

VTL Series

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

CNC Turning Center

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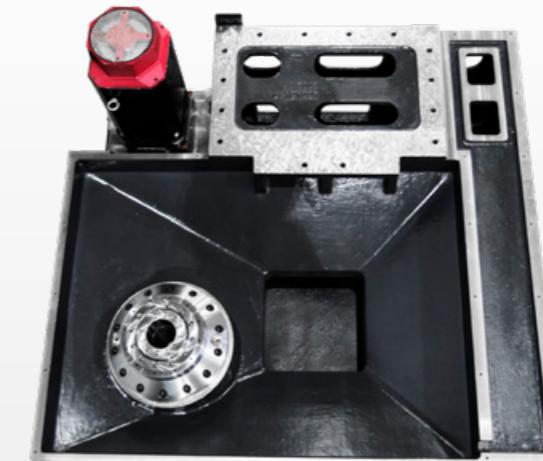
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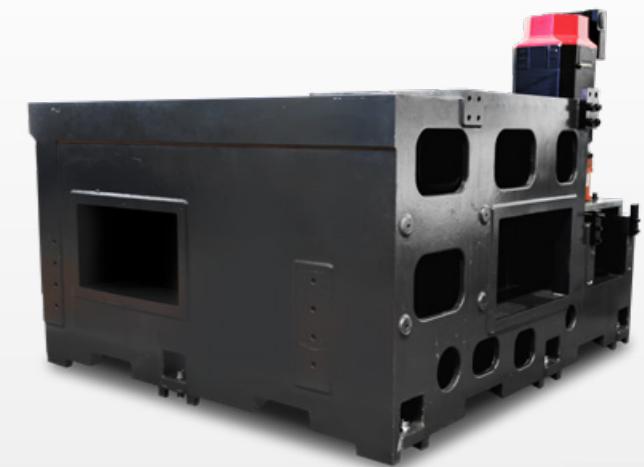


Heavy Duty Vertical Turning Center

- 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

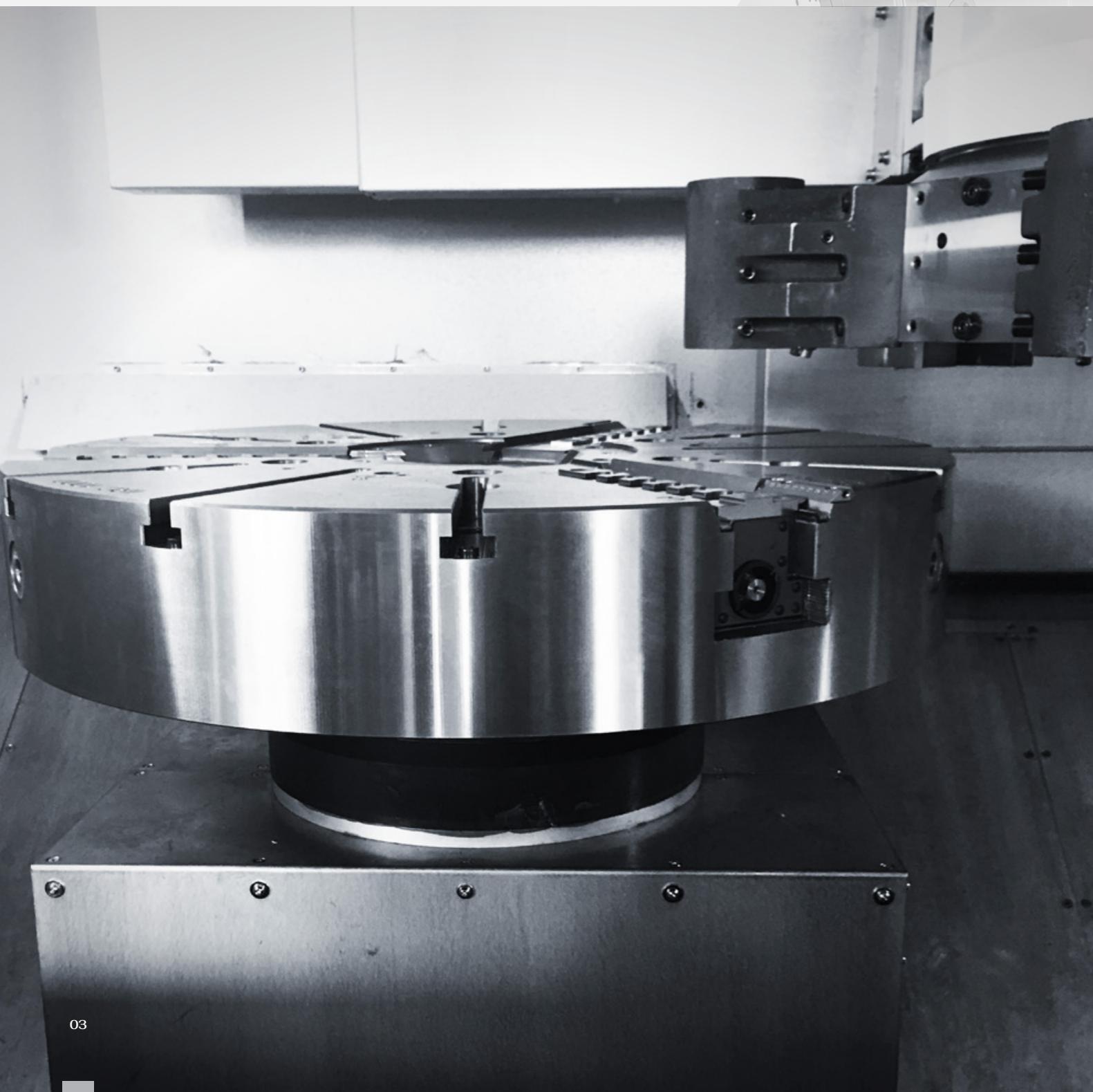
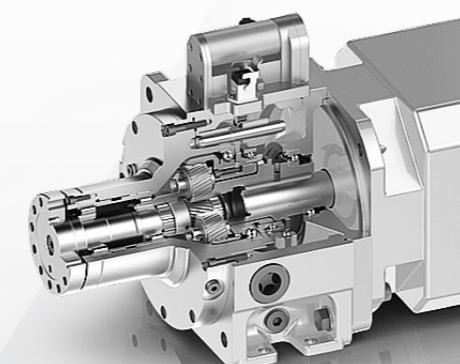
	VTL-350	VTL-450	VTL-450M	VTL-750A	VTL-760
Max. Turning Diameter	470	460	460	780	800
Max. Turning Length	415	410	380	765	700
	VTL-760M	VTL-950	VTL-950M	VTL-1100	VTL-1100M
Max. Turning Diameter	800	950	950	1200	1200
Max. Turning Length	680	860	860	985	985

02 Travel & Rapid Traverse

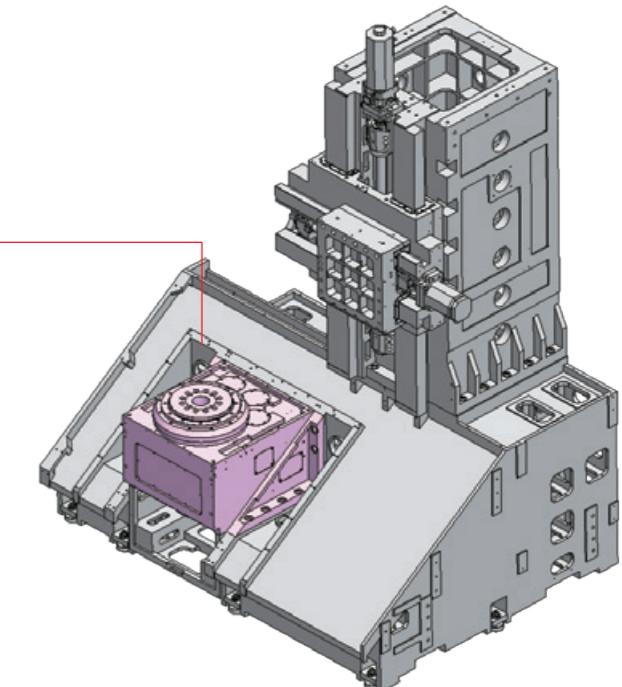
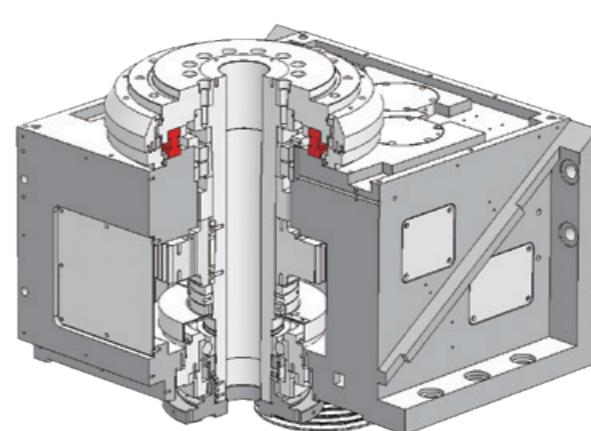
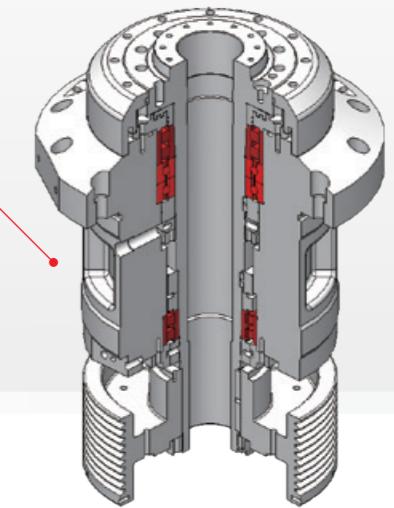
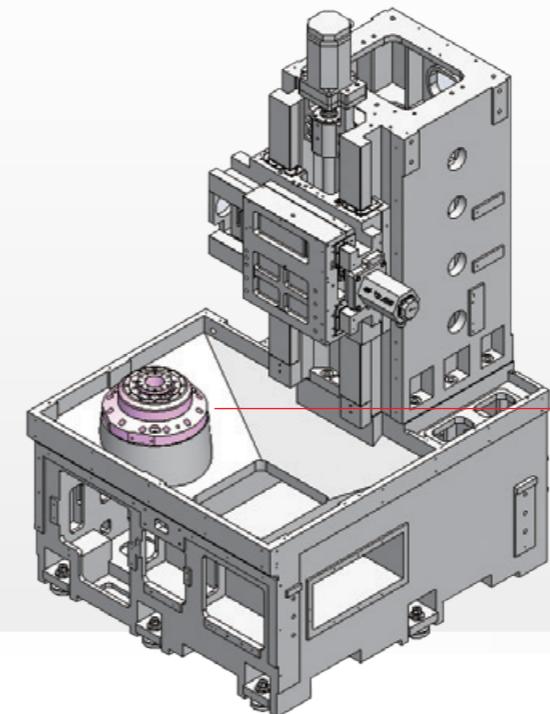
	VTL-350	VTL-450	VTL-450M	VTL-750A	VTL-760
X-Axis Travel	270	265	265	750	460
X-Axis Rapid Traverse	20	20	20	20	20
Z-Axis Travel	470	470	470	850	770
Z-Axis Rapid Traverse	20	20	20	15	15
	VTL-760M	VTL-950	VTL-950M	VTL-1100	VTL-1100M
X-Axis Travel	460	550	550	650	650
X-Axis Rapid Traverse	20	20	20	20	20
Z-Axis Travel	770	900	900	1140	1140
Z-Axis Rapid Traverse	15	15	15	15	15

Spindle

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



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.

