

The Vturn Range Profile

Increased productivity with every turn





Vturn Lathes

The cornerstone on which to build your production.

From the initial design stages through to the final testing, machine production is tightly controlled and monitored adhering strictly to the principles set out in ISO 9001 & 14001. In today's increasingly competitive market, Victor Taichung has held true to traditional methods of building quality and reliable machine tools that will maintain their accuracies and their values in years to come.

Vturn-16 / 20 / 26

Entry model for reliable heavy cutting.

- Box slideways with hardness HRC 55 for heavy cutting.
- Genuine 45° slant bed for minimum distance from Z-axis ball screw to the tool tip.
- Hydraulic 6"/8"/10" chuck is offered as standard.
- Programmable tailstock and chip conveyor is offered as standard.
- Wide range spindle motor Fanuc αPi is installed to offer high cutting force at low rpm.
- High reliability and cost-effective.
- Maximum turning length 610mm for Vturn-16/20/26 and 1090mm for Vturn-26/110.
- Special LSB option on Vturn-26 for bar capacity 91mm/2500rpm.



VturnII-16 / 20

Available with upgraded servo turret, built-in spindle, C-axis, and rear chips disposal.

- Genuine 30° one piece slant bed enables large turning diameter 440mm.
- Box slideways with power full spindle motor 11/15kW for heavy cutting.
- Servo driven turret for quick tool indexing.
- Right or Rear chip disposal.
- Servo driven turret for quick tool indexing.
- C-axis available with built-in spindle allows faster acceleration time and less vibration so as to improve overall efficiency and accuracy.





Vturn-36

2-step gearbox for heavy cutting.

- Box slideways with hardness HRC 55 for heavy cutting.
- Genuine 45° slant bed for minimum distance from Z-axis ball screw to the tool tip.
- Hydraulic 12" chuck is offered as standard.
- 2-step gearbox is included to further enhance the cutting torque at low rpm.
- Maximum turning length 855mm for Vturn-36/85 and 1255mm for Vturn-36/125.
- Available with C-axis spindle and live tooling by Victor's own VDI turret.
- Special LSB option with spindle nose A2-11 for bar capacity 160mm /1300rpm.



Vturn-40 & Vturn-45

Turning center with turning length from 1.25 to 4.25 meters.

- Rapid feed rate 20/20 m/min for Vturn-40/220 & Vturn-45/220 and 20/12 m/min for Vturn-40/325 & Vturn-45/325, 20/8 m/min for Vturn-40/425 & Vturn-45/425.
- Maximum turning length 4250mm !
- Single piece cast slant bed (45°) for minimum distance from ball screw to the tool tip.
- Box slideways with hardness HRC 55 for heavy cutting.
- Hydraulic 15" chuck is offered as standard.
- Spindle nose A2-11.
- 2-step gearbox is included to further enhance the cutting torque at low rpm.
- Available with C-axis by Victor's own VDI or BMT turret.

Vturn-46

4-step gearbox for powerful heavy cutting.

- Box slideways with hardness HRC 55 for heavy cutting.
- Genuine 60° slant bed with minimal distance from Z-axis ball screw to the tool tip so as to reduce the chip built-up.
- Hydraulic 15" chuck is offered as standard and optional 24" chuck is possible.
- Built-in 4-step gearbox inside the headstock further enhances the cutting torque at low rpm.
- Spindle nose A2-11.
- Maximum turning length 1650mm.
- Available with C-axis spindle and live tooling by Victor's own VDI turret.





Manufacturing Philosophy

Headstock machining & boring:

To ensure the quality control on the accurate parts, such like headstock and spindle, Victor Taichung has developed their own spindle boring machines to ensure long service life for bearing installation.

Headstock & spindle assembly:

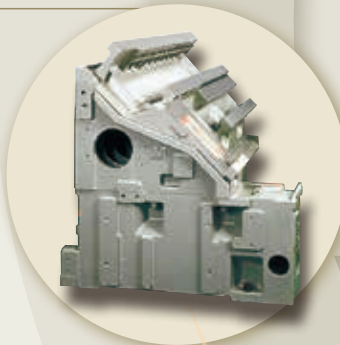
All spindles are assembled in-house in a temperature controlled environment and undergo a series of run-in tests of up to 24 hours. This post-assembly testing pinpoints any excessive bearing temperatures which would otherwise be crippling on the customers shop floor.



Meehanite® cast iron:

The foundation of any machine tool, this must offer rigidity, strength and above all else high damping properties. These characteristics are best found in quality nodular gray cast iron, produced in Victor's own ISO-9001 certified foundry.

All castings are made following the Meehanite process which is recognized wide as the Quality Mark for good castings.



Machine design:

Through the use of advanced CAD and CAE systems, our R&D laboratory makes computer simulations of structures to test for deformation and vibration characteristics which can later be confirmed by computer aided testing.





Hardened box slide ways:

Cast-in slide ways for maximum rigidity. Nodular grey cast iron offers ideal friction properties without sacrificing toughness. Heat treated using high frequency induction heating to produce a wrap around structure with hard wear resistance surface & tough internal core. A depth of 0.5mm for maximum wear resistance, ensuring accuracies are held throughout machine life.



The carriage:

To ensure smooth and accurate operation of the carriage along the slideway Victor employs the traditional craftsmanship of hand scraping by skilled technicians. This produces large contact areas for improved stability in machining. Add to this hand finished lubrication channels for improved lubrication properties to ensure the carriages benefit from traditional methods of manufacture.



Machine assembly:

With the philosophy that quality must be built in not inspected in, moving pallet assembly lines are employed so that each machine can be closely monitored and controlled long before it reaches the QC department.

This is maintained by encouraging one person to be fully responsible for the quality of each station as it progresses.



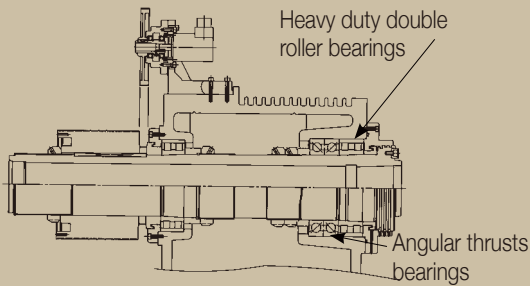
Quality inspection:

Every machine that leaves the factory floor has passed numerous inspection procedures to achieve vigorous demands of our customers.

Vturn-16, Vturn-20 & Vturn-26

Cost-effective model for reliable heavy cutting!

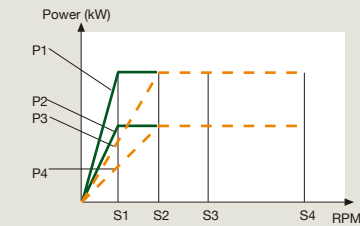
- Genuine 45° slant bed for minimum distance from Z-axis ball screw to the tool tip.
- Box slideways with hardness HRC 55 for heavy cutting.
- Hydraulic 6" / 8" / 10" chuck is offered as standard.
- Programmable tailstock and chip conveyor is offered as standard.
- Only wide range spindle motor Fanuc α Pi is installed to offer high cutting force at low rpm.
- Z-axis ball screw diameter 40mm for heavy cutting and high reliability.
- Maximum turning length 610mm for Vturn-16/20 and 1090mm for Vturn-26/110.
- Special LSB option on Vturn-26 for bar capacity 91mm/2500rpm.



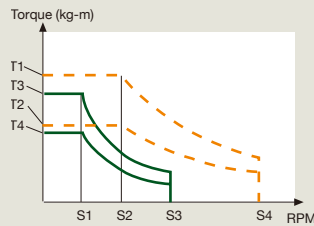
High rigidity & high precision spindle

- Encased in well ribbed headstock for maximum heat dissipation.
- Angular thrust bearings absorb axial cutting force and NN-type roller bearings facilitate heavy cutting.

Spindle Torque Output Diagram



P1 (*30 min. in low winding) S1 (base RPM in low winding)
 P2 (cont. in low winding) S2 (base RPM in high winding)
 P3 (*30 min. in high winding) S3 (max. RPM in low winding)
 P4 (cont. in high winding) S4 (max. RPM in high winding)



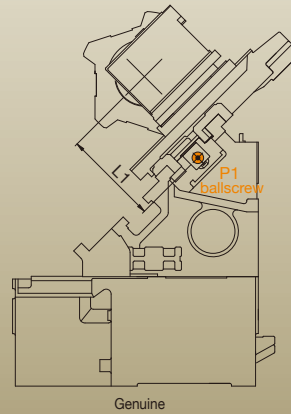
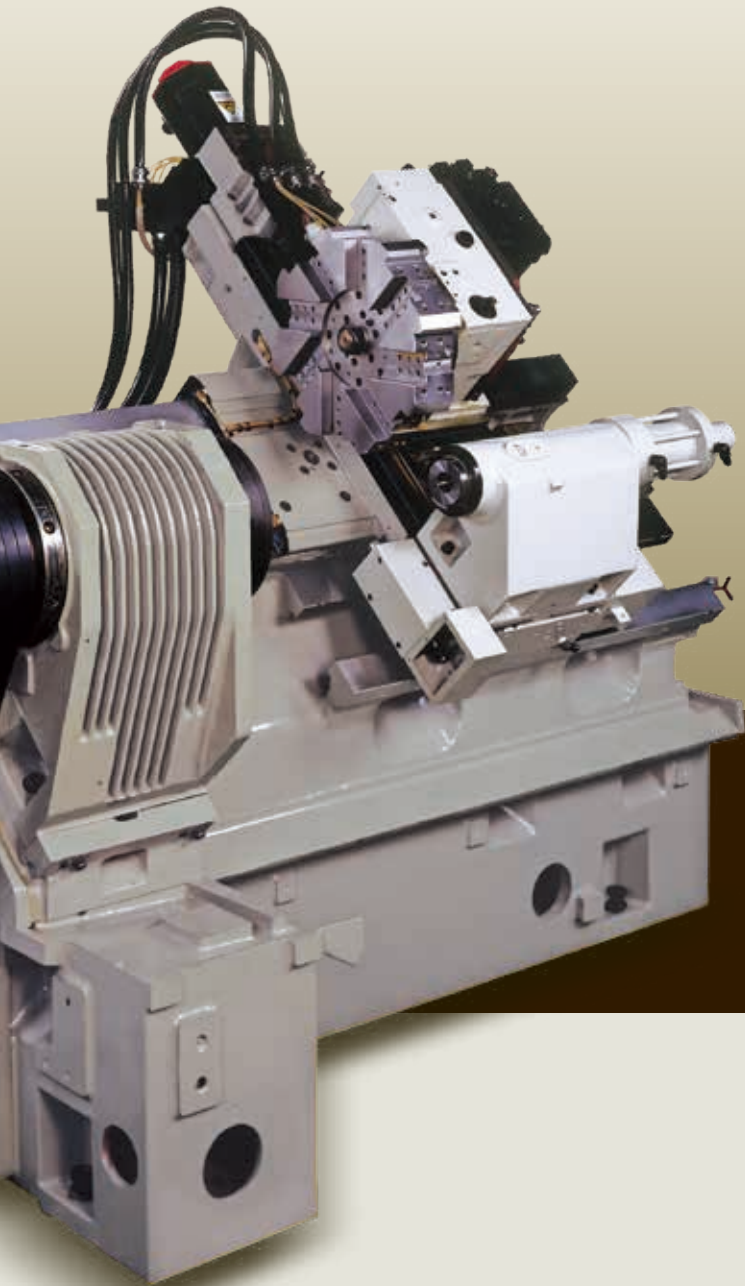
T1 (*30 min. in low winding) S1 (base RPM in low winding)
 T2 (cont. in low winding) S2 (base RPM in high winding)
 T3 (*30 min. in high winding) S3 (max. RPM in low winding)
 T4 (cont. in high winding) S4 (max. RPM in high winding)

