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PBM series

Integrated with many innovative designs in one, Alex-Tech PBM series CNC boring milling machine will fully satisfy users' expectations in machining accuracy and efficiency whether used in boring or milling operation.

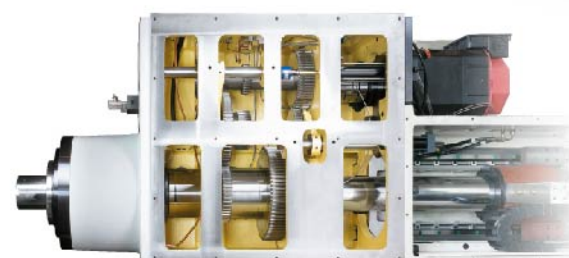
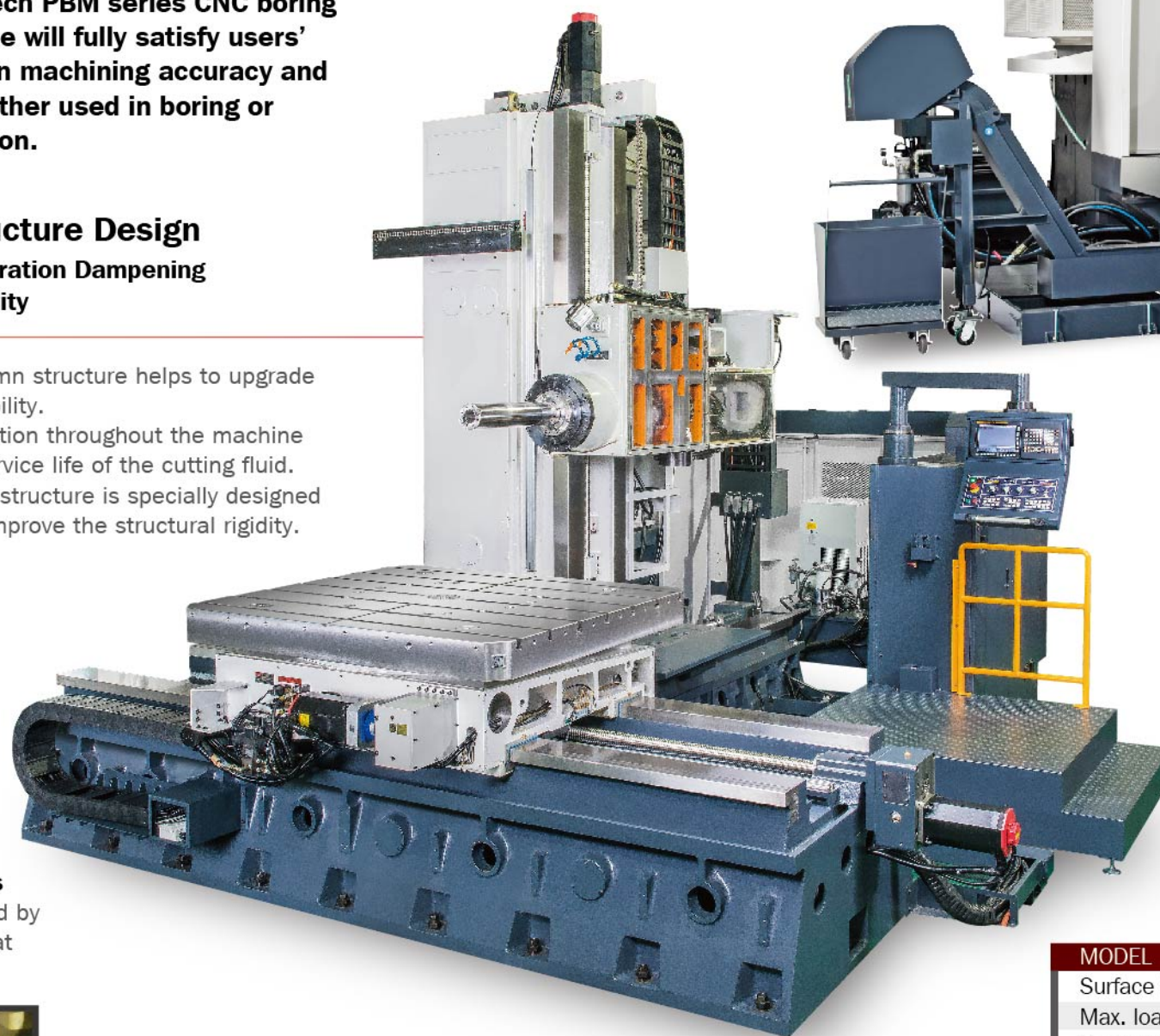
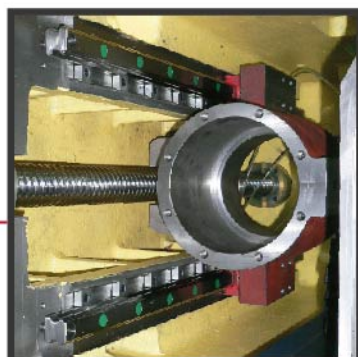
Special Structure Design

Outstanding Vibration Dampening
Maximum Stability

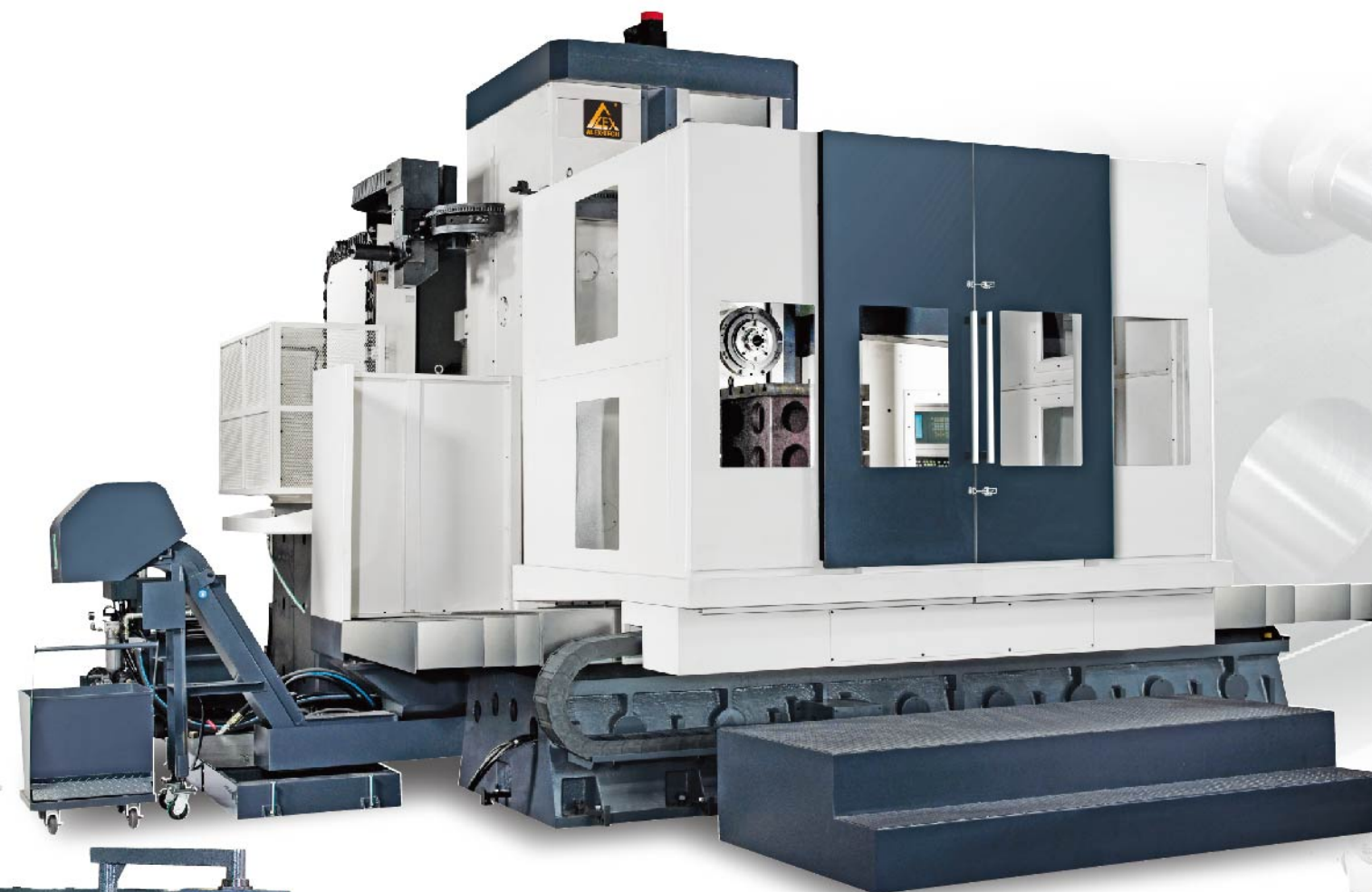
- ▶ Oversized column structure helps to upgrade machining stability.
- ▶ Oil fluid separation throughout the machine extends the service life of the cutting fluid.
- ▶ The base front structure is specially designed to effectively improve the structural rigidity.