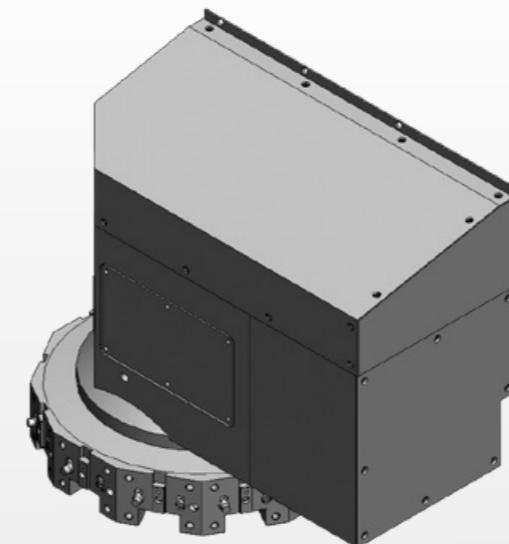


For VTL-1100 series, the design of spindle uses thrust bearing, which enable the large axial load and support more workpiece weights.

	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	70	70	110	77	110	110 mm
Bearing Inside Diameter	120	120	200	160	200	200 mm
Motor Output	18.5 / 15 (22 / 18.5)	26 / 22	37 / 30	37 / 30	37 / 30	55 / 45 kW
Max. Torque	1036.3 (1232.4)	403.9 / 1586.9	768.3 / 3380.3	856 / 3145.3	768.3 / 3380.3	7308.6 N·m
Standard Chuck Size	12	12	24	15	32	32 inch

Turret

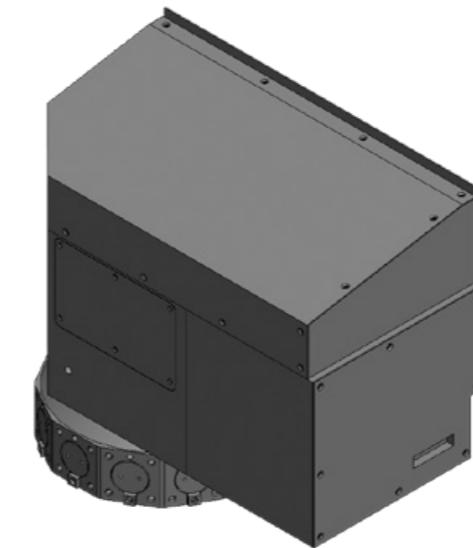
- Inside the turret, the large diameter of curvic coupling provides high rigidity and high accuracy.



O1 Turning Turret

VTL-350 VTL-450 VTL-760 VTL-950 VTL-1100

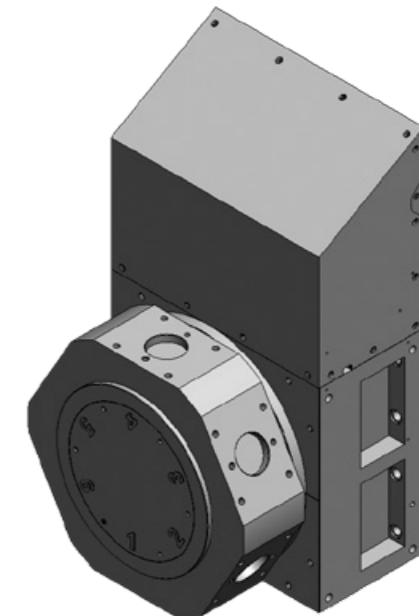
Number of Tools	10	12	12	12	12
O.D Tool Shank Dimension	25	32	32	32	32
I.D Tool Shank Diameter	40	50	50	80(100)	80(100)



O2 Milling Turret

VTL-450M VTL-760M VTL-950M VTL-1100M

Number of Tools	12	12	12	12
O.D Tool Shank Dimension	25	32	32	32
I.D Tool Shank Diameter	40	50	80(100)	80(100)
Milling Shank Diameter	20	26	34	34
Milling Spindle Speed	4000	3500	3000	3000
Motor Output	5.5 / 3.7	7.5 / 5.5 (11 / 7.5)	11 / 7.5	11 / 7.5
Max. Torque	65.3	95.5 (140)	140	140
	N-m			



O3 A Type Turning Turret

VTL-750A

Number of Tools	6
O.D Tool Shank Dimension	32 mm
I.D Tool Shank Diameter	50 mm



Milling Tool Holders

O1 X-Axis Milling Tool Holder



O2 Z-Axis Milling Tool Holder



Special Tool Holders

O1 Gear Hobbing



O2 Broaching



O3 Power Skiving

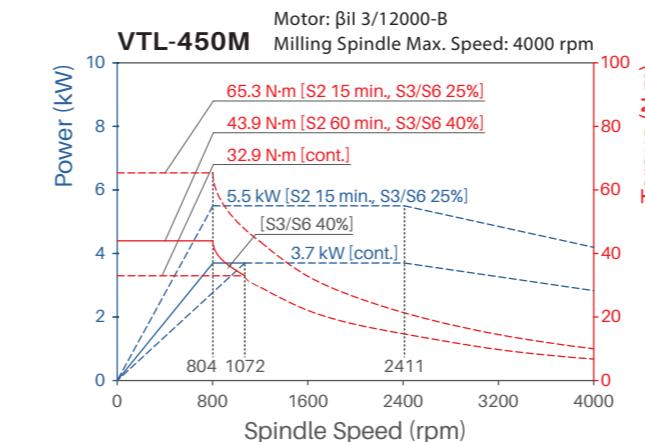


O4 Adjustable Angle Milling

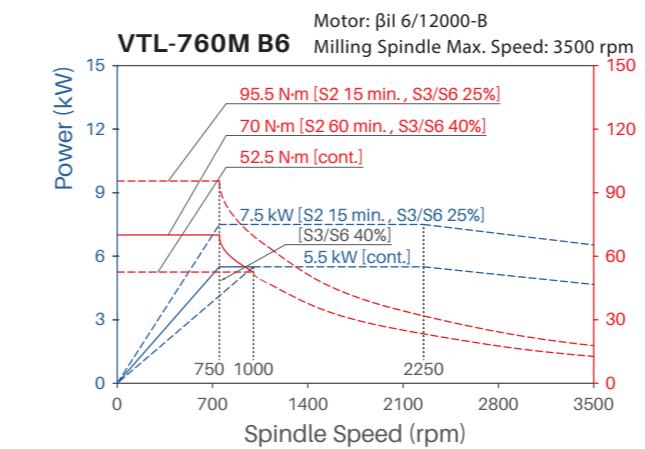


Spindle Output Diagram

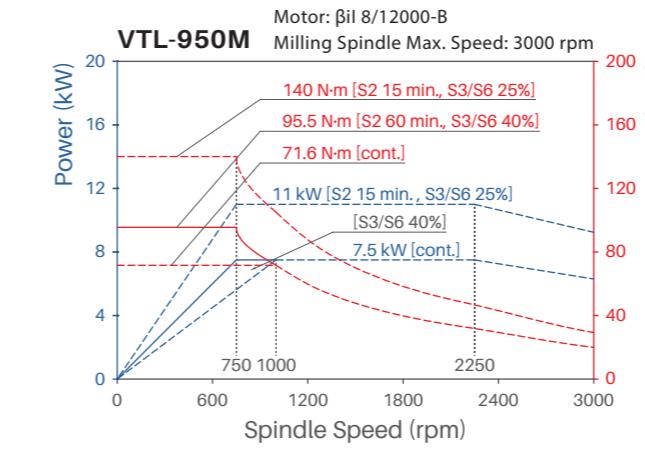
VTL-450M



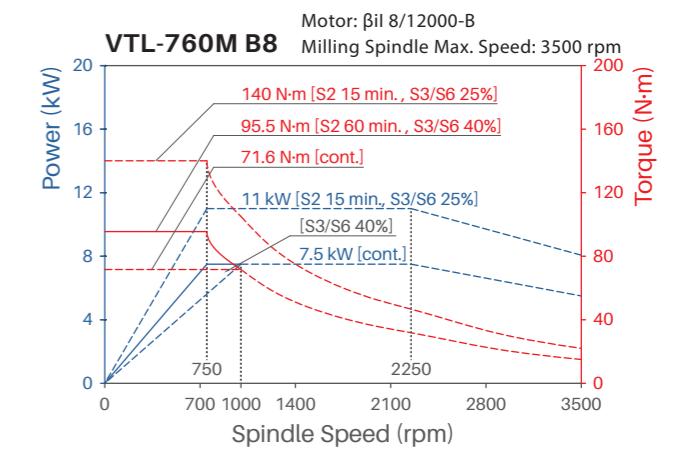
VTL-760M



VTL-950M

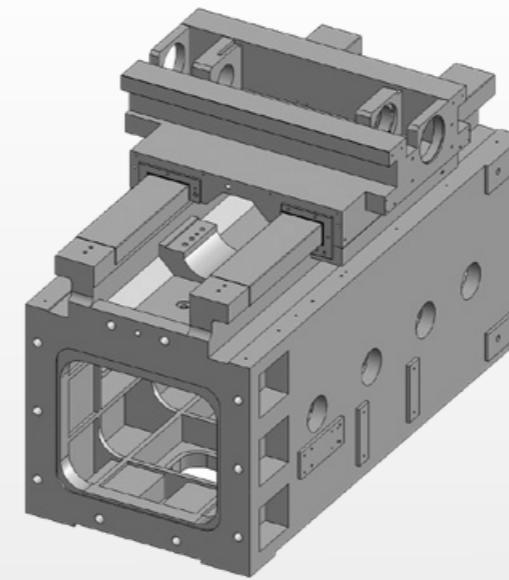


VTL-1100M

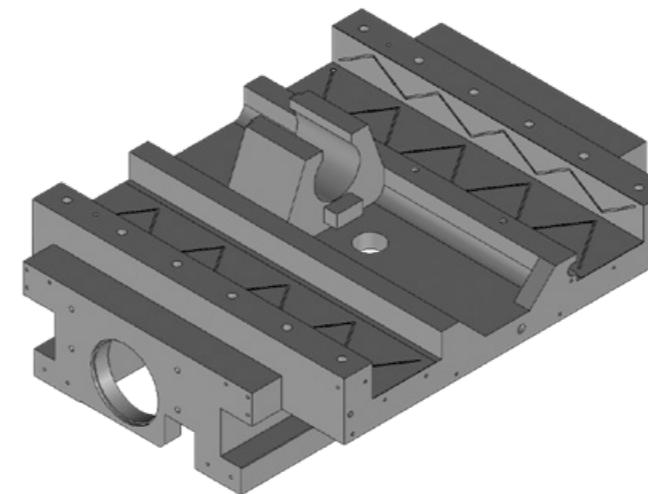


Structure

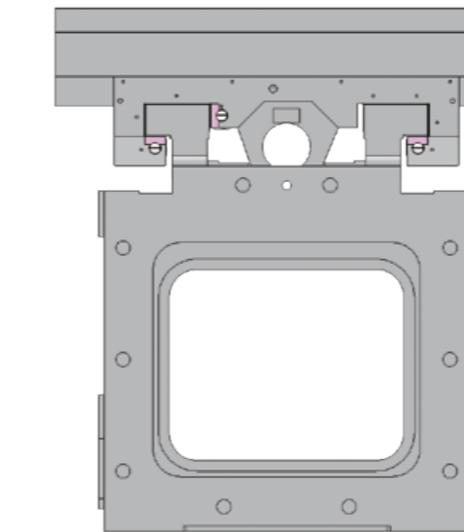
- The high rigidity box type column is fixed on the bed, so that can exert the cutting ability.
- The high rigidity structure can resist static and dynamic torsion.
- Symmetrical design greatly reduces the thermal deformation.



