

**TAKISAWA**<sup>®</sup>  
TAIWAN

**VTL-Series**



**CNC  
VERTICAL LATHE**



More

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TAIWAN

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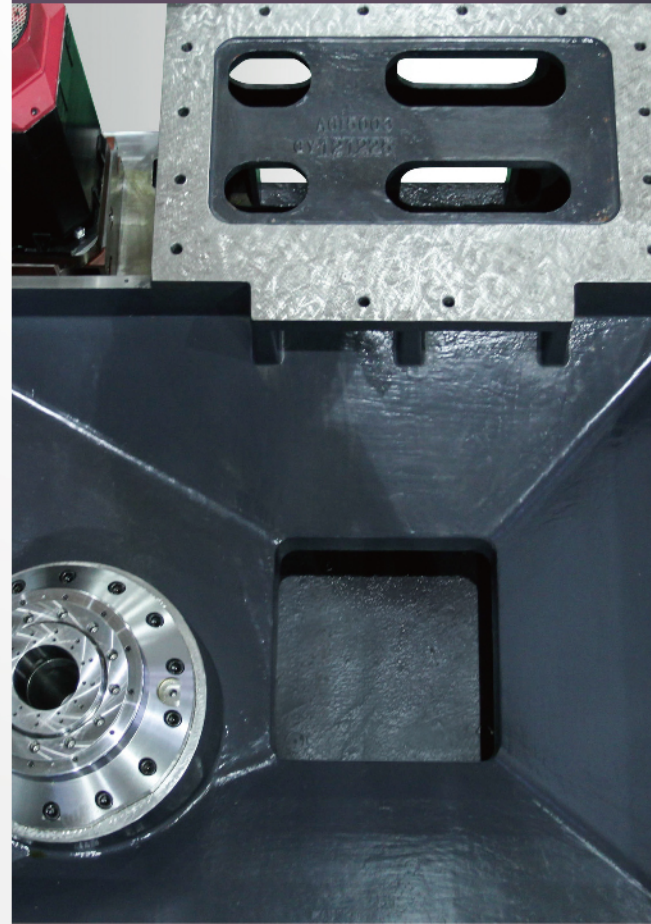
# VTL-Series



Symmetrically designed spindle unit.

Superior rigidity

Superior performance



VTL-Series



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Superior efficiency

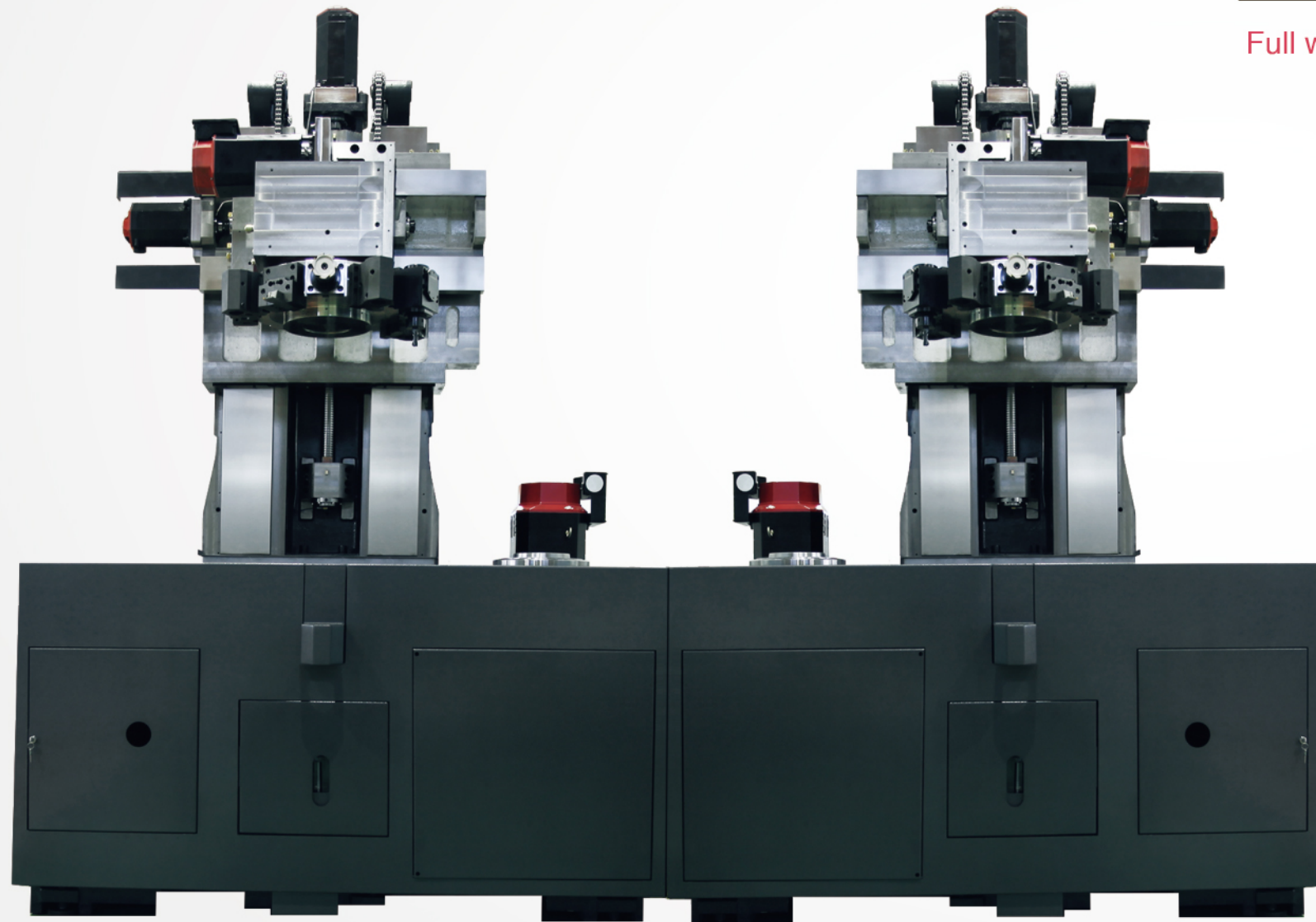
Superior accuracy





# VTL-Series

Productivity can be boosted with minimum investment by linking left and right hand units using a single dual control unit with quick transfer by operator or robot.



VTL-750(M)L

VTL-750(M)R

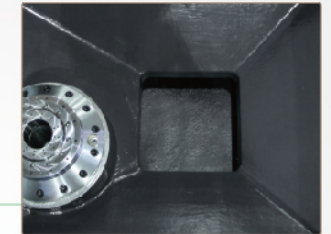
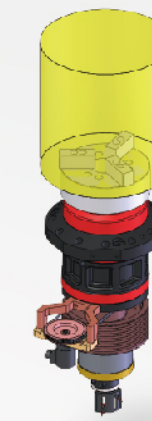


## Maximum processing area

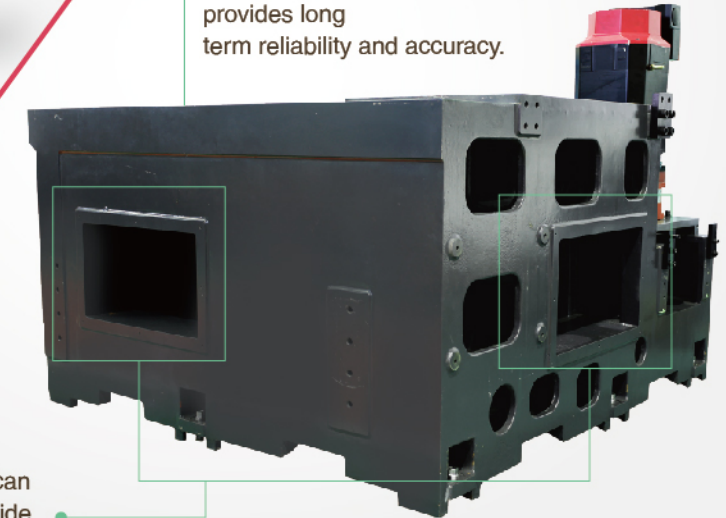
Unit : mm

Machine model	Max. Swing	Max. Turning Dia.
VTL-350	Ø 600	Ø 460
VTL-450(M)	Ø 600	Ø 460
VTL-750	Ø 800	Ø 750
VTL-750M		Ø 730
VTL-1100(M)	Ø 1330	Ø 1200

Full width turning diameter.



The heavy duty box-shaped bed is designed for minimal thermal deformation and allows quick chip removal. Its extremely rigid construction provides long term reliability and accuracy.



Chip conveyors can be provided for side or rear exit.



VTL-750

- Taiwan Takisawa's vertical lathe is designed for heavy duty machining.
- The combination of a box-shaped bed and guide rails ensures the highest level of rigidity and stability for highly accurate machining.
- The powerful spindle motor allows great cutting flexibility and the vertical structure occupies less factory floor space.

To serve the world.

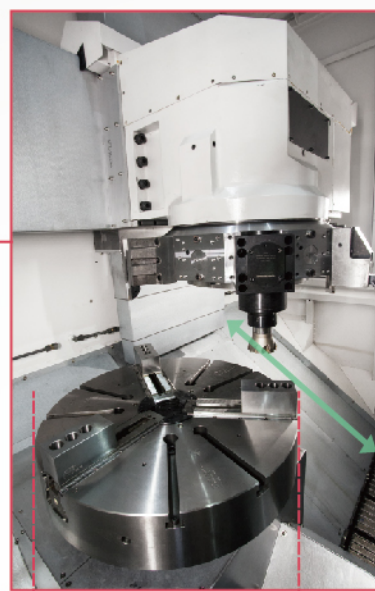




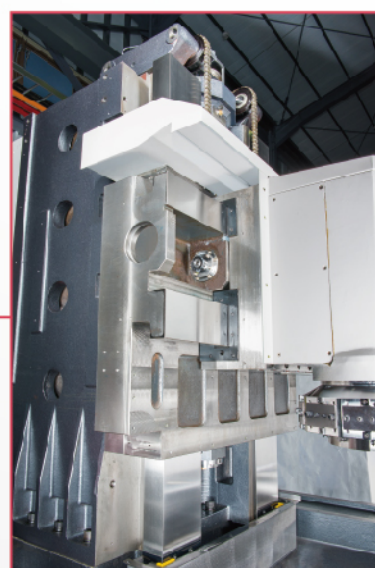
# VTL-Series



Allows quick chip removal.