High Rigidity on W-Axis

W-axis travel is supported by two linear guide ways that increases stability.



4-Step Speed Change for Spindle Head
The spindle provides great torque output.



Innovative Functions

High Accuracy! High Efficiency!

Machine Features

- ▶ The design of machine structure is subject to finite element analysis to ensure the best possible rigidity of structure.
- ▶ 700 mm W-axis travel provides an increase in machining capacity.
- ▶ Ø 130mm (PBM-135) spindle diameter features high rigidity and great machining capacity.
- ▶ 4-step gear-drive spindle head with torque output up to 6527 n-m.
- ▶ Indexing accuracy of table (B-axis) is 0,001°.

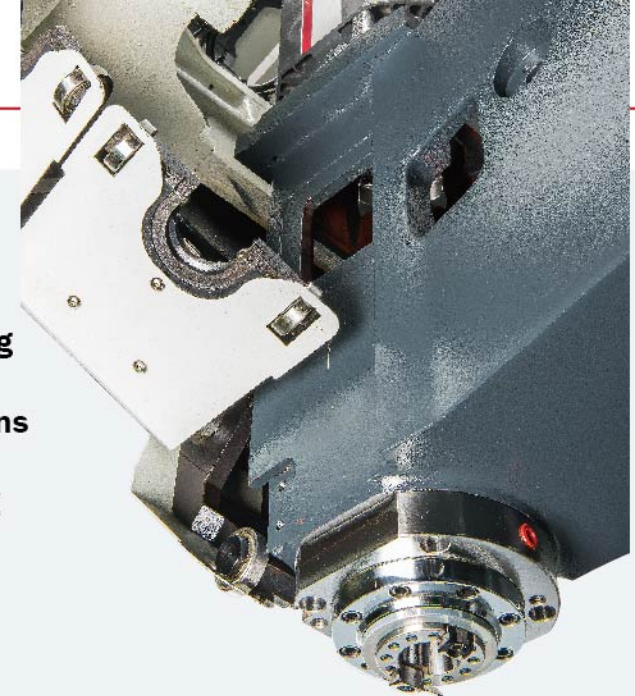


MODEL	UNIT	PBM-115A	PBM-115B	PBM-135A	PBM-135B
Surface Size	mm	1400x1600	1600x1800	1400x1600	1600x1800
Max. loading	kg	7000	12000	7000	12000
X-axis travel	mm	2000	2000	2500	2500
Y-axis travel	mm	1600	1500	2000	1900
Z-axis travel	mm	1500	1500	1500	1500
W-axis travel	mm	500	500	700	700
Spindle speed(gear)	rpm	3000	3000	2500	2500
No. of tools	pcs	40 / 60*	40 / 60*	40 / 60*	40 / 60*
Motor – FANUC (30min.)	hp	25 / 30* / 35*	25 / 30* / 35*	35 / 50*	35 / 50*

Specifications are subject to change without notice.

*Optional Accessory

RD series



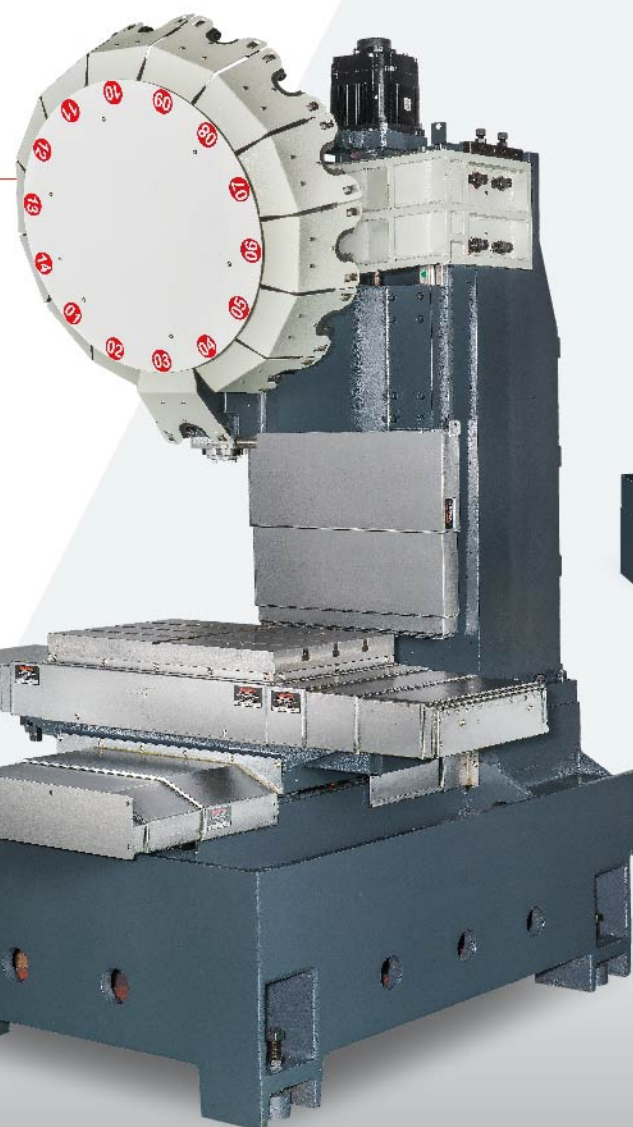
RD series

Features high speed machining, Alex-Tech RD series drilling tapping center will fully satisfy the requirement for high throughput. It provides extremely smooth machining motions with minimum trouble. With its compact construction, the machine can keep at the extremely stable condition during high speed machining.

Drilling Tapping Center High Speed Machining Helps You To Stay Competitive

Optimal Machine Structure

- ▶ One-piece massive base provides a solid support of the entire machine. Oversized column for greater rigidity.
- ▶ Max. table load: 250kg
- ▶ 14 tools turret type magazine
- ▶ Linear guide ways on X,Y,Z-axis



Machine Features

- ▶ Compact construction for saving space occupation.
- ▶ Choice of 15,000/ 20,000/24,000 rpm direct-drive high-speed spindles.
- ▶ 14 tools turret type magazine is standard.
- ▶ 21 tools magazine is optional.

ITEM	UNIT	RD-500	RD-700
X-axis travel	mm	500	700
Y-axis travel	mm	400	400
Z-axis travel	mm	300	300
Table size	mm	600x400	800x400
Max. loading capacity	kg	250	250
Spindle speed	rpm	12000	12000
Tool shank type	-	BT-30	BT-30
Main Spindle (FANUC)	kw	3.7 / 2.2	3.7 / 2.2

Specifications are subject to change without notice.