*30 min. may be replaced by 15%, 15 min or 20 min. according to Fanuc technical specification

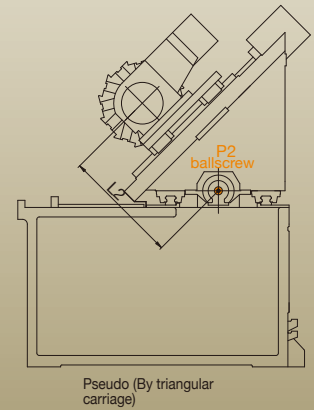
| Model | Spindle Motor | Base Speed (rpm) | Max. Speed (rpm) | P. Cont. (kW) | P. (kW) | Tor. Cont. (kg-m) | Tor. (kg-m) | |
|-------------|---------------|------------------|------------------|---------------|---------|-------------------|-------------|-----------------|
| Vturn-16 | α P15i | Low winding | 500 | 1500 | 5 | 9 (15 min.) | 9.73 | 17.5 (15 min.) |
| | | High winding | 750 | 6000 | 7.5 | 9 (30 min.) | 9.73 | 11.67 (30 min.) |
| Vturn-20 | α P15i | Low winding | 350 | 1050 | 5 | 9 (15 min.) | 13.9 | 25 (15 min.) |
| | | High winding | 525 | 4200 | 7.5 | 9 (30 min.) | 13.9 | 16.68 (30 min.) |
| Opt. | α P22i | Low winding | 350 | 1050 | 7.5 | 15 (15 min.) | 20.84 | 41.69 (15 min.) |
| | | High winding | 525 | 4200 | 11 | 15 (30 min.) | 20.52 | 27.98 (30 min.) |
| Vturn-26 | α P30i | Low winding | 308 | 1156 | 11 | 18.5 (15 min.) | 34.77 | 58.47 (15 min.) |
| | | High winding | 443 | 3500 | 15 | 18.5 (30 min.) | 32.92 | 40.6 (30 min.) |
| Vturn-26HD | α p40i | Low winding | 308 | 1156 | 13 | 22 (15 min.) | 40.98 | 69.36 (15 min.) |
| | | High winding | 443 | 3500 | 18.5 | 22 (30 min.) | 40.58 | 48.26 (30 min.) |
| Opt. | α p40i | Low winding | 224 | 840 | 13 | 22 (15 min.) | 56.6 | 95.7 (15 min.) |
| | | High winding | 322 | 2500 | 18.5 | 22 (15 min.) | 56 | 66.6 (15 min.) |
| Vturn-26LSB | α p30i | Low winding | 323 | 1212 | 11 | 18.5 (15 min.) | 33.19 | 55.81 (15 min.) |
| | | High winding | 464 | 2500 | 15 | 18.5 (30 min.) | 31.4 | 38.7 (30 min.) |
| Opt. | α p40i | Low winding | 242 | 906 | 13 | 22 (15 min.) | 52.3 | 88.6 (15 min.) |
| | | High winding | 348 | 2500 | 18.5 | 22 (30 min.) | 51.8 | 61.6 (30 min.) |

Genuine slant bed

Vturn series lathes have the Z-axis ballscrew mounted on the slant bed (P1) instead of machine base (P2) to minimize the distance from ballscrew to the tool insert and thus upgrades the turret and carriage stiffness.



Genuine



Pseudo (By triangular carriage)



Vturn-26LSB (Large Spindle Bore) (optional)

Without the expense or space demanded by an oversized machine, Vturn-26LSB including an oversized headstock and 12" chuck combines the bed of Vturn-26 to offer bar capacity 91mm/2500rpm to minimize your investment.



Vturn-26"HD" for Heavy Duty Application

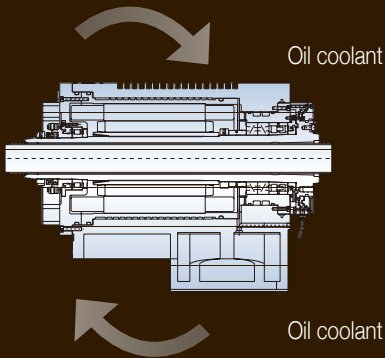
Package with the following features:

- Bigger spindle motor (α P40i) 22kW.
- Bigger Z-axis motor (α 22i) 4kW.
- Larger turning diameter 410mm.
- Larger swing over carriage 380mm.
- Coolant flush on Z-axis cover.
- Upgraded guarding improves coolants and chips disposal.

VturnIII-16 & VturnIII-20

Available with upgraded servo turret, built-in spindle, C-axis, and rear chips disposal

- Genuine 30° one piece slant bed enables large turning diameter 440mm.
- Box slideways with power full spindle motor 11/15kW for heavy cutting.
- Servo driven turret for quick tool indexing.
- Right or Rear chip disposal.
- C-axis available with built-in spindle allows faster acceleration time and less vibration so as to improve overall efficiency and accuracy.
- Special LSB option on VturnII-20 for bar capacity 66mm/4500rpm.

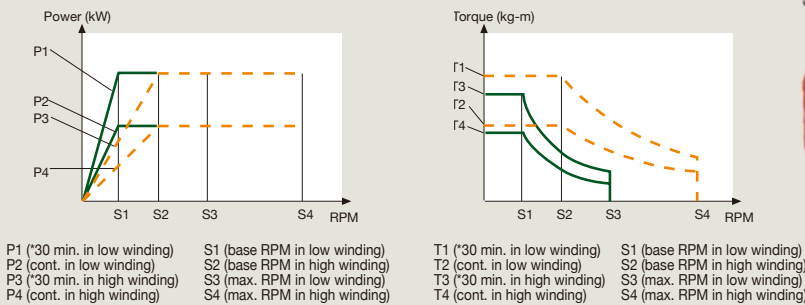


C-axis Spindle with Built-in Motor for or high accuracy

- Belt-driven spindle for standard 2-axis lathe.
- Direct Drive Spindle (DDS) with built-in motor for optional C-axis clamping offers extra torque output at low spindle speed than conventional belt-driven spindle and eliminates the vibrations from the belt for a greater surface finish and roundness.

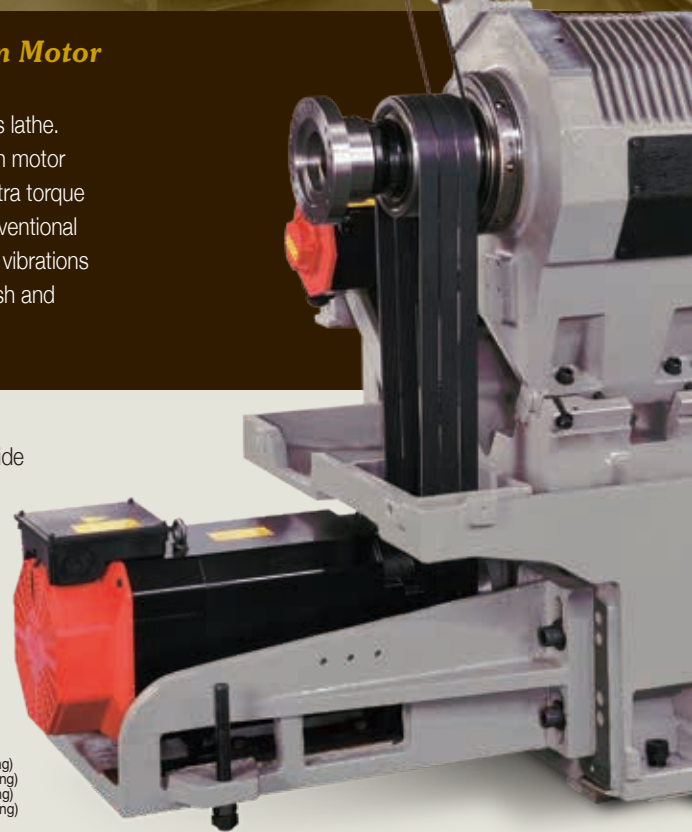
Spindle Torque Output Diagram

The directly driven spindle unit uses the powerful FANUC α Pi series motors with their wide range of high torque output and fast acceleration times to optimum speeds.



*30 min. may be replaced by 15%, 15 min or 20 min. according to Fanuc technical specification

| Model | Spindle Motor | Base Speed (rpm) | Max. Speed (rpm) | P. Cont. (kW) | P. (kW) | Tor. Cont. (kg-m) | Tor. (kg-m) | |
|--------------|-----------------|------------------|------------------|---------------|---------|-------------------|-------------|-----------------|
| VturnII-16 | α P22i | Low winding | 500 | 1500 | 7.5 | 15 (15 min.) | 14.6 | 29.2 (15 min.) |
| | | High winding | 750 | 6000 | 11 | 15 (30 min.) | 14.4 | 19.6 (30 min.) |
| Opt. | α P15i | Low winding | 500 | 1500 | 5 | 9 (15 min.) | 9.73 | 17.5 (15 min.) |
| | | High winding | 750 | 6000 | 7.5 | 9 (30 min.) | 9.73 | 11.67 (30 min.) |
| VturnII-20 | α P22i | Low winding | 350 | 1050 | 7.5 | 15 (15 min.) | 20.84 | 41.69 (15 min.) |
| | | High winding | 525 | 4200 | 11 | 15 (30 min.) | 20.52 | 27.98 (30 min.) |
| Opt. | α P15i | Low winding | 350 | 1050 | 5 | 9 (15 min.) | 13.9 | 25 (15 min.) |
| | | High winding | 525 | 4200 | 7.5 | 9 (30 min.) | 13.9 | 16.68 (30 min.) |
| VturnII-16CV | α B160Mi | Low winding | 300 | 900 | 5.5 | 7.5 (15%) | 17.8 | 24.3 (15%) |
| | | High winding | 850 | 6000 | 11 | 18.5 (15%) | 12.6 | 21.2 (15%) |
| VturnII-20CV | α B180Mi | Low winding | 450 | 800 | 11 | 15 (20 min.) | 23.8 | 32.4 (20 min.) |
| | | High winding | 800 | 4200 | 11 | 15 (30 min.) | 13.3 | 18.2 (30 min.) |