Chuck size : 32"  
(OP : 40")



Superior rigidity-box way.



## VTL-350 Specifications

Max. swing	600 mm
Max. turning length	416 mm
Max. turning diameter	460 mm
Spindle speed	2500 rpm
Chuck size	12"



## VTL-450[M] Specifications

Max. swing	600 mm
Max. turning length	415[381] mm
Max. turning diameter	460 mm
Spindle speed	2500 rpm
Chuck size	12"



## VTL-750[M] Specifications

Max. swing	800 mm
Max. turning length	698[636] mm
Max. turning diameter	750[730] mm
Spindle speed	2000 rpm
Chuck size	15"(18")



## VTL-1100[M] Specifications

Max. swing	1330 mm
Max. turning length	1000 mm
Max. turning diameter	1200 mm
Spindle center high	1270 mm
Spindle speed	850 rpm
Chuck size	32"(40")

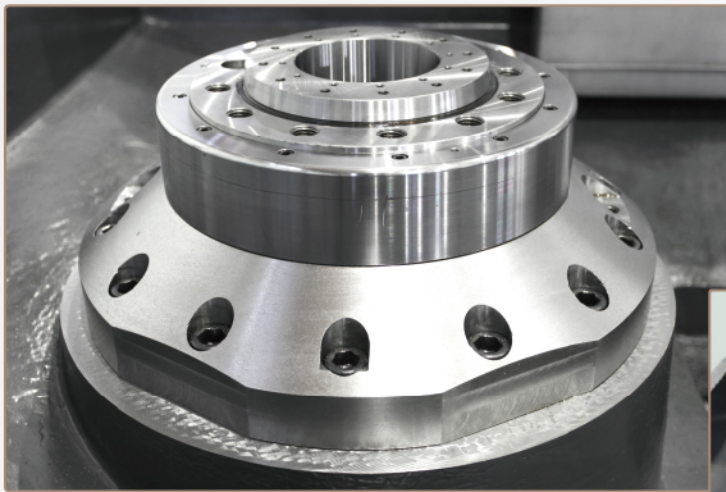
※ Specifications are subject to change without notice.



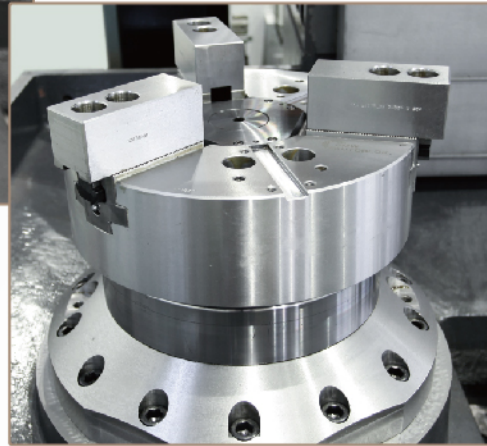




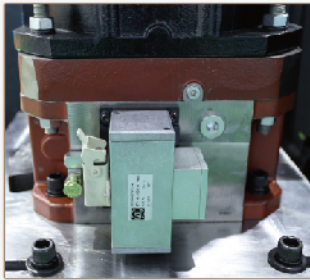
## Spindle specifications



The spindle has a symmetrical structure and is belt driven to minimize thermal deformation. It is equipped with two sets of double row cylindrical bearings to allow extra heavy duty cutting performance.



The clamps are designed to accommodate very large work pieces and use a two stage pressure system to reduce work piece deformation induced by clamping forces.



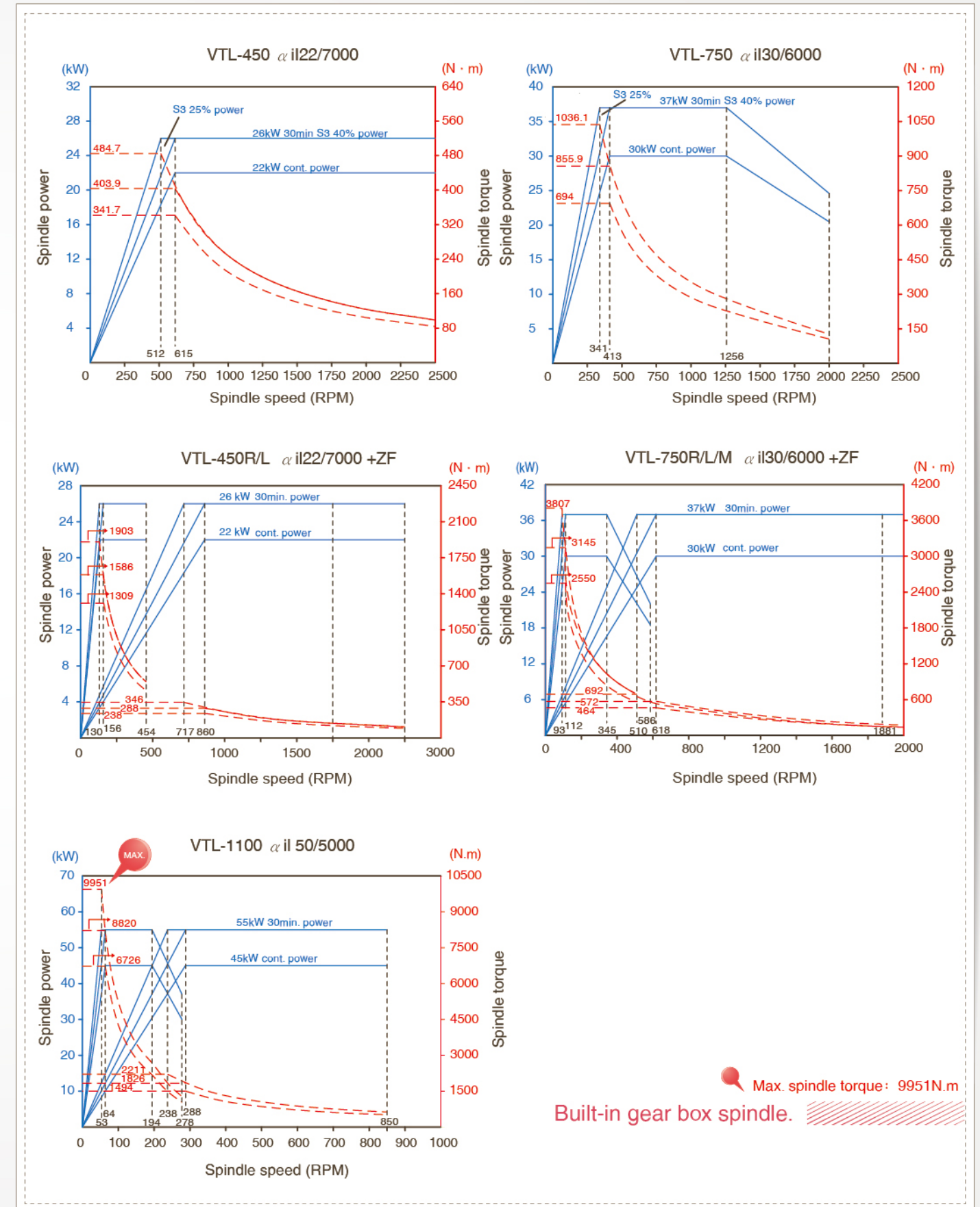
An optional ZF gearbox is available for applications requiring high torque at low rpm's.(OP)



## Spindle output diagram



## Spindle output diagram



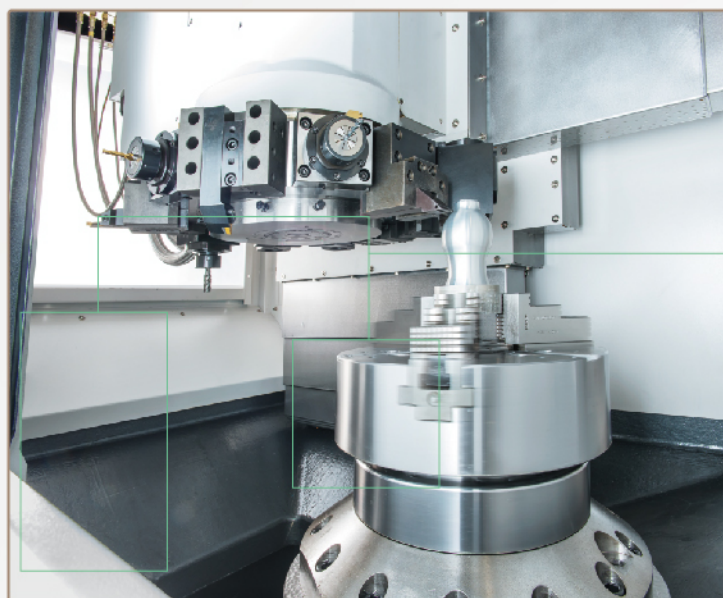
Max. spindle torque: 9951N.m

Built-in gear box spindle.



