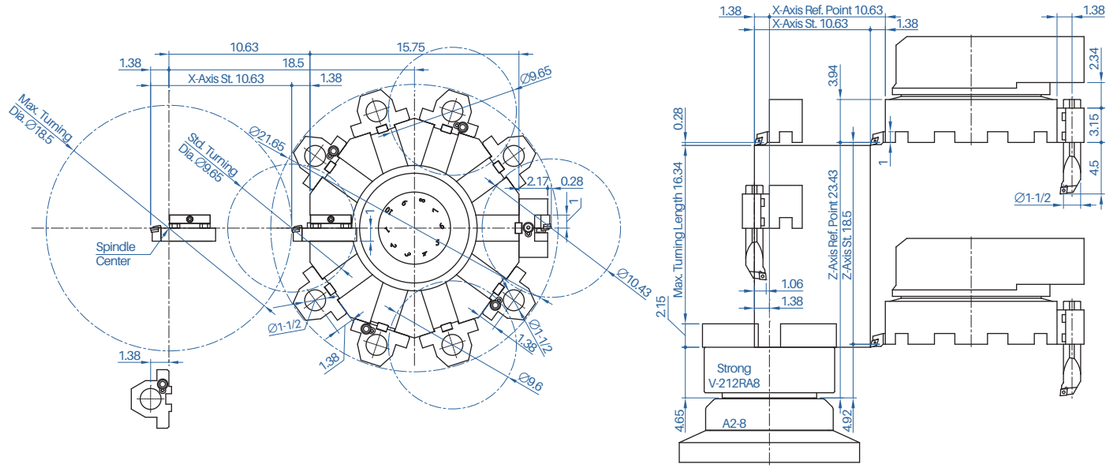
- The mating sliding faces are Turcite B coated allowing slide assemblies to move with ease and low friction.



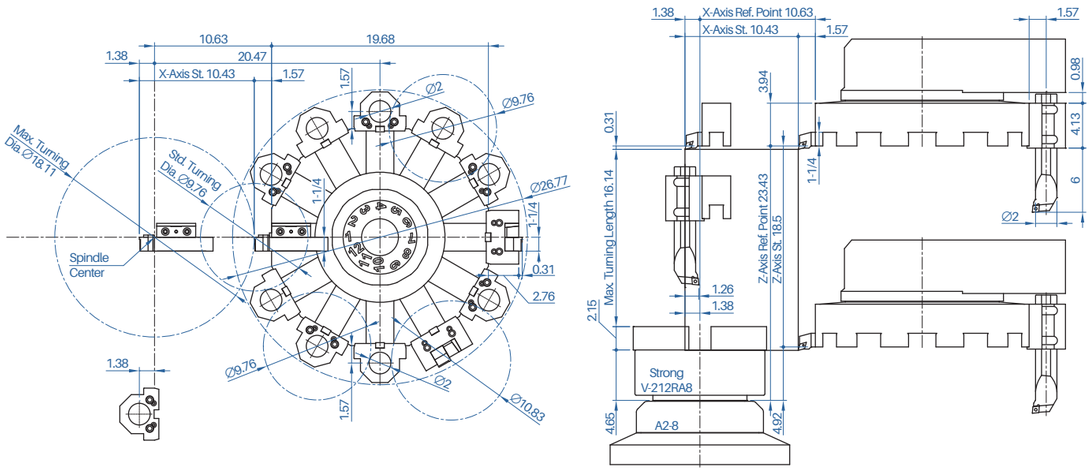
- There are three tapered wedges on each axis, which is convenient for maintenance when there is a problem with accuracy.