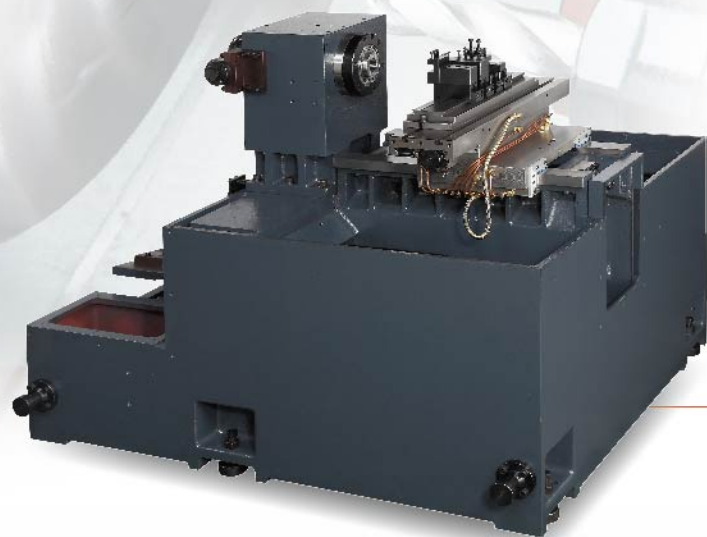
*Optional Accessory

VT-8

Gang Type Tool Slide Flat Bed Construction High Precision Gang Type CNC Lathe

Machine Features

- ▶ Compact construction with only 1.44MX 1.33M footprint for space saving.
- ▶ The spindle runs in super precision bearings in combination with the use of special grease to effectively prevent spindle from thermal displacement.
- ▶ X-axis slide manufactured from Japanese tool alloy steel with service life reaching 20 years.
- ▶ Z-axis slideways employ Japanese tool alloy steel for increasing stability and durability.
- ▶ Suitable for use as a single purpose machine and small-volume large-variety production.



Stable Structure

- ▶ Bed slide ways are manufactured from Japan-imported tool alloy steel.
- ▶ High precision class C1 ball screw from NSK is used on X-axis and class C3 is used on Z-axis.
- ▶ High quality structural casting parts feature stable material without deformation.
- ▶ Flat bed construction.

Applicable Industries

Optical instruments, VTR, OA equipment, mobile phone, clocks and watches, computers and other precision parts.

VT-10



High Precision Gang Type CNC Lathe Gang Type Tool Slide 15° Slant Bed

Machine Features

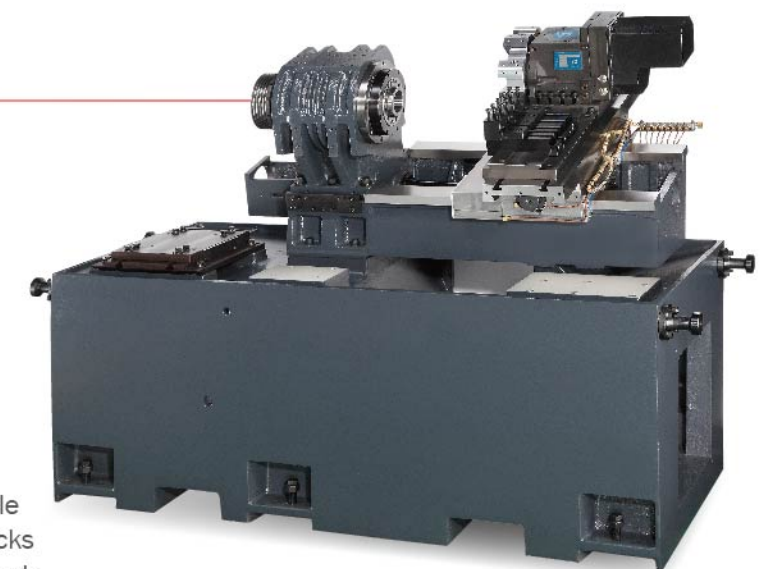
- ▶ 15° slant bed allows easy chip collection and excellent coolant exhaust.
- ▶ Suitable for use as a single purpose machine and small-volume large-variety production.
- ▶ Available to equip with an auto bar feeder (optional).

Robust Structure Stable & Smooth

- ▶ 15° slant bed combined with extra wide slide ways ensure machining stability and high speed cutting accuracy.
- ▶ High precision class C1 ball screw from NSK is used on X-axis and class C3 is used on Z-axis.
- ▶ High quality structural casting parts feature stable material without deformation.

Applicable Industries

Optical instruments, VTR, OA equipment, mobile phone, medical instruments, cars aviation, clocks and watches, computers and other precision parts.



ITEM	UNIT	VT-8	VT-10	VT-10T	VT-10TT
Max. turning diameter	mm	120	120	120	120
Max. turning length	mm	90	120	120	200
X-axis travel	mm	210	250	180+20	180+20
Z-axis travel	mm	180	250	200+20	200+20
Type of spindle nose	ISO	A2-4	A2-5	A2-5	A2-5
Chuck diameter	mm	125	150	150	150
Number of tool stations Turret type	-	GANG TYPE	GANG TYPE	8(SW=220) STATIC	8(SW=220) STATIC

Specifications are subject to change without notice.

VT-11

8-position Turret Gang Type Tool Slide High Precision Gang Type CNC Lathe

Machine Features

- ▶ 8 position turret.
- ▶ Gang type tool slide.
- ▶ 15° slant bed allows easy chip collection and excellent coolant exhaust.
- ▶ Suitable for use as a single purpose machine and small-volume large-variety production.
- ▶ Available to equip with an auto bar feeder (optional).



Robust Structure Stable & Smooth

- ▶ 15° slant bed combined with extra wide slide ways ensure machining stability and high speed cutting accuracy.
- ▶ High precision class C1 ball screw from HSK is used on X-axis and class C3 is used on Z-axis.
- ▶ High quality structural castings parts feature stable material without deformation.

Applicable Industries

Optical instruments, VTR, OA equipment, mobile phone, measuring instruments, medical instruments, cars, aviation, clocks and watches, computers and other precision parts.

ITEM	UNIT	VT-11
ITEM	mm	195
Max. turning diameter	mm	250
Max. turning length	mm	180+20
X-axis travel	mm	250+15
Z-axis travel	ISO	A2-5
Type of spindle nose	mm	150
Chuck diameter	-	8(SW=220)STATIC
stations Turret type		

Specifications are subject to change without notice.

VT-15L/17L/18L

Optimal Structure Design 30° Slant Bed Exceptional Stability

Alex-Tech VT-15L / VT-17L and VT-18L are designed with a 30° slant bed which provides outstanding stability in heavy cutting and smooth chip removal. The major structural parts are all manufactured from high quality Mechanite cast iron, stress relieved to eliminate structure deformation problem.



