ALEX-TECH

**ALEX-TECH MACHINERY INDUSTRIAL CO., LTD.**



www.alex-tech.com

ALEX-TECH

**EUROLA** **MACHINE TOOLS**

INTEGRAL SOLUTION

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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.

## 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°.

**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.

| 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

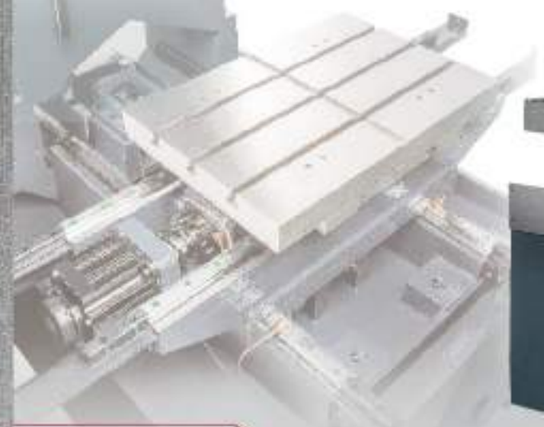
## Drilling Tapping Center
## High Speed Machining Helps
## You To Stay Competitive

## 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.**


### 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 CI ball screw from NSK is used on X-axis and class C3 is used on Z-axis.
- High quality structural castings parts feature stable material without deformation.