Interference & Working Range

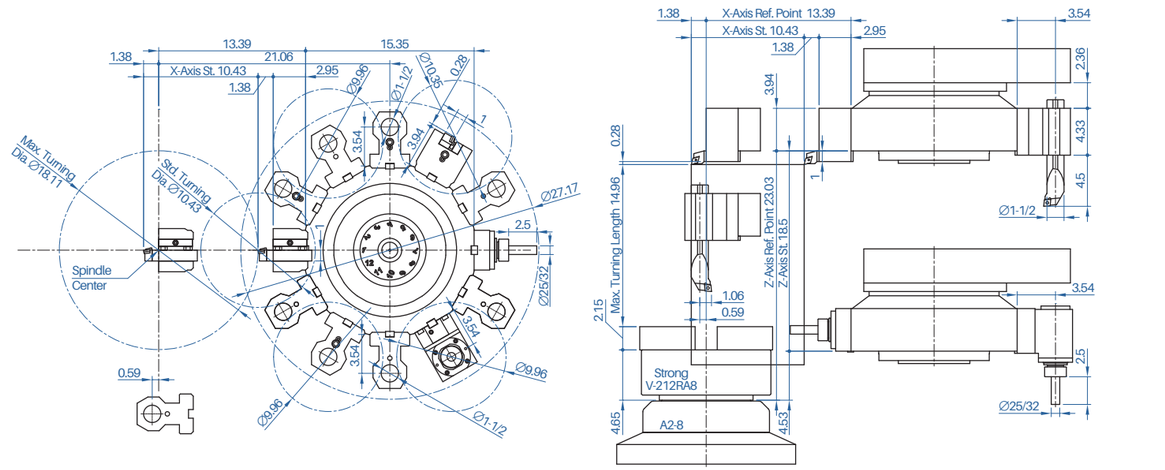
VTL-350



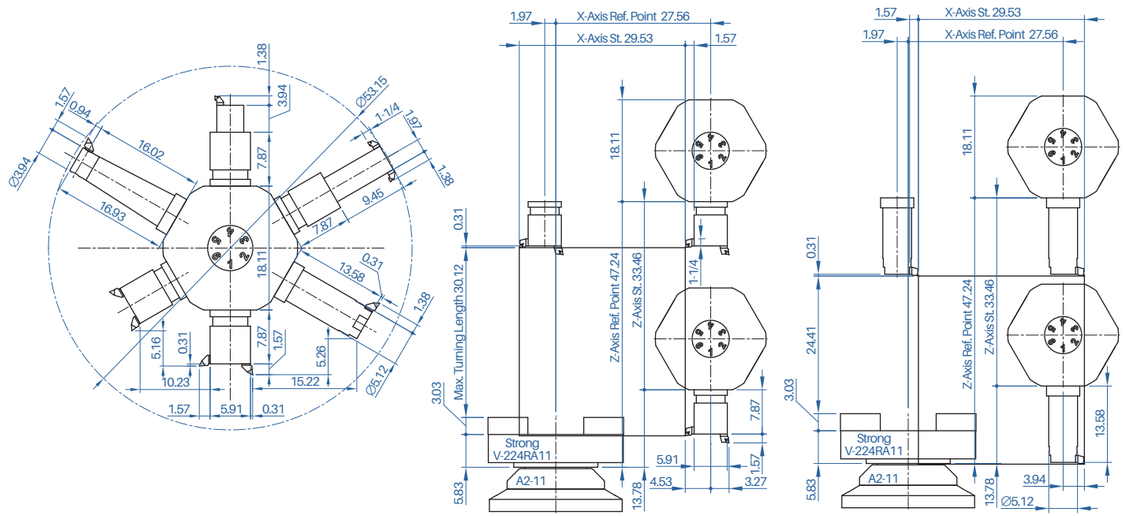
VTL-450



VTL-450M

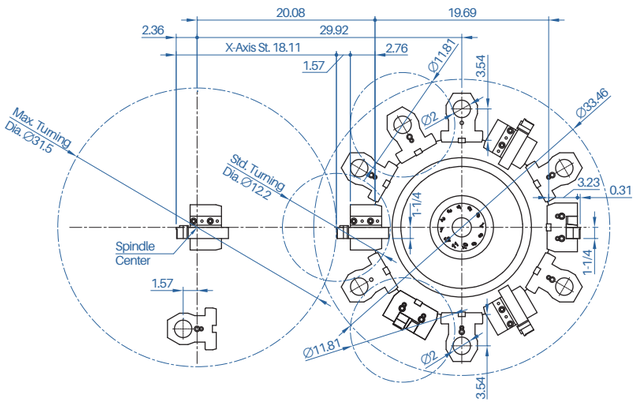


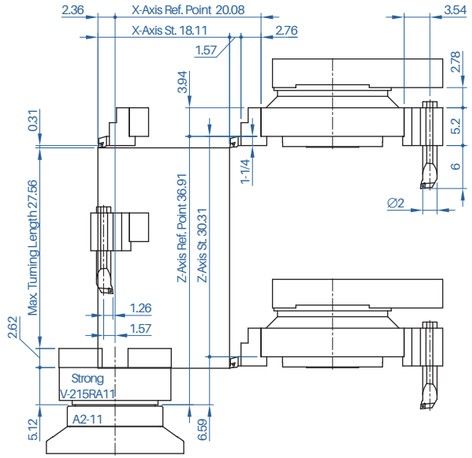
VTL-750A



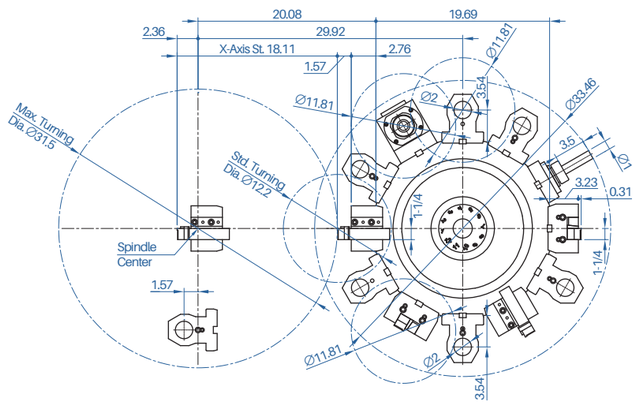
Interference & Working Range

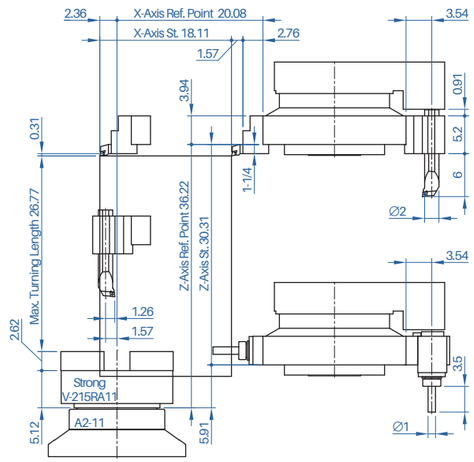
VTL-760



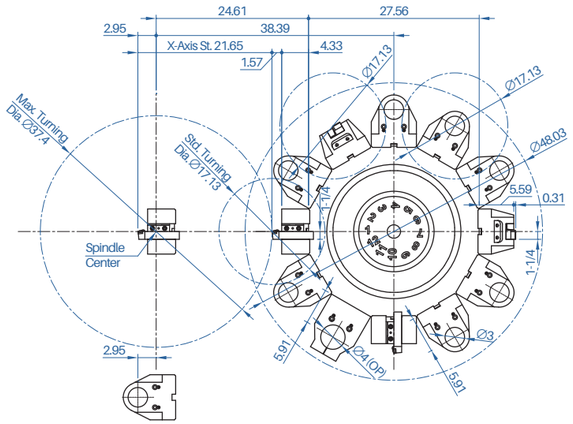


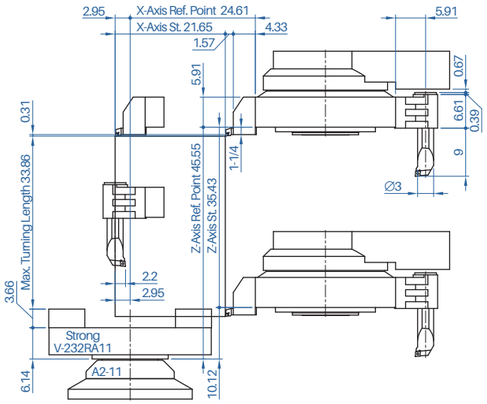
VTL-760M



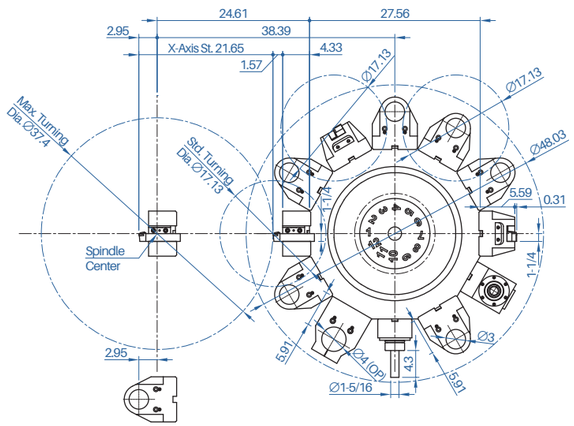


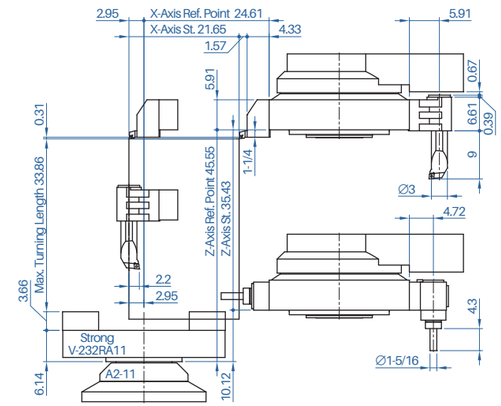
VTL-950





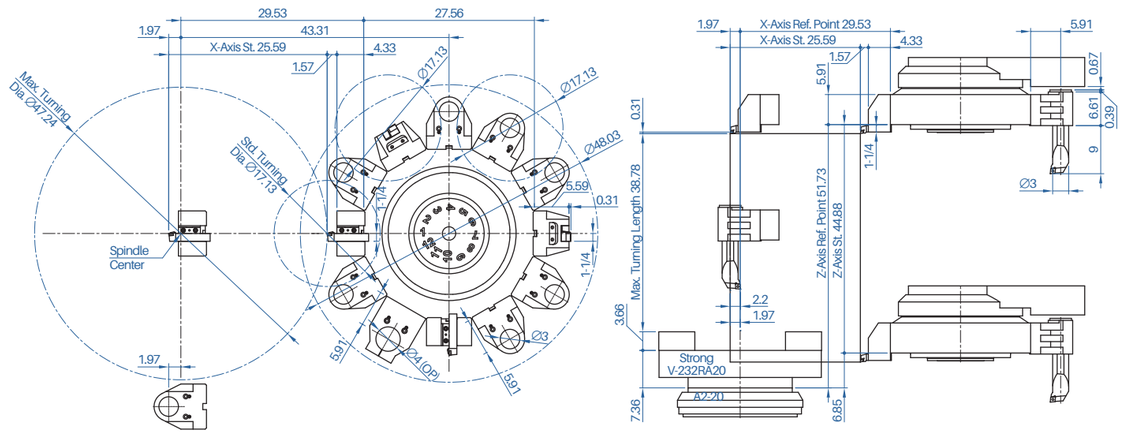
VTL-950M



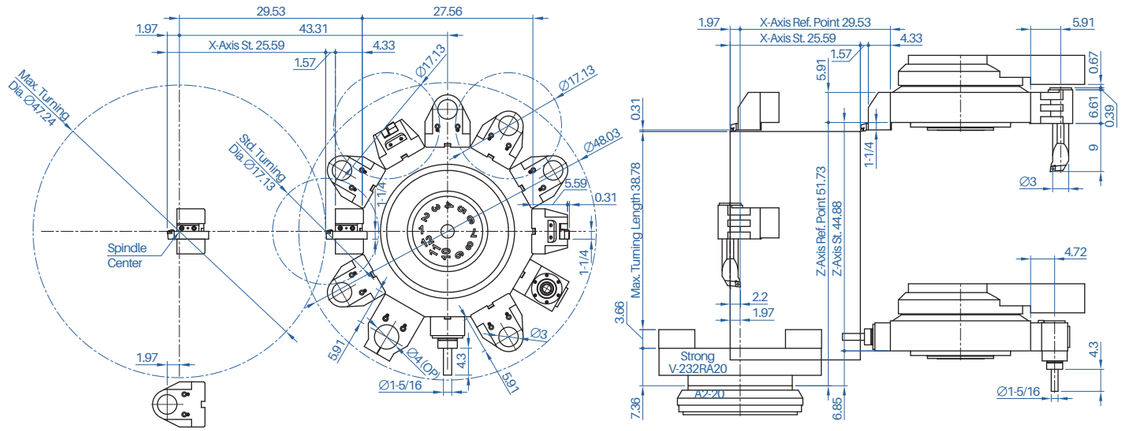


Interference & Working Range

VTL-1100

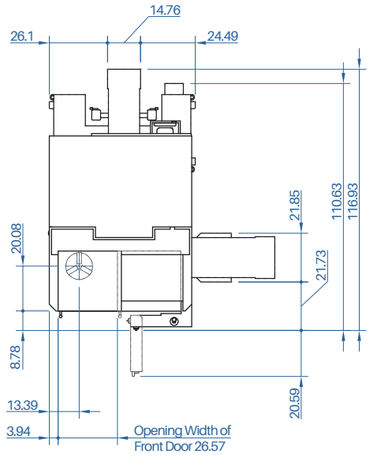


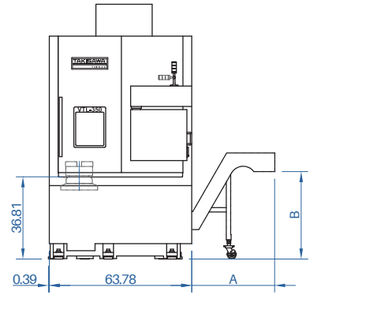
VTL-1100M

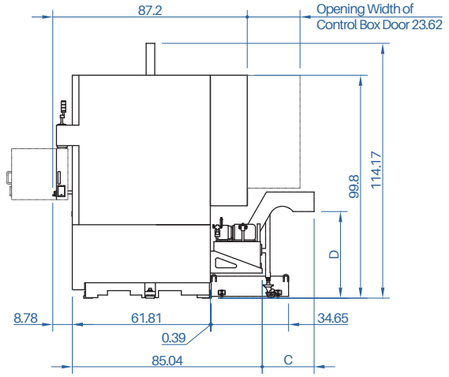


Machine Dimensions

VTL-350