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



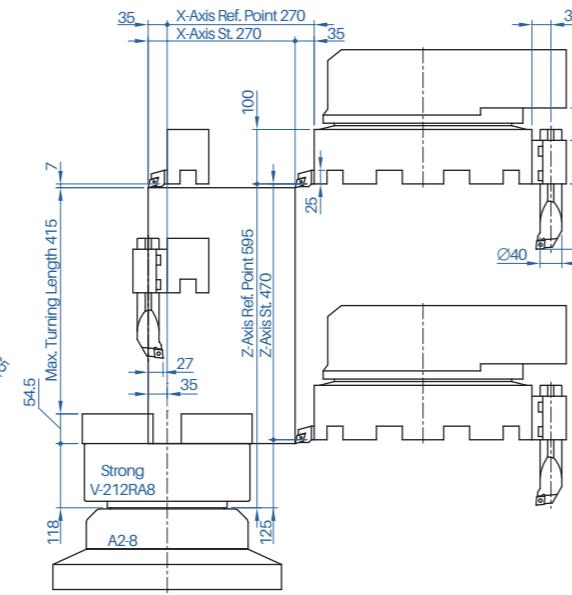
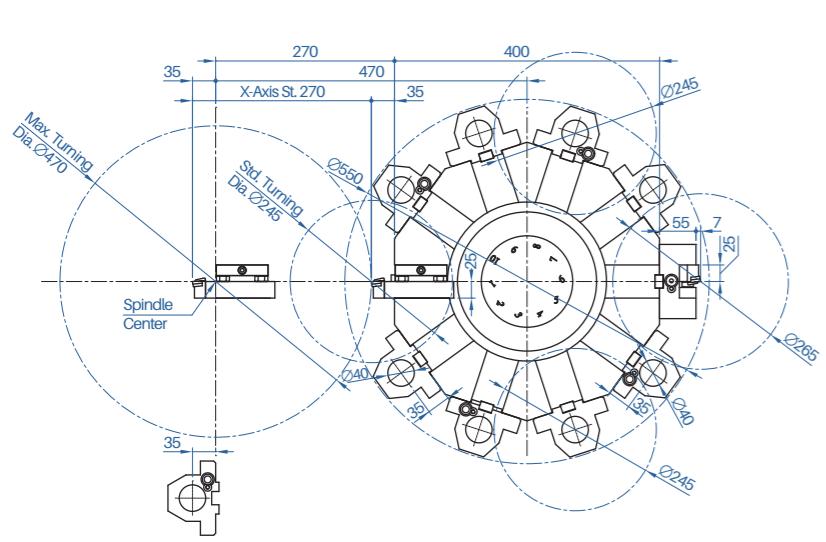
- The mating sliding faces are Turcite B coated allowing slide assemblies to move with ease and low friction.



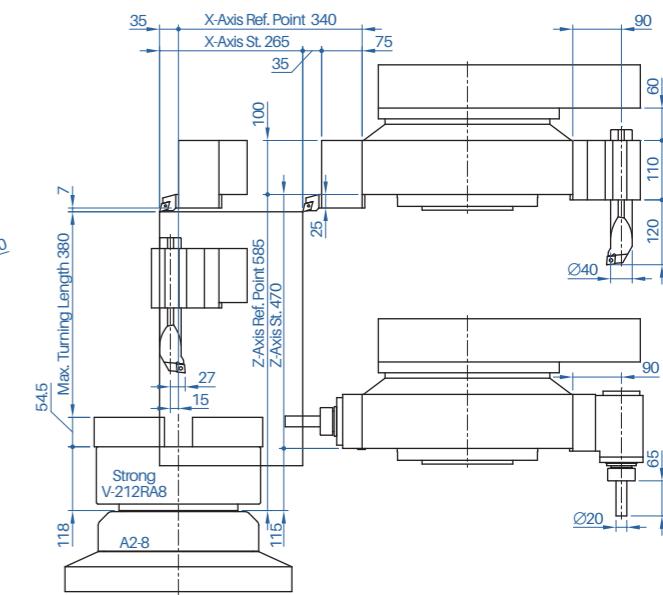
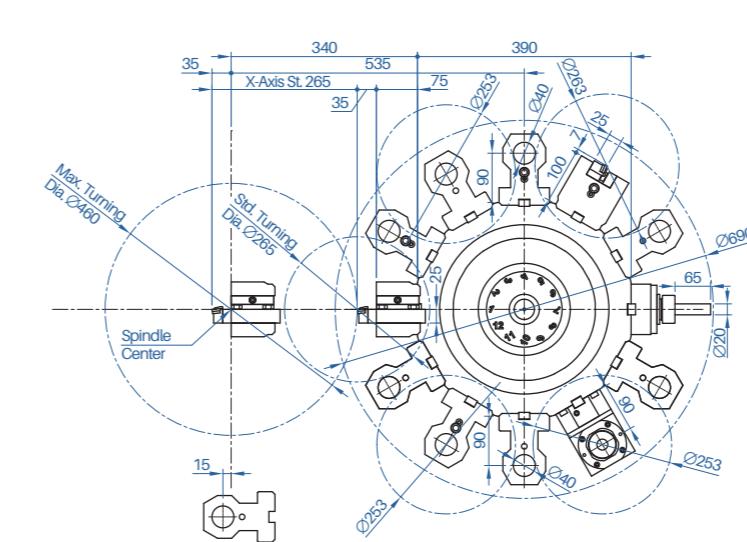
- There are three tapered wedges on each axis, which is convenient for maintenance when there is a problem with accuracy.

Interference & Working Range

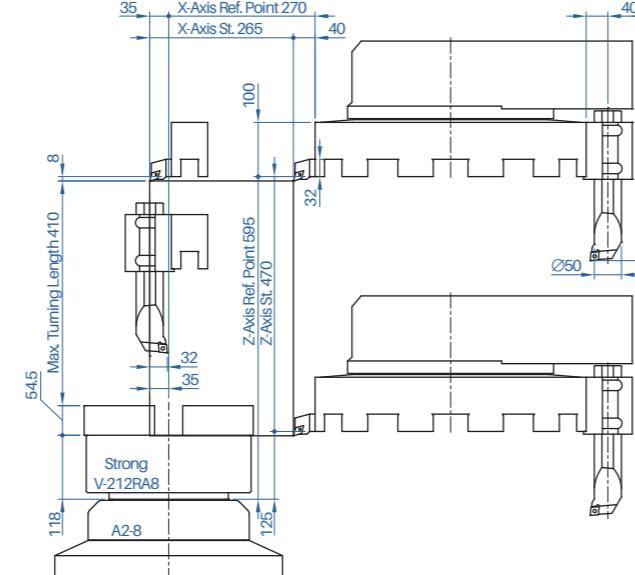
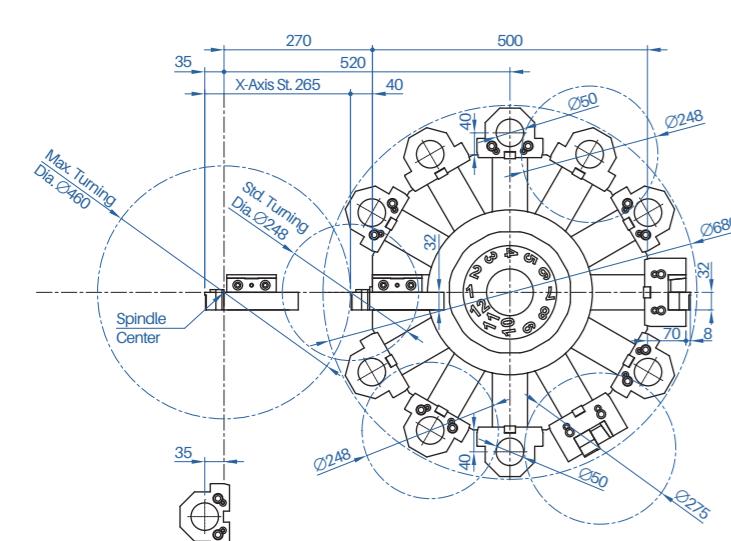
VTL-350



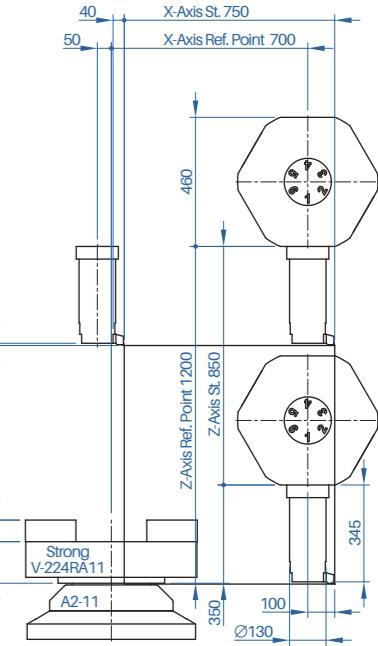
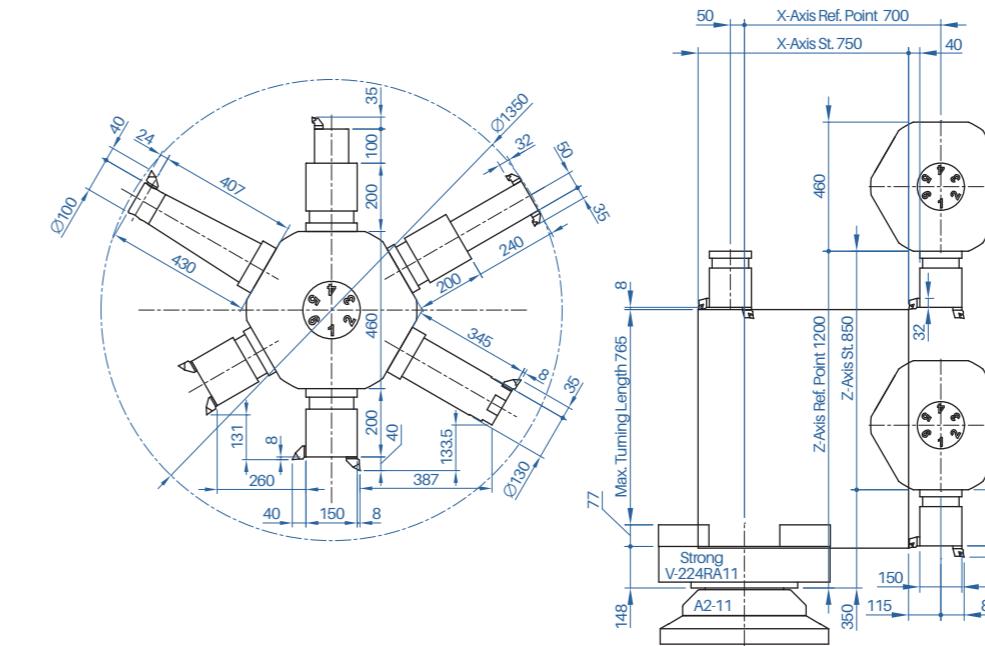
VTL-450M