VT-15L/17L CNC Lathe

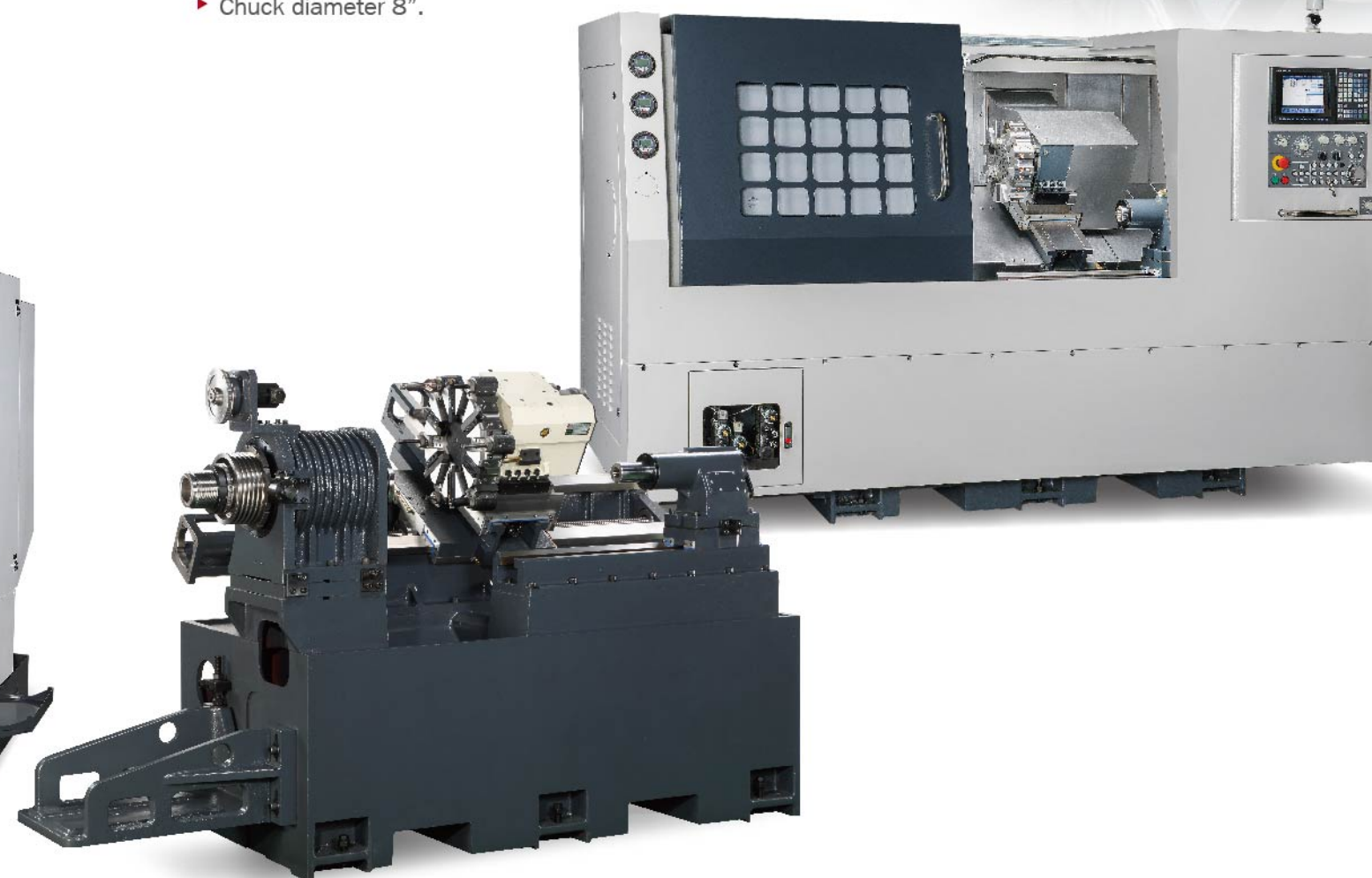
Machine Features

- ▶ Max. turning diameter 390 mm.
- ▶ 6,000 rpm high speed spindle creates extra fine finishing effect.
- ▶ 12-position turret (standard)
- ▶ VDI30 12-position live turret (optional).
- ▶ Chuck diameter 6" / 8".

VT-18L CNC Lathe

Machine Features

- ▶ Max. turning diameter 430 mm.
- ▶ 5,000 rpm high speed spindle creates extra fine finishing effect.
- ▶ 12-position turret (standard).
- ▶ VDI30 12 position live turret (optional)
- ▶ Chuck diameter 8".



ITEM	UNIT	VT-15L	VT-17L	VT-18L
Max. turning diameter	mm	390	390	430
Max. turning length	mm	370	370	650
X-axis travel	mm	200+15	200+15	225+10
Z-axis travel	mm	470	470	750
Chuck diameter	mm	152	204	204
Main spindle through hole diameter	mm	51	61	61
Turret type (Tool number)	-	Static Block Tool(12)/(10)* Live VDI-30(12)	Static Block Tool(12)/(10)* Live VDI-30(12)	Static Block Tool(12)/(10)* Live VDI-30(12)

Specifications are subject to change without notice.

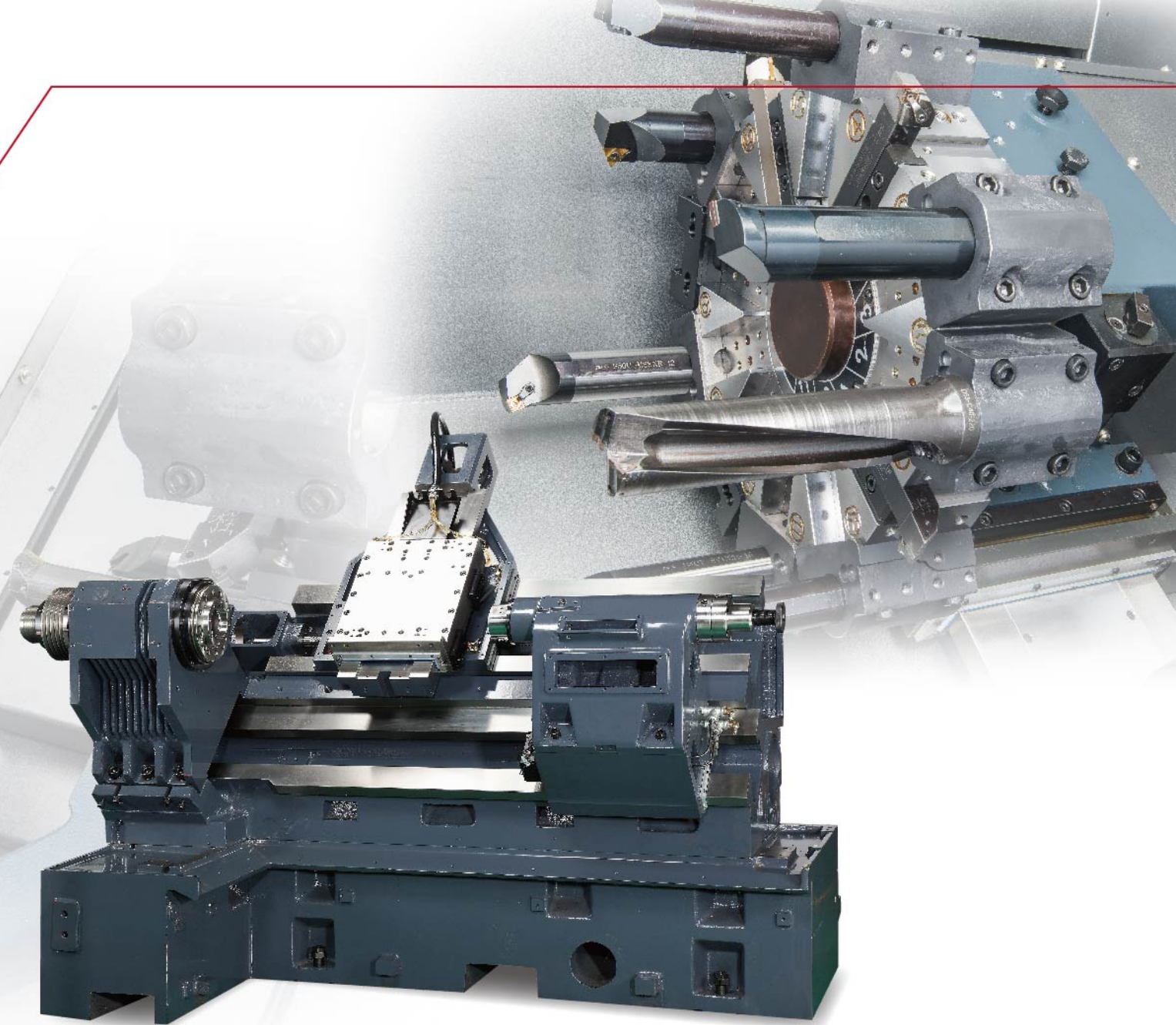
*Optional Accessory

VT-21 / 23

CNC Lathe

Machine Features

- ▶ Max. turning diameter 400 mm.
- ▶ X-axis travel 200+30 mm.
- ▶ Z-axis travel 650 mm.
- ▶ 12-position turret (standard).
- ▶ Chuck diameter 8" or 10".
- ▶ BMT-55 12-position live turret (optional).