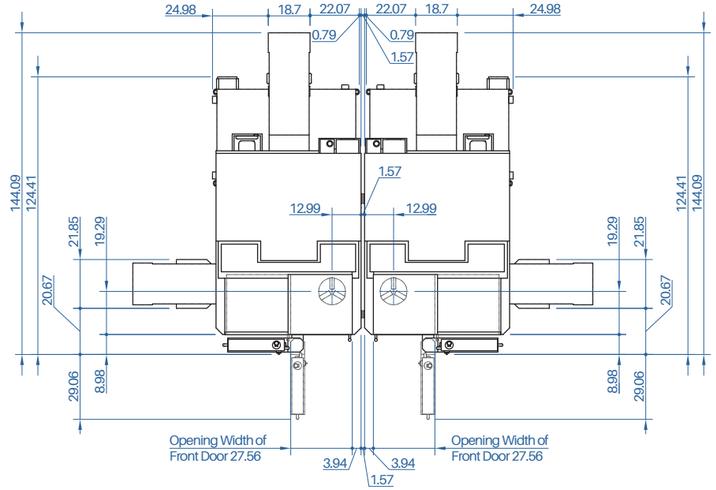


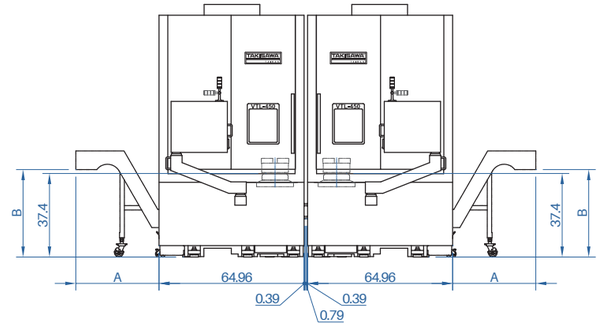


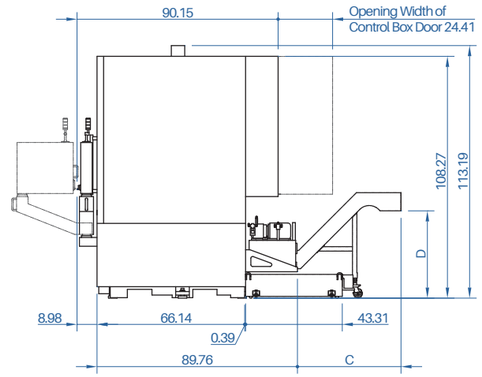


Chip Conveyor Dimension	A	B	C	D
Standard	37.27	38.58	23.26	38.77
CE	37.24	39.17	23.26	33.26
Italy	43.42	39.68	40.98	37.59
Switzerland	43.42	45.59	40.98	43.5

VTL-450(M)



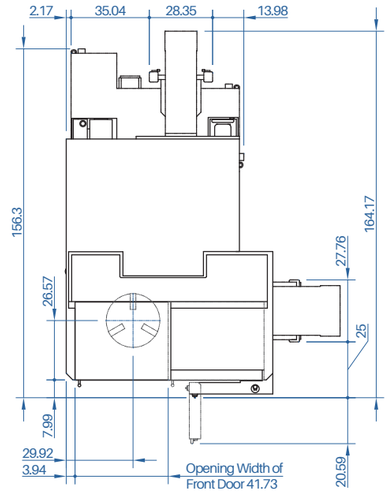


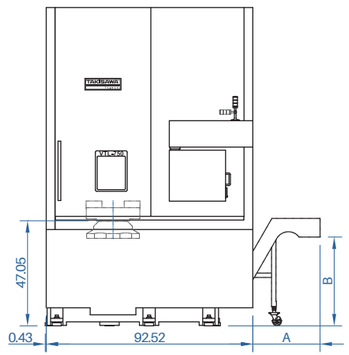


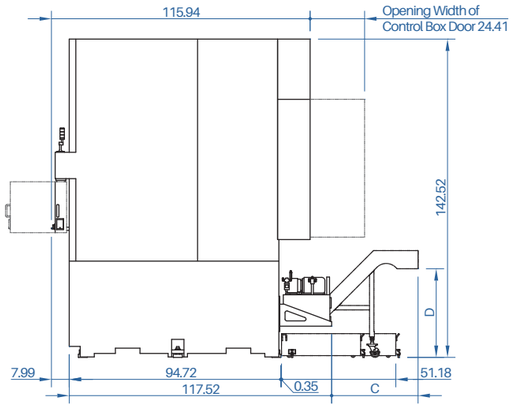
Chip Conveyor Dimension	A	B	C	D
Standard	37.24	38.58	46.37	39.09
CE	37.24	39.17	46.37	39.09
Italy	43.42	39.68	45	41.37
Switzerland	43.42	45.59	45	47.28

Machine Dimensions

VTL-750A

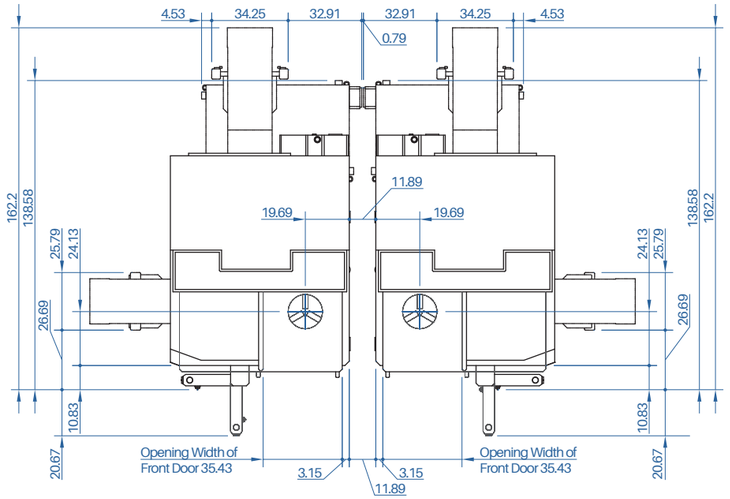


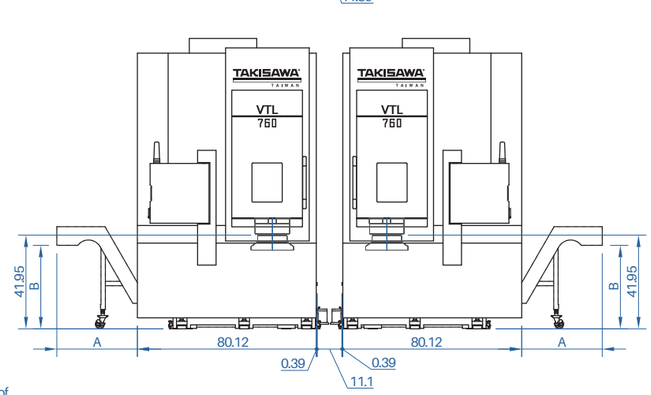


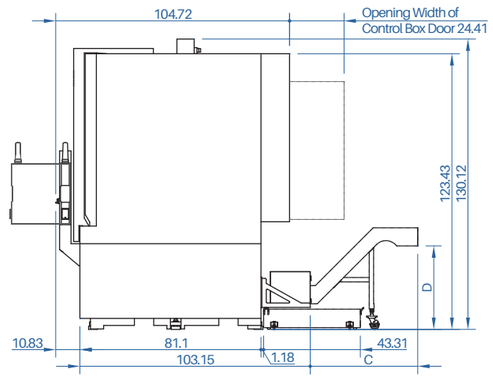


Chip Conveyor Dimension	A	B	C	D
Standard	30.11	40.55	38.7	39.68
CE	30.11	35.23	38.77	34.84
Italy	36.02	39.09	42.51	39.09
Switzerland	36.02	45	42.71	45

