

Ram Type Vertical Lathes

After a tedious and unyielding process of research, design and testing, Alex-Tech has proudly developed its full line of high quality VTLs for manufacturers specialized in automotive, wind power, large-size valves and airplane engine components.

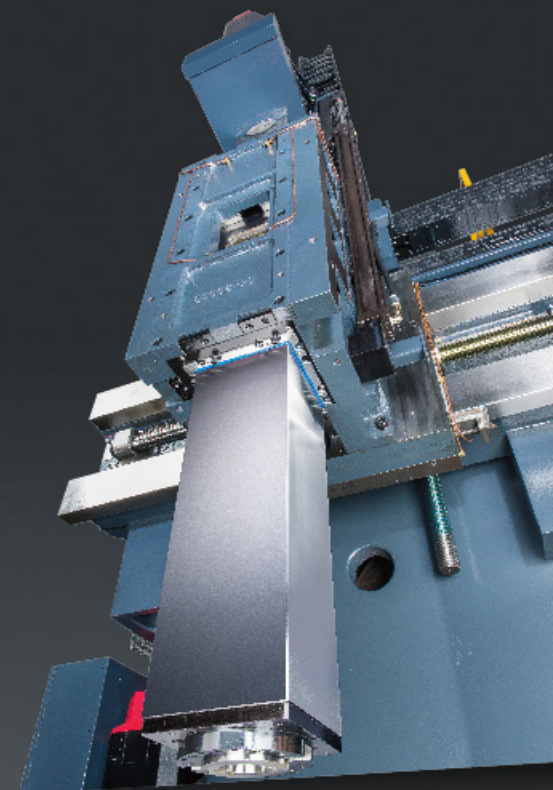
Our VTLs offer two different styles of table drive mechanism for different cutting requirements:

(1) Cross roller bearings offer super dynamic characteristics for medium to heavy table loads, and they are available on VTL-12/16, VTL-16/20 and VTL-20/25. Optional duo spindle configuration for driving the table with improved Cs axis accuracy (which has been previously offered with VTL-12/16 and VTL-16/20) is now also available on VTL-20/25.

(2) Our traditional hydro-dynamic bearings with patented support rings still offer the best solution for ultra-heavy cutting requirements. This mechanism allows for loading work pieces as heavy as 28,000 kg (60,000 lb.) and offers 20 arc sec of C-axis accuracy for live tooling applications. VTL model size up to 27/34.



CNC VERTICAL LATHES



Ram Type Vertical Lathe with New Guarding

In addition to our current round guarding, a new fully enclosed guarding has been designed for the VTL-10/14, VTL-16/20 and the VTL-12/16 to provide a modern look at this size.