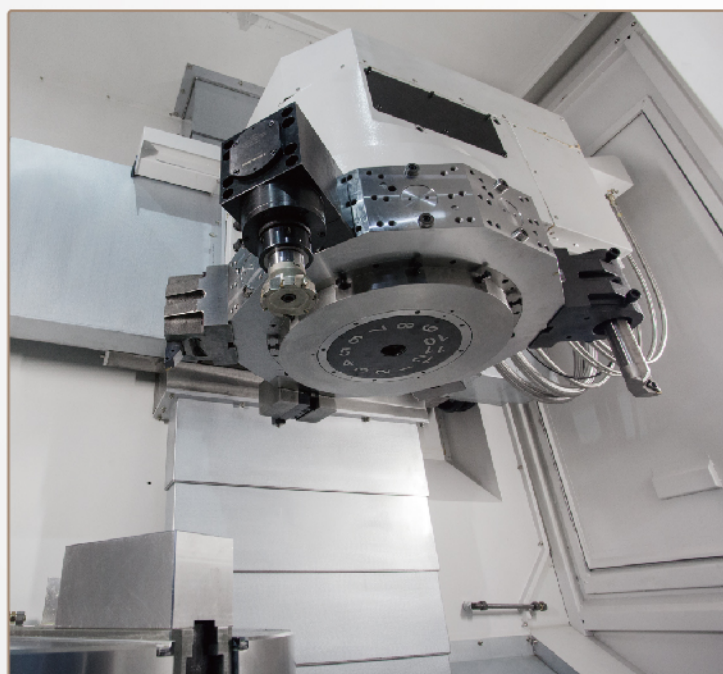
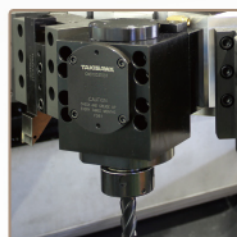
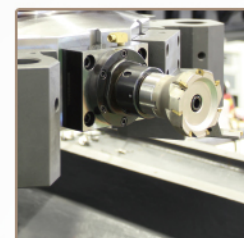


## Turret specifications



The turret is designed for extreme rigidity through its wide and heavy build, inclusion of heavy duty oversized couplings and enhanced clamping pressure.

Multiple tool selection is servo motor operated for precision and efficiency with short changeover times.



VTL-1100M T12 turret.



VTL-1100M outstanding super duty cutting performance.

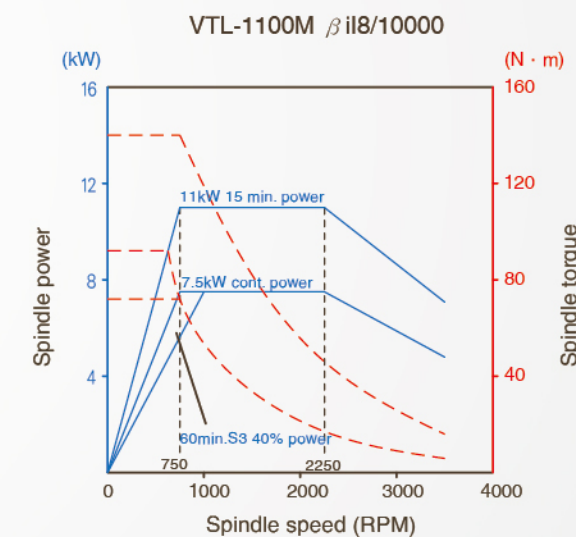
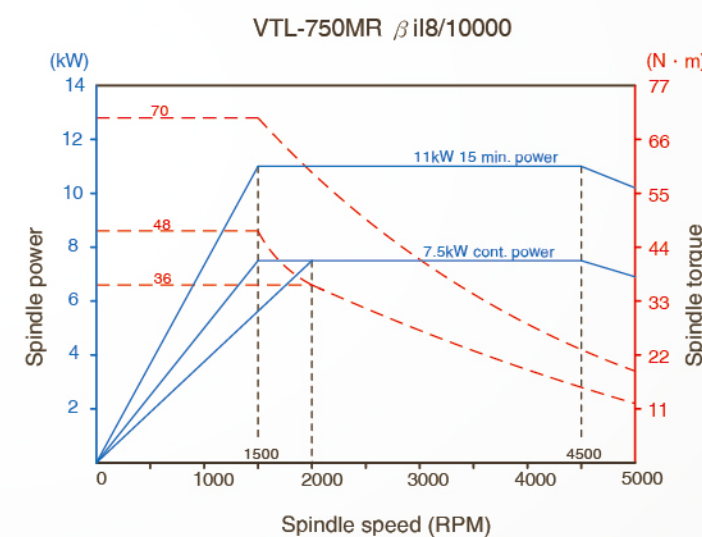
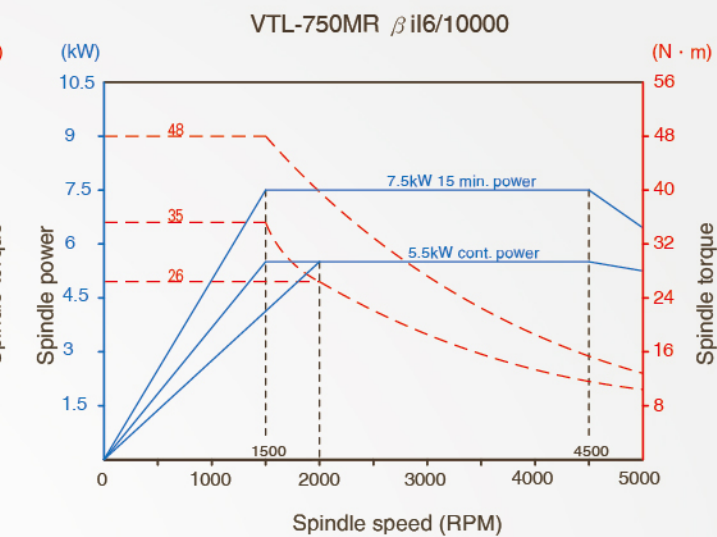
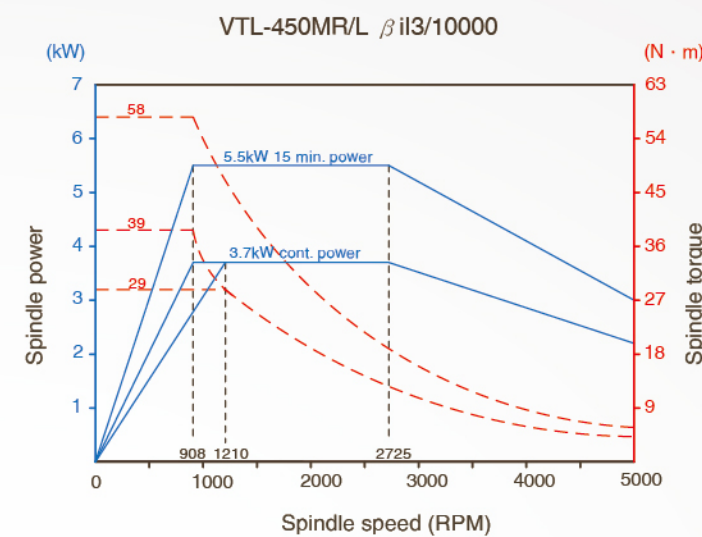


### Milling Turret

Machine model	Motor	Live tool collet
VTL-450M	3.7/5.5kW	ER32
VTL-750M	5.5/7.5kW (7.5/11kW)	ER40
VTL-1100M	7.5/11kW	ER50