VTL-760(M)

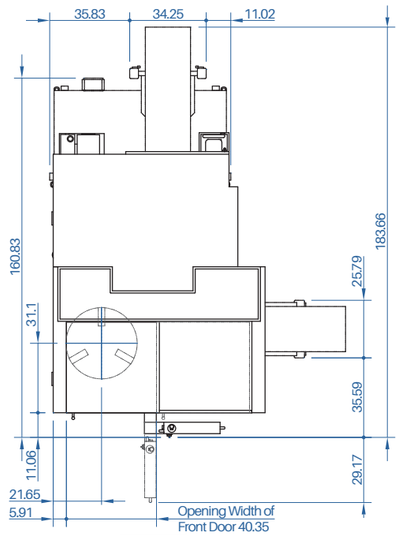


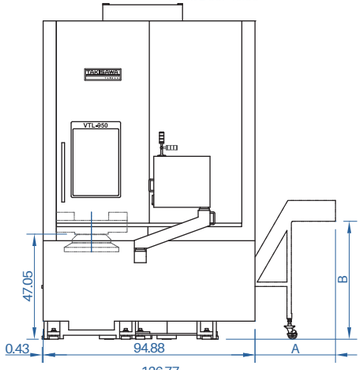


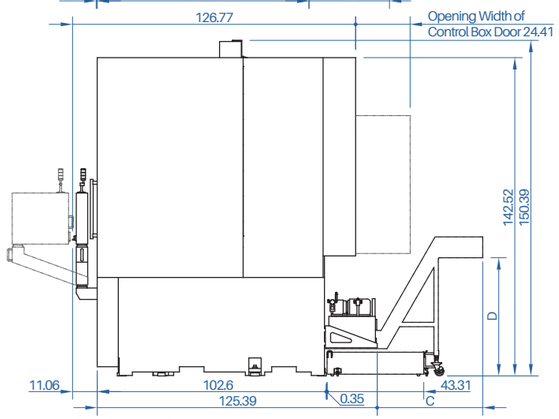


Chip Conveyor Dimension	A	B	C	D
Standard	36.06	37.4	48.14	37.36
CE	36.06	32.48	48.22	32.44
Italy	42.04	36.77	48.74	36.77
Switzerland	42.04	42.67	48.66	42.67

VTL-950(M)

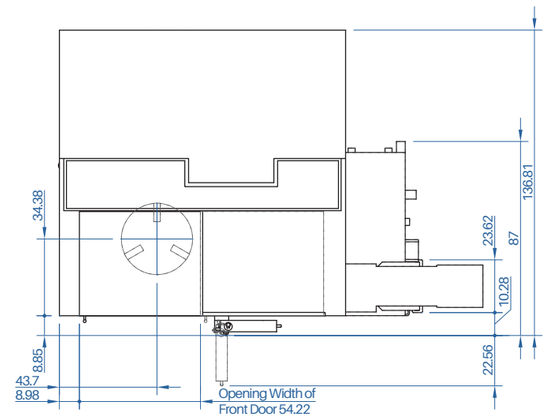


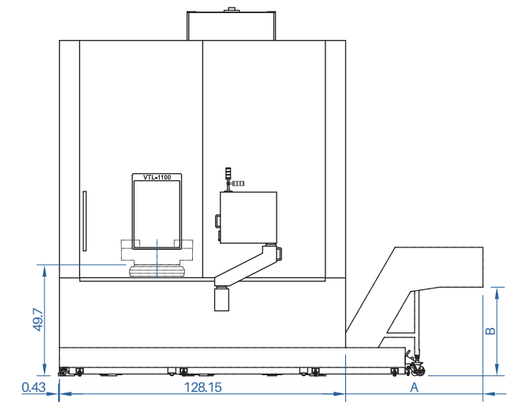


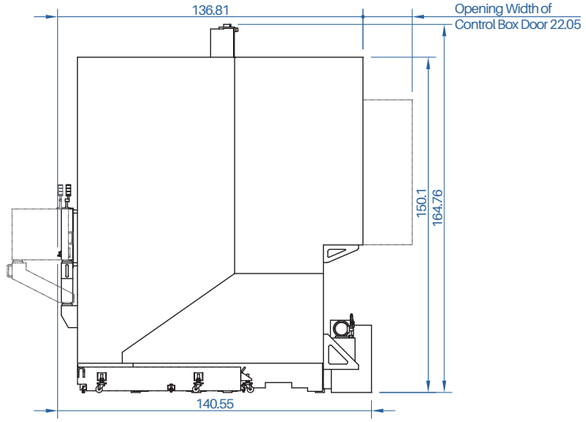


Chip Conveyor Dimension	A	B	C	D
Standard	36.02	52.95	47.28	52.91
CE	36.14	47.87	47.36	47.99
Italy	42.32	51.77	48.62	51.92
Switzerland	42.32	57.67	48.62	57.87

VTL-1100(M)



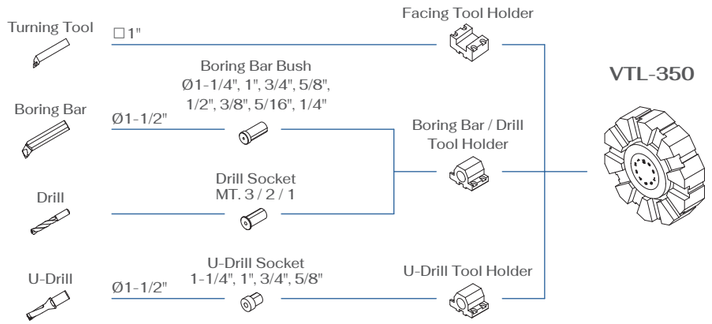




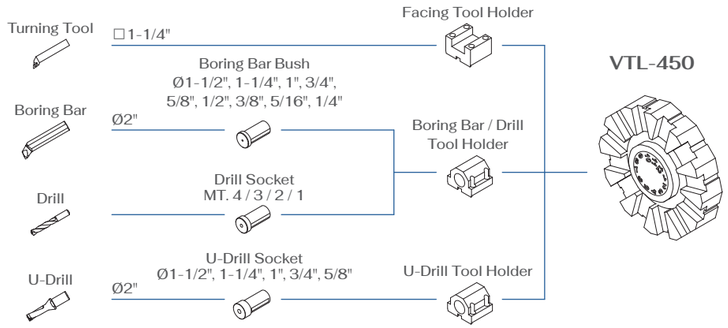
Chip Conveyor Dimension	A	B
Standard	61.61	39.76
CE	61.61	34.44
Italy	67.52	38.97
Switzerland	67.52	44.88