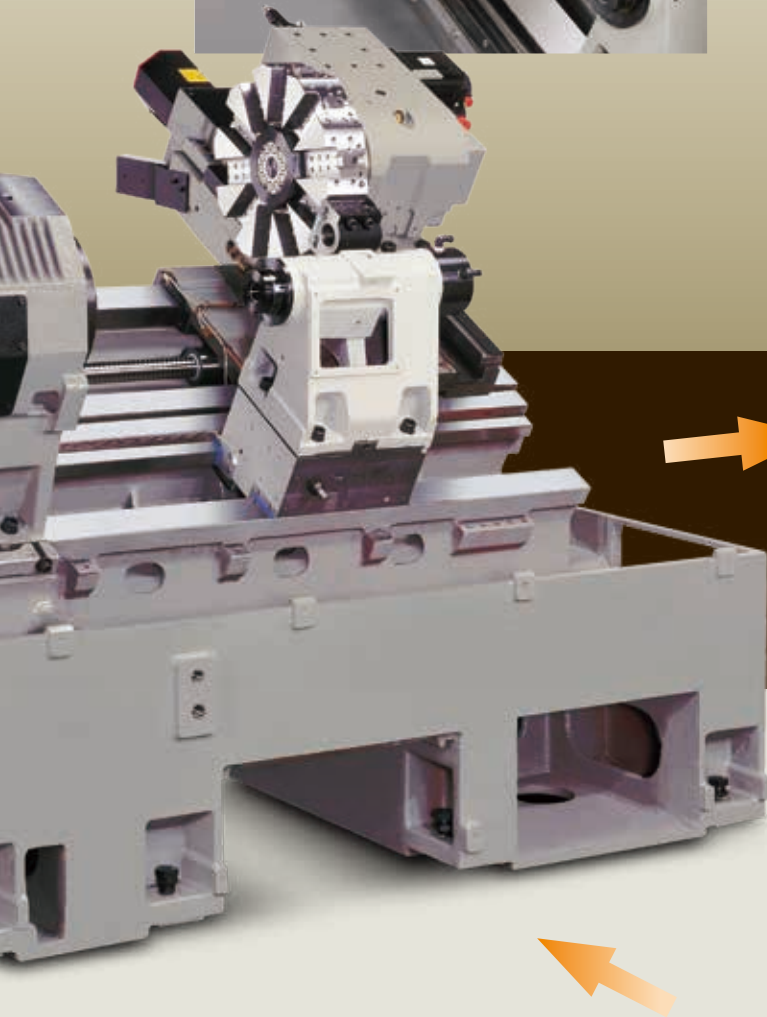


Servo Driven Turret for Faster Indexing

- Fast tool indexing time 0.2 seconds using servo driven turret.
- Available with Victor Taichung's own milling turret in conjunction with servo motor to offer a near constant torque output over the complete speed range up to 3000rpm.
- 12 station VDI turret with 12 live tool pockets allows quick tool changeover with commercially available tool holders.

Chip Disposal from Right or Rear

Separate chip conveyor can be positioned to expel chips from the traditional side of the machine for easy cleaning or even from the rear of the machine to reduce costly shop floor space requirement.



Large Spindle Bore (LSB) - 66mm / 4500rpm (optional)

Besides the popular application to link bar feeder to the lathe with part catcher, this new LSB (Large Spindle Bore) option has the bar capacity dia. 66mm and upgraded spindle speed 4500rpm to minimize your investment costs.

One-piece Slant Bed with Hardened Boaxways

- Rectangular machine base guarantees the optimal structure stiffness to sustain the high rapid feed rate 20/24 m/min (X/Z) on the lathes with box slideways.
- Optimum ribbing determined by FEM to minimize distortion during operation.
- To ensure perfect alignment in the machine structure, the bed is machined in a single set-up on a large five-face machining center.
- Separate chip conveyor can be positioned to expel chips from the traditional side for easy cleaning or from rear of the machine to link with robot application.



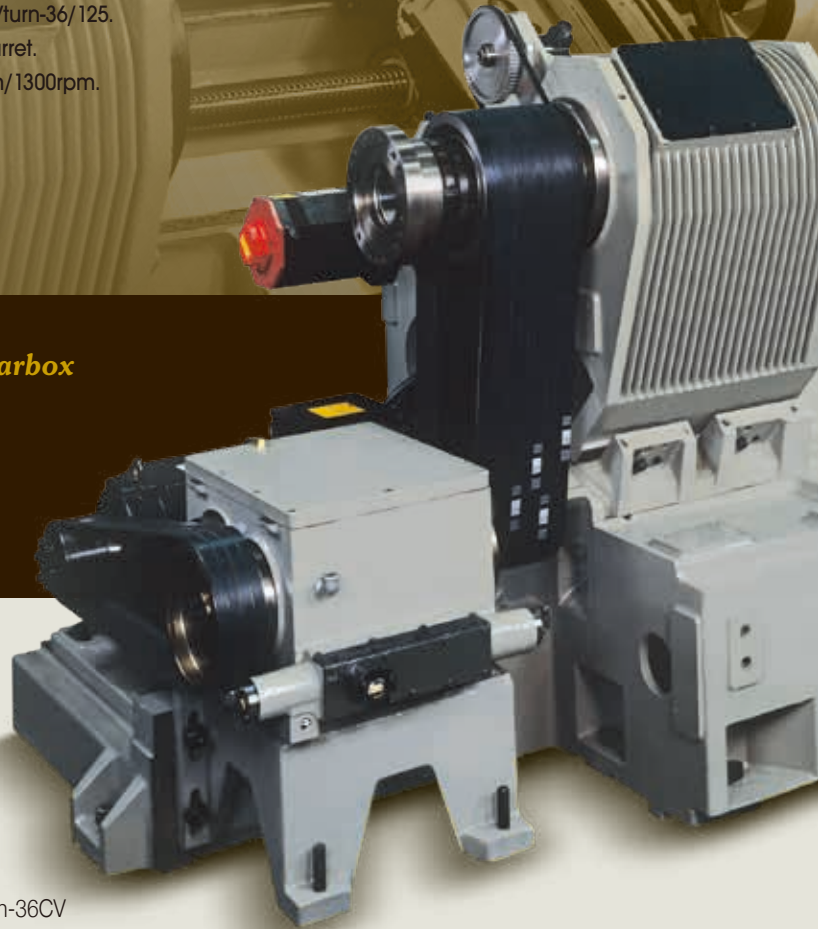
Vturn-36

Two step gearbox for reliable heavy cutting!

- Genuine 45° slant bed for minimum distance from Z-axis ball screw to the tool tip.
- Z-axis ballscrew diameter 50mm.
- 91mm bar capacity.
- Box slideways with hardness HRC 55 for heavy cutting.
- Hydraulic 12" chuck is offered as standard.
- 2-step gearbox is included to further enhance the cutting torque at low rpm.
- Maximum turning length 855mm for Vturn-36/85 and 1255mm for Vturn-36/125.
- Available with C-axis spindle and live tooling by Victor's own VDI turret.
- Special LSB option with spindle nose A2-11 for bar capacity 160mm/1300rpm.



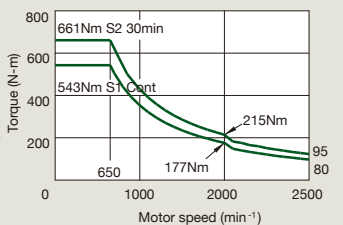
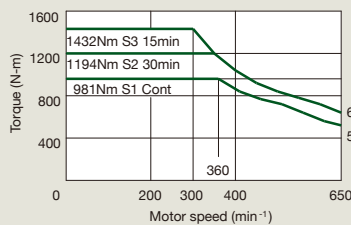
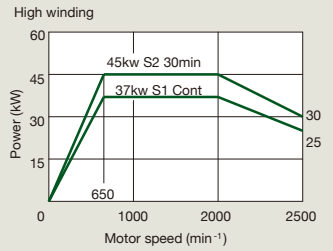
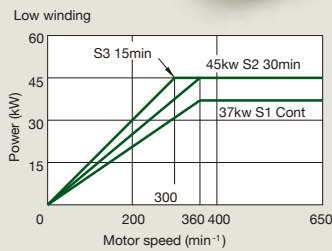
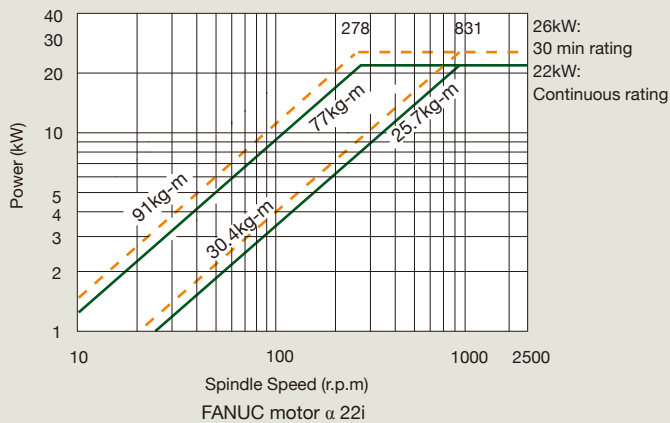
2-step gearbox

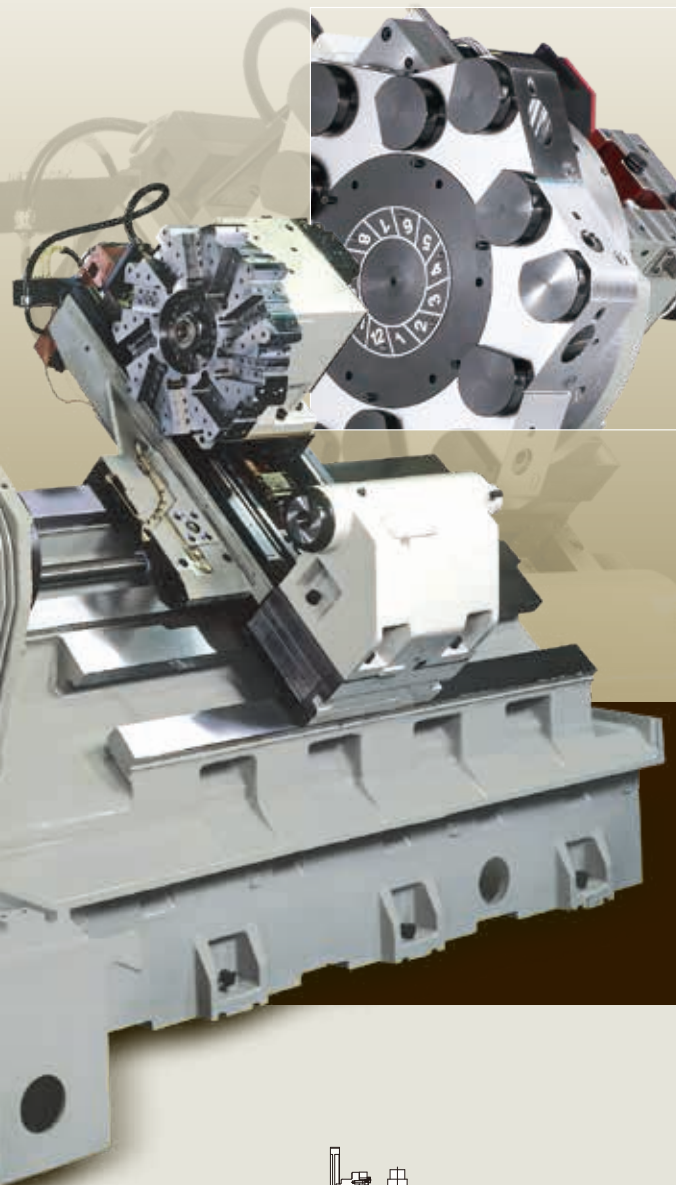


Spindle Torque Output Diagram

● Vturn-36 STD

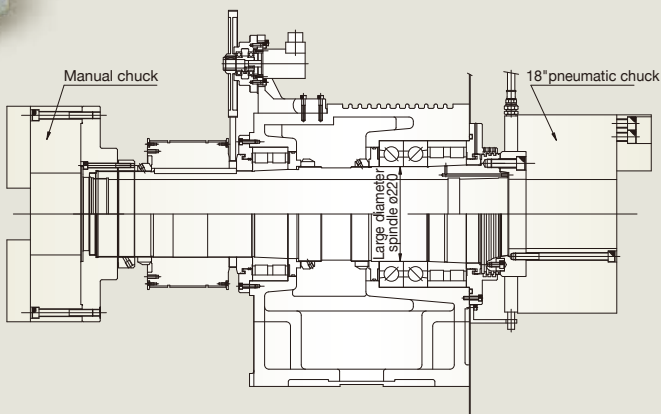
● Vturn-36CV





C-axis VDI turret with live tooling (CV option.)