VTL-450

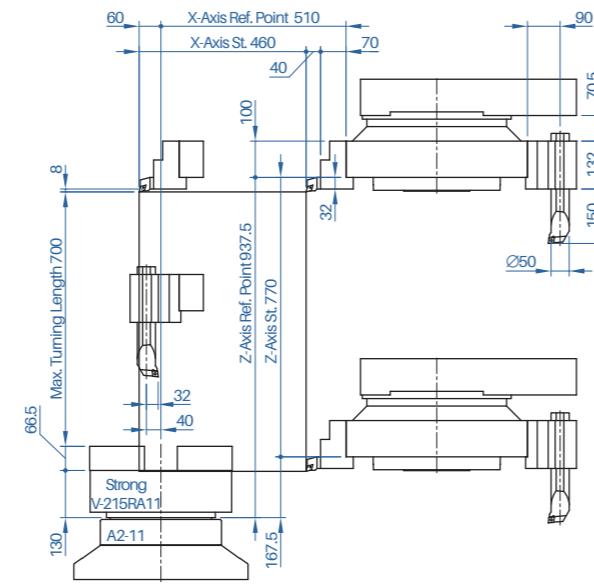
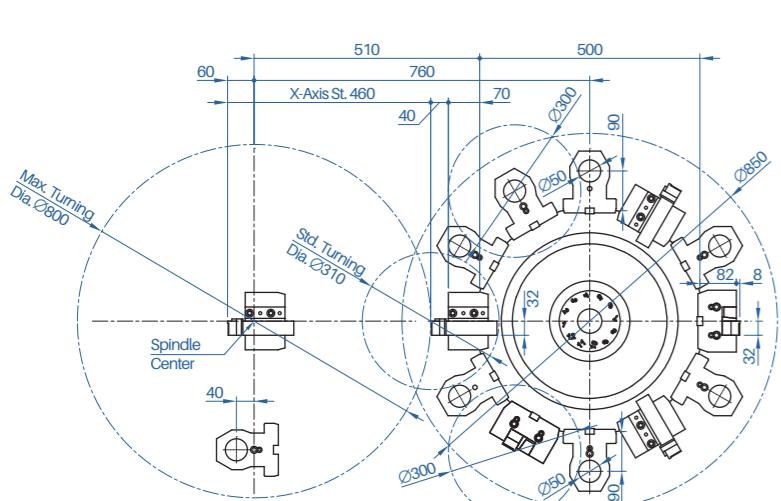


VTL-750A

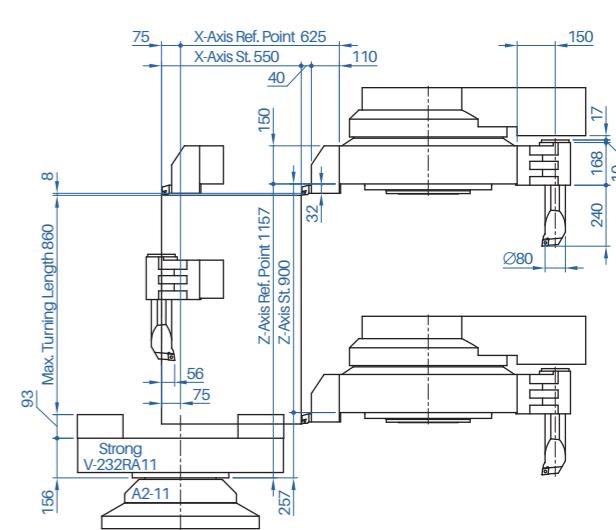
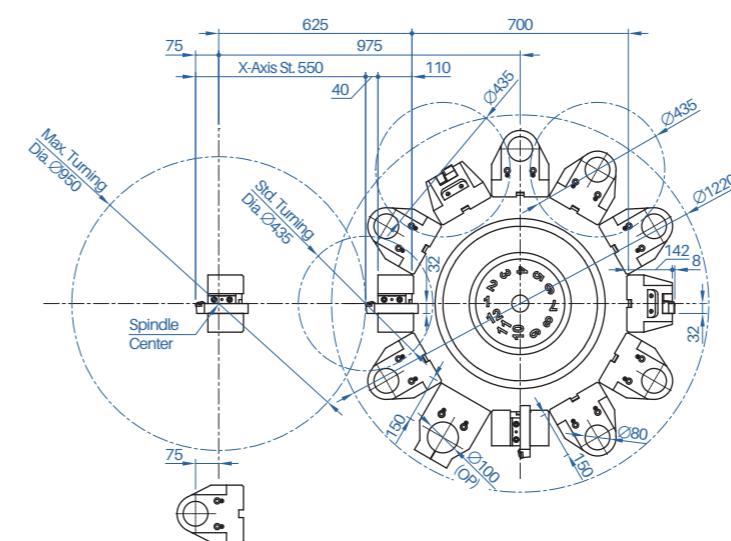


Interference & Working Range

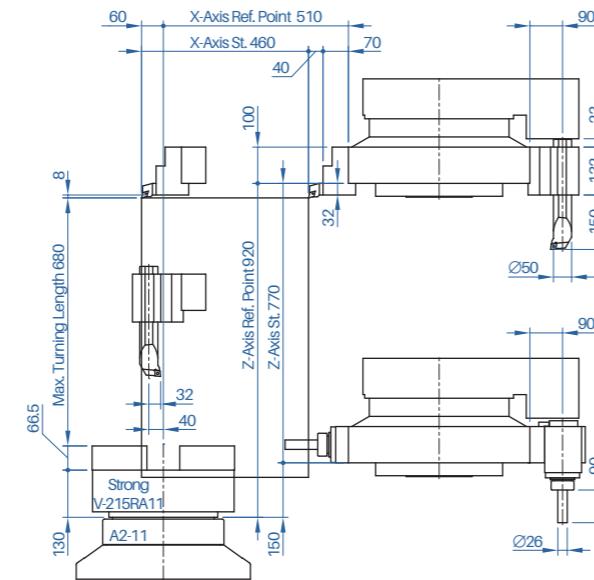
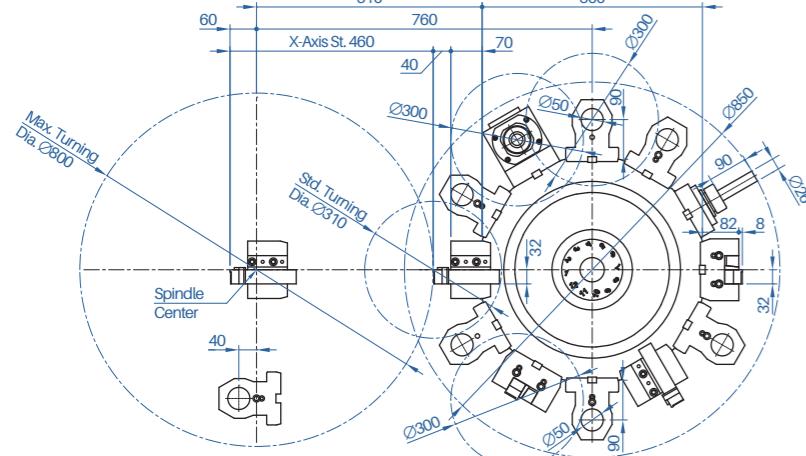
VTL-760



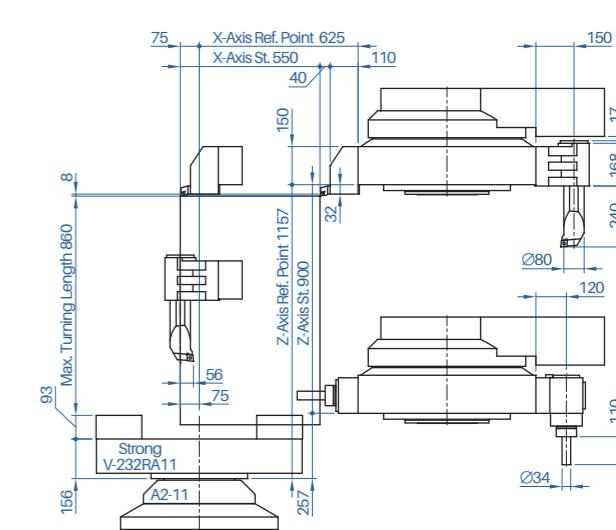
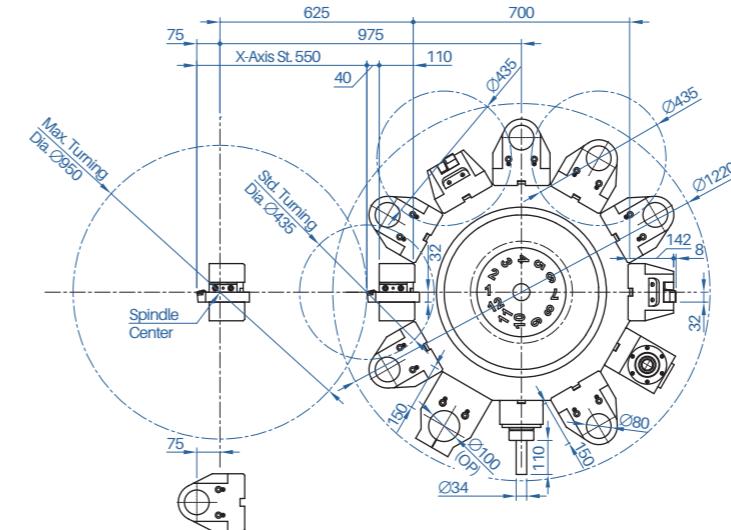
VTL-950