Tooling System

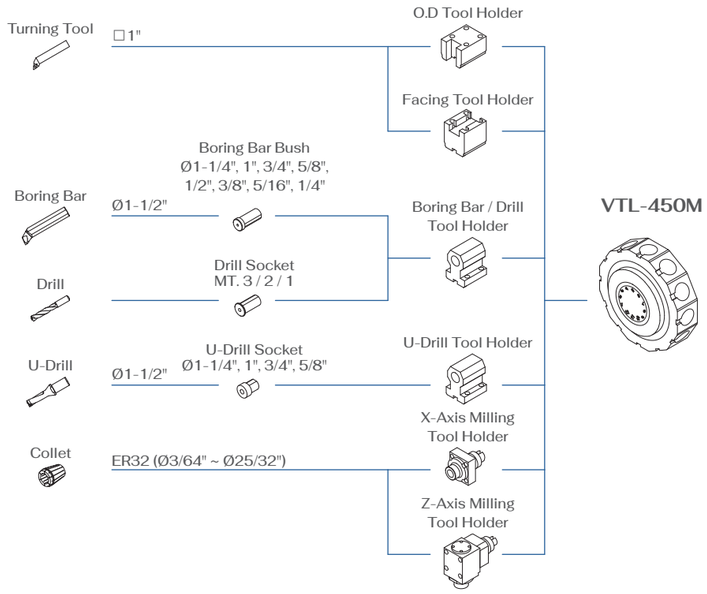
VTL-350



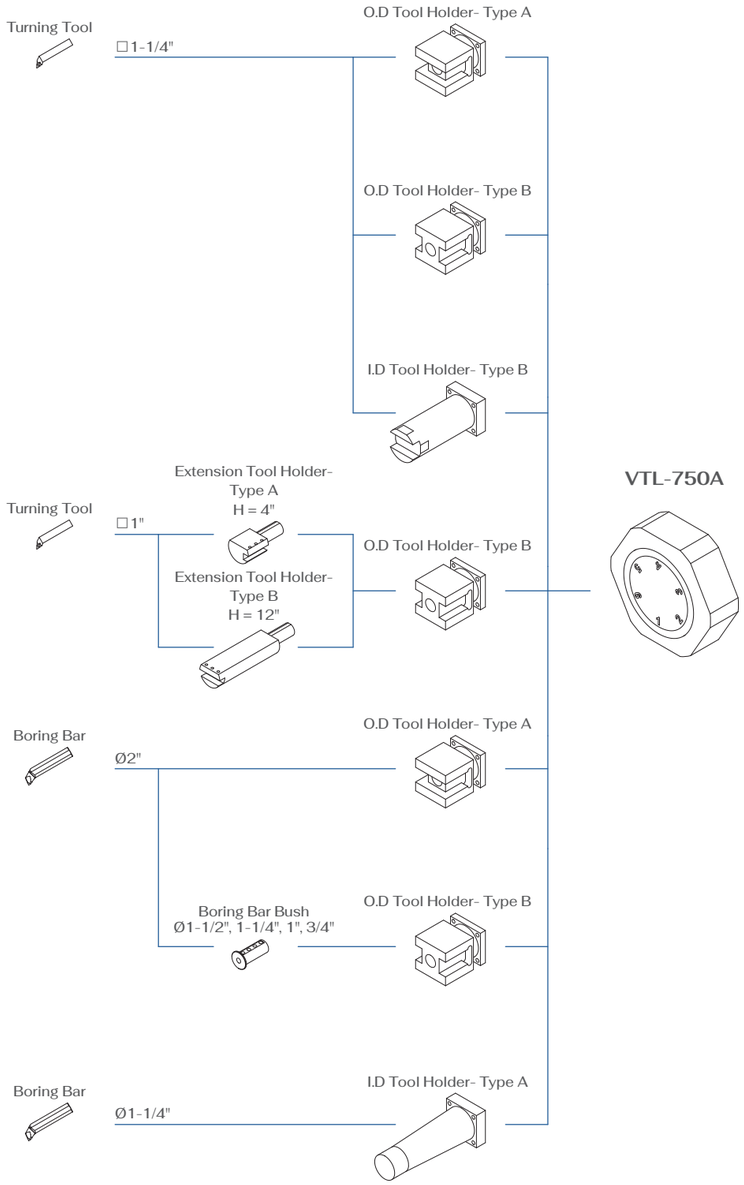
VTL-450



VTL-450M

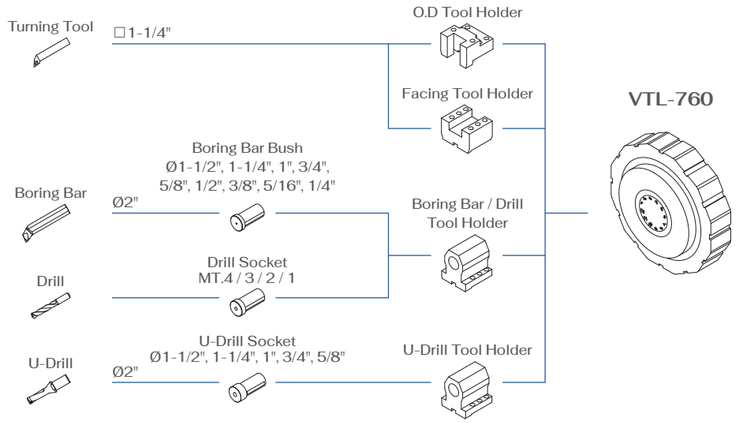


VTL-750A

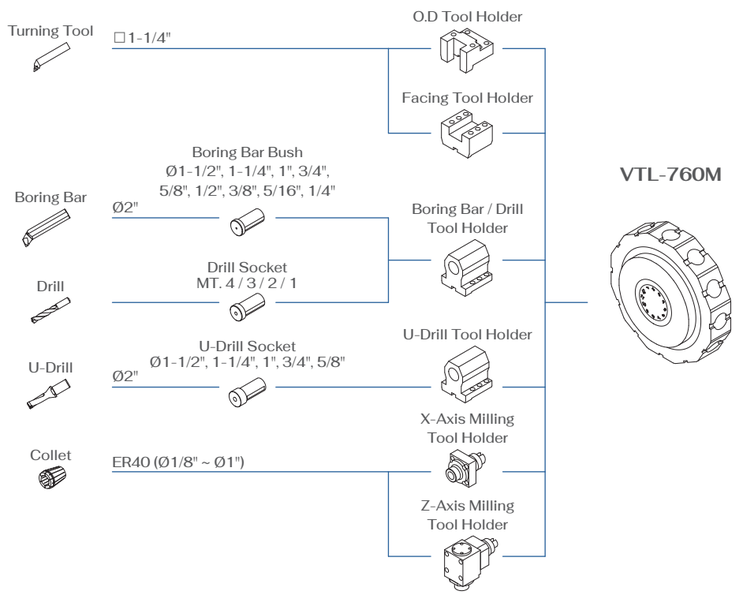


Tooling System

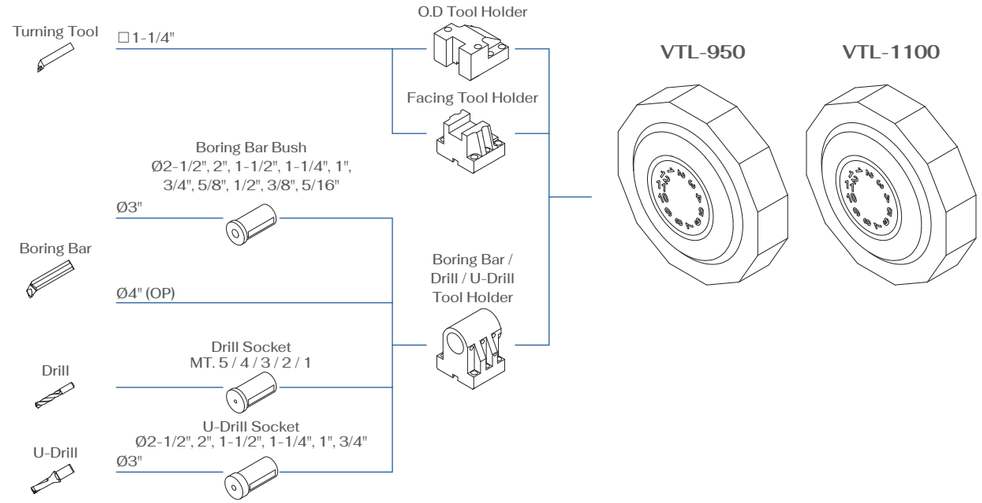
VTL-760



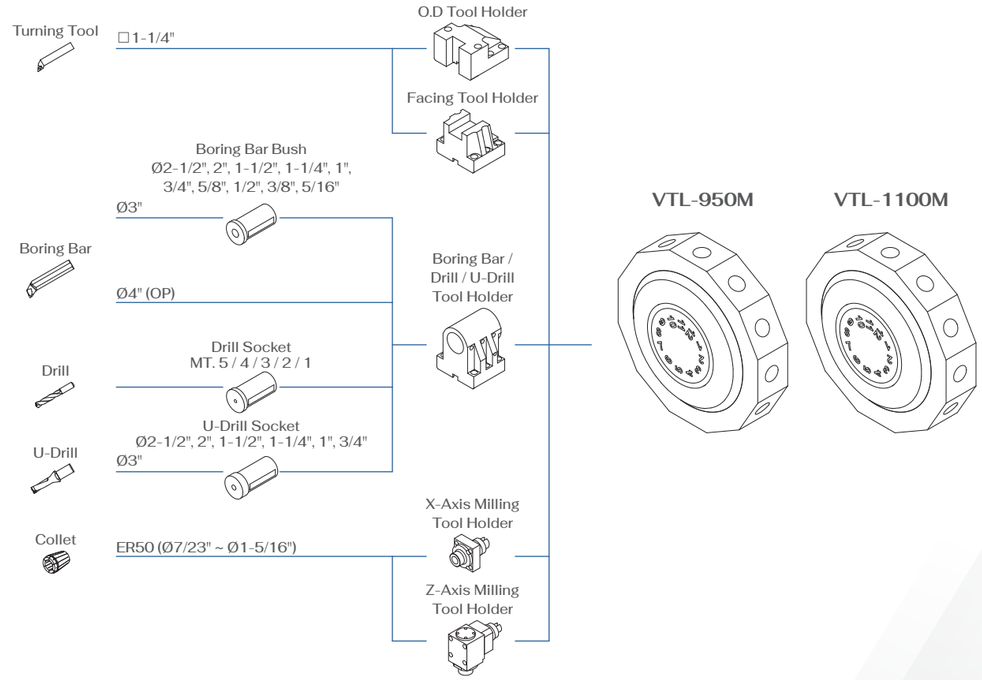
VTL-760M



VTL-950 / VTL-1100



VTL-950M / VTL-1100M



Machine Specifications

	Item		VTL-350	VTL-450	VTL-450M	VTL-750A	VTL-760
Capacity	Max. Swing	inch	25.59	23.62	23.62	41.33	33.46
	Standard Turning Diameter	inch	9.65	9.76	10.43	30.7	12.2
	Max. Turning Diameter	inch	18.5	18.11	18.11	30.7	31.5
	Max. Turning Length	inch	16.34	16.14	14.96	30.12	27.56
Travel	X-Axis Travel	inch	10.63	10.43	10.43	29.53	18.11
	Z-Axis Travel	inch	18.5	18.5	18.5	33.46	30.31
Spindle	Spindle Speed	rpm	2500	2500	2500	1500	2000
	Spindle Nose		A2-8	A2-8	A2-8	A2-11	A2-11
	Through Hole Diameter	inch	2.76	2.76	2.76	4.33	3.03
	Bearing Inside Diameter	inch	4.72	4.72	4.72	7.87	6.3
Turret	Number of Tools		10	12	12	6	12
	O.D Tool Shank Dimension	inch	1	1-1/4	1	1-1/4	1-1/4
	I.D Tool Shank Diameter	inch	1-1/2	2	1-1/2	2	2
	Milling Shank Diameter	inch	-	-	25 / 32	-	-
	Spindle Speed	rpm	-	-	4000	-	-
Feedrate	X-Axis Rapid Traverse	ipm	787.4	787.4	787.4	787.4	787.4
	Z-Axis Rapid Traverse	ipm	787.4	787.4	787.4	590.55	590.55
Motor	Spindle Motor	hp	24.8 / 20.1 (29.5 / 24.8)	34.9 / 29.5	34.9 / 29.5	49.6 / 40.2	49.6 / 40.2
	Milling Spindle Motor	hp	-	-	7.4 / 5	-	-
	Index Motor	hp	1.6	1.6	1.6	1.6	1.6
	X-Axis Servo Motor	hp	2.1	4	4	5.4	5.4
	Z-Axis Servo Motor	hp	4	5.4	5.4	9.3	5.4
Machine Size	Height	inch	114.17	113.19	113.19	142.52	130.12
	Width	inch	63.78	64.96	64.96	92.52	80.12
	Depth	inch	110.63	124.41	124.41	156.3	138.58
	Weight	lb	13230	17640	18740	35280	19850

	Item		VTL-760M	VTL-950	VTL-950M	VTL-1100	VTL-1100M
Capacity	Max. Swing	inch	33.46	38.97	38.97	52.36	52.36
	Standard Turning Diameter	inch	12.2	17.13	17.13	17.13	17.13
	Max. Turning Diameter	inch	31.5	37.4	37.4	47.24	47.24
	Max. Turning Length	inch	26.77	33.86	33.86	38.78	38.78
Travel	X-Axis Travel	inch	18.11	21.65	21.65	25.59	25.59
	Z-Axis Travel	inch	30.31	35.43	35.43	44.88	44.88
Spindle	Spindle Speed	rpm	2000	850	850	850	850
	Spindle Nose		A2-11	A2-11	A2-11	A2-20	A2-20
	Through Hole Diameter	inch	3.03	4.33	4.33	4.33	4.33
	Bearing Inside Diameter	inch	6.3	7.87	7.87	7.87	7.87
Turret	Number of Tools		12	12	12	12	12
	O.D Tool Shank Dimension	inch	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4