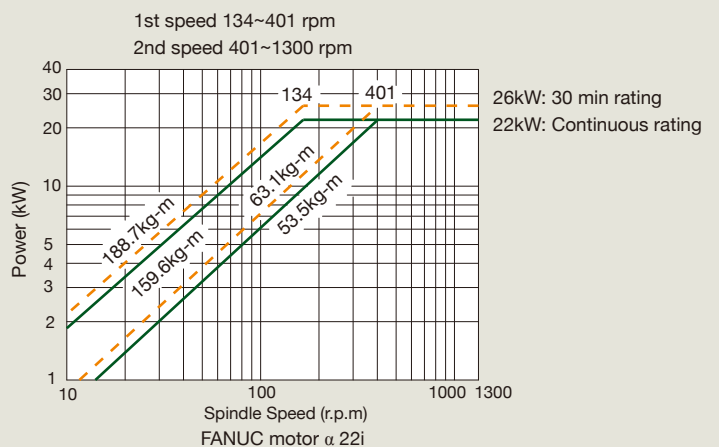
- Live tooling is provided through the use of VDI turret that not only provide an international tooling system but also allows for quick and simple tool mounting.
- Coupling specification DIN-5480.
- Milling power 7kW/3000rpm.



Large Spindle Bore (LSB, optional)

- Large spindle bore 160mm.
- Bar capacity of 145mm by 18" hydraulic chuck.
- Bar capacity of 160mm by 18" pneumatic chuck with another manual chuck mounted at rear of spindle for extra stability.
- Maximum spindle speed: 1500 rpm (1300 rpm limited by pneumatic chuck).

Spindle speed output diagram for Vturn-36LSB



Vturn-40

Heavy cutting lathe with spindle nose A2-11 for turning length from 1250mm to 4250mm

- Spindle bore A2-11 with hydraulic chuck 15" (opt. 12").
- Bar capacity 91mm, Spindle speed 2500rpm.
- Genuine 45° one piece slant bed for maximal structure rigidity.
- Turning length 1250 / 2200 / 3250 / 4250 mm.
- Large ballscrew diameter in Z-axis: 50mm Vturn-40/125 & Vturn-40/220, 63mm for Vturn-40/325, 70mm for Vturn-40/425.
- Y-axis & C-axis applications available with built-in spindle for contour milling.



2-step gearbox

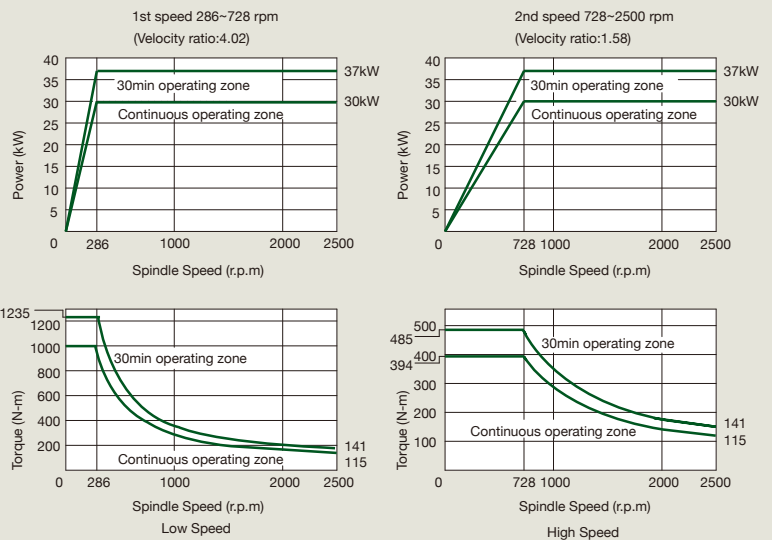


Built-in spindle



Spindle Torque Output Diagram

● Vturn-40 STD



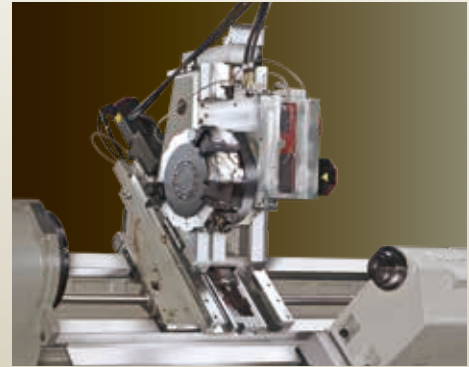
FANUC motor α 30i

Victor's own turret

- Wide span turret carriage upgrades structure stiffness.
- Milling turret (servo driven) available with VDI-50 for quick tool change or BMT-75 for high rigidity.

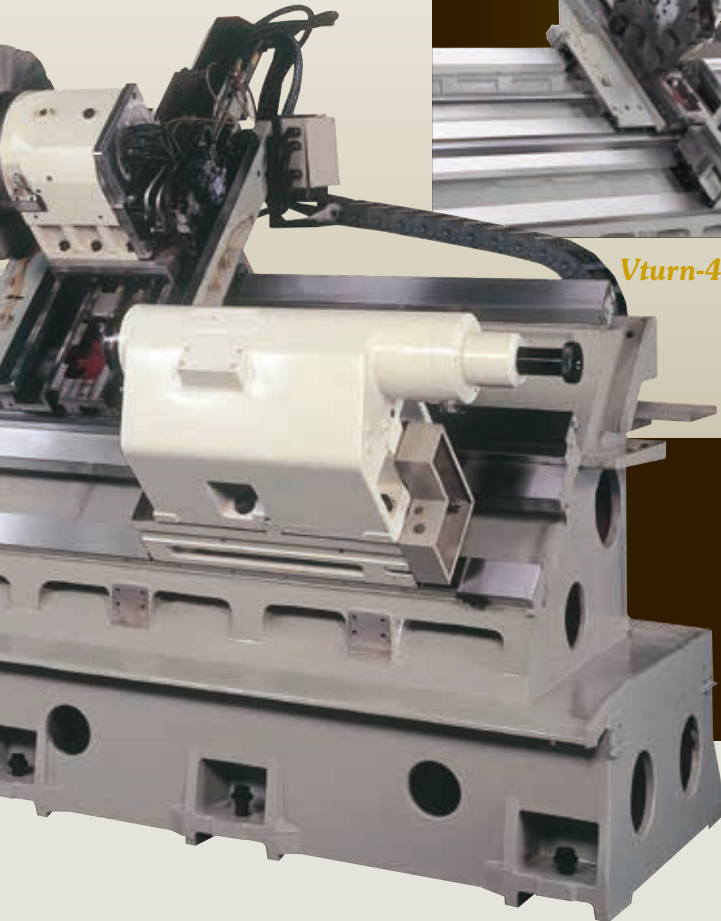


Vturn-40CV (optional)



Vturn-40YCM (optional)

- Y-axis (travel : $\pm 80\text{mm}$) with BMT-75 turret.



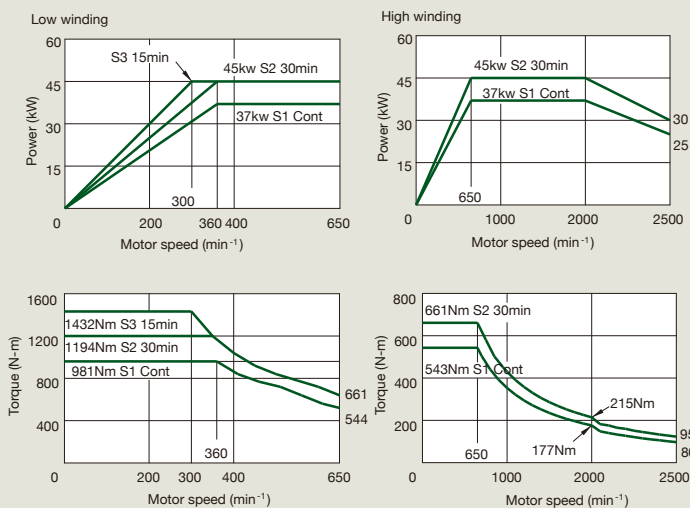
Vturn-40/220



Vturn-40/220Y

Moving CRT (excl. Vturn-40/125) allows for more space for machine operator and avoids the high freight for transportation.

- Vturn-40CV & Vturn-40(Y)CM



FANUC motor α B 250Mi

Manual steady rest (Standard on Vturn-40/220, Vturn-40/325 & Vturn-40/425)

- Clamping range: 280-400mm (Opt. 150-300mm)

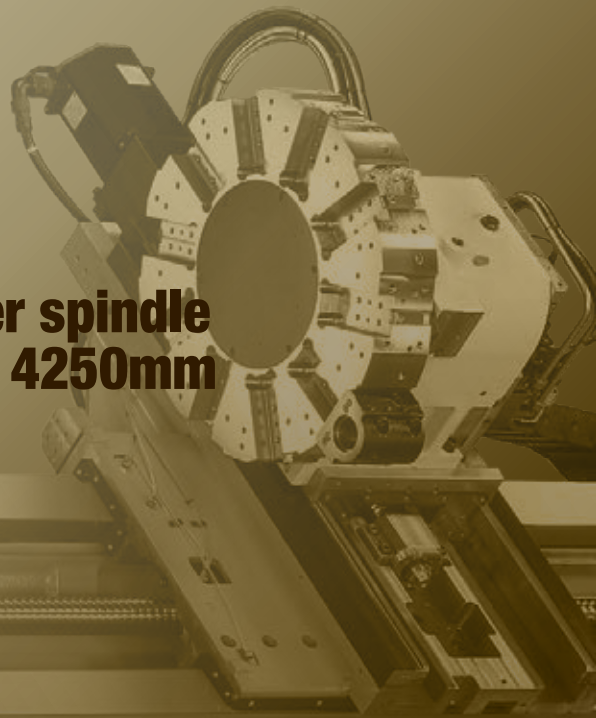


For Vturn-40/220, 325, 425

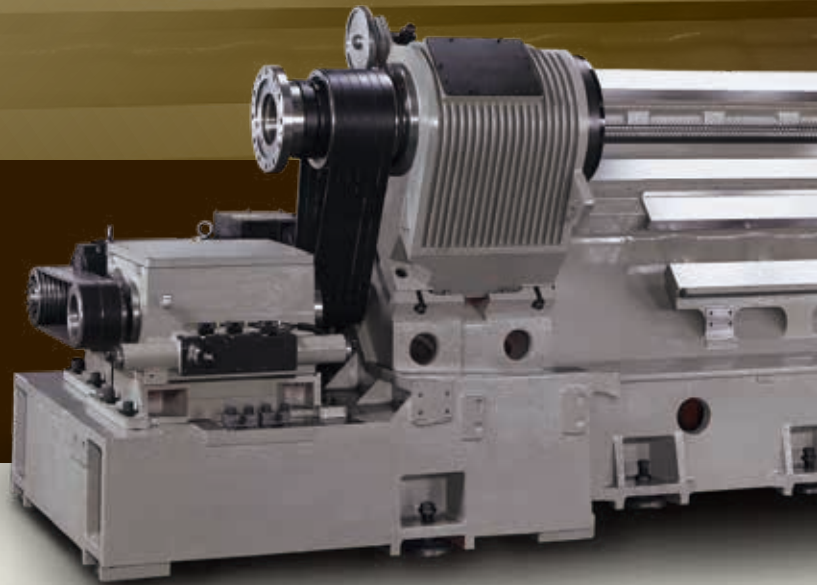
Vturn-45

Even heavy cutting lathe with larger spindle for turning length from 1250mm to 4250mm

- Spindle bore A2-11 with hydraulic chuck 15" (opt. 18").
- Bar capacity 117.5mm, Spindle speed 2000rpm.
- Genuine 45° one piece slant bed for maximal structure rigidity.
- Turning length 1250 / 2200 / 3250 / 4250 mm.
- Available with Large spindle bore 135mm.
- C-axis available.



