



AMERASEIKI

Great Machines...Great Prices... Great Service.



AMERA SEIKI VT-SERIES *Pure Power*



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AMERA SEIKI VTL-SERIES

Amera Seiki has been manufacturing quality CNC Machine Tools since 1991 and we are one of the largest importers of CNC Machinery in the United States. We specialize in the sale of CNC Turning Centers and Vertical Machining Centers. There are over 1500 Amera Seiki machines in use throughout the United States.

Our experience makes the difference. Amera Seiki employ's some of the industries finest and most talented engineers and service technicians. Combine that with our line of precision machine tools and you have a team that's hard to beat. Contact a sales representative today for a demonstration on our new 2007 line of machine tools.

Amera Seiki Machines are found in a broad spectrum of American Industries making everything from flow valves to three foot long stainless steel drive shafts in industries such as hydraulics, pneumatics, auto, medical, aerospace and defense.

The Amera Seiki Machines have been designed to accept a variety of state-of -the-art features. In addition, numerous optional features are available. Amera Seiki also offers a complete line of CNC Turning Centers and Vertical Machining Centers to meet your total machining requirements.



Amera-Seiki Service Department

Amera-Seiki service begins with its' nationwide chain of dealers, factory trained and well educated in its machine tools. As well, Amera Seiki fields a full complement of factory direct engineers covering virtually all locations in North America.

Wherever you are there is a qualified service engineer available to meet your service needs.

Included within this service organization is a computerized parts inventory that is in stock and ready to be shipped the same day as the order is requested. Amera Seiki maintains a high level of quality through parts and service that is first rate in the machine tool industry.



Amera-Seiki VTL Line VT600, VT800, VT1000, VT1200, VT1600, VT2000 Machining Centers



The Amera-Seiki VTL line of machine tools handles jobs up to 100" and well over 20,000lbs., plus provides a number of different options making it flexible as well as powerful and fast.