VTL12/16

CNC VERTICAL LATHES Machine Specifications

| ITEM | UNITS | VTL-10/14(M) | VTL-12/16 (M) | VTL-16/20(M) |
|---------------------------|--------------------|--|--|-----------------------------------|
| Table Diameter | mm/ Inch | Ø1,000 / 40 | Ø1250 / 49.2 | Ø1,600 / 63 |
| Max. Turning Diameter | mm/ Inch | Ø1,400 / 55.1 | Ø1600 / 62.99 | Ø2,000 / 78.75 |
| Max. Swing | mm/ Inch | Ø1,400 / 55.1 | Ø1600 / 62.99 | Ø2,000 / 78.75 |
| Max. Turning Height | mm/ inch | 9,00 / 34.5 | 1250 / 49 | 1,500 / 59.06 |
| Max. Mass of Workpiece | kg/ Lbs | 4,500 / 9,900 | 5,900 / 12,980 | 8,000 / 17,600 |
| Max. Torque of Table | NM/ lbs-ft | 10,370 / 7,637 | 12007 / 8,843 | 20,000 / 14,750 |
| Max. Cutting Force | N / Lb | 20,740 / 4,656 | 19,211 / 4,312 | 25,000 / 5,620 |
| X axis Stroke | mm/ inch | 1200 / 47.2 | 1405(-200+1205) / 55.3" | 1,635 / 64.37 |
| X axis ballscrew diameter | mm/ inch | 50XP12 / 2XP0.5 | 63XP12 / 2.5XP0.5 | 63XP12 / 2.5XP0.5 |
| X axis Torque | NM/ lbs-ft | 114 / 83.9 | 114 / 83.9 | 114 / 83.9 |
| Z axis Stroke | mm/ inch | 800 / 31.5 | 1000 / 39.4 | 1,000 / 39.4 |
| Z axis ballscrew diameter | mm/ inch | 50XP10 / 2XP0.39 | 50XP10 / 2XP0.39 | 50XP10 / 2XP0.39 |
| Ram Size | mm/ inch | 180×180 / 7.08×7.08 | 230×230 / 9.06×9.06 | 230×230 / 9.06×9.06 |
| Min. I.D. for Ram Pass | mm/ inch | Ø250 / 9.8 | Ø330 / 13 | Ø330 / 13 |
| Table Speed(2 steps) | rpm | 1-120, 120-400 | 1~120,100~350 | 1~91, 85~250 |
| Rapid traverse (X axis) | mm/min inch/min | 12,000 472 | 12,000 472 | 12,000 472.5 |
| Rapid traverse (Z axis) | mm/min inch/min | 10,000 393 | 10,000 393 | 10,000 393 |
| Crossrail Stroke | mm/ inch | - | 600 / 23.6 | 800 / 31.5 |
| Crossrail Step | mm/ inch x step | - | 200x4 / 7.87x4 | 200x5 / 7.87x5 |
| Table Main Motor | kw HP | 37/30(α30) / [45/37(α40)] 50 / 40 [60/50] | 37 / 30(α30) / [45/37(α40)] 50 / 40 [60/50] | 45 / 37(α40) 60 / 50 |
| X axis Servo Motor | Kw/HP | 6.0 / 8.0(α40) | 6.0 / 8.0(α40) | 6.0 / 8(α40) |
| Z axis Servo Motor | Kw/HP | 6.0 / 8.0(α40) | 6.0 / 8.0(α40) | 6.0 / 8.0(α40) |
| ATC Servo Motor | Kw/HP | 0.75 / 1.0(α4) | 0.75 / 1.0(α4) | 0.75 / 1.0(α4) |
| Hydraulic Motor | kw HP | 3.75 5 | 3.75 5 | 1.5 2 |
| Crossrail Motor | kw HP | - - | 5.5 7.5 | 5.5 7.5 |
| Lube. Motor | kw HP | 0.75 1 | 0.75 1 | 0.75 1 |
| ATC Magazine Capacity | Tool | 12(Turning:6, Milling:6) | 18(Turning:9, Milling:9) | 18(Turning:9, Milling:9) |
| Max. Tool Length | mm/ inch | 350 / 13.78 | 350 / 13.78 | 450 / 17.72 |
| Max. Drill Diameter | mm/ inch | 40/1.6 (Carbon Steel Workpiece) | 40/1.6 (Carbon Steel Workpiece) | 50.8/2 (Carbon Steel Workpiece) |
| Max. Taping Diameter | mm/ inch | M25/1.0 (Carbon Steel Workpiece) | M25/1.0 (Carbon Steel Workpiece) | M30/1.2 (Carbon Steel Workpiece) |
| Max. Torque for Drilling | NM/ lbs-ft | 196 / 145 | 196 / 145 | 196 / 145 |
| Live Spindle Speed | rpm | 2500 | 2500 | 30~2000 |
| Table Index Speed (C) | Min | 3 | 3 | 3 |
| Live Spindle Motor | HP kw | 10 / 15(30min) AC7.5 / 11(α8) | 10 / 15(30min) AC7.5 / 11(α8) | 15 / 20(30min) AC11 / 15(α12) |
| Tool Shank Size | mm/ inch | 32x32 / 1.26x1.26 | 32x32 / 1.26x1.26 | 32x32 / 1.26x1.26 |
| Max. Tool Projection | mm/ inch | ID 175 / 6.89" | ID 175 / 6.89" | ID 175 / 6.89" |
| Tool Taper | | No. 50(BIG-PLUS) | No. 50(BIG-PLUS) | No. 50(BIG-PLUS) |
| Pull Stud | | P50T-1(MAS403) | P50T-1(MAS403) | P50T-1(MAS403) |
| Total Power Capacity | KVA | 50(3~,208V) | 60(3~,208V) | 60(3~,208V) |
| Tank Capacity | L | 500L | 580L | 600L |
| Floor Space (LxWxH) | mm inch | 5075x3402x4650 199.8x133.9x138 | 5424x3727x5205 213.5x146.7x204.9 | 6182x4167x5700 243.4x164x224.4 |
| Machine Weight | kg/ Lbs. | 21,000 / 46,200 | 24,000 / 52,800 | 29,000 / 63,800 |

Design and specifications are subject to change without prior notice.



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