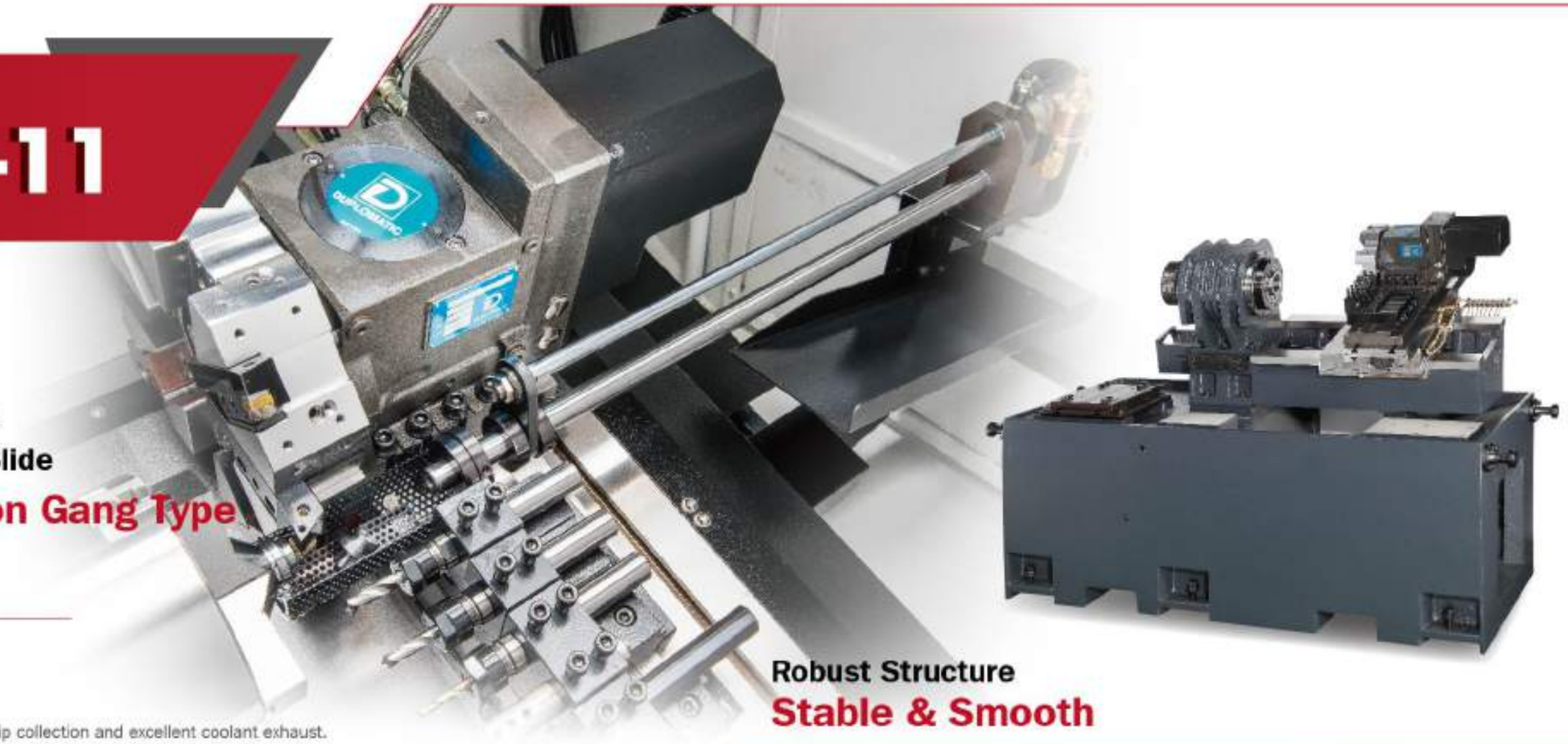
### Applicable Industries

Optical instruments, VTR, OA equipment, mobile phone, 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 stations Turret type | - | 8(SW-220)STATIC |

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)<br>VDI40 / BMT-55 (12) | Static (12)<br>VDI40 / BMT-55 (12) |

Specifications are subject to change without notice.

# VT-27 / 28

## 45° Slant Bed CNC Lathe

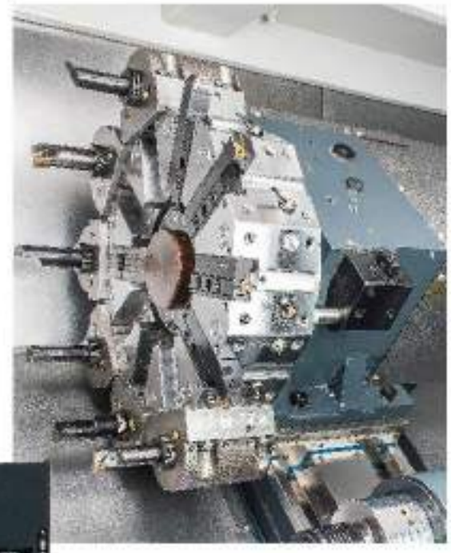
- Max. turning diameter: Ø 480 mm.
- Through spindle hole diameter: Ø87 mm
- VDI-40 live turret (optional).
- A2-8 spindle with speed of 3500 rpm.

## Rigid Machine Structure

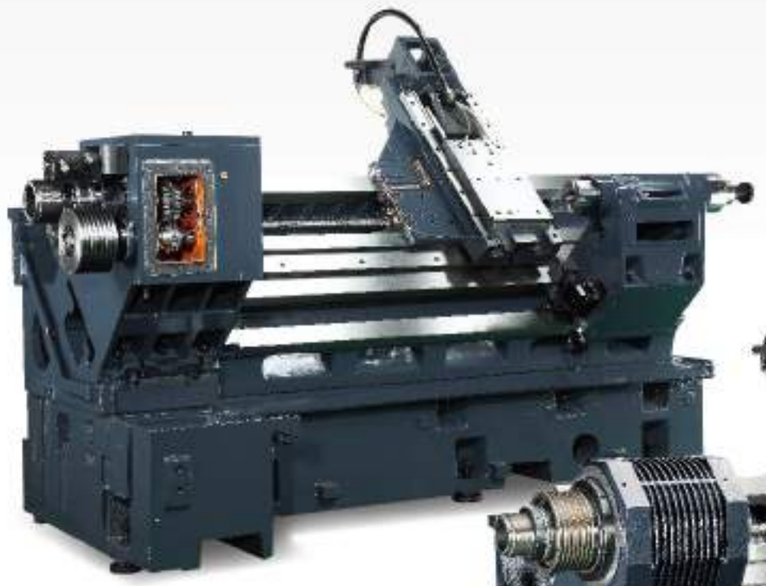
### Fully Present Extraordinary Stability