VT-SERIES SPECIFICATIONS

| | VT600 | | VT800 | | VT1000 | | VT1200 | | VT1600 | | VT2000 | |
|--|----------------|---------------|----------------|---------------|---------------|---------------|----------------|---------------|-----------------|---------------|----------------|---------------|
| | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm |
| Capacity | | | | | | | | | | | | |
| Table Diameter | 23.62 | 600 | 31.50 | 800 | 39.37 | 1000 | 49.21" | 1250 | 63" | 1600 | 78.74" | 2000 |
| Maximum Swing | 29.53 | 750 | 39.37 | 1000 | 47.24 | 1200 | 63" | 1600 | 78.74" | 2000 | 98.43" | 2500 |
| Maximum Turning Diameter | 25.59 | 650 | 31.50 | 800 | 43.3 | 1100 | 53.15" | 1350 | 70.87" | 1800 | 90.55" | 2300 |
| Maximum Turning Height | 23 5/8 | 600 | 27.56 | 700 | 43.3 | 1100 | 49.21" | 1250 mm | 49.21" | 1250 mm | 63" | 1250 mm |
| Maximum Table Load Capacity | N/A | N/A | N/A | N/A | 8800 lbs. | 4000 kg | 11,000 lbs. | 5000 kg | 17,640 lbs. | 8000 kg | 22,050 lbs. | 100Kg |
| Size Of Ram | N/A | N/A | N/A | N/A | 10" X 8" | | 10" x 8" | | 10" x 10" | | 10" x 10" | |
| Travels | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm |
| X-Axis Travel | -1.47 to 17.72 | -50 to 450 | -1.97 to 17.72 | -50 to 500 | 49.21 | 1250 | 58.07" | 1475 | 65.95" | 1674 | 73.82" | 1875 |
| Z-Axis Travel | 25.59 | 650 | 31.50 | 800 | 31.50 | 800 | 35.43" | 900 | 35.43" | 900 | 39.37" | 1000 |
| Cross Rail Adjustment - 5 position | N/A | N/A | N/A | N/A | 19.64 | 500 | 31.50" | 800 | 31.50" | 800 | 45.28" | 1150 |
| Spindle | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm |
| Spindle Speed Low Range (RPM) | 20-409 | | 20-409 | | 2-140 rpm | | 2-102 rpm | | 2-60 rpm | | 2-60 rpm | |
| Spindle Speed High Range (RPM) | 20-2000 | | 20-1700 | | 141-600 rpm | | 103-300 rpm | | 61-200 rpm | | 61-200 rpm | |
| Max Spindle/Table Torque (continuous rating) | 3360 ft. lbs. | 4300 nm | 3170 ft. lbs. | 4300 Nm | 7370 ft. lbs. | 10000 Nm | 9,215 ft. lbs. | 12500 Nm | 26,400 ft. lbs. | 35904 Nm | 33902 ft. lbs. | 46000 Nm |
| Full HP Achieved At RPM | 25/30 hp | 52 rpm | 52 rpm | 52 rpm | 42.8 rpm | 42.8 rpm | 34 rpm | 34 rpm | 15.2 rpm | 15.2 rpm | 152 rpm | 15.2 rpm |
| Optional Live Tool Motor Speed | 4000 rpm | | 4000 rpm | | 2-2500 rpm | | 2-2500 rpm | | 2-2500 rpm | | 2-2500 rpm | |
| Full C-Axis | 7.5/11 | | Optional | Optional | Optional | | Optional | | Optional | | Optional | |
| Feedrate | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm |
| X-Axis Rapid Traverse /Min. | 787 | 20000 | 787 | 20000 | 472 | 12000 | 472 ipm | 12000 | 472 ipm | 12000 | 393 ipm | 10000 |
| Z-Axis Rapid Traverse /Min. | 787 | 20000 | 787 | 20000 | 393 | 10000 | 393 ipm | 10000 | 393 ipm | 10000 | 393 ipm | 10000 |