## Power chart for milling tool



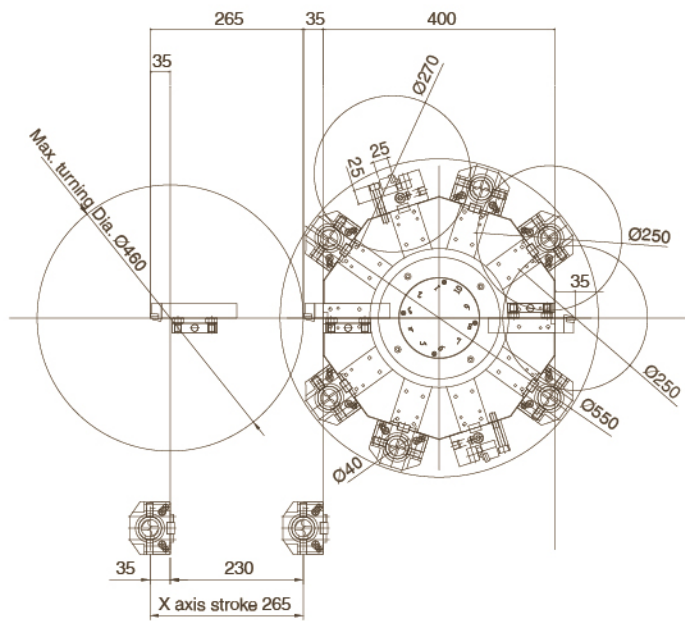




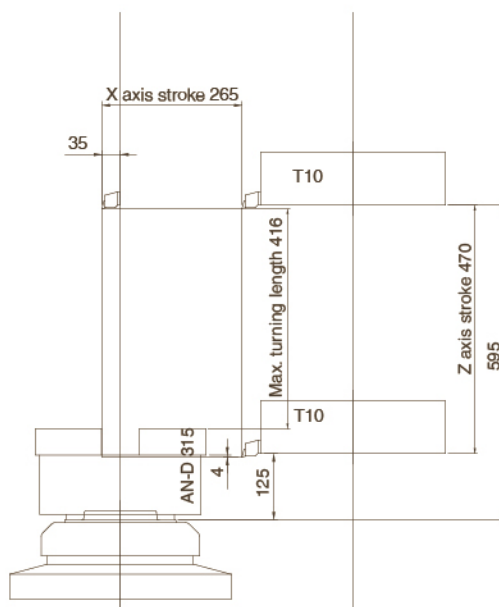
# Interference diagram | Working range

VTL-350

Interference diagram

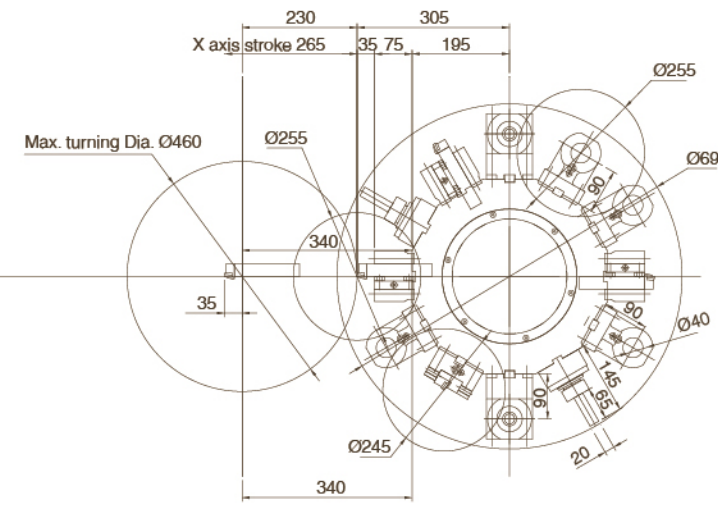


Working range

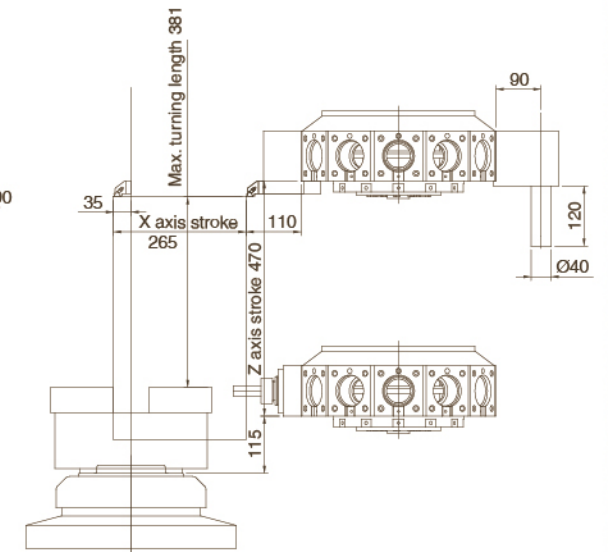


VTL-450M

Interference diagram

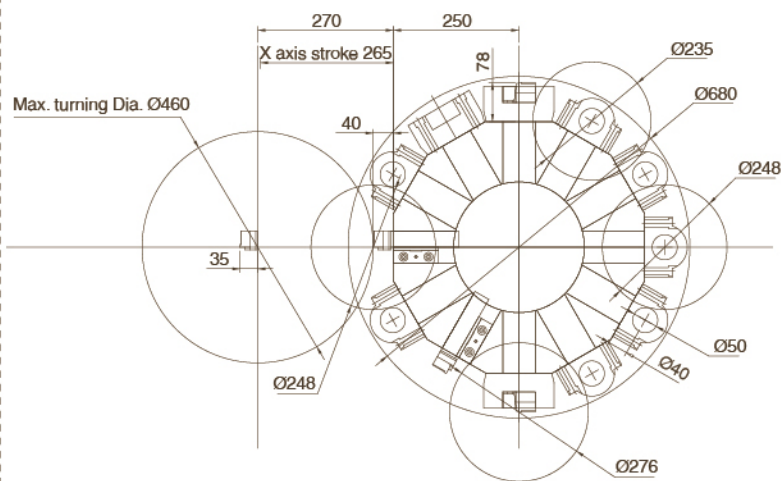


Working range

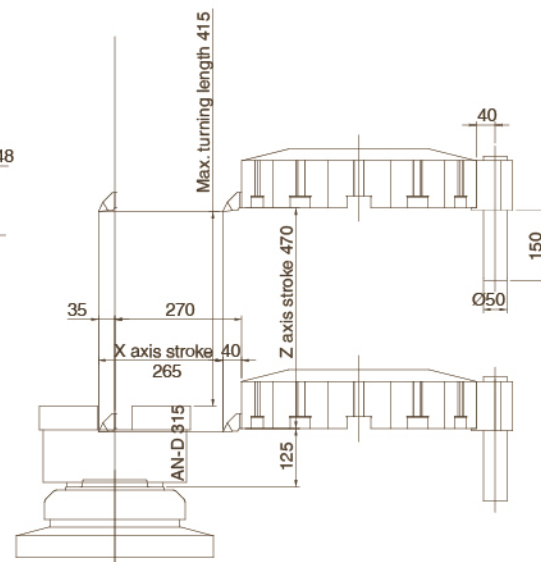


VTL-450

Interference diagram

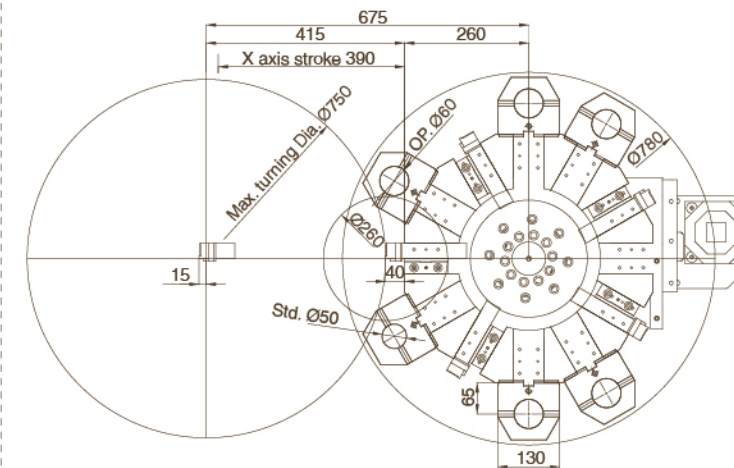


Working range

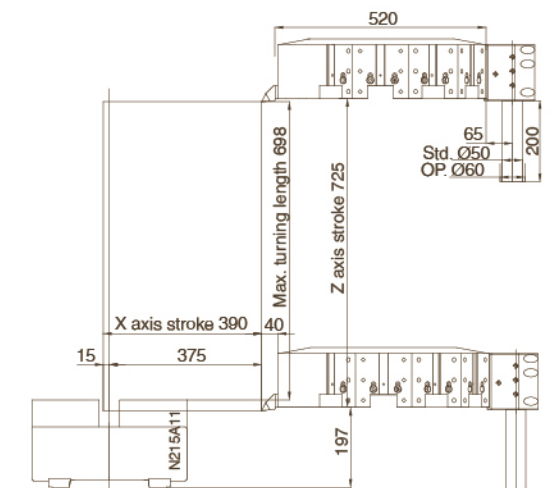


VTL-750

Interference diagram



Working range



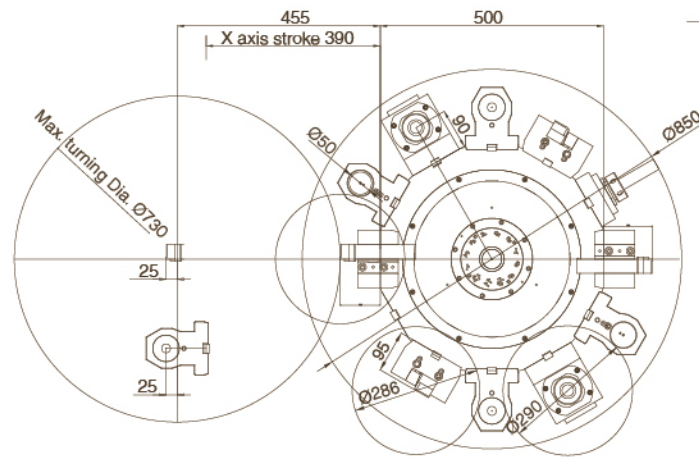




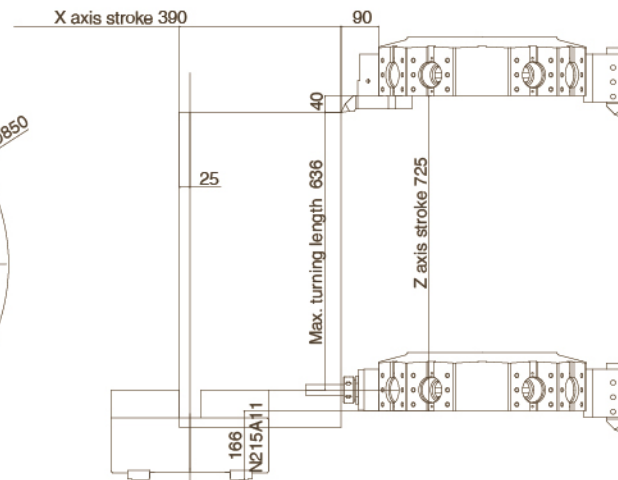
# Interference diagram | Working range

VTL-750M

Interference diagram

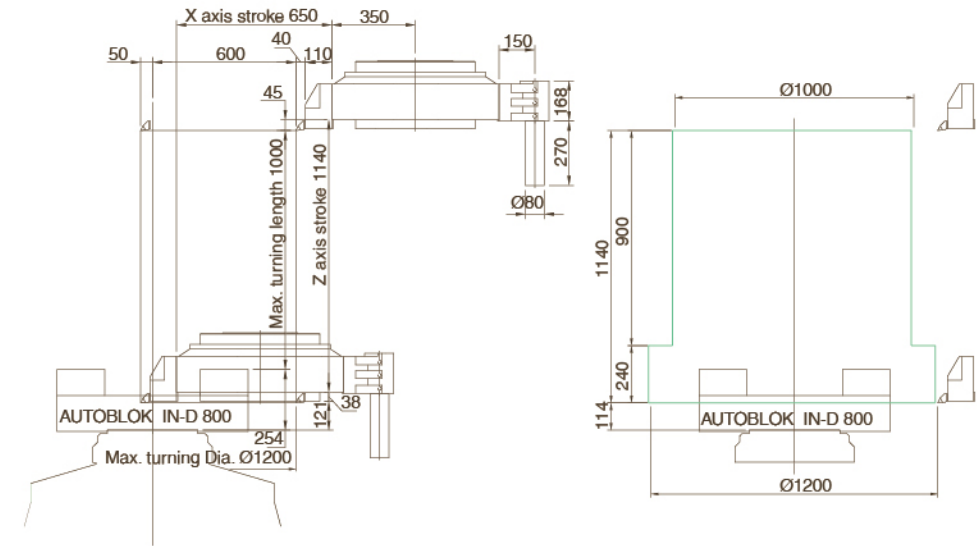


Working range



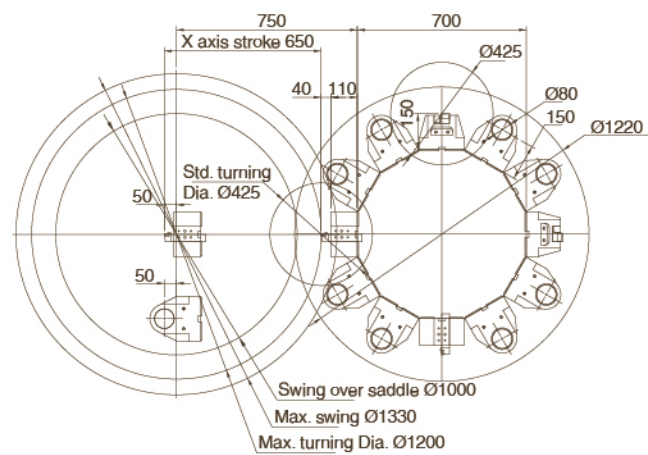
VTL-1100

Working range

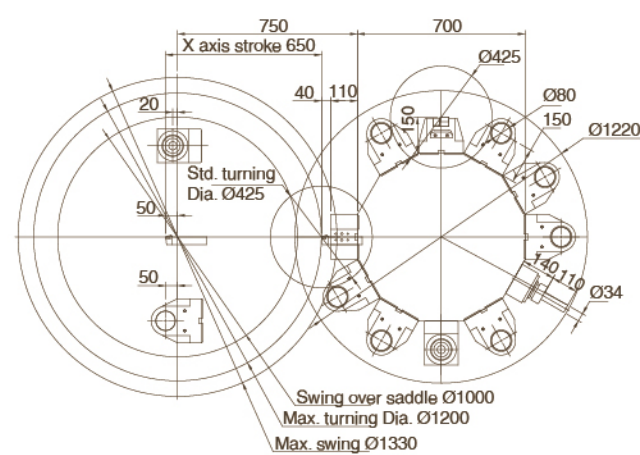


VTL-1100(M)