	I.D Tool Shank Diameter	inch	2	3 (4)	3 (4)	3 (4)	3 (4)
	Milling Shank Diameter	inch	1	-	1-5/16	-	1-5/16
	Spindle Speed	rpm	3500	-	3000	-	3000
Feedrate	X-Axis Rapid Traverse	ipm	787.4	787.4	787.4	787.4	787.4
	Z-Axis Rapid Traverse	ipm	590.55	590.55	590.55	590.55	590.55
Motor	Spindle Motor	hp	49.6 / 40.2	49.6 / 40.2	49.6 / 40.2	73.7 / 60.3	73.7 / 60.3
	Milling Spindle Motor	hp	10 / 7.4 (14.7 / 10)	-	14.7 / 10	-	14.7 / 10
	Index Motor	hp	1.6	3.4	3.4	3.4	3.4
	X-Axis Servo Motor	hp	5.4	5.4	5.4	5.4	5.4
	Z-Axis Servo Motor	hp	5.4	8	8	8	8
Machine Size	Height	inch	130.12	150.39	150.39	164.76	164.76
	Width	inch	80.12	94.88	94.88	128.15	128.15
	Depth	inch	138.58	160.83	160.83	136.81	136.81
	Weight	lb	20950	44100	45200	51810	52910

Accessories

Item	VTL-350	VTL-450	VTL-450M	VTL-750A	VTL-760
Gear Box	-	◎	◎	◎	◎
Linear Scales	◎	◎	◎	◎	◎
O.D Tool Holder	-	-	●	●	●
Facing Tool Holder	●	●	●	●	●
Boring Bar / Drill Tool Holder	●	●	●	●	●
U-Drill Tool Holder	●	●	●	-	●
X-Axis Milling Tool Holder	-	-	●	-	-
Z-Axis Milling Tool Holder	-	-	●	-	-
Boring Bar Bush- Ø1/4"	●	●	●	-	●
Boring Bar Bush- Ø5/16"	●	●	●	-	●
Boring Bar Bush- Ø3/8"	●	●	●	-	●
Boring Bar Bush- Ø1/2"	●	●	●	-	●
Boring Bar Bush- Ø5/8"	●	●	●	-	●
Boring Bar Bush- Ø3/4"	●	●	●	●	●
Boring Bar Bush- Ø1"	●	●	●	●	●
Boring Bar Bush- Ø1-1/4"	●	●	●	●	●
Boring Bar Bush- Ø1-1/2"	-	●	-	●	●
Boring Bar Bush- Ø2"	-	-	-	-	-
Boring Bar Bush- Ø2-1/2"	-	-	-	-	-
Drill Socket- MT.1	●	●	●	-	●
Drill Socket- MT.2	●	●	●	-	●
Drill Socket- MT.3	●	●	●	-	●
Drill Socket- MT.4	●	●	●	-	●
Drill Socket- MT.5	-	-	-	-	-
U-Drill Socket- Ø5/8"	●	●	●	-	●
U-Drill Socket- Ø3/4"	●	●	●	-	●
U-Drill Socket- Ø1"	●	●	●	-	●
U-Drill Socket- Ø1-1/4"	●	●	●	-	●
U-Drill Socket- Ø1-1/2"	-	●	-	-	●
U-Drill Socket- Ø2"	-	-	-	-	-
U-Drill Socket- Ø2-1/2"	-	-	-	-	-
ER Spring Collets	-	-	●	-	-
ER Tap Collets	-	-	●	-	-
Front Door Interlock	◎	◎	◎	◎	◎
Auto Door	◎	◎	◎	◎	◎
Safety Light Curtain	◎	◎	◎	◎	◎
Coolant Pump- Bed (0.5HP_1.2 Bar_50/60Hz)	●	●	●	●	●
Coolant Pump- Bed (1HP_4.2 Bar_50/60Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (1HP_4.2 Bar_50/60Hz)	●	●	●	●	●
Coolant Pump- Turret (1.48HP_8 Bar_50Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (1.48HP_8 Bar_60Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (1.48HP_10 Bar_50Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (1.48HP_10 Bar_60Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (3HP_20 Bar_50Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (4HP_20 Bar_60Hz)	◎	◎	◎	◎	◎