Extremely Stable Structure 45° Slant Bed

- ▶ 45° slant bed structure provides the optimal machining stability and facilitates chip removal.
- ▶ Extra wide box ways on X, Z-axis combined with great span between slideways exhibits exceptional stability in heavy cutting.
- ▶ The bed in one-piece fabricated from Mechanite cast iron with highly rigid structure.
- ▶ Rapid traverse rate on X-axis: 20m/min.
- ▶ Rapid traverse rate on Z-axis: 24m/min.

ITEM	UNIT	VT-21	VT-23
Max. turning diameter	mm	400	400
Max. turning length	mm	650	650
X-axis travel	mm	200+30	200+30
Z-axis travel	mm	650	650
Chuck diameter	mm	204	254
Main spindle through hole diameter	mm	61	81
Turret type (Tool number)	-	Static (12) VDI40 / BMT-55 (12)	Static (12) VDI40 / BMT-55 (12)

Specifications are subject to change without notice.

VT-27/28

45° Slant Bed CNC Lathe

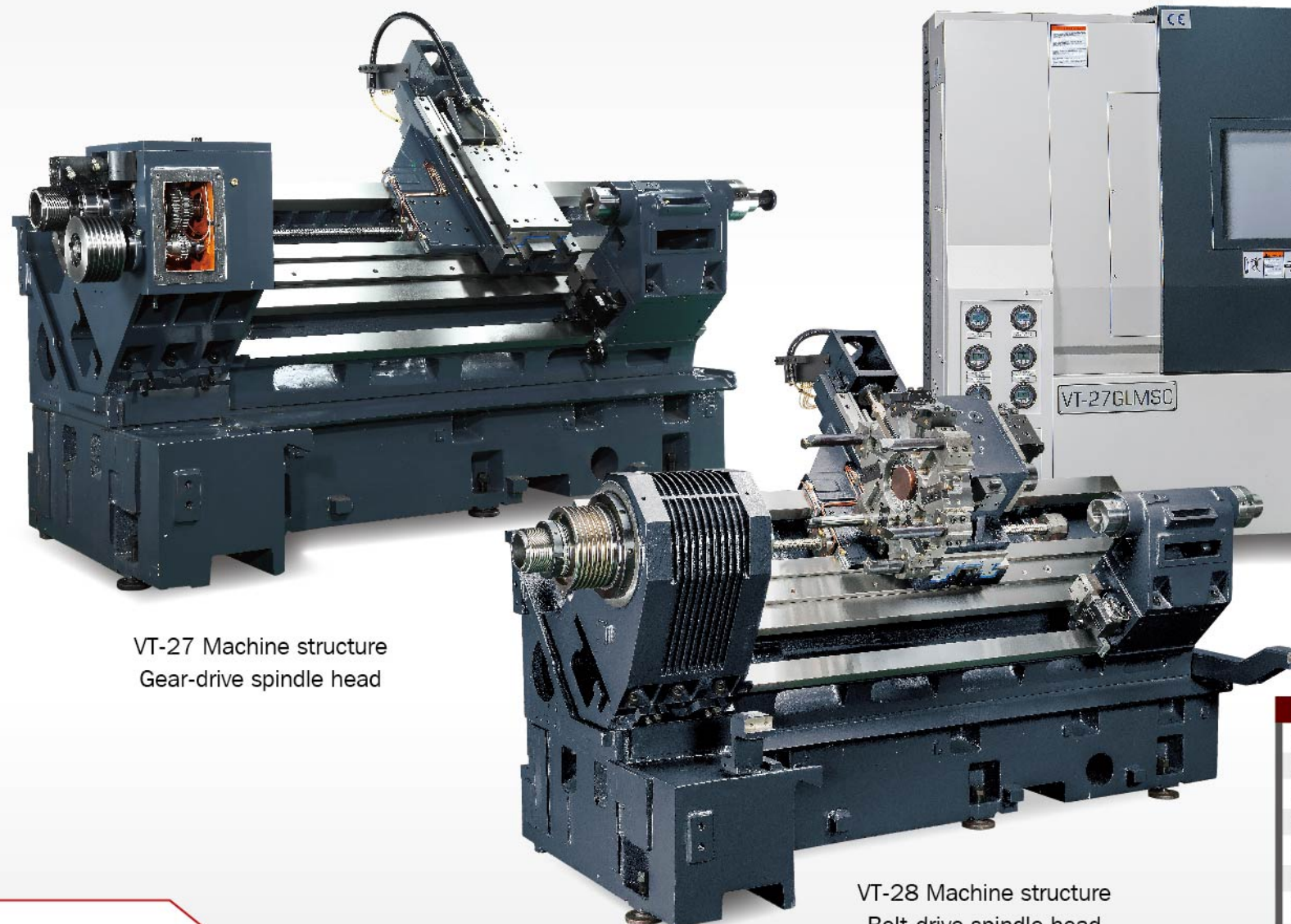
- ▶ Max. turning diameter: Ø 480 mm.
- ▶ Through spindle hole diameter: Ø87 mm
- ▶ VDI-40 live turret (optional).
- ▶ A2-8 spindle with speed of 3500 rpm.

Rigid Machine Structure Fully Present Extraordinary Stability

- ▶ 45° slant bed structure provides the optimal machining stability and facilitates chip removal.
- ▶ The bed is one-piece fabricated from Mechanite cast iron with highly rigid structure.
- ▶ Box ways on X, Z-axis are hardened and precision ground.
- ▶ Gear-drive spindle head (VT-27G) °

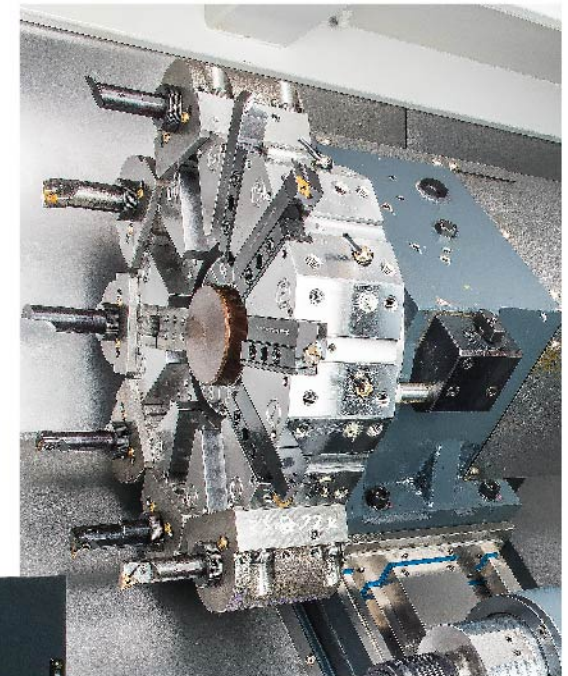


VDI40 radial live turret.



VT-27 Machine structure
Gear-drive spindle head

VT-28 Machine structure
Belt-drive spindle head



Alex-Tech self-made turret,
Employ Japanese made curvic
tooth clutch, hydraulic index-
ing infrcinh motor.

ITEM	UNIT	VT-27	VT-28
Max. Turning diameter	mm	480	480
Max. Turning length	mm	550 / 1050 / 1550 / 2050 / 3050	550 / 1050 / 1550 / 2050 / 3050
X-axis travel	mm	240+40	240+40
Z-axis travel	mm	590 / 1090 / 1590 / 2090 / 3090	590 / 1090 / 1590 / 2090 / 3090
W-axis travel(sub spindle)	mm	1050 L:1000 / 2050 L:2000	1050 L:1000 / 2050 L:2000
Chuck diameter & type	mm	305	305
Main through spindle hole diameter	mm	87	87
Number of tool stations	pcs	12(SW=400) / 10*	12(SW=400) / 10*

Specifications are subject to change without notice.