VTL-1100 Interference diagram

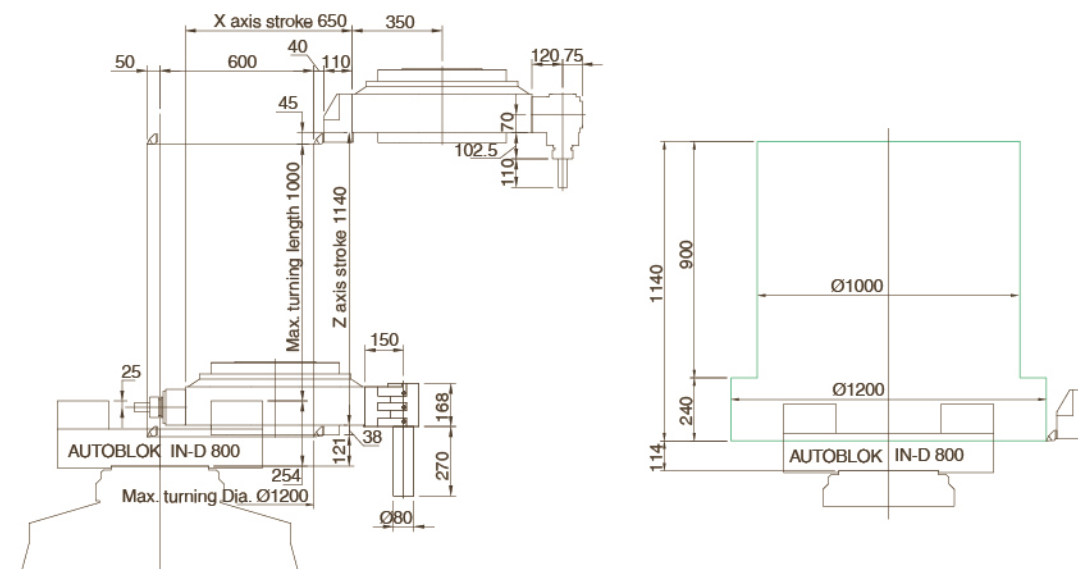


VTL-1100M Interference diagram



VTL-1100M

Working range

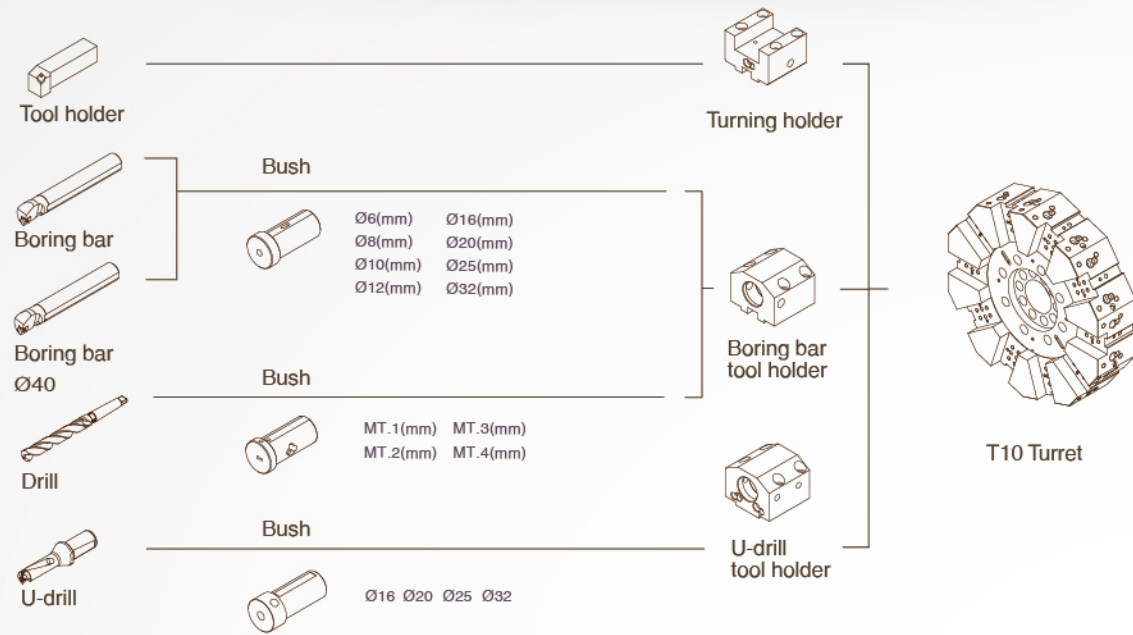




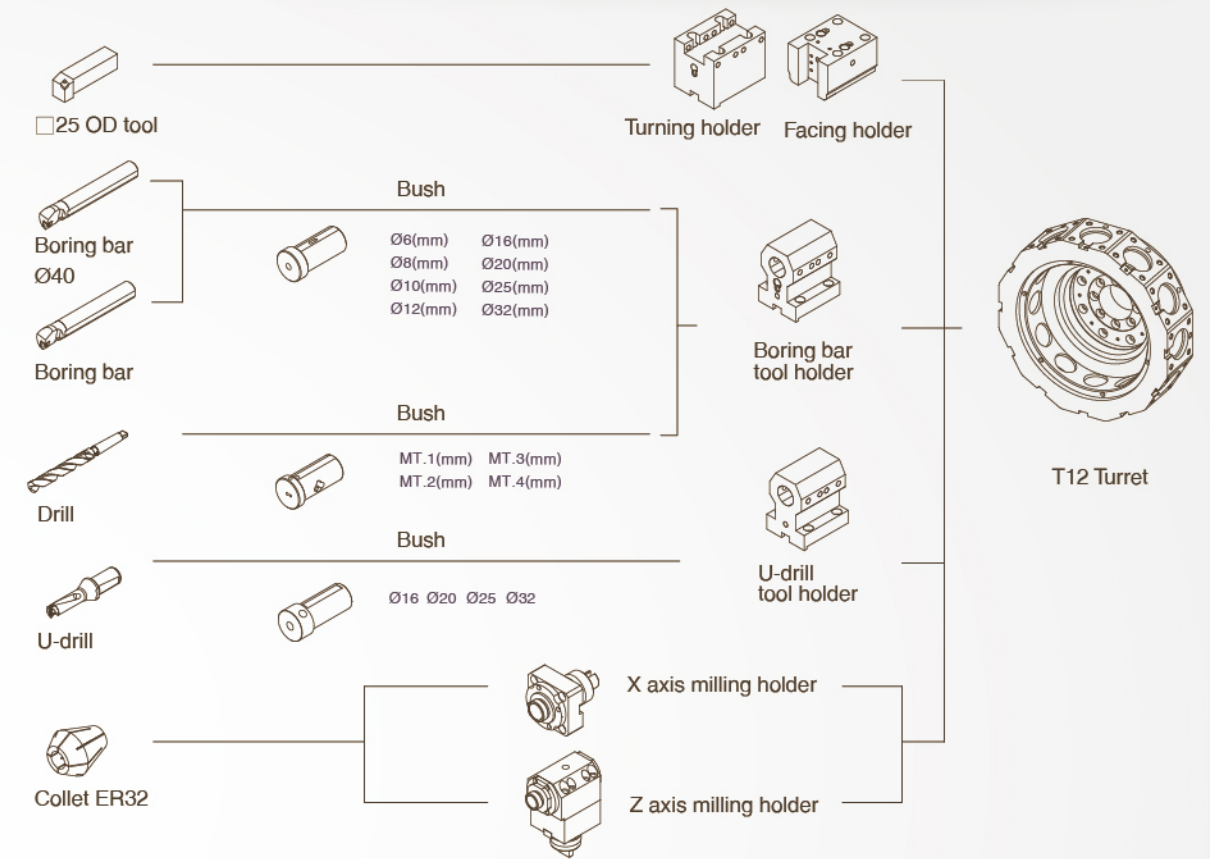


# Tooling system

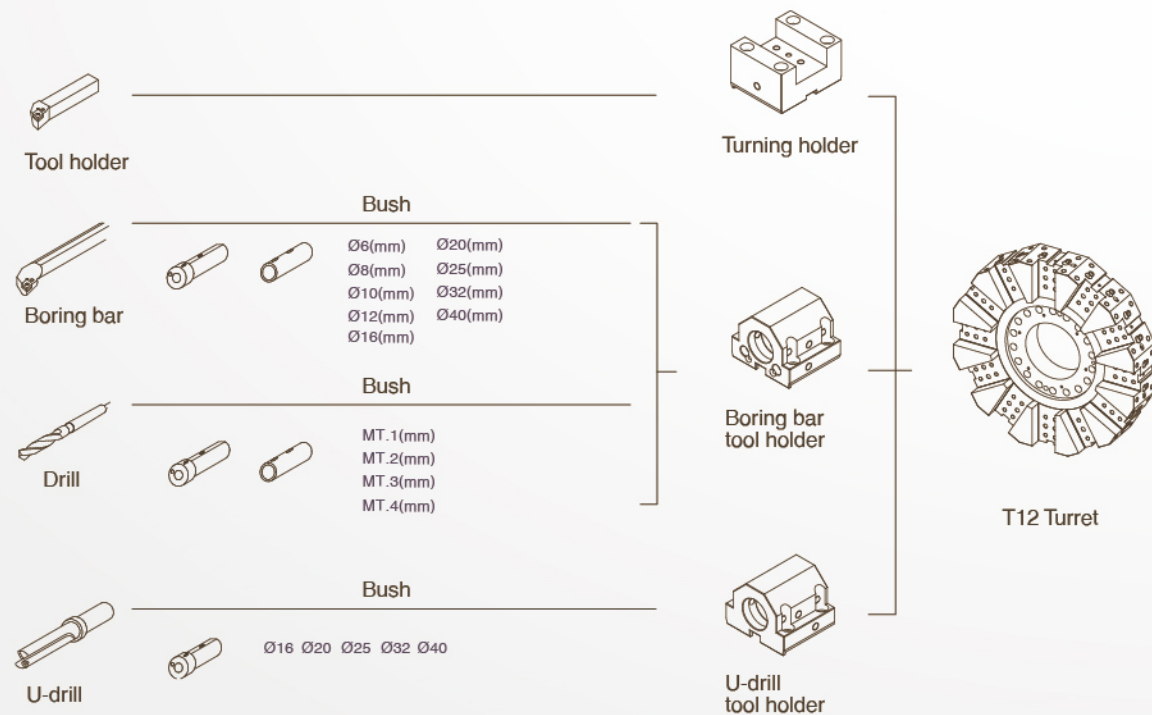