| Cutting Feedrate ipr /rev. | 0.0004~1.97 | 0.01~50 | 0.0004~1.97 | 0.01~50 | .0004-1.968 | .01-50 | 0.0004"-1.968" | .01-50 | 0.0004"-1.968" | .01-50 | 0.0004"-1.968" | .01-50 |
| Manual Feedrate ipm /rev. | 0~49.61 | 0~1260 | 0~49.61 | 0~1260 | 0-50 | 0-1260 | 0-50 | 0-1260 | 0-50 | 0-1260 | 0-50 | 0-1260 |
| Tooling | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm |
| ATC Live Tool Turret | 12 (16) tools | 12 (16) tools | 12 (16) tools | 12 (16) tools | 12 (16) tools | 12 (16) tools | 12 (16) tools | 12 (16) tools | 12 (16) tools | 12 (16) tools | 12 (16) tools | 12 (16) tools |
| Tool Shank | | VDI50 | | VDI50 | BT-50 | | BT-50 | | BT-50 | | BT-50 | |
| Maximum Tool Weight | N/A | N/A | N/A | N/A | 110 lbs. | 50 kg | 110 lbs. | 50 kg | 110 lbs. | 50 kg | 110 lbs. | 50 kg |
| Maximum Weight On ATC | N/A | N/A | N/A | N/A | 795 lbs. | 360 kg | 795 lbs. | 360 kg | 795 lbs. | 360 kg | 795 lbs. | 360 kg |
| Tool Change Time Tool To Tool | N/A | N/A | N/A | N/A | 30 secs. | | 30 secs. | | 30 secs. | | 30 secs. | |
| Motors | HP | KW | HP | KW | HP | KW | HP | KW | HP | KW | HP | KW |
| Spindle Motor <small>30 min rating</small> | 30 HP | 22 kw | 30 HP | 22 kw | 60 HP | 45 kw | 60 HP | 45 kw | 100 HP | 75 kw | 100 HP | 75 kw |
| Live Tool Motor For C-Axis (option) | 15 HP | 11 kw | 15 HP | 11 kw | 20 HP | 15.4 kw | 20 HP | 15.4 kw | 20 HP | 15.4 kw | 20 HP | 15.4 kw |
| Live Tool Motor For C-Axis Torque | 35.2 ft. lbs. | 47.7 nm | 3512 ft. lbs. | 47.7 nm | 441 ft. lbs. | 600 nm | 441 ft. lbs. | 600 nm | 441 ft. lbs. | 600 nm | 441 ft. lbs. | 600 nm |
| X-Axis Servo Motor | 4 HP | 3 kw | 6 HP | 4 kw | 6 HP | 4 kw | 10 HP | 7 kw | 10 HP | 7 kw | 10 HP | 7 kw |
| Z-Axis Servo Motor | 6 HP | 4 kw | 10 HP | 7 kw | 10 HP | 7 kw | 10 HP | 7 kw | 10 HP | 7 kw | 10 HP | 7 kw |
| Fluids Capacity | Gallon | Liter | Gallon | Liter | Gallon | Liter | Gallon | Liter | Gallon | Liter | Gallon | Liter |
| Coolant Tank | 100 gal | 400 | 130 gal | 500 | 180 gal. | 700 | 180 gal. | 700 ml. | 180 gal. | 700 ml. | 180 gal. | 700 ml. |
| Hydraulic Tank | 25 gal | 100 | 25 gal | 100 | 18 gal. | 70 | 18 gal. | | 18 gal. | 70 | 18 gal. | 70 |
| Miscellaneous | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm | inches | mm |
| Machine Size Length x Width | 137" X 70" | 3480 X 1780 | 137"x70" | 3480 X 1780 | 145" X 135" | 3700 X 3430mm | 169" x 150" | 4300 X 3800 | 177" x 157" | 4500 x 4000 | 240" x 165" | 6100 x 4200 |
| Machine Size Height | 139 | 3520 | 149 | 3770 | 181" | 4600mm | 193" | 4900mm | 193" | 4900mm | 274" | 6950mm |
| Machine Weight | 19,800 lbs. | 9000 kg | 26,500 lbs. | 12000 kg | 55,000 lbs. | 25000 kg | 72,600 lbs. | 33000 kg | 79,200 lbs. | 36000 kg | 101,200 lbs. | 46000 kg |
| Power Requirements 480/3/60 | | 48 kva | | 55kva | 75KV/3/60 | | 90KV/3/60 | | 90KV/3/60 | | 150KV/3/60 | |