*Optional Accessory / L=Bed Length

VT-30/33

CNC Lathe

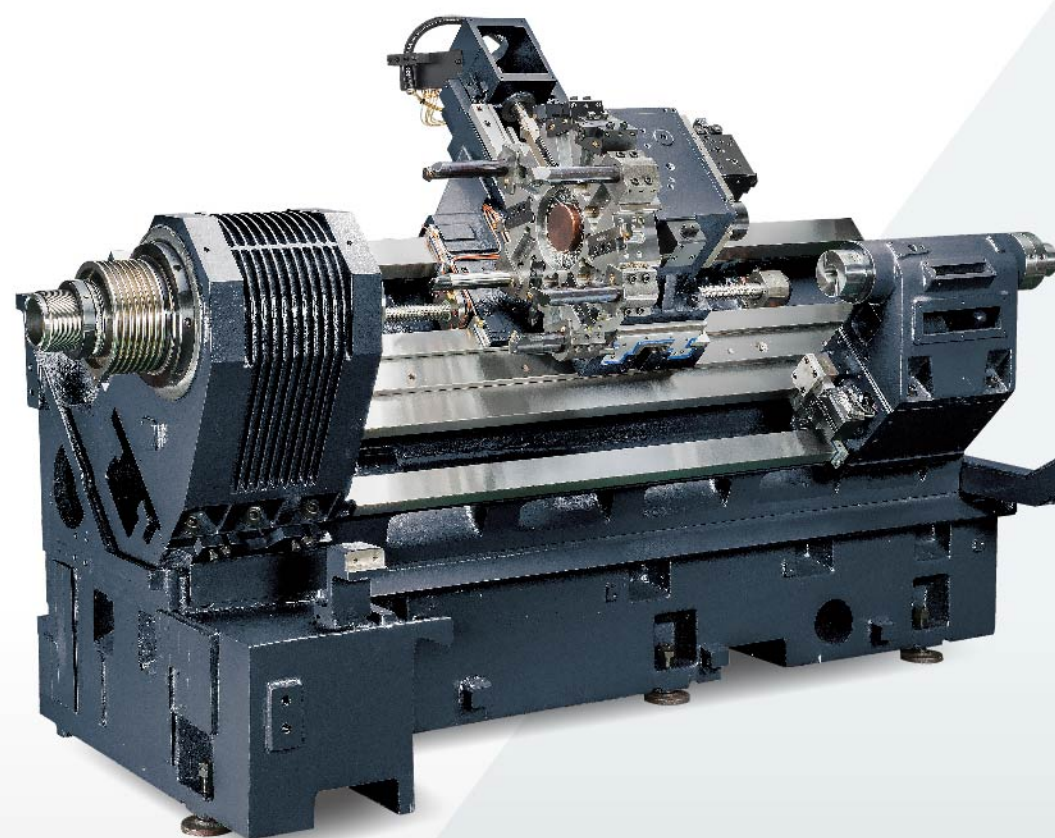
Big Capacity Precision Cutting!

Ruggedly Constructed Throughout

Alex-Tech VT-30 and VT-33 are perfected suited for big diameter and long turning jobs.

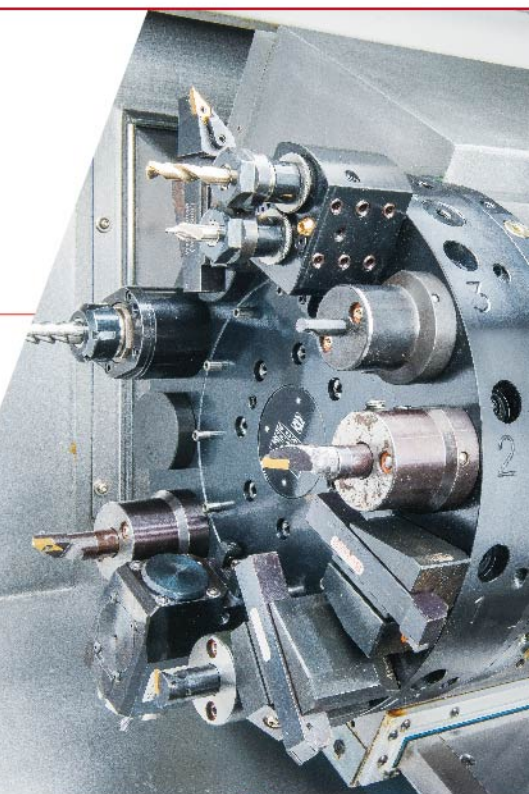
Machine Features

- ▶ Max. turning diameter: Ø470 mm
- ▶ Through spindle hole diameter: Ø110 mm (VT-30) Ø131 mm (VT-33)
- ▶ Chuck diameter: Ø15"
- ▶ VOI-40 live turret (optional)
- ▶ Programmable tailstock



No Structural Deformation! Maximum Machining Stability!

- ▶ 45° slant bed structure provides the optimal machining stability and facilitates chip removal.
- ▶ Robust machine structure makes the machine excellent for large work-piece machining.
- ▶ Ø110 mm of tailstock quill diameter provides a firm support of large work-piece.
- ▶ X, Z-axis transmission are driven through large diameter ball screws, which have been pretensioned to achieve no backlash, smooth transmission and high positioning accuracy.
- ▶ Programmable tailstock.
- ▶ Three-jaw precision hydraulic chuck .



ITEM	UNIT	VT-30	VT-33
Max. turning diameter	mm	470	470
Max. turning length	mm	550 L:500 / 1050 L:1000 / 1550 L:1500 / 2050 L:2000	550 L:500 / 1050 L:1000 / 1550 L:1500 / 2050 L:2000
X-axis travel	mm	240+30	240+30
Z-axis travel	mm	590 / 1090 / 1590 / 2090	590 / 1090 / 1590 / 2090
Chuck diameter	mm	380	380
Main spindle through hole diameter	mm	110	131
Tool number	mm	12 / 10*	12 / 10*

Specifications are subject to change without notice.

*Optional Accessory / L=Bed Length

VT-36B/36C

CNC Lathe

Designed for Large Part Machining

The performance of Alex-Tech VT-36B and VT-36C in heavy cutting has been appreciated by a lot of users. The design concept of this series is to focus on the rigidity of the machine structure, so as to withstand the work-piece load and heavy cutting load.

Machine Features

- ▶ Max. turning diameter: Ø 630 mm
- ▶ Through spindle hole diameter:
Ø 131 mm (VT-36B)
Ø 185 mm (VT-36C)
- ▶ Hydraulic 3-jaw chuck: Ø 15"
- ▶ Programmable tailstock

Robust Machine Structure

- ▶ 45° + 10° slant bed structure provides the optimal machining stability and facilitates chip removal.
- ▶ With the robust machine structure, the machine is the best choice in large parts machining.
- ▶ X, Z-axis are designed with box ways, which are hardened and precision ground to upgrade machining stability.
- ▶ X, Z-axis transmission are driven through large diameter ball screws, which have been pretensioned to achieve no backlash, smooth transmission and high positioning accuracy.
- ▶ VOI-50 live turret (optional).

Large diameter screw
Programmable tailstock



3-Jaw hydraulic chuck

VT-36BL	VT-36CL
15"(380mm)	20"(508mm)

ITEM	UNIT	VT-36B	VT-36C
Max. turning diameter	mm	630	630
Max. turning length	mm	950 / 1450 / 1950 / 2950	950 / 1450 / 1950 / 2950
X-axis travel	mm	315+30	315+30
Z-axis travel	mm	990 / 1490 / 1990 / 2990	990 / 1490 / 1990 / 2990
Type of spindle nose	ISO	A2-11	A2-15
Through spindle hole diameter	mm	131	185
Number of tool stations	pcs	12 / 10*	12 / 10*

Specifications are subject to change without notice.