## VTL-350



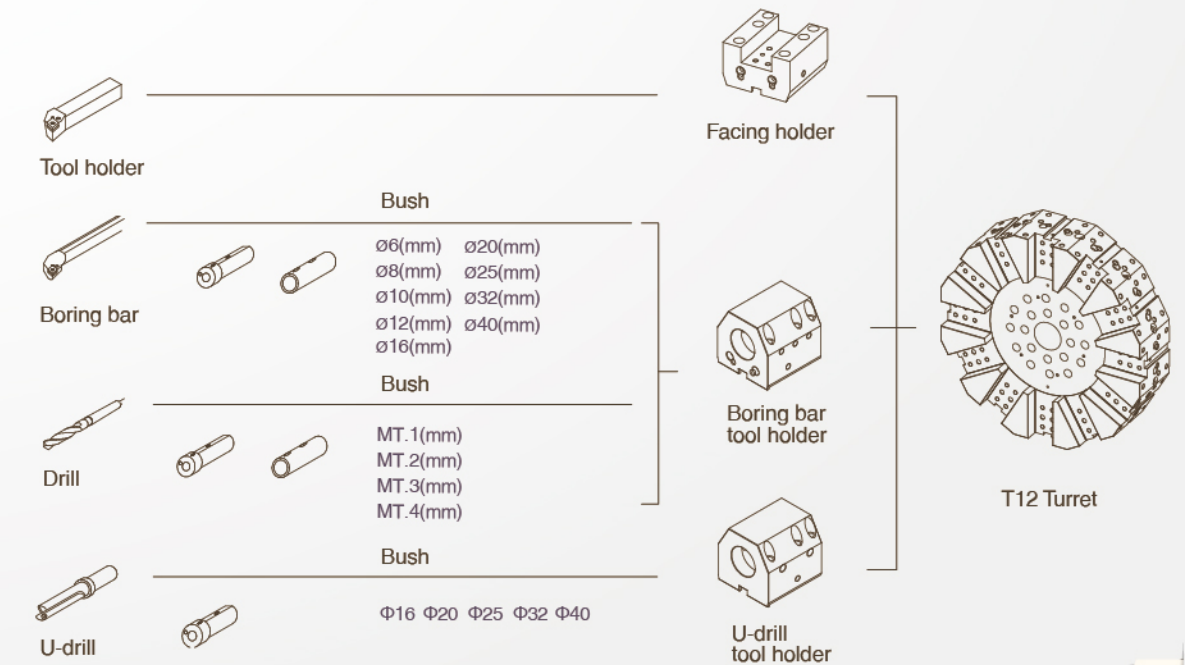
## VTL-450M



## VTL-450



## VTL-750

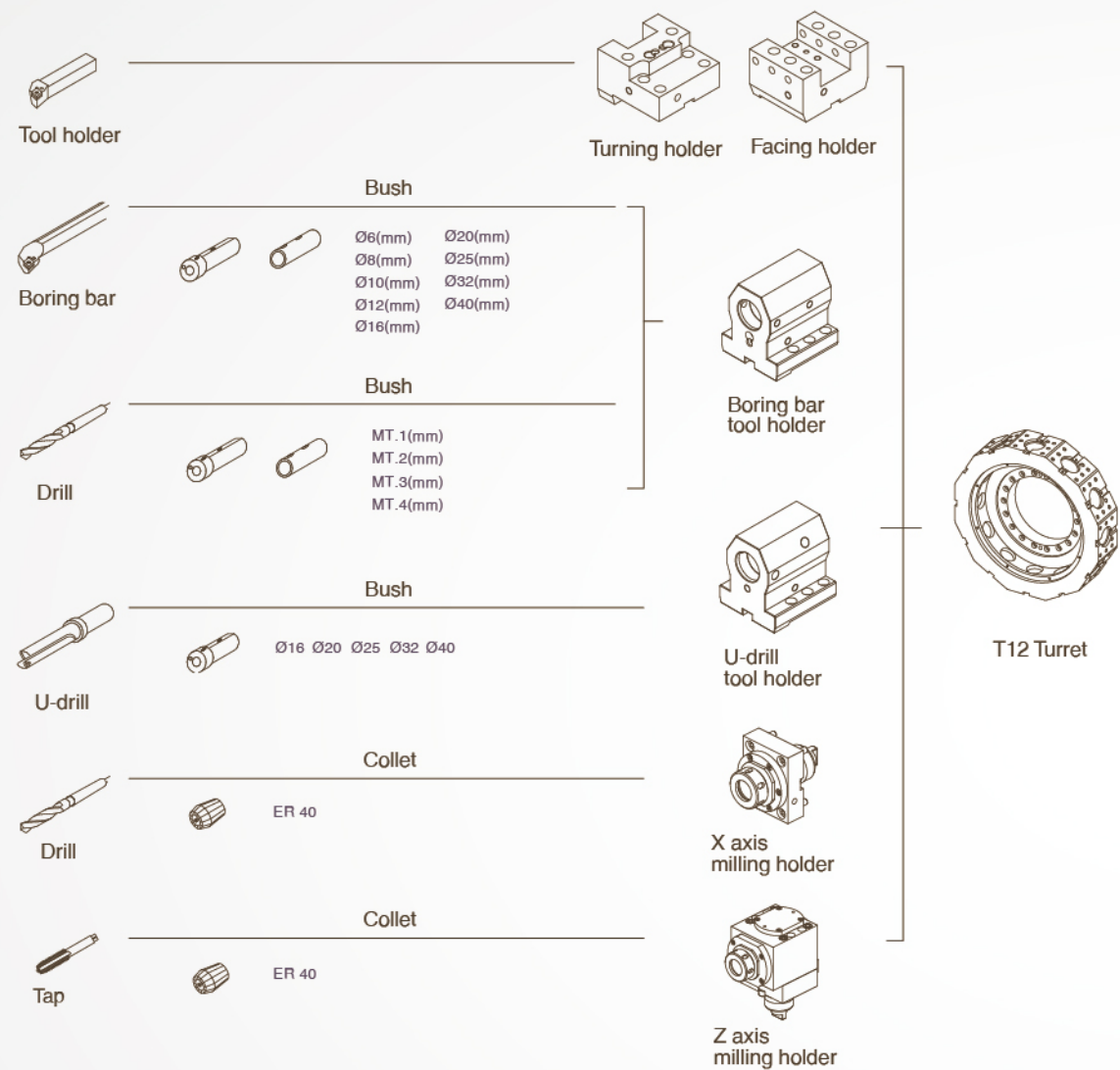




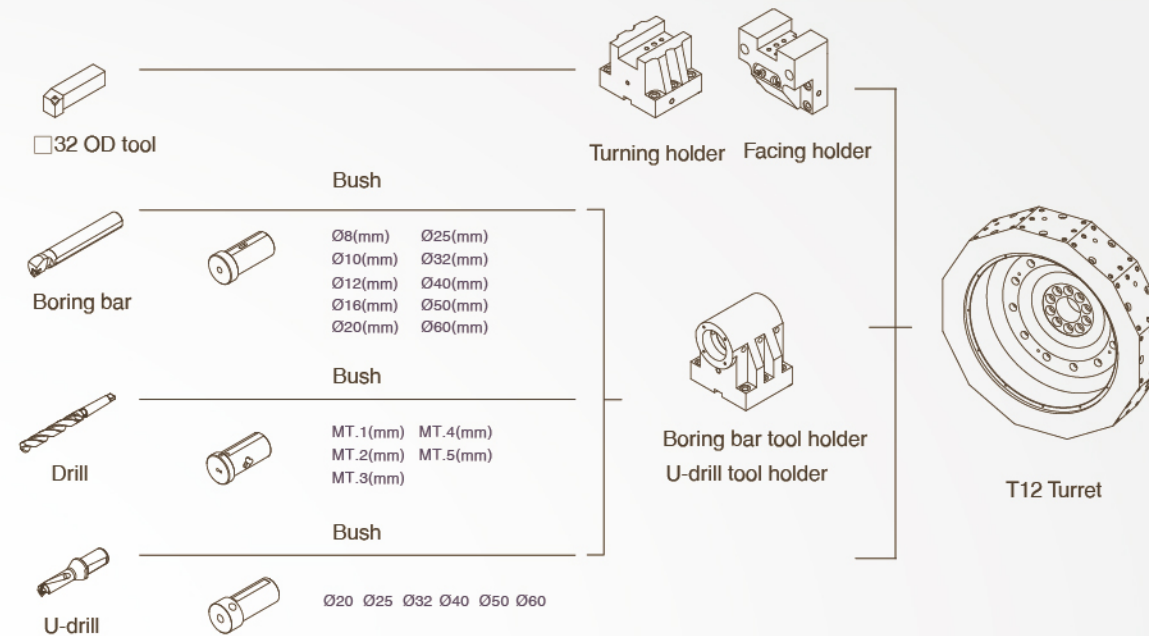


# Tooling system

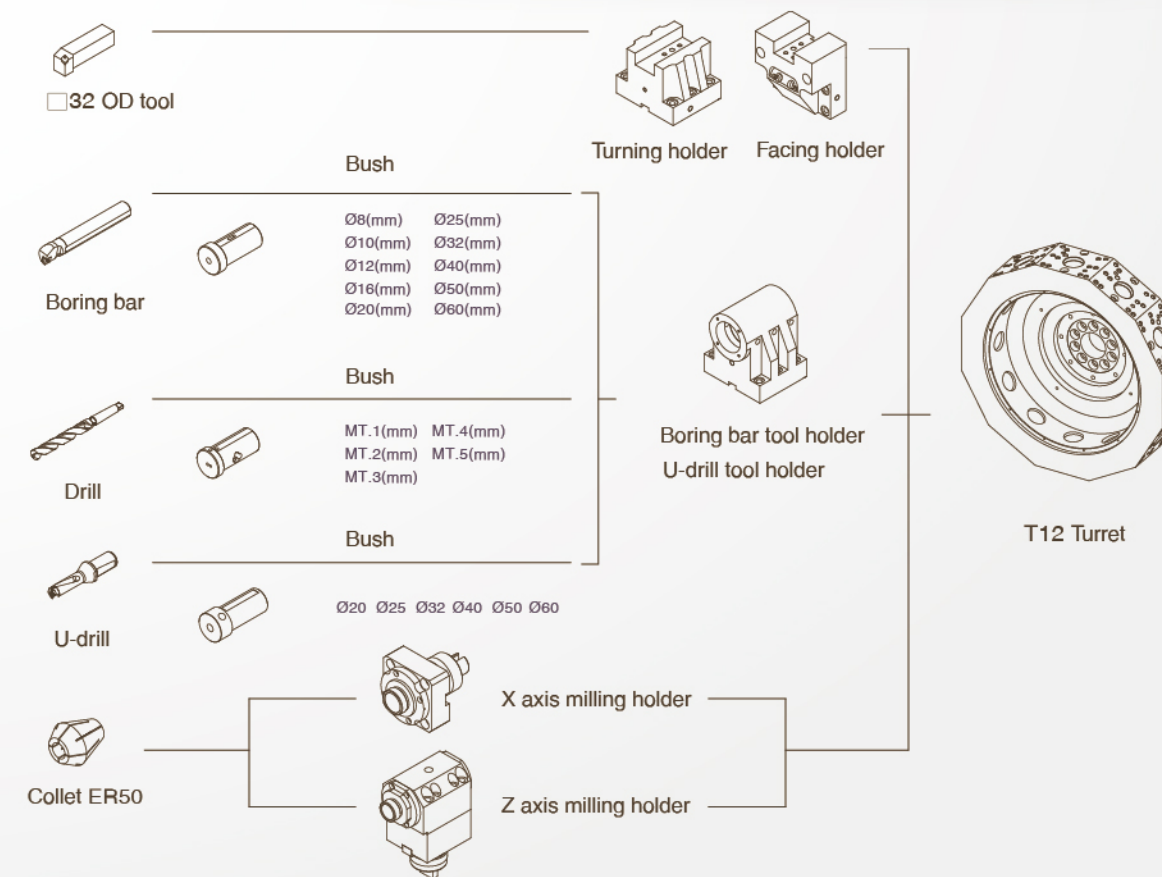