2-step gearbox

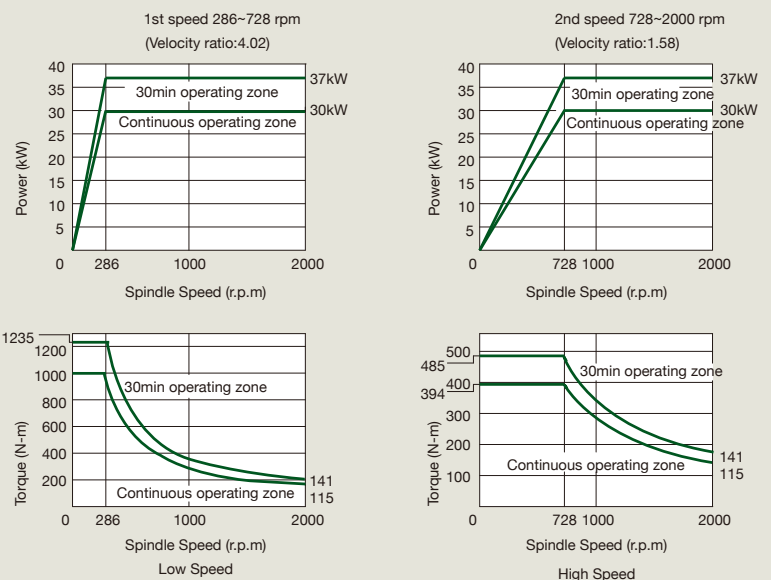


C-axis by belt-driven spindle with gearbox



Spindle Torque Output Diagram

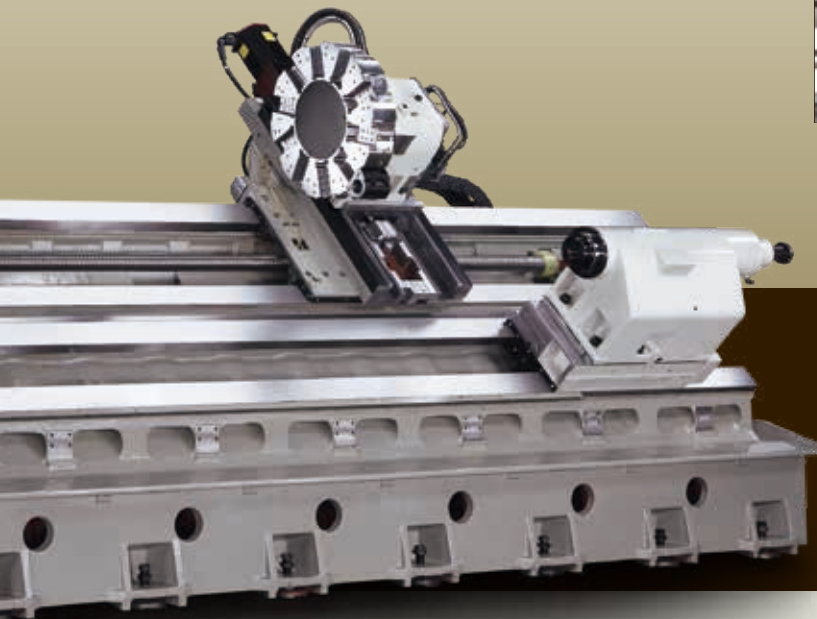
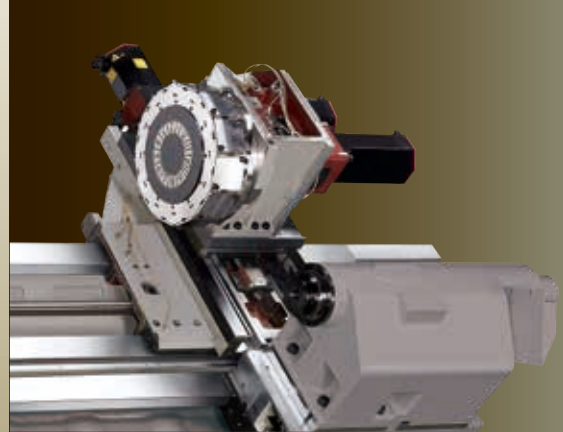
• Vturn-45 STD



FANUC motor α 30i

C-axis BMT-75 turret (CM option)

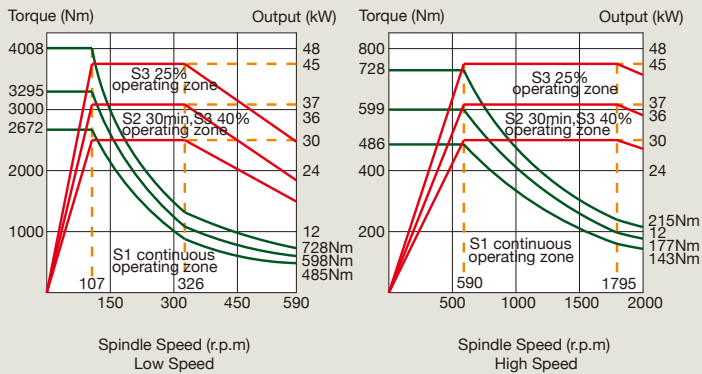
- C-axis available by belt-driven headstock with higher torque output and BMT-75 milling turret.
- Milling turret (servo driven) available with BMT-75 for high rigidity.
- Milling power 7kW/3000rpm.



Vturn-45/125

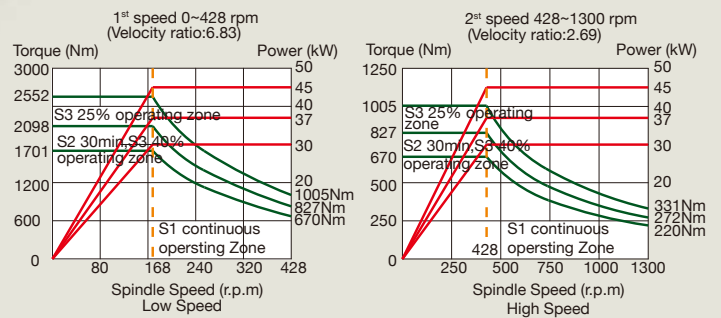
Vturn-45/325

- Vturn-45CM (with GTP gearbox)

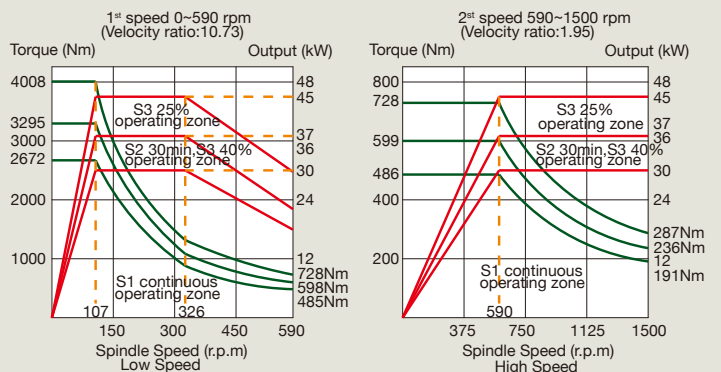


FANUC motor α 30i

- Vturn-45LSB (with Victor gearbox)



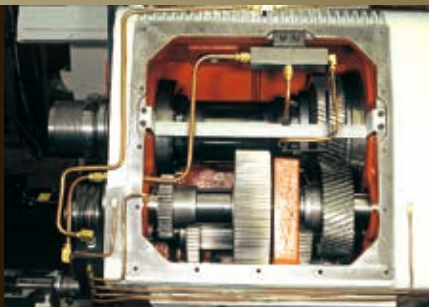
- Vturn-45LSB_HD (with GTP gearbox)



Vturn-46

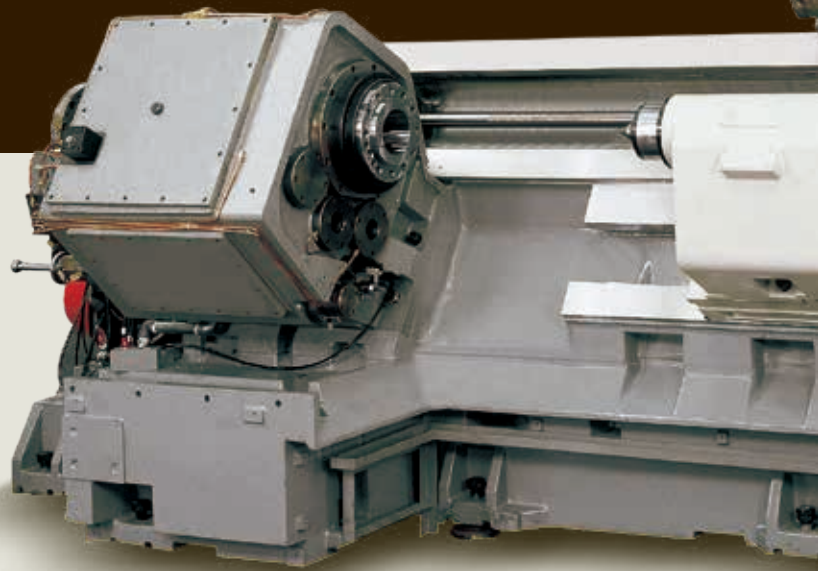
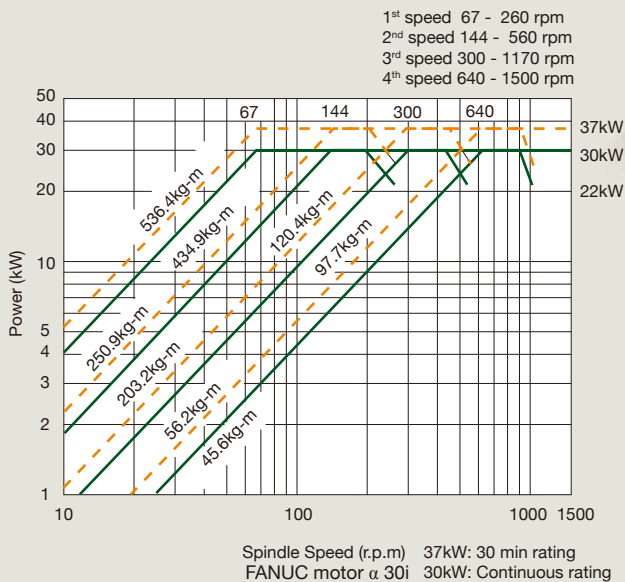
Built-in 4-Step Gearbox for powerful heavy cutting!