● Standard ◎ Optional - Non Applicable

Item	VTL-350	VTL-450	VTL-450M	VTL-750A	VTL-760
Coolant Chiller Unit	◎	◎	◎	◎	◎
Coolant Level Sensor	◎	◎	◎	◎	◎
Sub Operation Box	◎	◎	◎	◎	-
Spindle Load Meter	◎	◎	◎	◎	◎
Second Spindle Load Meter	-	-	◎	-	-
Parts Counter	◎	◎	◎	◎	◎
Automatic Power- OFF	◎	◎	◎	◎	◎
Robot Connection Interface	◎	◎	◎	◎	◎
Second Handwheel	◎	◎	◎	◎	◎
Hydraulic System	●	●	●	●	●
Hydraulic Pressure Switch	●	●	●	●	●
Oil Cooler Unit	◎	◎	◎	◎	◎
Pneumatic System	●	●	●	●	●
Air Purge For Spindle	●	●	●	●	●
Air Blow	◎	◎	◎	◎	◎
Residual Pressure Exhaust	◎	◎	◎	◎	◎
Lubrication System	●	●	●	●	●
Lubricating Oil Pressure Switch	●	●	●	●	●
Tool Box	●	●	●	●	●
Machine Leveling Jig	◎	◎	◎	◎	◎
12" Non Through-Hole Power Chuck	●	●	●	-	-
15" Non Through-Hole Power Chuck	◎	◎	◎	-	●
18" Non Through-Hole Power Chuck	◎	◎	◎	-	◎
21" Non Through-Hole Power Chuck	-	-	-	-	◎
24" Non Through-Hole Power Chuck	-	-	-	●	◎
32" Non Through-Hole Power Chuck	-	-	-	◎	◎
40" Non Through-Hole Power Chuck	-	-	-	◎	-
High & Low Pressure Chucking	◎	◎	◎	◎	◎
Chuck Clamp Confimation	◎	◎	◎	◎	◎
Soft Jaw	●	●	●	●	●
Hard Jaw	◎	◎	◎	◎	◎
LED Interior Light	●	●	●	●	●
LED Signal Tower	●	●	●	●	●
Foot Switch	●	●	●	●	●
Right Side / Left Side Chip Conveyor	●	●	●	●	●
Rear Side Chip Conveyor	◎	◎	◎	◎	◎
Chip Bucket	●	●	●	●	●
Coolant Tank	●	●	●	●	●
Oil Skimmer	◎	◎	◎	◎	◎
Removable Tool Setter	◎	◎	◎	◎	◎
Air Conditioner For Control Box	◎	◎	◎	◎	◎
Oil Mist Collector	◎	◎	◎	◎	◎
Coolant Gun	◎	◎	◎	◎	◎
Air Gun	◎	◎	◎	◎	◎

● Standard ◎ Optional - Non Applicable

Accessories

Item	VTL-760M	VTL-950	VTL-950M	VTL-1100	VTL-1100M
Gear Box	◎	◎	◎	-	-
Linear Scales	◎	◎	◎	◎	◎
O.D Tool Holder	●	●	●	●	●
Facing Tool Holder	●	●	●	●	●
Boring Bar / Drill Tool Holder	●	●	●	●	●
U-Drill Tool Holder	●	●	●	●	●
X-Axis Milling Tool Holder	●	-	●	-	●
Z-Axis Milling Tool Holder	●	-	●	-	●
Boring Bar Bush- Ø1/4"	●	-	-	-	-
Boring Bar Bush- Ø5/16"	●	●	●	●	●
Boring Bar Bush- Ø3/8"	●	●	●	●	●
Boring Bar Bush- Ø1/2"	●	●	●	●	●
Boring Bar Bush- Ø5/8"	●	●	●	●	●
Boring Bar Bush- Ø3/4"	●	●	●	●	●
Boring Bar Bush- Ø1"	●	●	●	●	●
Boring Bar Bush- Ø1-1/4"	●	●	●	●	●
Boring Bar Bush- Ø1-1/2"	●	●	●	●	●
Boring Bar Bush- Ø2"	-	●	●	●	●
Boring Bar Bush- Ø2-1/2"	-	●	●	●	●
Drill Socket- MT.1	●	●	●	●	●
Drill Socket- MT.2	●	●	●	●	●
Drill Socket- MT.3	●	●	●	●	●
Drill Socket- MT.4	●	●	●	●	●
Drill Socket- MT.5	-	●	●	●	●
U-Drill Socket- Ø5/8"	●	-	-	-	-
U-Drill Socket- Ø3/4"	●	●	●	●	●
U-Drill Socket- Ø1"	●	●	●	●	●
U-Drill Socket- Ø1-1/4"	●	●	●	●	●
U-Drill Socket- Ø1-1/2"	●	●	●	●	●
U-Drill Socket- Ø2"	-	●	●	●	●
U-Drill Socket- Ø2-1/2"	-	●	●	●	●
ER Spring Collets	●	-	●	-	●
ER Tap Collets	●	-	-	-	-
Front Door Interlock	◎	◎	◎	◎	◎
Auto Door	◎	◎	◎	◎	◎
Safety Light Curtain	◎	◎	◎	◎	◎
Coolant Pump- Bed (0.5HP_1.2 Bar_50/60Hz)	●	●	●	●	●
Coolant Pump- Bed (1HP_4.2 Bar_50/60Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (1HP_4.2 Bar_50/60Hz)	●	●	●	●	●
Coolant Pump- Turret (1.48HP_8 Bar_50Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (1.48HP_8 Bar_60Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (1.48HP_10 Bar_50Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (1.48HP_10 Bar_60Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (3HP_20 Bar_50Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (4HP_20 Bar_60Hz)	◎	◎	◎	◎	◎

● Standard ◎ Optional - Non Applicable

Item	VTL-760M	VTL-950	VTL-950M	VTL-1100	VTL-1100M
Coolant Chiller Unit	◎	◎	◎	◎	◎
Coolant Level Sensor	◎	◎	◎	◎	◎
Sub Operation Box	-	◎	◎	◎	◎
Spindle Load Meter	◎	◎	◎	◎	◎
Second Spindle Load Meter	◎	-	◎	-	◎
Parts Counter	◎	◎	◎	◎	◎
Automatic Power- OFF	◎	◎	◎	◎	◎
Robot Connection Interface	◎	◎	◎	◎	◎
Second Handwheel	◎	◎	◎	◎	◎
Hydraulic System	●	●	●	●	●
Hydraulic Pressure Switch	●	●	●	●	●
Oil Cooler Unit	◎	◎	◎	◎	◎
Pneumatic System	●	●	●	●	●
Air Purge For Spindle	●	●	●	-	-
Air Blow	◎	◎	◎	◎	◎
Residual Pressure Exhaust	◎	◎	◎	◎	◎
Lubrication System	●	●	●	●	●
Lubricating Oil Pressure Switch	●	●	●	●	●
Tool Box	●	●	●	●	●
Machine Leveling Jig	◎	◎	◎	◎	◎
12" Non Through-Hole Power Chuck	-	-	-	-	-
15" Non Through-Hole Power Chuck	●	-	-	-	-
18" Non Through-Hole Power Chuck	◎	-	-	-	-
21" Non Through-Hole Power Chuck	◎	-	-	-	-
24" Non Through-Hole Power Chuck	◎	◎	◎	-	-
32" Non Through-Hole Power Chuck	◎	●	●	●	●
40" Non Through-Hole Power Chuck	-	-	-	◎	◎
High & Low Pressure Chucking	◎	◎	◎	◎	◎
Chuck Clamp Confimation	◎	◎	◎	◎	◎
Soft Jaw	●	●	●	●	●
Hard Jaw	◎	◎	◎	◎	◎
LED Interior Light	●	●	●	●	●
LED Signal Tower	●	●	●	●	●
Foot Switch	●	●	●	●	●
Right Side / Left Side Chip Conveyor	●	●	●	●	●
Rear Side Chip Conveyor	◎	◎	◎	-	-
Chip Bucket	●	●	●	●	●
Coolant Tank	●	●	●	●	●
Oil Skimmer	◎	◎	◎	◎	◎
Removable Tool Setter	◎	◎	◎	◎	◎
Air Conditioner For Control Box	◎	◎	◎	◎	◎
Oil Mist Collector	◎	◎	◎	◎	◎
Coolant Gun	◎	◎	◎	◎	◎
Air Gun	◎	◎	◎	◎	◎