VTL-760M

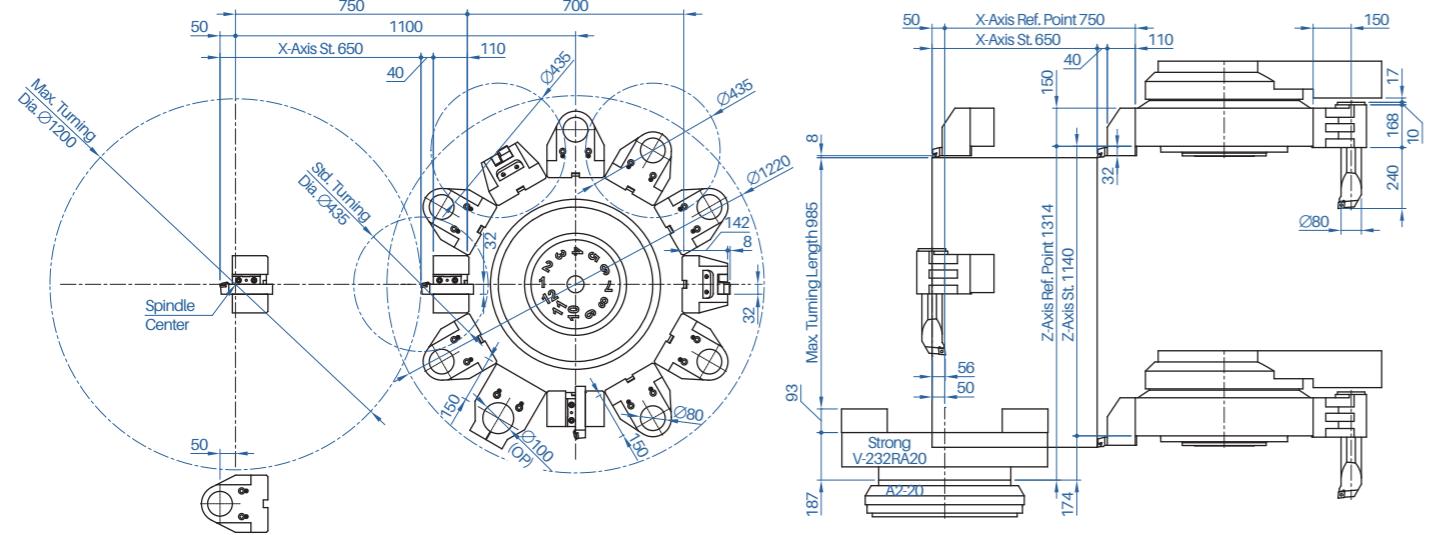


VTL-950M

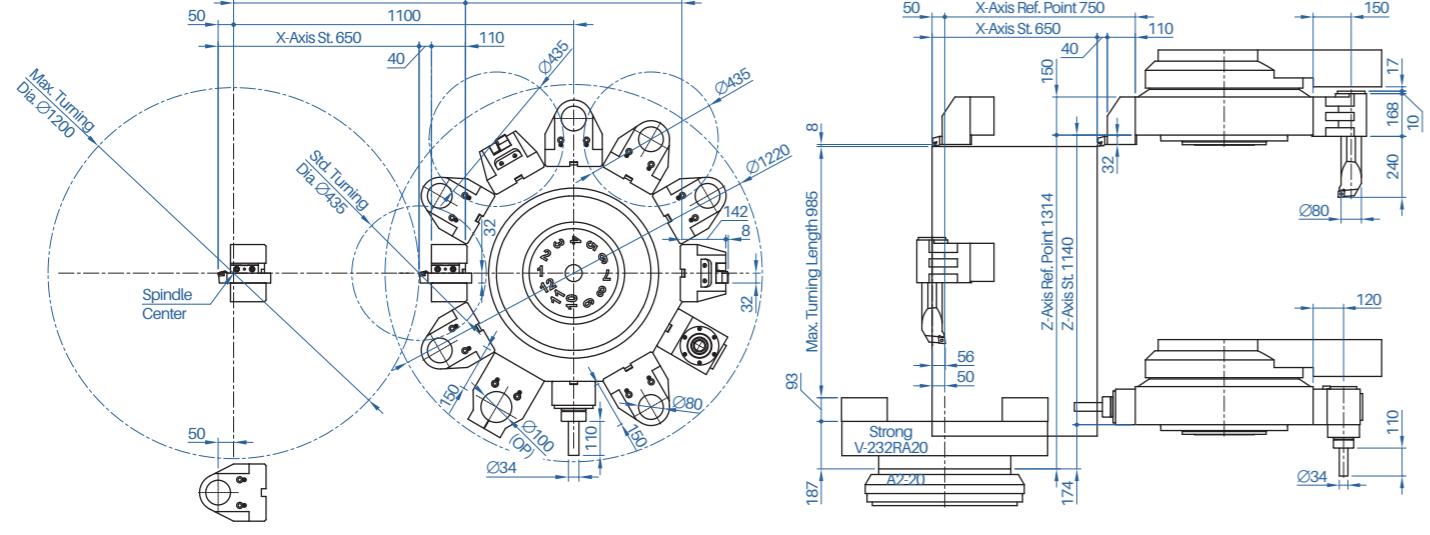


Interference & Working Range

VTL-II00

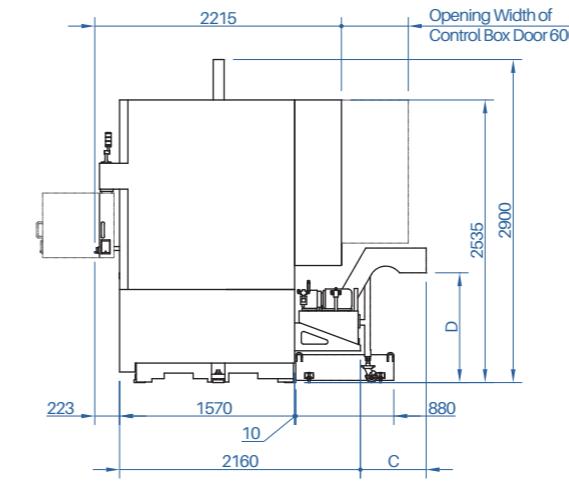
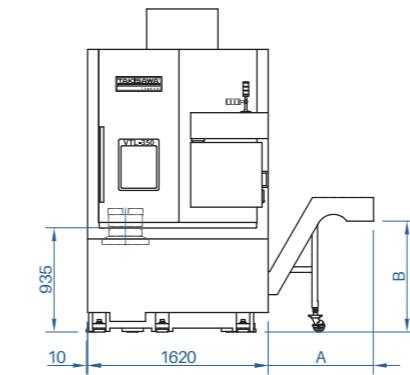
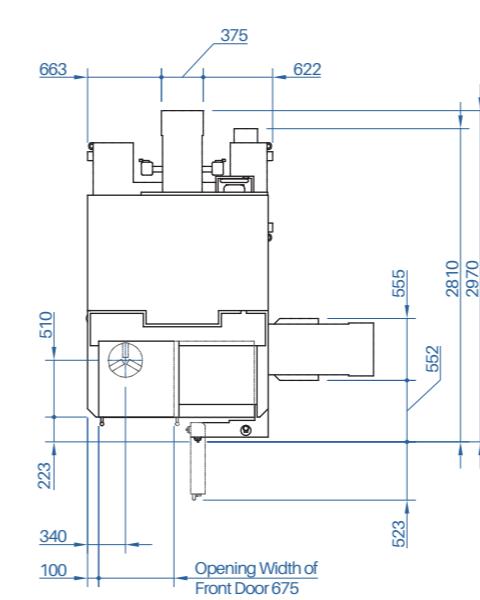


VTL-H100M



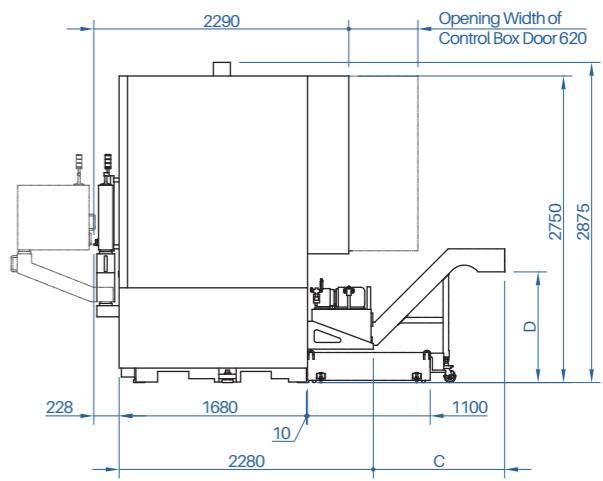
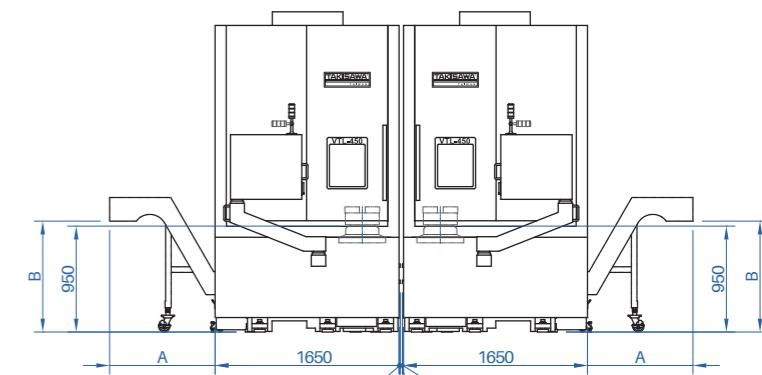
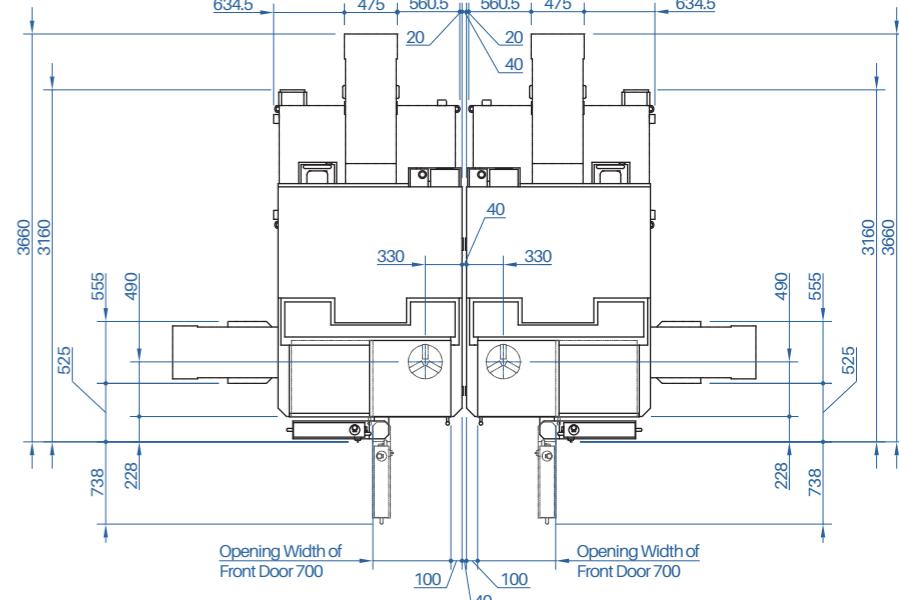
Machine Dimensions

VTL-350



Chip Conveyor Dimension	A	B	C	D
Standard	946	980	591	985
CE	946	995	591	845
Italy	1103	1008	1041	955
Switzerland	1103	1158	1041	1105

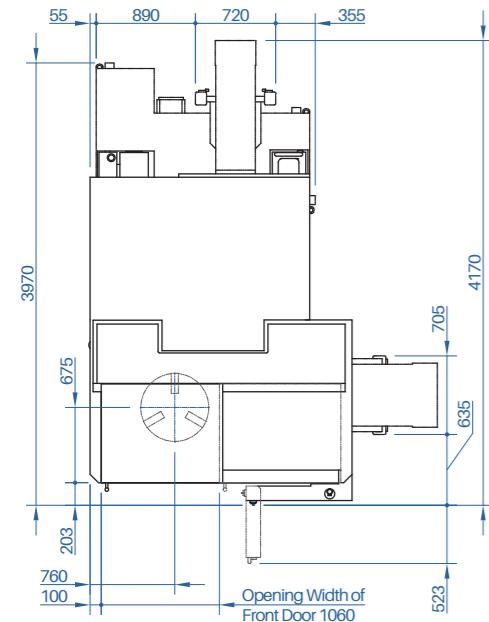
VTL-450(M)