- 45° slant bed structure provides the optimal machining stability and facilities 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)

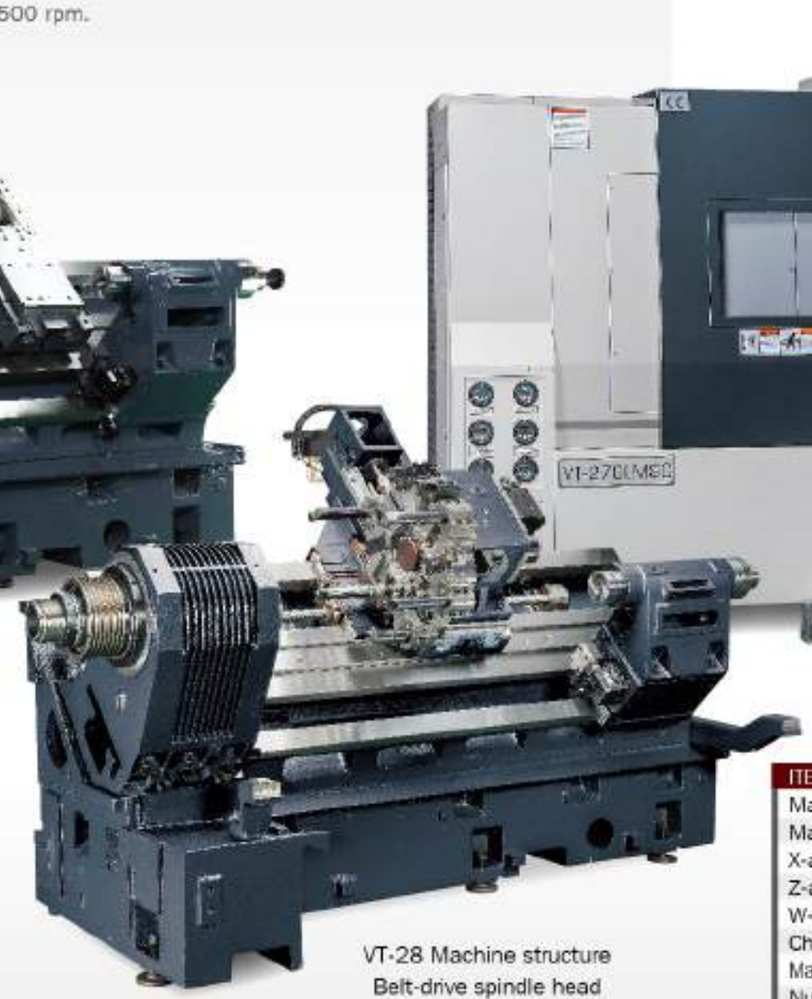
VDI40 radial live turret.



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



VT-27 Machine structure
Gear-drive spindle head



VT-28 Machine structure
Belt-drive spindle head


| 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

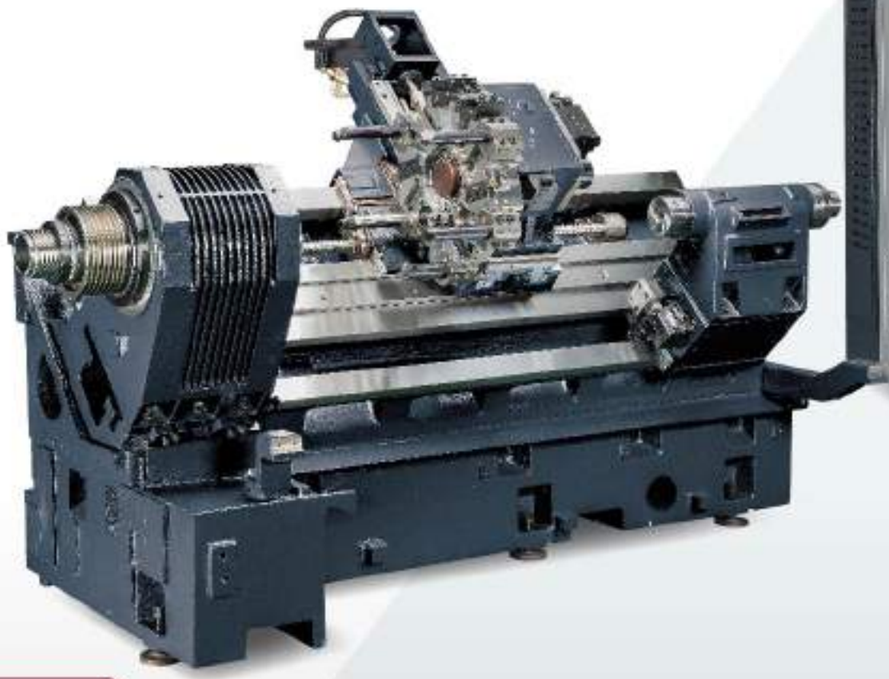
### Big Capacity Precision Cutting!