*Specifications and design improvements are subject to change without notice

Amera-Seiki VTL Series

- Extremely high rigidity design within the machine tool structure
- TIMKEN or INA Cross Roller bearings
- ZF- two speed transmission providing high torsion forces and high table speeds
- Hardened and ground X and Z axis ways with friction reducing Turcite
- Industry leading Fanuc 0iTC (18i with C axis option) CNC control
- Full Enclosure Guarding
- Completely programmable Cross Rail with absolute positioning and leveling assured by matched and ground fixed locators
- One year warranty on machine tool, and two year warranty on controls

Fully Programmable Cross Rail

Fully Programmable cross rail provides multiple height locations resulting in superior rigidity due to reduced ram reach. The vertical movement of the Crossrail is generated by oversize ball screws and securely locked into position hydraulically. In the event of a power failure the Programmable Crossrail features a self locking feature to reduce "drift" during a power failure.

Feed Drives

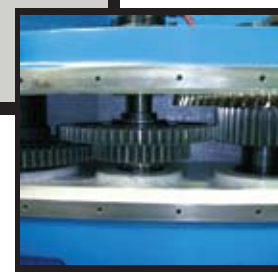
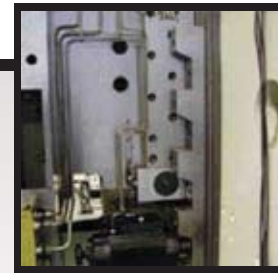
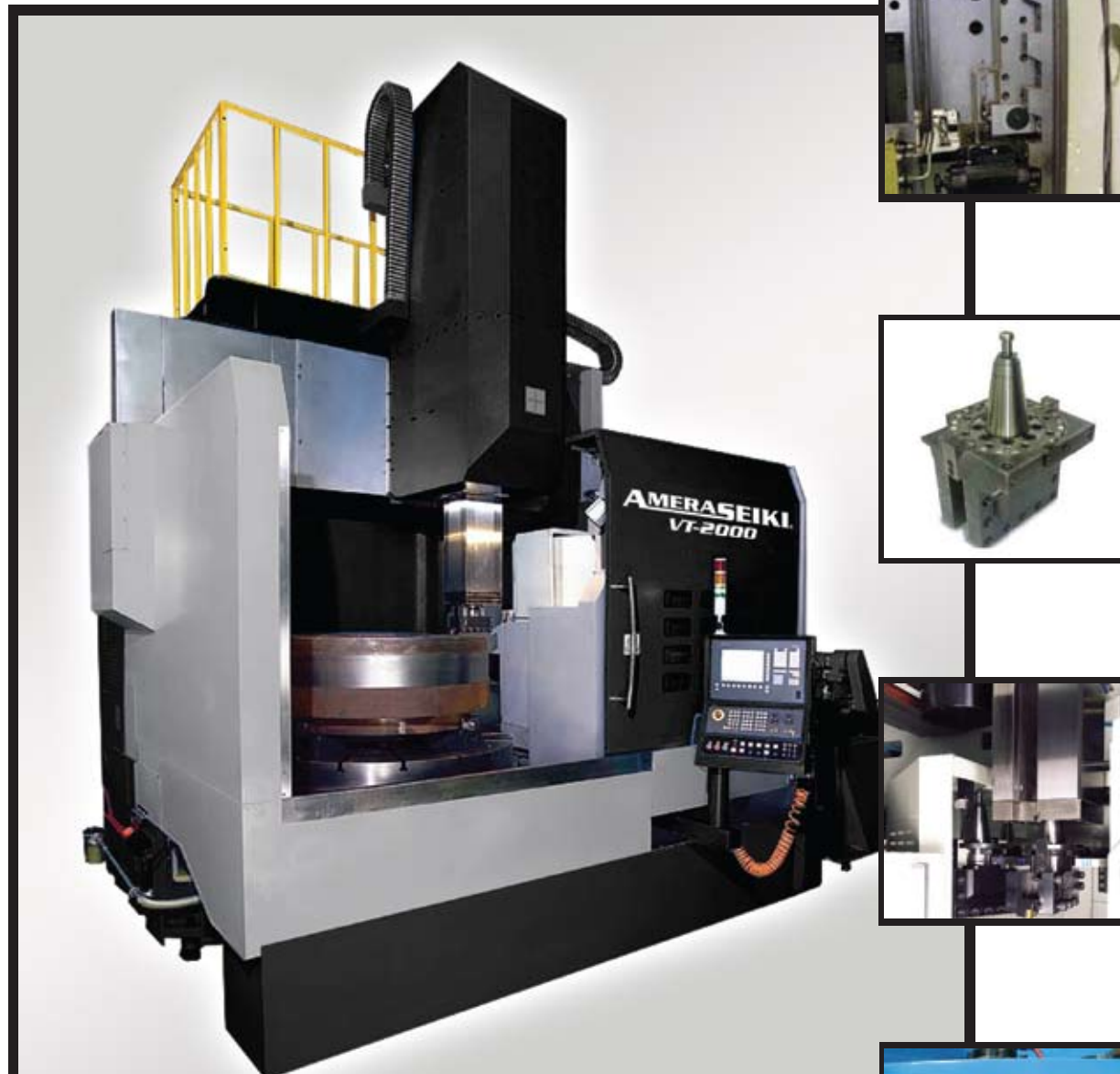
Feed Drives – Vertical (Z Axis) and Horizontal (X-axis) drives are powered by 10 HP ac servo drive motors, sliding along an extremely low friction system. The Amera Seiki feed mechanisms are designed to provide far superior vibration absorption and chatter free cutting even under the most demanding conditions such as threading, grooving, interrupted cutting and very heavy roughing.

Roller Bearings

Roller bearings – Timken or INA cross ground roller bearings are standard on all Amera-Seiki Vertical Turning Centers providing years of trouble free, highly accurate service.

Column

Column- constructed of heavily ribbed castings of a box design, this system provides extreme rigidity for the machine tools' life. Extra wide guide ways remain clear from chips and coolant with steel telescoping way covers.



Automatic Tool Changer

Amera-Seiki VTL's provide up to 16 tool capacity (up to 60 optional) to reduce secondary operations and allow redundant tooling cycles for extra long cutting requirements.

C Axis Mechanism (optional)

High resolution servo motor combined with precision worm shaft and worm gear mechanism assure high precision indexing up to 6 arc seconds. Also, available to operate with second power spindle for multi-side and complex parts machining. Various machining operations such as turning, milling, drilling and tapping are completed within a single setup.

RAM

Amera-Seiki's RAM size are typically larger than other manufacturers. This larger cross section, provides more stable cutting than machines with smaller RAM sizes.

Live Tooling (optional)

Live tooling, available optionally, combines a powerful 20 HP Duty rated Fanuc motor for milling, drilling, tapping and reaming. Tool rigidity is established thru the use of Cat50 or BT50 tooling with full hirth coupling engagement.

Box Ways

Box Ways – Standard on all Amera-Seiki Vertical Turning Centers providing accurate and stable machining on virtually all work piece materials

Closed Loop feedback system (Optional)

Closed Loop feedback system – Linear scales are used to provide a closed loop feedback system back to the control system. This system greatly reduces external factors contributing to machine tool inaccuracies from changes in temperature and mechanical factors that result from usage.

Control

Fanuc 0iTC – Pendant mounted for easy of positioning. Fanuc 18i control included with C Axis and live tooling option.

Head Assembly

Head Assembly – Mono block design and an extra large size (10" X 10") Ram (VT1600 10" X 8") allows the VT series to take much more cutting force than similar sized machines. This oversize ram also allows superior stability even at extended reaches, taking advantage of our 35" and longer Ram travel.