*Optional Accessory

VT-40/50/70

Big Bore CNC Lathe

Designed and engineered for turning large sized and heavy work-pieces, Alex-Tech VT-40/VT-50 series big bore CNC lathes are equipped with various spindle nose types-A2-11, A2-15 and A2-20. The specially designed machine structure not only provides a solid support for large and heavy work-piece, but also presents its unique machining stability especially in heavy cutting.

45° Slant Bed

The one-piece fabricated 45° slant bed in combination with heavily ribbed torque tube for structural reinforcement, that maximizes structural rigidity and thermal stability.

Gear-Drive Spindle

Great torque output and heavy-cutting resistance.

Gear Ratio

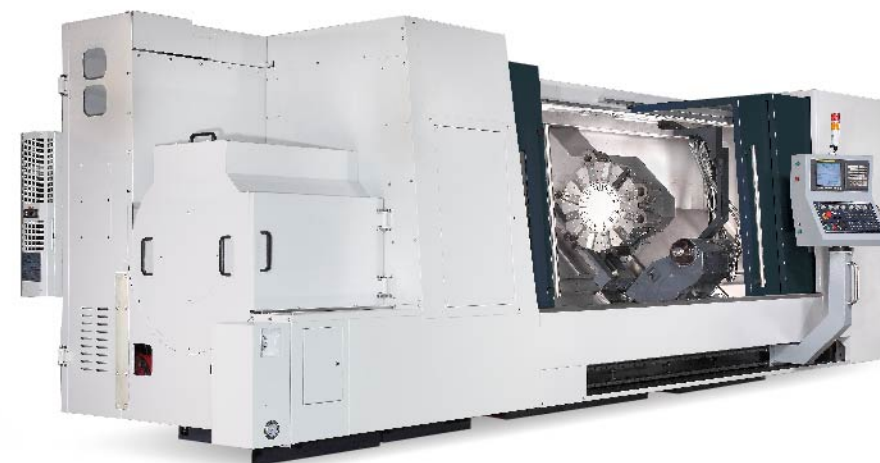
VT-40A High: 1.52 Low: 5.56

VT-40B High: 1.91 Low: 6.41

VT-50 High: 3.92 Low: 14.28

Fluid Bearing on X, Z-Axis

X, Z-axis employ fluid bearing way systems with features of outstanding vibration dampening capacity, increased loading capacity and smoother travels on X, Z-axis.



VT-40/50 Machine Features

- ▶ Through spindle hole diameter: Ø 131-Ø308 mm
- ▶ Spindle nose type: A2-11 ~ A2-20.
- ▶ Max. turning length: 950, 1950, 2950, 3950 mm
- ▶ Chuck diameter: 15", 18", 20", 24"
- ▶ 45° slant bed construction.

VT-70 Machine Features

- ▶ Through spindle hole diameter: Ø 131-Ø308 mm.
- ▶ Gear-drive spindle
- ▶ 30°~60° slant bed construction
- ▶ The structural parts of the machine are subject to finite element analysis to achieve an optimal structure.
- ▶ Choice of hydraulic turret or power turret.
- ▶ Programmable tailstock.

ITEM	UNIT	VT-40A	VT-40B	VT-50A	VT-50B	VT-70A
Max. turning diameter	mm	860	860	860	860	990
Max. turning length (×1000)	mm	950	950	950	950	900
(×2000)	mm	1950	1950	1950	1950	1900
(×3000)	mm	2950	2950	2950	2950	2900
(×4000)	mm	3950	3950	3950	3950	3900
X-axis	mm	430+30	430+30	430+30	430+30	500+40
Z-axis (×1000)	mm	900	900	900	900	1000
(×2000)	mm	1900	1900	1900	1900	2000
(×3000)	mm	2900	2900	2900	2900	3000
(×4000)	mm	3900	3900	3900	3900	4000
Spindle	-	GEAR	GEAR	GEAR	GEAR	GEAR
Type of spindle nose	-	A2-11	A2-15	A2-15	A2-20	A2-15
Through spindle hole diameter	mm	131	185	235	308	265
Tool number	-	*10/12 STATINOS	*10/12 STATINOS	*10/12 STATINOS	*10/12 STATINOS	*10/12 STATINOS

Specifications are subject to change without notice.

*Optional Accessory

VT-2100/2300/2800/3000/3300/YM/YMS

CNC Lathe Y-axis Series

Machine Features

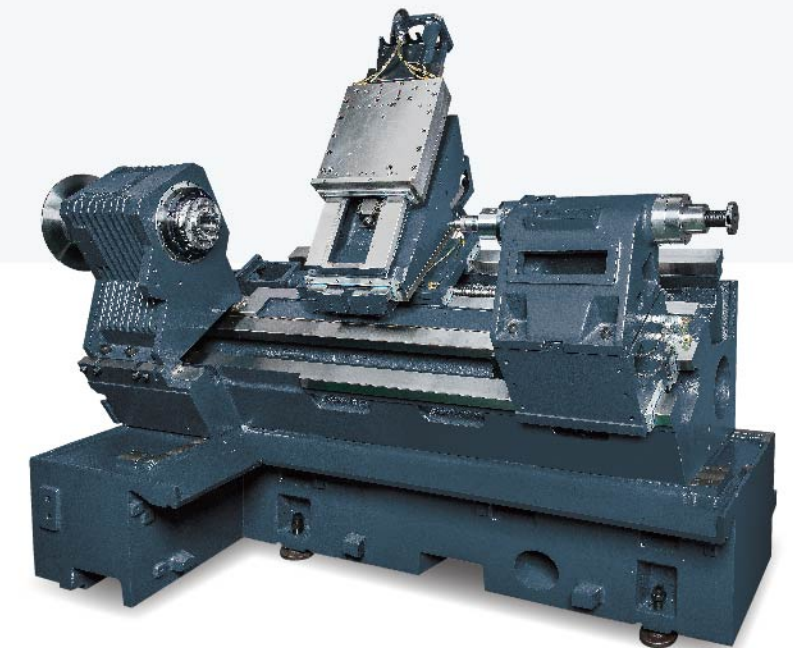
- ▶ X-axis slide is equipped with a Y-axis allowing for eccentric machining function.
- ▶ Available to fit with a sub-spindle or programmable tailstock.
- ▶ VDI 40 live turret.

30° Slant Bed Construction Maximum Stability Deformation-Free Structure

- ▶ 30°+30° slant bed structure provides the optimal machining stability and facilitates chip removal.
- ▶ Box ways on X, Y, Z-axis combined with great span between box ways effectively upgrades structural rigidity and stability.
- ▶ X, Y, Z-axis in combination with the use of sub-spindle allow workpiece machining to be accomplished at a time.
- ▶ Highly rigid spindle head can resist heavy cutting.

Smooth Travel

Extra wide slide-ways combined with the use of a balancing cylinder ensure extremely smooth movement on X-axis.



ITEM	UNIT	VT-2300YM	VT-2300YMS	VT-2800YM	VT-2800YMS	VT-3000YM	VT-3000YMS
Max. turning diameter	mm	350	350	350	350	350	350
Max. turning length	mm	500/2100	-	1000/2000	-	1000/2000	-
Side way slant angle	degree	30°+30°	30°+30°	30°+30°	30°+30°	30°+30°	30°+30°
X-Axis Travel	mm	195+110	195+110	195+110	195+110	195+110	195+110
Z-Axis Travel	mm	600/1100/1600/2100	1000/1500/2000	600/1100/1600/2100	1000/1500/2000	600/1100/1600/2100	1000/1500/2000
Y-Axis Travel	mm	±50	±50	±50	±50	±50	±50
W-Axis Travel	mm	-	1100/1600/2100	-	1100/1600/2100	-	1100/1600/2100
Type of spindle nose	ISO	A2-8	A2-8	A2-8	A2-8	A2-11	A2-11
Main spindle through hole diameter	mm	75	75	87	87	105	105
Chuck diameter	mm	254	254	254	254	305	305
Turret type	-	VDI40	VDI40	VDI40	VDI40	VDI40	VDI40

Specifications are subject to change without notice.