## VTL-750M



## VTL-1100



## VTL-1100M

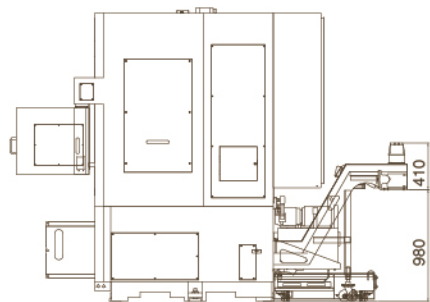
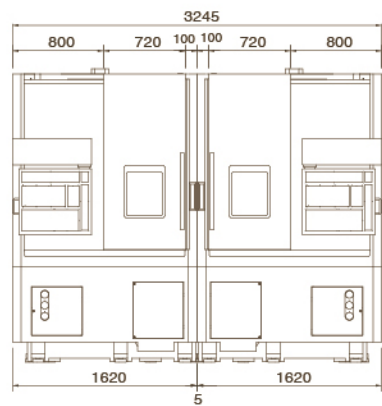
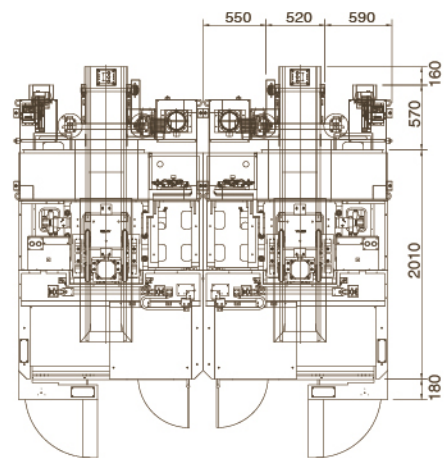




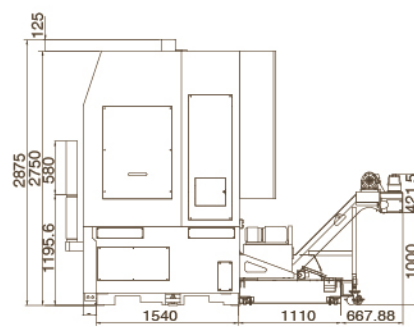
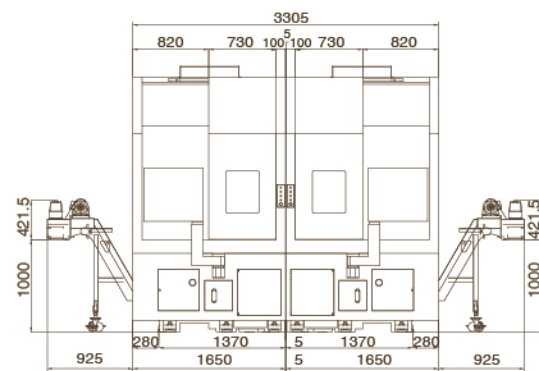
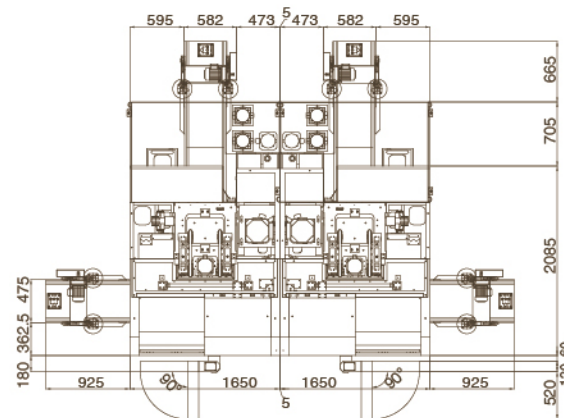