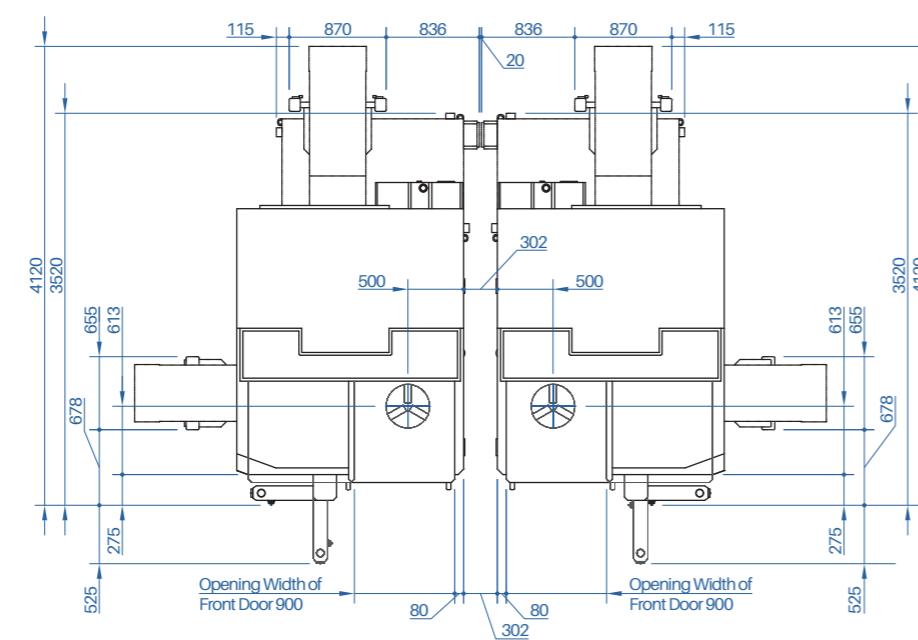
Chip Conveyor Dimension	A	B	C	D
Standard	946	980	1178	993
CE	946	995	1178	993
Italy	1103	1008	1143	1051
Switzerland	1103	1158	1143	1201

Machine Dimensions

VTL-750A

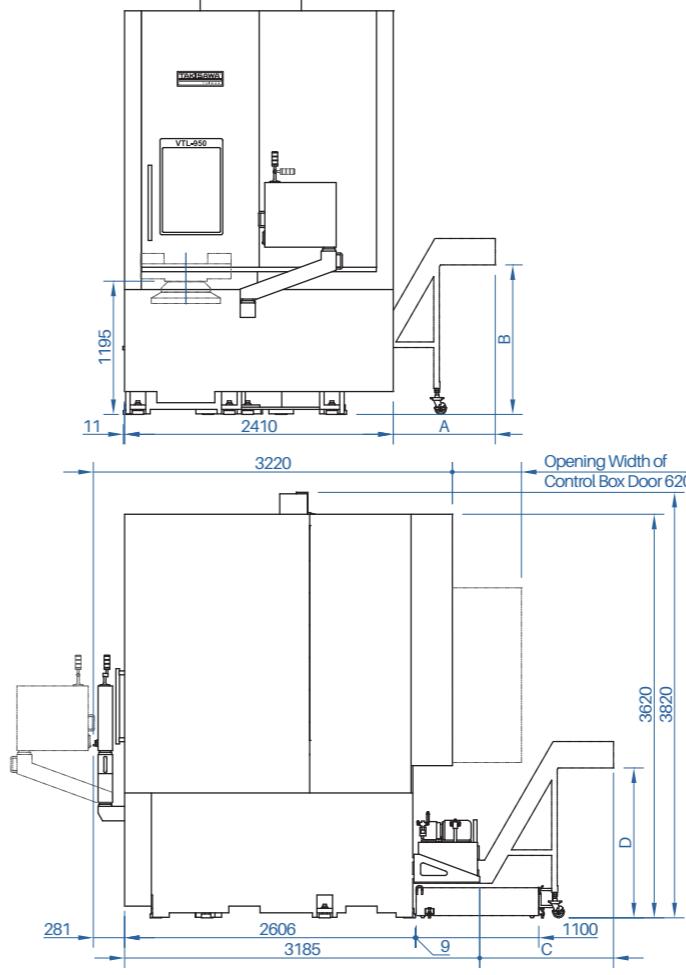
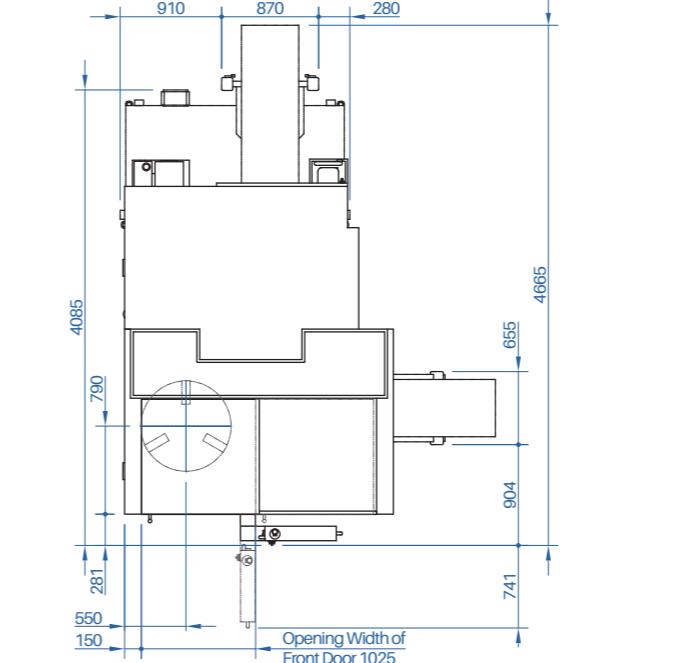


VTL-760(M)

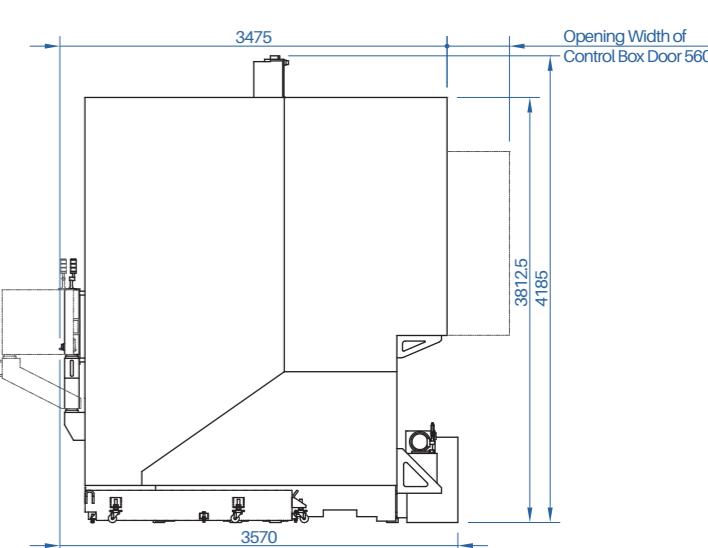
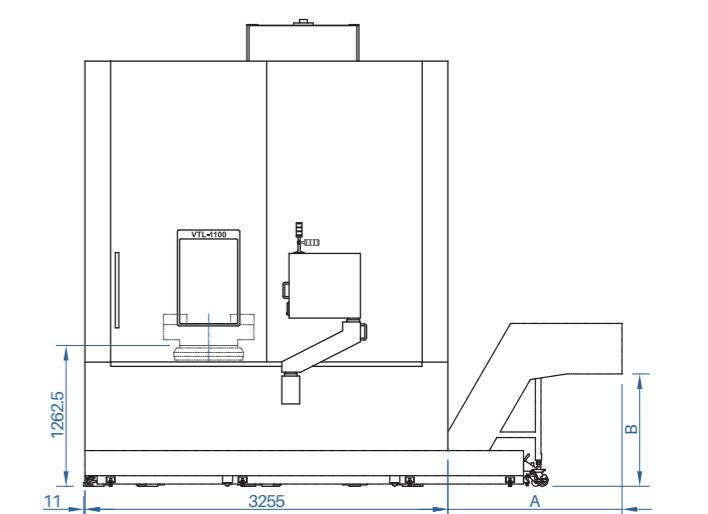
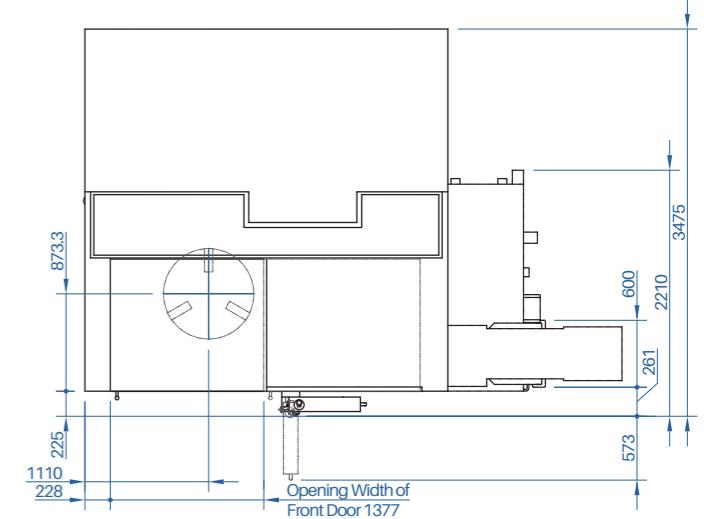


Chip Conveyor Dimension	A	B	C	D
Standard	765	1030	983	1008
CE	765	895	985	885
Italy	915	993	1080	993
Switzerland	915	1143	1085	1143

VTL-950(M)

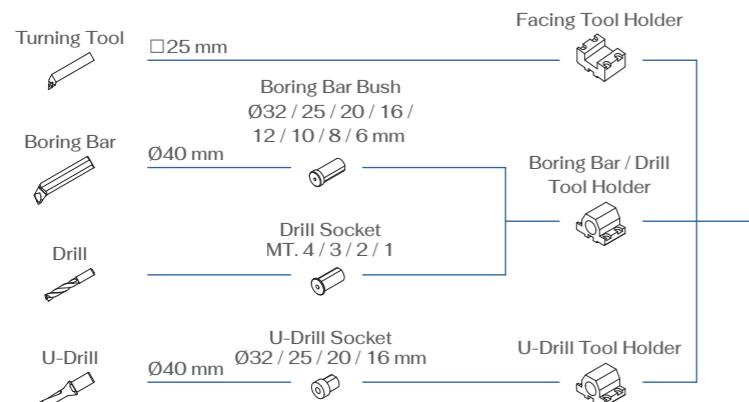


VTL-1100(M)

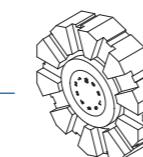


Tooling System

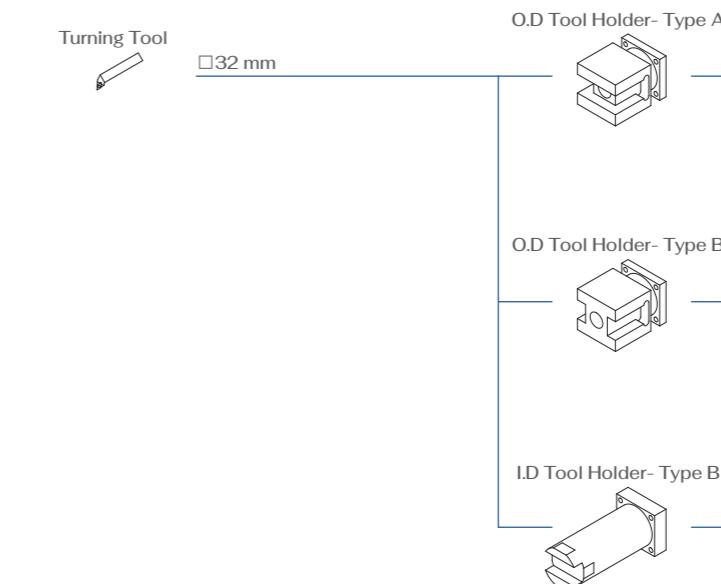
VTL-350



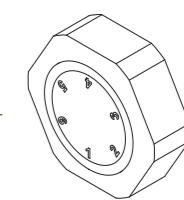
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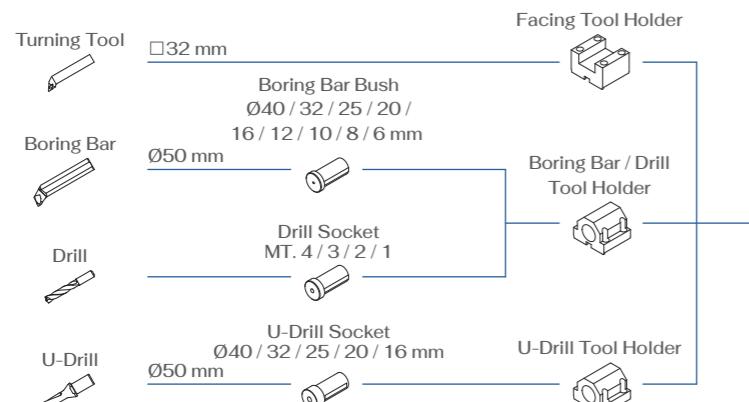
VTL-750A