- Genuine 60° slant bed for minimum distance from Z-axis ball screw to the tool tip so as to reduce the chip built-up.
- Built-in 4-step gearbox inside the headstock further enhances the cutting torque 536.4kg-m at low spindle speed 67rpm.
- Spindle nose A2-11 with hydraulic 15" chuck is offered as standard and available with 18"/21"/24" chucks.
- Z-axis ballscrew diameter 50mm.
- Maximum turning length 1650mm.
- Available with C-axis spindle and live tooling by Victor's own VDI turret.



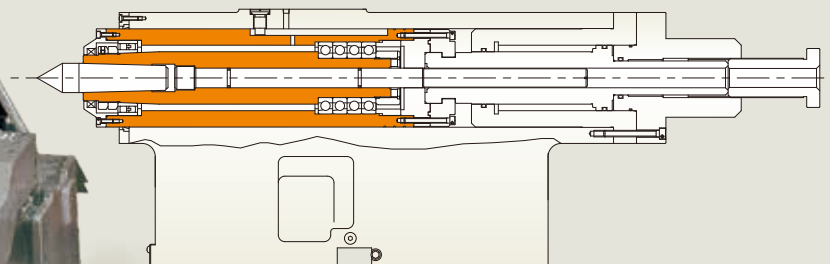
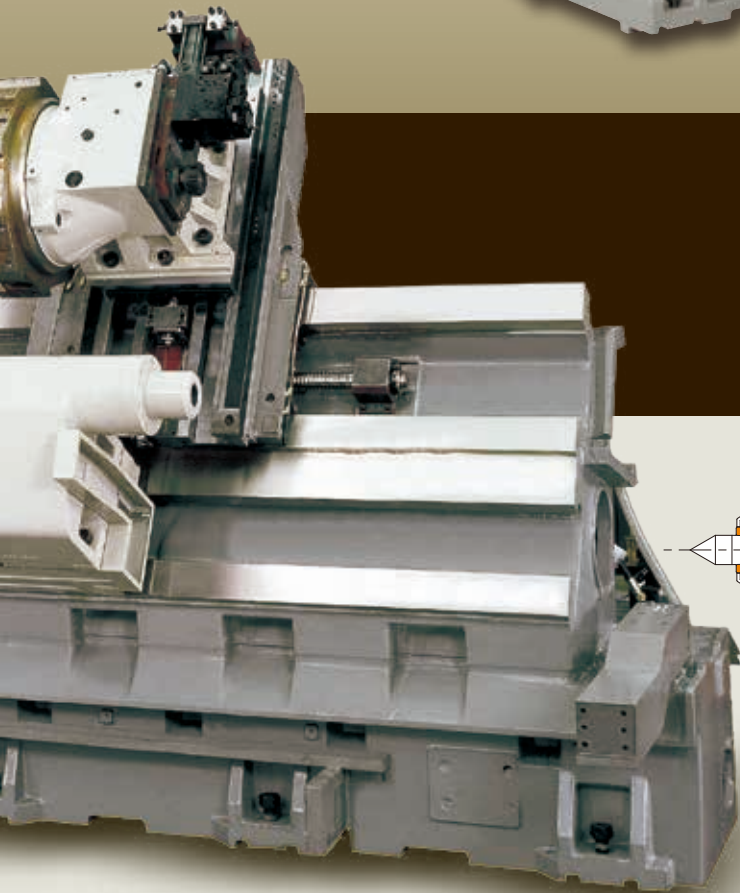
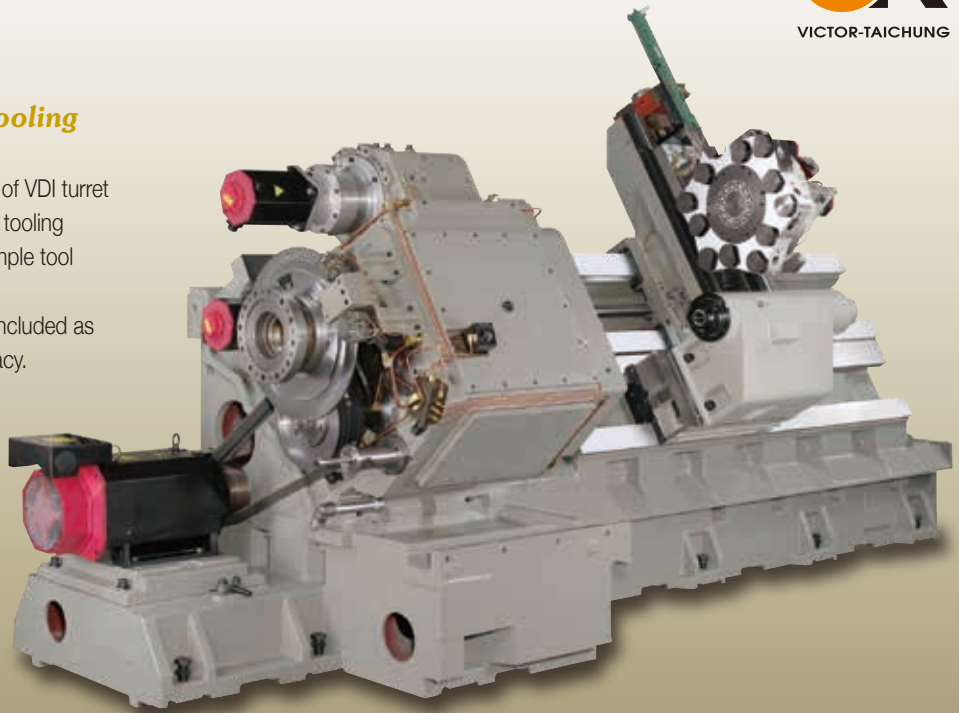
4-step gearbox

Spindle Torque Output Diagram



C-axis VDI turret with live tooling (CV option.)

- Live tooling is provided through the use of VDI turret which not only provides an international tooling system but also allows for quick and simple tool mounting.
- Cf-axis design with angular encoder is included as standard to assure high indexing accuracy.
- Coupling specification DIN-5480.
- Milling power 7kW/3000rpm.



Powerful tailstock

- Built-in bearings for fixed center.
- MT#5 tailstock for powerful engagement.

Vturn-46CV cutting capability on mild steel S45C

| | OD turning | Drilling (Z-axis $\alpha 30^\circ$) | Milling | Tapping |
|--|-----------------|--------------------------------------|----------------|--------------|
| Metal removal rate (spindle loading %) | 792cc/min (93%) | 672cc/min | 30cc/min (99%) | - |
| Tool | Ø32x10mm | Ø58x35mm | Ø25x15mm | M16xP2 (80%) |
| Spindle speed | 686rpm | 848rpm | 600rpm | 300rpm |
| Feed | F0.35mm/rev | F0.3mm/rev | F80mm/min | F600mm/min |

Standard Accessories

Reliable Fanuc CNC control

- The proven reliability of Fanuc Oi-T control is combined with Victor Taichung own PLC to offer customers an entire control system who reliability is second to none.



Programmable tailstock

- Mounted on slideways for maximum clamping stability.
- Hydraulic clamping to bed with variable hydraulic pressure to tailstock quill.
- Smooth tow along action by turret and programmable by M-codes.

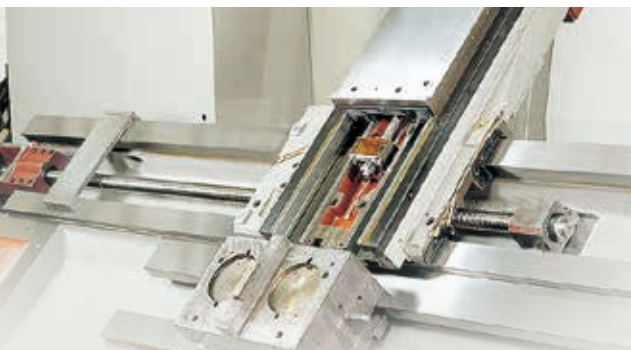
Reliable Power Chuck

Hydraulic 3 jaw hollow chuck is foot operated for safe and easy operation.



Chip conveyor and cart

Separate chip conveyor and coolant sum design with access from the front of the machine allows easy cleaning and reduces costly shop floor space requirement.



Automatic forced lubrication

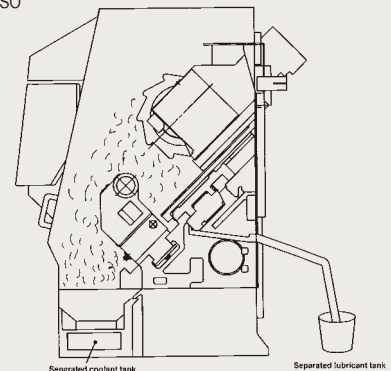
All slideways & moving members are automatically lubricated. Pressurised system is used to monitor amount of oil in circulation. Alarm given if leak or pressure drop occurs. Oil tank and pump located outside guarding for easy maintenance.

Separation system for oil & coolants

A drip tray cast into bed is used to catch waste lubricating oil from Z axis slideway and ballscrew.

The drip tray is sloped so that the oil can flow to an outlet at the rear of the machine.

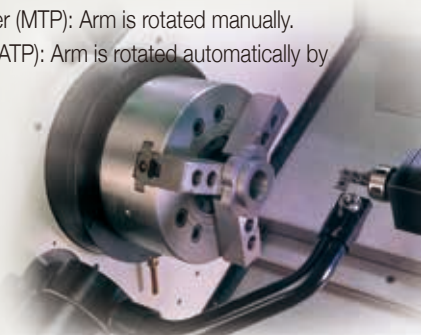
This system reduces contamination or dilution of the cutting fluid.



Optional Accessories

Tool Presetter (Renishaw®)

- No longer to perform tedious time consuming cuts to determine tool geometry, the operator needs only to touch the tool tip to the tool presetter sensor to get the tool geometries not only reducing tool set-up time, but reducing down time due to tool breakage.
- Manual tool presetter (MTP): Arm is rotated manually.
- Auto tool presetter (ATP): Arm is rotated automatically by programming.



Parts catcher & parts conveyor

To enhance the machines productivity a parts catcher is available to work in conjunction with the bar feed system. The parts catcher is fully programmable to allow automated running with finished parts being dispensed in collection tray in door compartment. Door flap is used to seal door off from swarf during contamination. Note: Parts catcher not available for Vturn-46 For heavier parts a rotary chute system mounted below the spindle is used.



Manual steady rest

The large bar capacity and long bed of Vturn lathes make these machines ideal for shaft turning. Victor Taichung can offer inexpensive manual steady rest with manually adjusted rollers to suit this job for simple operation.