# Machine dimensions

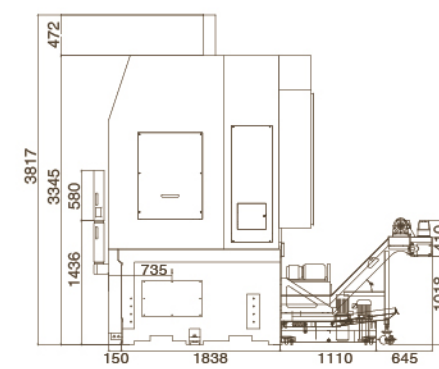
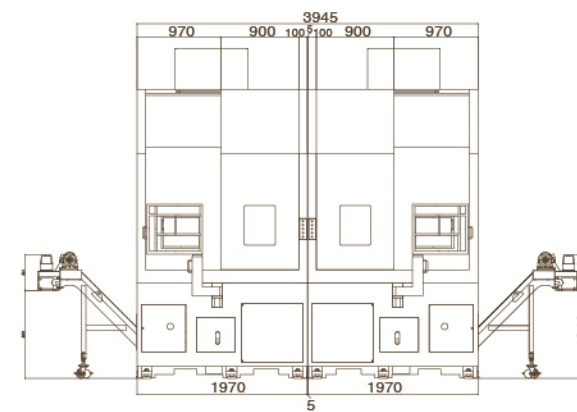
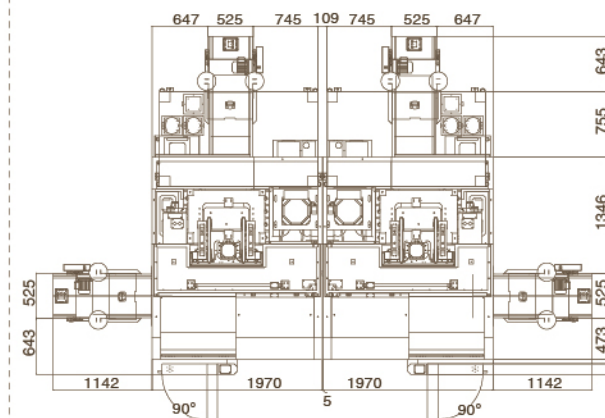
VTL-350



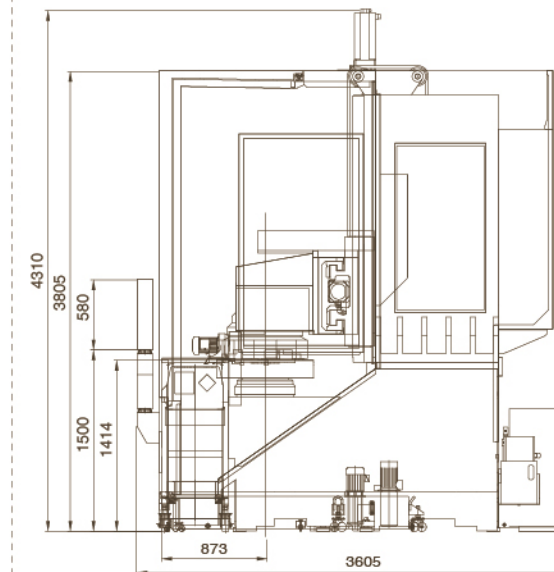
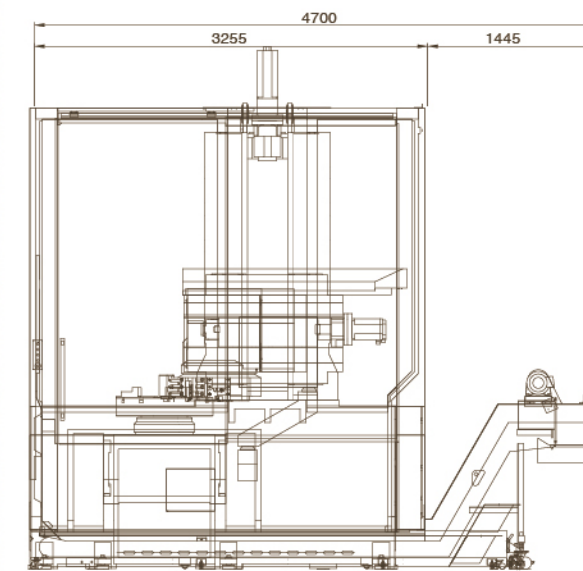
VTL-450



VTL-750



VTL-1100







# Specifications

Item	Unit	VTL-350	VTL-450	VTL-450M	VTL-750	VTL-750M	VTL-1100	VTL-1100M
<b>Capacity</b>								
Max. swing	mm	600	600		800		1330	
Swing over saddle	mm	450	460		750		1000	
Standard turning Dia.	mm	250	248	255	260	290	425	
Max. turning Dia.	mm	460	460		750	730	1200	
Max. turning length	mm	416	415	381	698	636	1000	
<b>Spindle</b>								
Spindle speed	rpm	2500	2500		2000		850	
Chuck size		12"	12"		15"(18")		32"(40")	
Spindle nose		A2-8	A2-8		A2-11		φ 380 Flat	
Through hole Dia.	mm	77	77		77		110	
Bearing Dia.	mm	120	120		160		200	
<b>Turret</b>								
Number of turrets		1	1		1		1	
Number of tool stations		T10	T12		T12		T12	
Turning tool shank	mm	25	32	25	32		32	
Boring bar shank Dia.	mm	40	50	40	60	50	80	
Milling tool shank Dia.	mm	---	---	Max. 20	---	Max. 26	---	Max. 34
<b>Travel</b>								
X axis travel	mm	265	265		390		650	
Z axis travel	mm	470	470		725		1140	
<b>Feedrate</b>								
X axis rapid traverse rate	m/min	20	20		20		20	
Z axis rapid traverse rate	m/min	20	20		15		15	
<b>Motor</b>								
Spindle drive motor	kW	15/18.5(18.5/22)	22/26		22/26(30/37)		45/55	
Turret index motor	kW	1.2	1.2		1.2		2.5	
Milling motor	kW	---	---	3.7/5.5	---	5.5/7.5(7.5/11)	---	7.5/11
X axis drive motor	kW	1.6	3		4		4	
Z axis drive motor	kW	3	4		4(7)		6	
<b>Machine size</b>								
Width	mm	1650	1650		1970		3255	
Depth	mm	2500	2970		3269		3605	
Height	mm	2650	2750		3345		4310	
Weight	kg	6000	6500		10500	11000	25000	25500

※ Specifications are subject to change without notice.



# Standard and optional accessories

☆ : Standard accessories --- : NO ◎ : Optional accessories

Item	VTL-350	VTL-450	VTL-450M	VTL-750	VTL-750M	VTL-1100	VTL-1100M
<b>Accessories</b>							
Turning holder	---	---	☆	---	☆	☆	☆
Facing holder	☆	☆	☆	☆	☆	☆	☆
Boring bar tool holder	☆	☆	☆	☆	☆	☆	☆
U drill tool holder	☆	☆	☆	☆	☆	☆	☆
Boring bar bush ø6	☆	☆	☆	☆	☆	---	---
Boring bar bush ø8	☆	☆	☆	☆	☆	☆	☆
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	---	---	---	---	---	☆	☆
U drill bush ø16	☆	☆	☆	☆	☆	☆	☆
U drill bush ø20	☆	☆	☆	☆	☆	☆	☆
U drill bush ø25	☆	☆	☆	☆	☆	☆	☆
U drill bush ø32	☆	☆	☆	☆	☆	☆	☆
U drill bush ø40	---	☆	☆	☆	☆	☆	☆
U drill bush ø50	---	---	---	☆	---	☆	☆
U drill bush ø50	---	---	---	---	---	☆	☆
Drill bush MT.1	☆	☆	☆	☆	☆	☆	☆
Drill bush MT.2	☆	☆	☆	☆	☆	☆	☆
Drill bush MT.3	☆	☆	☆	☆	☆	☆	☆
Drill bush MT.4	☆	☆	☆	☆	☆	☆	☆
Drill bush MT.5	---	---	---	---	---	☆	☆
X axis live tool holder	---	---	☆	---	☆	---	☆
Z axis live tool holder	---	---	☆	---	☆	---	☆
Working lamp	☆	☆	☆	☆	☆	☆	☆
Tool box	☆	☆	☆	☆	☆	☆	☆
Operation manual	☆	☆	☆	☆	☆	☆	☆
Hydraulic chuck	☆	☆	☆	☆	☆	☆	☆
Foot switch	☆	☆	☆	☆	☆	☆	☆
<b>Optional accessories</b>							
Automatic door	◎	◎	◎	◎	◎	◎	◎
ZF Gearbox	◎	◎	◎	◎	◎	---	---
Tool setter	◎	◎	◎	◎	◎	◎	◎
Air blow	◎	◎	◎	◎	◎	◎	◎
Automatic power-off	◎	◎	◎	◎	◎	◎	◎
Parts counter	◎	◎	◎	◎	◎	◎	◎
High pressure coolant pump system	◎	◎	◎	◎	◎	◎	◎

※ Specifications are subject to change without notice.