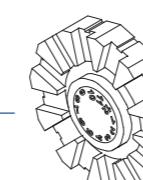
VTL-750A



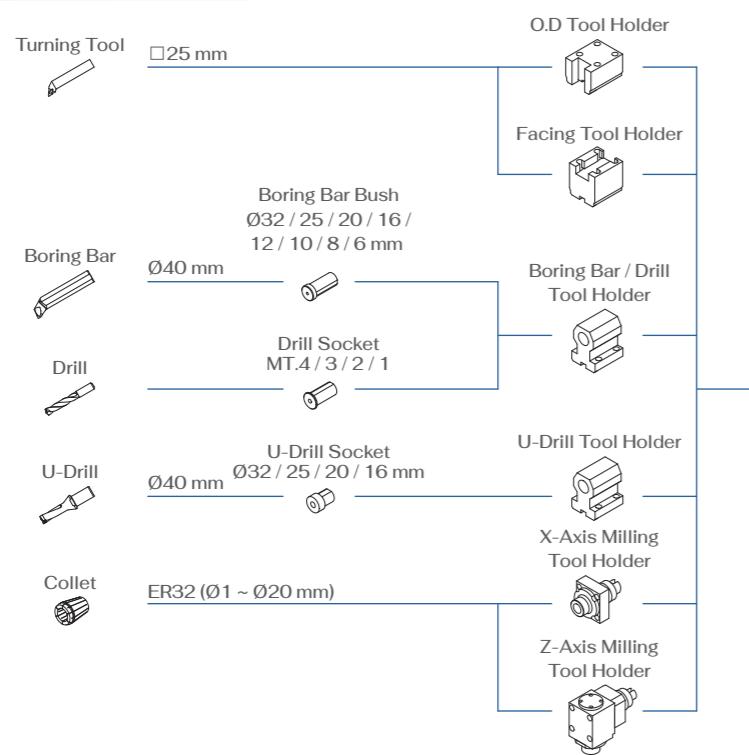
VTL-450



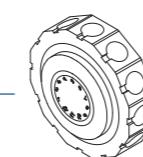
VTL-450



VTL-450M

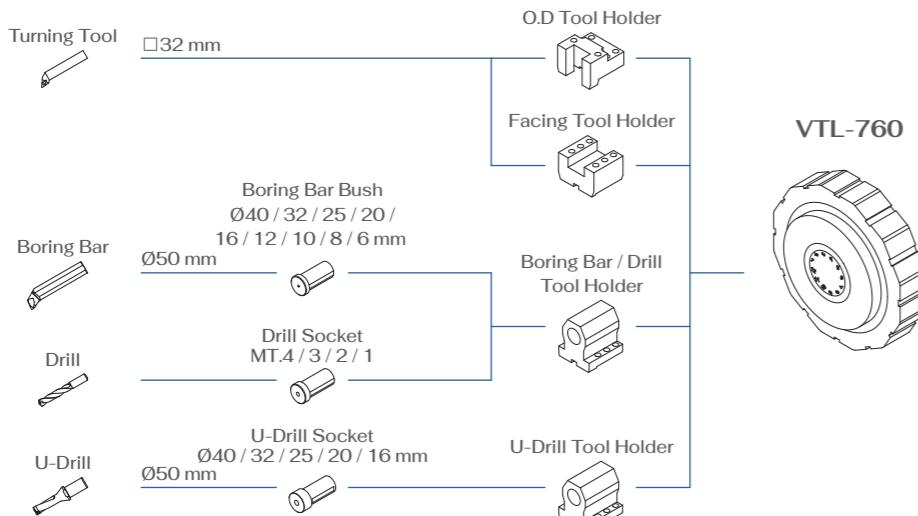


VTL-450M



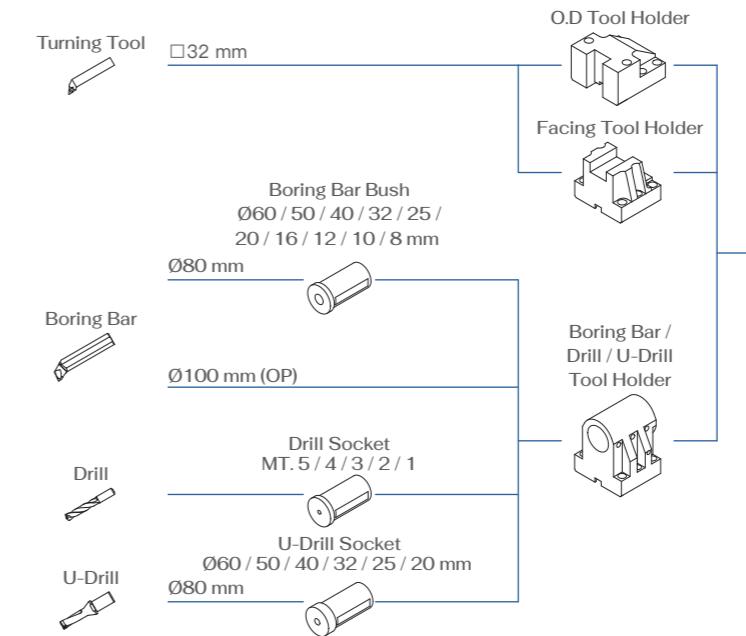
Tooling System

VTL-760



VTL-760

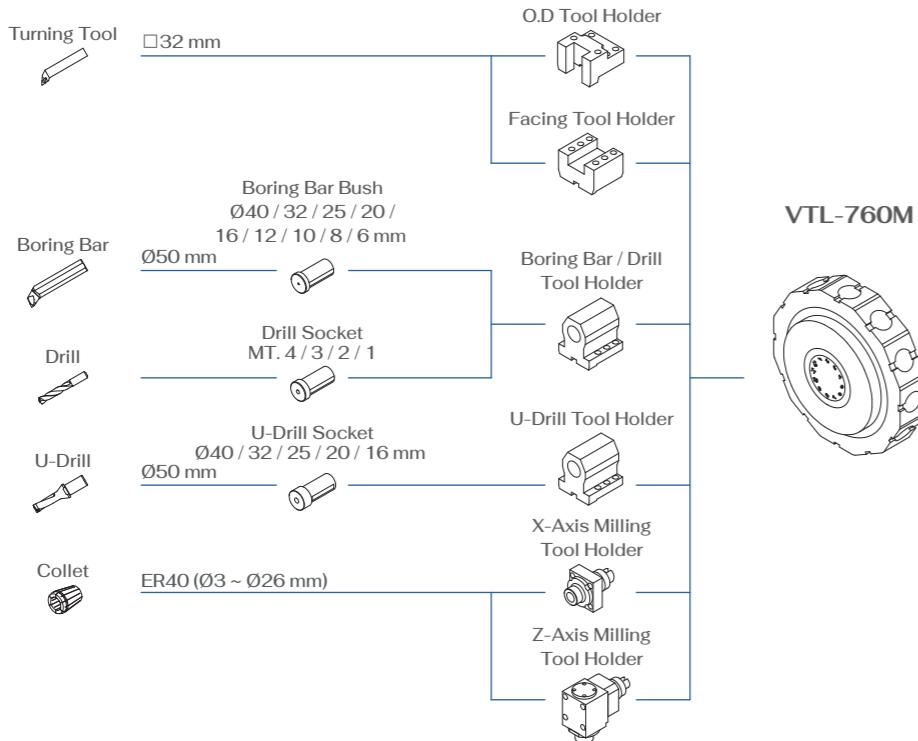
VTL-950 / VTL-1100



VTL-950

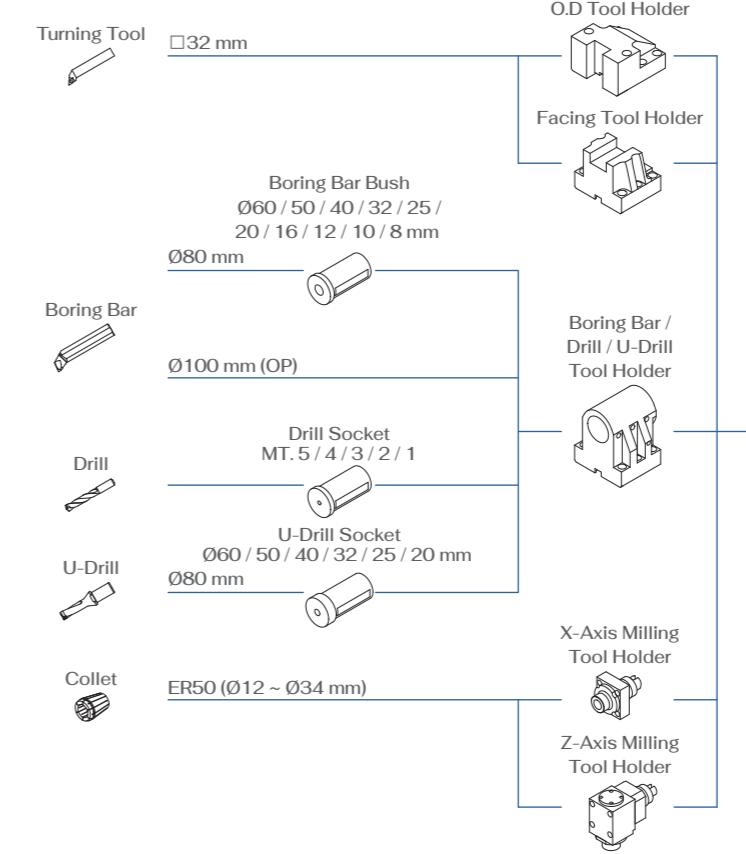
VTL-1100

VTL-760M



VTL-760M

VTL-950M / VTL-1100M



VTL-950M

VTL-1100M

Machine Specifications

	Item	VTL-350	VTL-450	VTL-450M	VTL-750A	VTL-760
Capacity	Max. Swing mm	650	600	600	1050	850
	Standard Turning Diameter mm	245	248	265	780	310
	Max. Turning Diameter mm	470	460	460	780	800
	Max. Turning Length mm	415	410	380	765	700
Travel	X-Axis Travel mm	270	265	265	750	460
	Z-Axis Travel mm	470	470	470	850	770
Spindle	Spindle Speed rpm	2500	2500	2500	1500	2000
	Spindle Nose	A2-8	A2-8	A2-8	A2-11	A2-11
	Through Hole Diameter mm	70	70	70	110	77
	Bearing Inside Diameter mm	120	120	120	200	160
Turret	Number of Tools	10	12	12	6	12
	O.D Tool Shank Dimension mm	25	32	25	32	32
	I.D Tool Shank Diameter mm	40	50	40	50	50
	Milling Shank Diameter mm	-	-	20	-	-
	Spindle Speed rpm	-	-	4000	-	-
Feedrate	X-Axis Rapid Traverse m/min	20	20	20	20	20
	Z-Axis Rapid Traverse m/min	20	20	20	15	15
Motor	Spindle Motor kW	18.5 / 15 (22 / 18.5)	26 / 22	26 / 22	37 / 30	37 / 30
	Milling Spindle Motor kW	-	-	5.5 / 3.7	-	-
	Index Motor kW	1.2	1.2	1.2	1.2	1.2
	X-Axis Servo Motor kW	1.6	3	3	4	4
	Z-Axis Servo Motor kW	3	4	4	7	4
Machine Size	Height mm	2900	2875	2875	3620	3305
	Width mm	1620	1650	1650	2350	2035
	Depth mm	2810	3160	3160	3970	3520
	Weight kg	6000	8000	8500	16000	9000