Clamping range (mm):

- Vturn-16&20: Ø20~150
- VturnII-16&20: Ø20~150
- Vturn-26: Ø20~150 / Ø25~200
- Vturn-36: Ø20~150 / Ø30~300
- Vturn-40&45: Ø150~300 / Ø280~400
- Vturn-46: Ø75~150 / Ø150~300 / Ø280~400

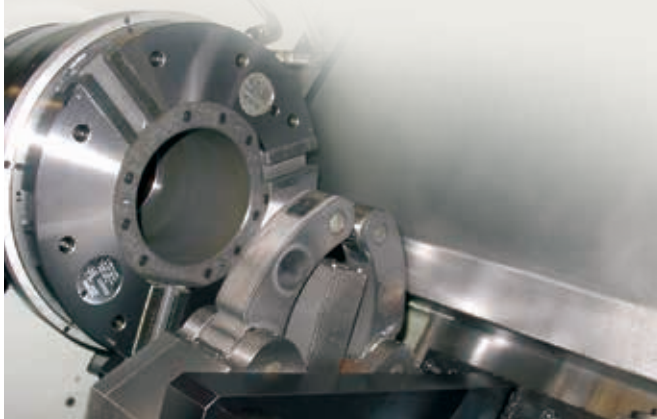
Bar feeder interface

For automatic loading of workpieces, the bar feeder provides a simple yet highly effective system. Interfaces are available on the Vturn lathes so that a number of different barfeeding systems can be worked in conjunction with the lathe. Add to the barfeeder a parts catcher and you have an efficient turnkey system with parts being loaded and unloaded automatically.



Hydraulic steady rest

For greater centering accuracy and easier setup, hydraulic steady rests mounted to the tailstock slideways are also available.



High pressure coolants

Through a combination of high pressure coolant, shower curtain and air gun located through & above the spindle, Victor Taichung can offer you the most efficient chip removal system available on the market today. When combined with automation system it ensures continuous running time and time again.

Machine Specifications

| ITEM \ MODEL | | Vturn-16 Vturn-20 | VturnII-16 VturnII-20 | Vturn-26/60 (HD) Vturn-26/110 (HD) | Vturn-36/85 Vturn-36/125 |
|---|--------|-----------------------------|-----------------------------|--|------------------------------------|
| MACHINE CAPACITY | | | | | |
| Swing over bed | mm | 450 | 590 | 520 | 650 |
| Std. Turning dia. | mm | 160 | 370 360 | 290 | 445 |
| Max. turning dia. | mm | 230 | 440 (330 for CV) | 380 (410) | 550 |
| Swing over carriage | mm | 300 | 400 | 350 (380) | 550 (458 for CV) |
| Center distance | mm | 635 | 540 | 650 1130 | 890 1290 |
| Bar capacity (hole through draw bar) | mm | 40 52 | 40 52 (66 for LSB) | 75 (91 for LSB) | 91 (145 for LSB) |
| AXIS FEEDS | | | | | |
| X axis travel : | | | | | |
| -Std turret | mm | 115+20 | 220+20 | 190+50(205+50) | 275+30 |
| -VD I turret | mm | 110+80 | 105+135 | 126+130 | 143+217 |
| -VDI turret, C-axis | | - | 105+135 | - | 156+199 |
| - BMT turret, C-axis | | - | - | - | - |
| Z axis travel | mm | 600 | 510 | 610 1090 | 855 1255 |
| Y axis travel | mm | - | - | - | - |
| Rapid feed - X/Z axis | m/min | 20 / 24 | 20 / 24 | 20 / 24 | 12 / 15 |
| Rapid feed - Y axis | m/min | - | - | - | - |
| Feed motor - X/Z axis | kW | 3 / 3 | 1.6 / 3 | 3 / 3 (4 / 4) | 3 / 4 |
| Feed motor - Y axis | kW | - | - | - | - |
| JOG feed rate | mm/min | 0~1260 | 0~1260 | 0~1260 | 0~1260 |
| Ball screw dia x pitch | mm | 28 x P6 (X) 40 x P10 (Z) | 28 x P8 (X) 40 x P10 (Z) | 28 x P8 (X) 40 x P12 (Z) | 36 x P6 (X) 50 x P10 (Z) |
| SPINDLE | | | | | |
| Spindle nose (chuck) | inch | A2-5 (6") A2-6 (8") | A2-5 (6") A2-6 (8") | A2-8 (10") | A2-8 (12") (A2-11 for CV, LSB) |
| Max. spindle speed | rpm | 6000 4200 (opt. 3500) | 6000 4200 | 3500 (opt. 2500) | 2500 (opt. 2000) |
| Spindle motor power | kW | 7.5 / 9.0 | 11 / 15 (opt. 7.5 / 9) | 15 / 18.5 (18.5 / 22) | 22 / 26 With gearbox |
| Bearing inside dia. | mm | 90 100 | 90 100 | 130 (160 for LSB) | 160 (220 for LSB) |
| Spindle bore | mm | 52 62 | 52 62 | 87 (105 for LSB) | 105 (160 for LSB) |
| TURRET | | | | | |
| No. of tools | no. | 12 10 (opt. 8) | 12 10 (opt. 8) | 10 | 10 (12 for CV) |
| No. of live tools | no. | - | 12 | - | 6 |
| Tool shank size | mm | 20 20 (opt. 25) | 20 25 | 25 | 32 |
| Curvic coupling dia. | mm | 180 | 180 | 210 | 250 |
| Max. boring bar dia. | mm | 32 (VDI-30) 40 (VDI-40) | 32 (VDI-30) 40 (VDI-30) | 50 (VDI-40) | 50 (VDI-50) |
| Exchange time (T-T) | sec | 1 | 0.3 | 1 | 1 |
| Milling speed | rpm | - | 3000 | - | 3000 |
| Milling motor | kW | - | 3.0 | - | 7.0 |
| TAILSTOCK | | | | | |
| Quill dia. | mm | 75 | 75 | 110 | 110 |
| Quill stroke | mm | 80 | 80 | 100 | 100 |
| Quill taper | | MT#4 | MT#4 | MT#4 (live) | MT#4 (live) |
| OTHER | | | | | |
| CNC controller (FANUC) | | 0i-T | 0i-T | 0i-T | 0i-T |
| Power requirement | KVA | 17 | 21 (28 for CV) | 27 | 38 (59 for CV) |
| Tank capacity | L. | 87 | 130 | 100 130 | 130 150 |
| Approx. machine size | m | 3.3 x 1.95 x 1.65 | 3.3 x 1.95 x 1.7 | 3.8 (3.9) x 2 x 2 4.4 (4.5) x 1.7 x 2 | 4.7 x 2.3 x 2.2 5.2 x 2.3 x 2.2 |
| Net weight | kg | 4000 | 4200 | 5400 6000 | 8000 9100 |

※Machine and controller specifications are subject to change without notice.

Vturn-40/125(CM)(Y)
 Vturn-40/220(CM)(Y)
 Vturn-40/325(CM)(Y)
 Vturn-40/425(CM)(Y)

Vturn-45/125(CM)
 Vturn-45/220(CM)
 Vturn-45/325(CM)
 Vturn-45/425(CM)

Vturn-46/165



| | | |
|---------------------------------|---------------|------------------|
| 780 | 780 | 820 |
| 520 | 520 | 520 |
| 620 (580) [560] (390 for CV) | 620 (580) | 730 (528 for CV) |
| 620 | 620 | 520 |
| 1215 | 1215 | |
| 2165 | 2165 | |
| 3425 | 3425 | 1750 |
| 4285 | 4285 | |
| 91 | 117.5 | 115 |
| (opt. 105 for CV/(Y)CM) | (145 for LSB) | |

| | | |
|----------------------------------|---------------|--------------------|
| 310+30 | 310+30 | 365+25 |
| 125+315 | 125+315 | 137+303 |
| 107+165 | - | 186+234 |
| 280+90 / 290+50 | 290+50 | - |
| 1250 | 1250 | |
| 2200 | 2200 | 1650 |
| 3250 | 3250 | |
| 4250 | 4250 | |
| ±80 | - | - |
| 24 / 24 | 24 / 24 | |
| 20 / 20 | 20 / 20 | |
| 20 / 12 | 20 / 12 | 12 / 15 |
| 20 / 8 | 20 / 8 | |
| 7 | - | - |
| 4 / 4 [7 / 7 (α30i)] | 4 / 4 (4 / 4) | |
| 4 / 7 (α30i_30Nm) [7 / 6 (α40i)] | 4 / 7 (4 / 7) | 3 / 4 (opt. 3 / 7) |
| 4 / 6 (α40i_38Nm) [7 / 6 (α40i)] | 4 / 6 (4 / 6) | |
| 4 / 6 (α40i_38Nm) [7 / 6 (α40i)] | 4 / 6 (4 / 6) | |
| 4 | - | - |
| 0~1260 | 0~1260 | 0~1260 |
| 32 x P8 (X) | 32 x P8 (X) | |
| 32 x P10 (Y) | 50 x P10 (Z) | |
| 50 x P10 (Z) | | |
| 36 x P10 (X) | 36 x P10 (X) | 36 x P6 (X) |
| 50 x P16 (Z) | 50 x P16 (Z) | 50 x P10 (Z) |
| 63 x P16 (Z) | 63 x P16 (Z) | |
| 70 x P12 (Z) | 70 x P12 (Z) | |

| | | |
|---|-------------------------|-------------------------|
| A2-11 (15") | A2-11 (15") | A2-11 (15") |
| 2500 | 2000 (1500 for LSB) | 1500 |
| 30 / 37 with gearbox (37 / 45 CV/YCM/CM) | 30 / 37 With gearbox | 30 / 37 With gearbox |
| 160 | 190 (220 for LSB) | 180 |
| 105 | 135 (160 for LSB) | 123 |

| | | |
|------------------------------------|-----------------------------|-------------------|
| 10 (opt. 12) (12 for CV/YCM/CM) | 10 (opt. 12) (12 for CM) | 10 (12 for CV) |
| 6 (CV), 12 (YCM/CM) | 6 (CV), 12 (CM) | 6 |
| 32 | 32 | 32 |
| 320 (250) [320/320] | 320 [320] | |
| 250 (250) [320/320] | 250 [320] | |
| 320 (250) [320/320] | 320 [320] | 320 |
| 320 (250) [320/320] | 320 [320] | |
| 50 (VDI-50) [BMT-75] | 50 [BMT-75] | 60 (VDI-50) |
| 1 | 1 | 1 |
| 3000 | 3000 | 3000 |
| 7.0 | 7.0 | 7.0 |

| | | |
|-------------|-------------|-------------|
| 150 | 150 | 150 |
| 150 | 150 | 150 |
| MT#5 (live) | MT#5 (live) | MT#5 (live) |

| | | |
|-----------------------|-----------------|-----------------|
| 0i-T | 0i-T | 0i-T |
| 50 (64 for CV/YCM) | 50 (52 for CM) | 46 (49 for CV) |
| 600 | 600 | |
| 700 | 700 | |
| 850 | 850 | 250 |
| 950 | 950 | |
| 5.3 x 2.7 x 2.2 [2.9] | 5.3 x 2.7 x 2.2 | |
| 7.1 x 2.7 x 2.2 [2.9] | 7.1 x 2.7 x 2.2 | |
| 8.5 x 2.7 x 2.2 [2.9] | 8.5 x 2.7 x 2.2 | 6.2 x 2.5 x 2.5 |
| 9.5 x 2.7 x 2.2 [2.9] | 9.5 x 2.7 x 2.2 | |
| 9800 [11800 / 11000] | 10400 [11700] | |
| 15000 [17000 / 15600] | 15580 [15880] | |
| 17000 [19000 / 17600] | 17580 [17880] | 12800 |
| 19500 [21500 / 20100] | 20180 [20480] | |