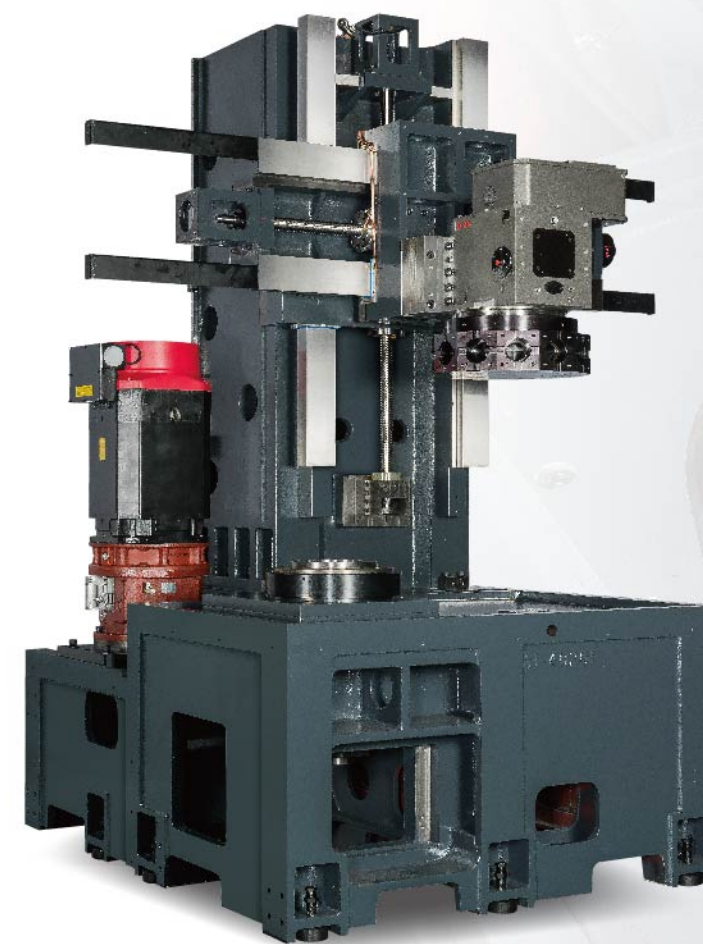
VTL-600/750/900/1100

The Ultimate in Machining Efficiency and Accuracy

Featuring outstanding machining efficiency and accuracy, Alex-Tech VTL series vertical lathes have been fully recognized by customers. The highly rigid machine structure is manufactured from high quality Mechanite cast iron, exhibiting superior vibration-dampening capacity and chatter-free heavy cutting.



CNC Vertical Lathe Powerful Spindle



Machine Features

- ▶ Box ways X, Z-axis.
- ▶ Powerful 50HP table motor.
- ▶ 2-step table speed.
- ▶ 12-station turret.
- ▶ One-piece fabricated base.
- ▶ High quality Mechanite cast iron.

ITEM	UNIT	VTL-600	VTL-750	VTL-900	VTL-1100
Table diameter	mm	380	460	610	800
Max. turning diameter	mm	600	750	900	1100
Max. turning height	mm	400	760	850	900
Max. mass of workpiece	kg	750	1500	2000	2500
X-axis stroke	mm	320	450	550	575
Z-axis stroke	mm	400	760	700	1000
Number of tool station	pcs	12	12	12	12
Table speed (2-steps)	rpm	1~1200, 900~2500	1~550, 500~2000	1~240, 225~1800	1~180, 175~850
Table main motor	kw	37 / 30 (α30)	37 / 30 (α30)	45 / 37 (α40)	55 / 45 (α50)

Specifications are subject to change without notice.

VTL-1114/1216/1620 /2025

CNC Vertical Lathe

**Heavy Load Resistance.
Powerful Cutting Capacity.**

Machine Features

- ▶ GoHP, 18,150 ft-lb gear transmission.
- ▶ Max. table load: 2,5000 kg
- ▶ Powerful willing spindle: 20HP
- ▶ 9" x 9" square ram is manufactured from special grade high speed.
- ▶ 5. 5-position sliding cross-rail with 5 steps at 7.9" spacing.

- ▶ The machine structure is manufactured from Mechanite cast iron.
- ▶ Box way design allows for heavy cutting.
- ▶ The base and column are double-wall constructed, featuring high rigidity and without deformation.

Dual bearing system

Optimal Structure Design.
Massive! Deformation-Free.

Extra Large Table Diameter

Extra large table diameter with great loading capacity.
The table is equipped with a manual independent four-jaw chuck.



VTL-2025

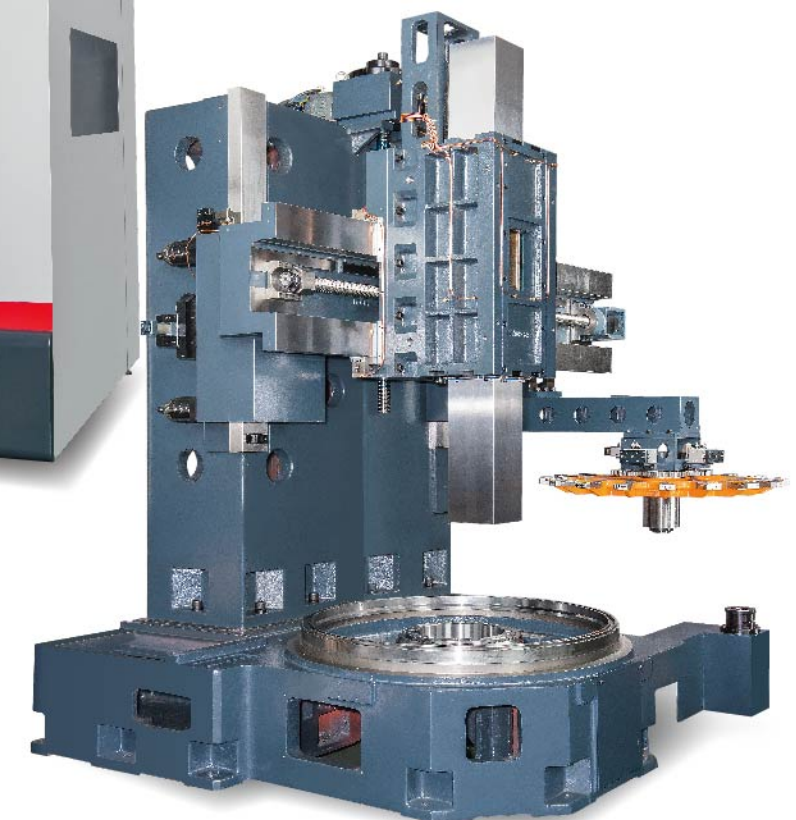


VTL-1216



Automatic Tool Changer (ATC)

The tool magazine capacity is 18 tools
(incl. 9 milling tools and 9 turning tools).



ITEM	UNIT	VTL-1014	VTL-1216	VTL-1620	VTL-2025	VTL-2734
Max. turning diameter	mm	1400	1600	2000	2440	3400
Max. miss of workpiece	Kg	4500	5900	8000	20000	25000
X-axis stroke	mm	1200	1405	1635	1785	2667
Z-axis stroke	mm	800	1000	1000	1000	1500
Crossrail stroke	mm	-	600	800	800	1000
ATC magazine capacity	pcs	12	12 / 18*	12 / 18*	12 / 18*	12 / 18*

Specifications are subject to change without notice.

*Optional Accessory