	Item	VTL-760M	VTL-950	VTL-950M	VTL-1100	VTL-1100M
Capacity	Max. Swing mm	850	990	990	1330	1330
	Standard Turning Diameter mm	310	435	435	435	435
	Max. Turning Diameter mm	800	950	950	1200	1200
	Max. Turning Length mm	680	860	860	985	985
Travel	X-Axis Travel mm	460	550	550	650	650
	Z-Axis Travel mm	770	900	900	1140	1140
Spindle	Spindle Speed rpm	2000	850	850	850	850
	Spindle Nose	A2-11	A2-11	A2-11	A2-20	A2-20
	Through Hole Diameter mm	77	110	110	110	110
	Bearing Inside Diameter mm	160	200	200	200	200
Turret	Number of Tools	12	12	12	12	12
	O.D Tool Shank Dimension mm	32	32	32	32	32
	I.D Tool Shank Diameter mm	50	80 (100)	80 (100)	80 (100)	80 (100)
	Milling Shank Diameter mm	26	-	34	-	34
	Spindle Speed rpm	3500	-	3000	-	3000
Feedrate	X-Axis Rapid Traverse m/min	20	20	20	20	20
	Z-Axis Rapid Traverse m/min	15	15	15	15	15
Motor	Spindle Motor kW	37 / 30	37 / 30	37 / 30	55 / 45	55 / 45
	Milling Spindle Motor kW	7.5 / 5.5 (11 / 7.5)	-	11 / 7.5	-	11 / 7.5
	Index Motor kW	1.2	2.5	2.5	2.5	2.5
	X-Axis Servo Motor kW	4	4	4	4	4
	Z-Axis Servo Motor kW	4	6	6	6	6
Machine Size	Height mm	3305	3820	3820	4185	4185
	Width mm	2035	2410	2410	3255	3255
	Depth mm	3520	4085	4085	3475	3475
	Weight kg	9500	20000	20500	23500	24000

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- Ø6	●	●	●	-	●
Boring Bar Bush- Ø8	●	●	●	-	●
Boring Bar Bush- Ø10	●	●	●	-	●
Boring Bar Bush- Ø12	●	●	●	-	●
Boring Bar Bush- Ø16	●	●	●	-	●
Boring Bar Bush- Ø20	●	●	●	●	●
Boring Bar Bush- Ø25	●	●	●	●	●
Boring Bar Bush- Ø32	●	●	●	●	●
Boring Bar Bush- Ø40	-	●	-	●	●
Boring Bar Bush- Ø50	-	-	-	-	-
Boring Bar Bush- Ø60	-	-	-	-	-
Drill Socket- MT.1	●	●	●	-	●
Drill Socket- MT.2	●	●	●	-	●
Drill Socket- MT.3	●	●	●	-	●
Drill Socket- MT.4	●	●	●	-	●
Drill Socket- MT.5	-	-	-	-	-
U-Drill Socket- Ø16	●	●	●	-	●
U-Drill Socket- Ø20	●	●	●	-	●
U-Drill Socket- Ø25	●	●	●	-	●
U-Drill Socket- Ø32	●	●	●	-	●
U-Drill Socket- Ø40	-	●	-	-	●
U-Drill Socket- Ø50	-	-	-	-	-
U-Drill Socket- Ø60	-	-	-	-	-
ER Spring Collets	-	-	●	-	-
ER Tap Collets	-	-	●	-	-
Front Door Interlock	◎	◎	◎	◎	◎
Auto Door	◎	◎	◎	◎	◎
Safety Light Curtain	◎	◎	◎	◎	◎
Coolant Pump- Bed (400W_1.2 Bar_50/60Hz)	●	●	●	●	●
Coolant Pump- Bed (750W_4.2 Bar_50/60Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (750W_4.2 Bar_50/60Hz)	●	●	●	●	●
Coolant Pump- Turret (1100W_8 Bar_50Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (1100W_8 Bar_60Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (1400W_10 Bar_50Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (1100W_10 Bar_60Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (2200W_20 Bar_50Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (3000W_20 Bar_60Hz)	◎	◎	◎	◎	◎

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 Confirmation	◎	◎	◎	◎	◎
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	◎	◎	◎	◎	◎

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- Ø6	●	-	-	-	-
Boring Bar Bush- Ø8	●	●	●	●	●
Boring Bar Bush- Ø10	●	●	●	●	●
Boring Bar Bush- Ø12	●	●	●	●	●
Boring Bar Bush- Ø16	●	●	●	●	●
Boring Bar Bush- Ø20	●	●	●	●	●
Boring Bar Bush- Ø25	●	●	●	●	●
Boring Bar Bush- Ø32	●	●	●	●	●
Boring Bar Bush- Ø40	●	●	●	●	●
Boring Bar Bush- Ø50	-	●	●	●	●
Boring Bar Bush- Ø60	-	●	●	●	●
Drill Socket- MT.1	●	●	●	●	●
Drill Socket- MT.2	●	●	●	●	●
Drill Socket- MT.3	●	●	●	●	●
Drill Socket- MT.4	●	●	●	●	●
Drill Socket- MT.5	-	●	●	●	●
U-Drill Socket- Ø16	●	-	-	-	-
U-Drill Socket- Ø20	●	●	●	●	●
U-Drill Socket- Ø25	●	●	●	●	●
U-Drill Socket- Ø32	●	●	●	●	●
U-Drill Socket- Ø40	●	●	●	●	●
U-Drill Socket- Ø50	-	●	●	●	●
U-Drill Socket- Ø60	-	●	●	●	●
ER Spring Collets	●	-	●	-	●
ER Tap Collets	●	-	-	-	-
Front Door Interlock	◎	◎	◎	◎	◎
Auto Door	◎	◎	◎	◎	◎
Safety Light Curtain	◎	◎	◎	◎	◎
Coolant Pump- Bed (400W_1.2 Bar_50/60Hz)	●	●	●	●	●
Coolant Pump- Bed (750W_4.2 Bar_50/60Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (750W_4.2 Bar_50/60Hz)	●	●	●	●	●
Coolant Pump- Turret (1100W_8 Bar_50Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (1100W_8 Bar_60Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (1400W_10 Bar_50Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (1100W_10 Bar_60Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (2200W_20 Bar_50Hz)	◎	◎	◎	◎	◎
Coolant Pump- Turret (3000W_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 Confirmation	◎	◎	◎	◎	◎
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		
Oi-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: 0.001mm, Rotary Axis: 0.001°)	●	
Maximum Programmable Dimension (Linear Axis: ±99999.999mm, 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 (mm/rev)	●	
Feed Per Minute (mm/min)	●	
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

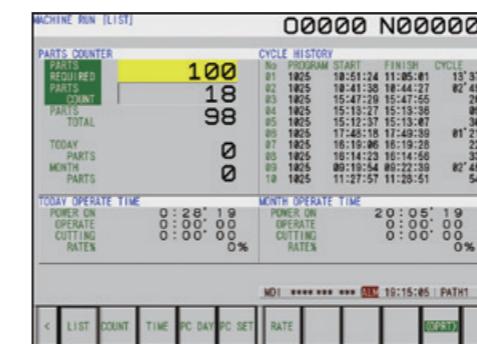
Specifications · Contents		VTL series
Tool Functions / Tool Offset Functions		
T Function (T2 + 2 Digits)	●	
Tool Offsets, 128 Pieces	●	
Tool Offsets, 200 Pieces	○	
Tool Geometry / Wear Compensation	●	
Tool Diameter / Nose R Compensation	●	
Tool Offset Counter Input	●	
Tool Offset Measured Value Direct Input	●	
Tool 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)

O1



It provides simple operation and convenient function.

O1 Tool Life Manager

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

O2 Load Monitor

Detecting max load to check tool status.

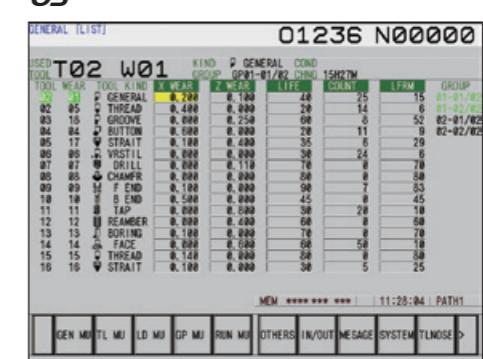
O3 Parts and Machine Manager

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

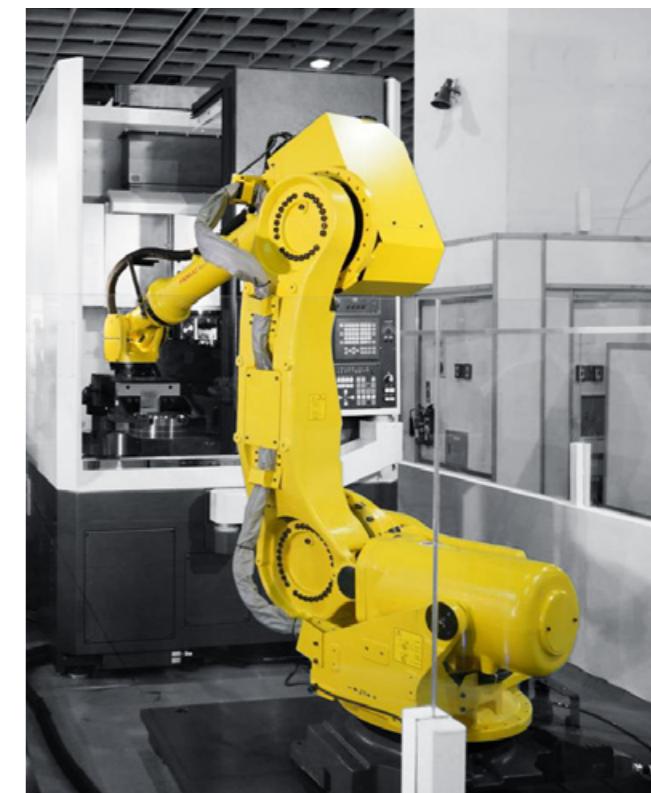
O2



O3



Application

Automotive Parts**Bearings****Automatic Tool Changer****Robot****Aerospace Parts****Valves**

Turn-Key Solution