## 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"
- VDI-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

**Large diameter screw**
**Programmable tailstock**

3-Jaw hydraulic chuck

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

## 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.
- VDI-50 live turret (optional).

| 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**

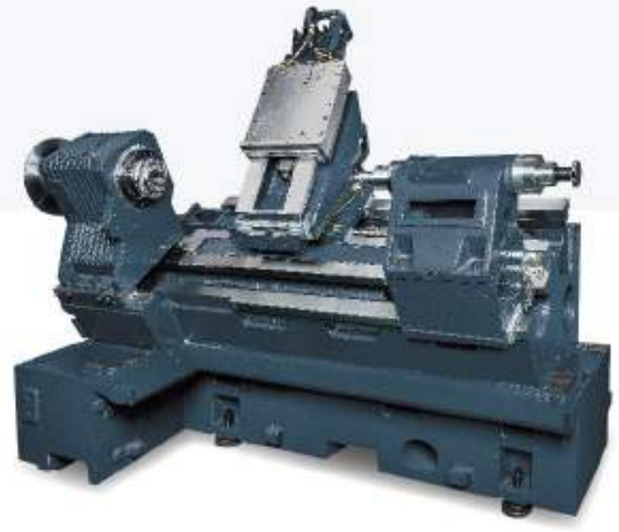
- X-axis slide is equipped with a Y-axis allowing for eccentric machining function.
- Available to fit with a sub-spindle or programmable tailstock.
- VDI 40 live turret.

## 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 spinde 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 |

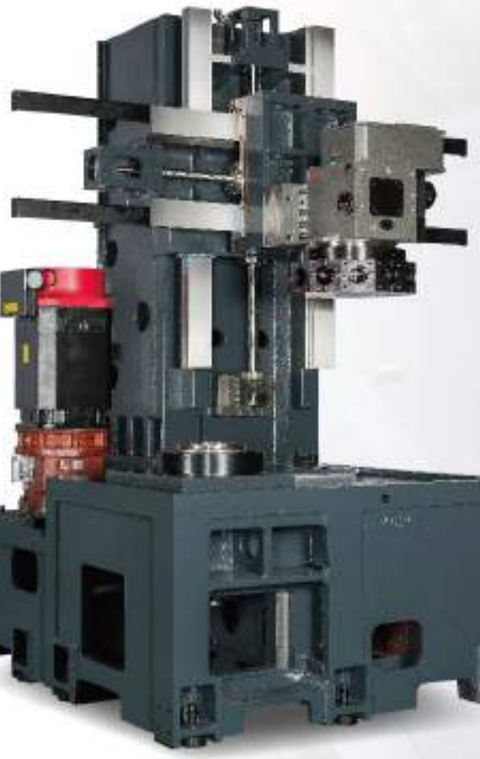
Specifications are subject to change without notice.

# 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. miss 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.

**Automatic Tool Changer (ATC)**
The tool magazine capacity is 18 tools (incl. 9 milling tools and 9 turning tools).

**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.

VTL-2025

VTL-1216

**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.

| 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