● Standard ◎ Optional - Non Applicable

NC Unit Specifications

Specifications · Contents	VTL series
Controller	
0i-TF Plus	●
NC Unit	
10.4" Color LCD (LCD Mounted Type)	●
10.4" Color LCD (Stand-alone Type)	◎
Safety Device	
Front Door Locking Mechanism	◎
Front Door Interlock	◎
Safety Relay	◎
Control Box Breaker with Tripper	◎
Controlled Axes	
Least Input Increment (Linear Axis : 0.0001", Rotary Axis: 0.001°)	●
Maximum Programmable Dimension (Linear Axis: ±99999.9999", Rotary Axis: ±360°)	●
Inch / Metric Selection	●
All Axes Interlock Signal	●
Machine Lock	◎
Emergency Stop	●
Stored Stroke Check 1	●
Stored Stroke Check 2, 3	●
Stroke Limit Check Before Movement	▲
Overload Detection	●
Mirror Image (Each Axis)	▲
Chamfering ON / OFF	●
Position Switch	●
Operation	
Auto Run (Memory)	●
MDI Run	●
DNC Run	●
DNC Run with Memory Card	●
Program Number Search	●
Sequence Number Search	●
Sequence Number Collation and Stop	●
Wrong Operation Preventive	▲
Buffer Register	●
Dry Run	●
Single Block	●
Jog Feed	●
Manual Reference Point Return	●
Handwheel Feed	●
Interpolating Functions	
Poitioning (G00)	●
Linear Interpolation (G01)	●
Circular Interpolation (G02 / 03)	●
Dwell (G04)	●
Polar Coordinate Interpolation	●
Cylindrical Interpolation	●
Exact Stop (G09)	●
Exact Stop Mode (G61)	●
Thread Cutting (G32)	●
Multiple Thread Cutting	●
Thread Cutting Cycle and Retraction	●
Continuous Thread Cutting	●
Variable Lead Thread Cutting	●
Reference Point Return Check (G27)	●
Reference Point Return (G28)	●
2nd Reference Point Return (G30)	●
3rd, 4th Reference Point Return	●

Specifications · Contents	VTL series
Feed Functions	
Feed Per Revolution (inch/rev)	●
Feed Per Minute (ipm)	●
Rapid Traverse Override (F_0 、F_{25} 、F_{50} 、F_{100})	●
Feedrate override (0 ~ 150%)	●
Constant Tangential Speed Control	●
Jog Override	●
Program Input	
EIA / ISO Automatic Recognition	●
Optional Block Skip	●
Program Number (Oxxxx 4 Digits)	●
Sequence Number (Nxxxxxxxx 8 Digits)	●
Program File Name (32 Characters)	●
Absolute / Incremental Command	●
Decimal Point Input / Pocket Calculator Type Decimal Point Input	●
Diameter Programming (X-Axis)	●
Coordinate System Setting	●
Drawing Dimension Direct Input	●
G-Code System A	●
Chamfering / Corner R Programming	●
Programmable Data Input	●
Sub Program Call (10 Levels)	●
Custom Macro	●
Additional Custom Macro Common Variables	●
Single Canned Cycle	●
Combined Canned Cycle I	●
Combined Canned Cycle II	●
Drilling Canned Cycle	●
Arc Radius Programming	●
Macro Executor	◎
Coordinate System Shift	●
Miscellaneous Functions / Spindle Functions	
Spindle Functions	●
M Functions	●
Constant Surface Speed Control	●
Rigid Tap (Spindle)	●
Rigid Tap (Rotary Tool)	●
Data I/O	
RS-232-C、USB、RJ-45	●
External Message	●
External Workpiece Number Search	◎
Memory Card I/O	●

● Standard ◎ Optional ▲ Parameter setting is required

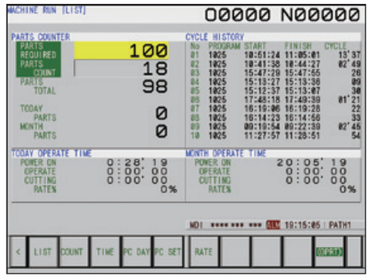
Specifications · Contents	VTL series
Tool Functions / Tool Offset Functions	
T Function (T2 + 2 Digits)	●
Tool Offsets, 128 Pieces	●
Tool Offsets, 200 Pieces	◎
Tool Geometry / Wear Compensation	●
Tool Diameter / Nose R Compensation	●
Tool Offset Counter Input	●
Tool Offset Measured Value Direct Input	●
Tool Offset Measured Value Direct Input B	◎
Tool Position Offset	●
Tool Life Management	▲
Accuracy Offset Functions	
Backlash Compensation	●
Backlash Compensation By Rapid Traverse / Feedrate	●
Editing	
Part Program Memory Capacity 2MB	●
Registrable Programs, 1000 Programs	●
Program Protection	●
Extended Program Editing	●
Background Editing	●
Display Languages	
English	●
Japanese	▲
Other Language	▲
Display Language Dynamic Switching	●

Specifications · Contents	VTL series
Setting / Display	
Current Position Display	●
Program Comment Display (31 Characters)	●
Alarm Display	●
Alarm Log Display	●
Operator Message Log Display	●
Operation Message Log Display	●
Run Hours and Parts Count Display	●
Actual Speed Display	●
Actual Spindle Speed and T Code Display	●
Program List Display	●
Hardware & Software System Configuration Display	●
Graphic Display	●
Dynamic Graphic Display	◎
Help Function	●
Self Diagnostic Function	●

● Standard ◎ Optional ▲ Parameter setting is required

Smart Work Manager (Option)

01



It provides simple operation and convenient function.

01 Tool Life Manager

This function can set tool life and wear limit to manage all tools.

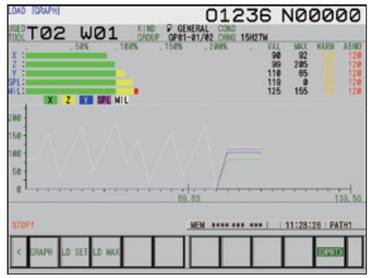
02 Load Monitor

Detecting max load to check tool status.

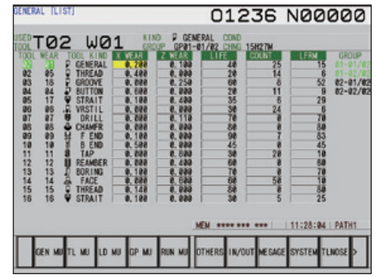
03 Parts and Machine Manager

It offer parts counter, program history, operate time for today or this month.

02

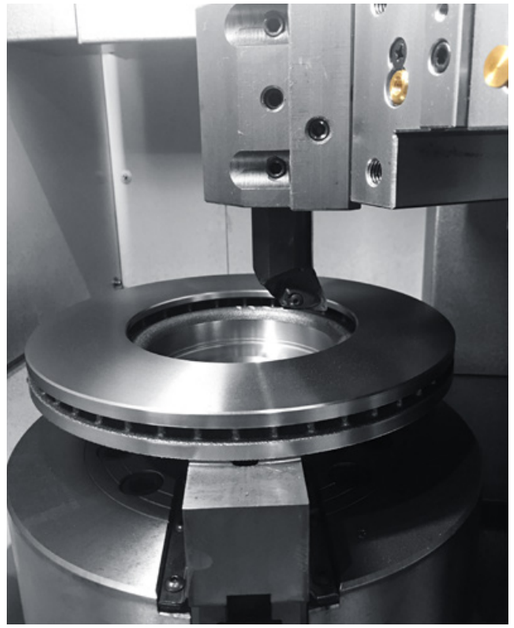


03



Application

Automotive Parts



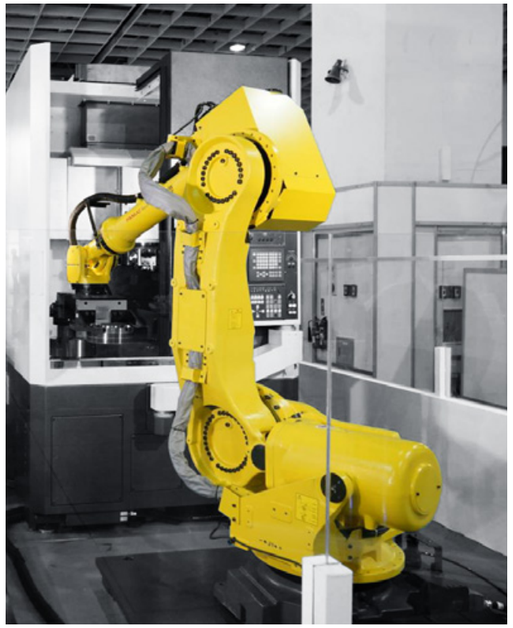
Bearings

Aerospace Parts

Valves

Automatic Tool Changer

Robot



Turn-Key Solution