Standard Accessories

- Power chuck with soft jaws
- Programmable tailstock
- Chip conveyor
- Automatic forced lubrication
- Fully enclosed splash guarding
- Tool holders (excl. VDI turret system)
- Fanuc 0i-TF control
- 3 step warning light
- Air conditioner for electrical cabinet (excl. Vturn-26HD)
- Fanuc e-books (CD)

Optional Accessories

- Kitagawa® chuck
- Hard jaws
- Tailstock center
- Manual tool presenter
- Automatic tool presenter
- Parts catcher
- High pressure coolants
- Auto door
- Air blow system
- Oil-mist remover
- Oil skimmer (std. on Vturn-40/45)
- Bar feeder interface
- Steady rest (Manual or hydraulic)
- C-axis with live tooling
- VDI turret
- 12" chuck/3000rpm for Vturn-26(HD)
- Bigger chuck on Vturn-36/40/45/46
- High/low chucking pressure
- Large spindle bore for Vturn-36/45
- Fanuc manuals

Machine Color Options

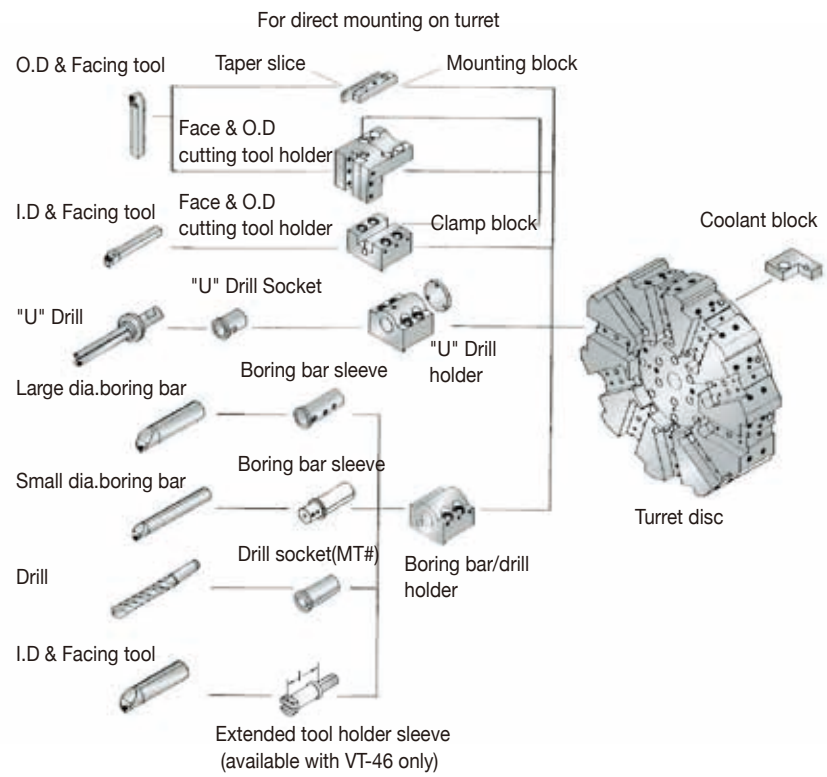
RAL 2008 (Victor's orange)



RAL 7024 (Graphite grey)

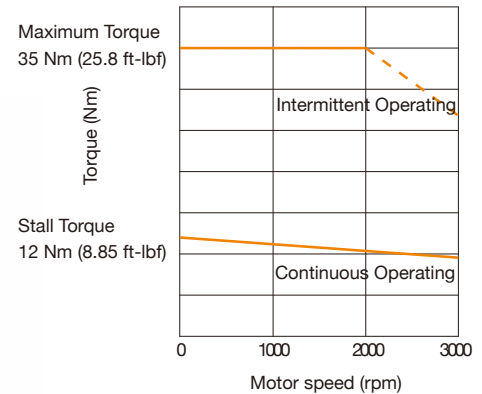


Tooling accessories (excl. VDI or BMT turret model)

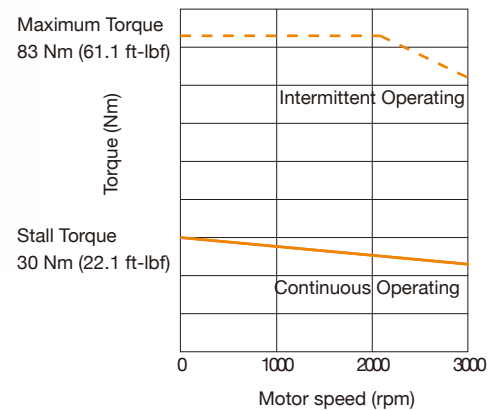


Milling Spindle Output

VturnII-16/20CV (3kW)



Vturn-36CV/40CV/40(Y)CM/ 45CM/46CV (7kW)



| TOOL \ MODEL | Vturn-16 VturnII-16 | Vturn-20 | VturnII-20 | Vturn-26 Vturn-26HD | Vturn-36 Vturn-40 Vturn-45 | Vturn-46 |
|-----------------------------------|------------------------|----------|------------|------------------------|----------------------------------|----------|
| Tool shank for turret disk | 20 mm | 20 mm | 25 mm | 25 mm | 32 mm | 32 mm |
| Maximum boring bar dia. | 32 mm | 32 mm | 40 mm | 50 mm | 50 mm | 60 mm |
| Face + O.D. cutting tool holder | 2 | 2 | 2 | 2 | 1 | 1 |
| Face + I.D. cutting tool holder | 1 | 1 | 1 | 1 | 1 | 1 |
| Extended I.D. cutting tool holder | - | - | - | - | - | 2 |
| Boring bar holder | | | | | | |
| 32 mm | 6 | 6 | - | - | - | - |
| 40 mm | - | - | 4 | 5 | - | - |
| 50 mm | - | - | - | 1 | 5 | - |
| 60 mm | - | - | - | - | - | 5 |
| Boring bar sleeve | | | | | | |
| 8 mm | 1 | 1 | - | 1 | - | - |
| 10 mm | 2 | 2 | 2 | 2 | 1 | - |
| 12 mm | 2 | 2 | 2 | 2 | 1 | - |
| 16 mm | 2 | 2 | 2 | 2 | 2 | - |
| 20 mm | 2 | 2 | 2 | 2 | 2 | 2 |
| 25 mm | 2 | 2 | 2 | 2 | 2 | 2 |
| 32 mm | - | - | 2 | 2 | 2 | 2 |
| 40 mm | - | - | - | - | 2 | 2 |
| 50 mm | - | - | - | - | - | 2 |
| Drill socket | | | | | | |
| MT1 | Opt. | Opt. | 1 | - | - | - |
| MT2 | 1 | 1 | 1 | Opt. | - | - |
| MT3 | Opt. | Opt. | 1 | 1 | Opt. | - |
| MT4 | - | - | - | Opt. | 1 | 1 |
| U drill holder | | | | | | |
| 32 mm | 1 | 1 | - | - | - | - |
| 40 mm | - | - | 1 | 1 | - | - |
| U drill socket | | | | | | |
| 20 mm | 1 | 1 | Opt. | Opt. | - | - |
| 25 mm | 1 | 1 | 1 | 1 | 1 | - |
| 32 mm | - | - | - | 1 | 1 | 2 |
| 40 mm | - | - | - | - | Opt. | 2 |

※ Tooling accessories are subject to change without notice.

Victor's Fanuc Oi-TF (Type 1)/32i-B Control Specifications



Standard:

| ITEM | SPECIFICATION | DESCRIPTION |
|-------------------------|--|--|
| Controlled Axes: | | |
| 1. | Controlled Axes | 2 Axes (X, Z) |
| 2. | Simultaneous Controlled Axes | Position/Linear interpolation/Circular interpolation (2/2/2) |
| 3. | Least Input Increment | 0.001mm / 0.0001 inch / 0.001 deg. |
| 4. | Least Input Increment 1/10 | 0.0001mm / 0.00001 inch / 0.0001 deg. |
| 5. | Max. command value | ± 99999.999mm (± 9999.999in) |
| 6. | Fine Acceleration & Deceleration Control | Std. |
| 7. | HRV Control | Std. |
| 8. | Inch / Metric Conversion | Std. (G20/G21) |
| 9. | Interlock | All Axes / Each Axis / Cutting Block Start |
| 10. | Machine Lock | All Axes / Each Axis |
| 11. | Emergency Stop | Std. |
| 12. | Over-travel | Std. |
| 13. | Stored Stroke Check 1 | Std. |
| 14. | Mirror Image | Each Axis |
| 15. | Chamfering on/off | Std. |
| 16. | Follow-up | Std. |
| 17. | Unexpected disturbance torque detection function | Std. (to be used to tool load monitoring) |
| 18. | Position switch (with Victor's own PLC) | Std. (to be used for security) |

Operation:

| | | |
|-----|-------------------------------------|--|
| 1. | Automatic Operation | Std. |
| 2. | MDI Operation | MDI B |
| 3. | DNC Operation | Reader / Puncher Interface is Required |
| 4. | DNC Operation with Memory Card | PCMCIA Card Attachment is Required |
| 5. | Program Number Search | Std. |
| 6. | Sequence Number Search | Std. |
| 7. | Sequence number comparison and stop | Std. |
| 8. | Buffer Register | Std. |
| 9. | Dry Run | Std. |
| 10. | Single Block | Std. |
| 11. | JOG Feed | Std. |
| 12. | Manual Reference Position Return | Std. |
| 13. | Manual Handle Feed | 1 Unit / Each Path |
| 14. | Manual Handle Feed Rate | X1, X10, X100 |

Interpolation:

| | | |
|-----|---|--|
| 1. | Positioning | G00 |
| 2. | Threading synchronous cutting | Std. |
| 3. | Multiple threading | Std. |
| 4. | Threading retract | Std. |
| 5. | Continuous threading | Std. (G76) |
| 6. | Variable threading | Std. (G34) |
| 7. | Linear Interpolation | G01 |
| 8. | Circular Interpolation | G02, G03 (multi-quadrant is possible). |
| 9. | Dwell | G04 |
| 10. | Skip Function | G31 |
| 11. | Reference Position Return | G28 |
| 12. | Reference Position Return Check | G27 |
| 13. | 2 nd Reference Position Return | Std. |

Feed:

| | | |
|-----|--|---|
| 1. | Rapid Traverse Rate | Std. |
| 2. | Rapid Traverse Override | F0, 25%, 50%, 100% |
| 3. | Feed Per Minute | G98 (mm/min) |
| 4. | Feed Per Revolution | G99 (mm/rev) |
| 5. | Tangential Speed Constant Control | Std. |
| 6. | Cutting Feed rate Clamp | Std. |
| 7. | Automatic Acceleration / Deceleration | Rapid traverse: linear; Cutting feed: exponential |
| 8. | Linear accel/deceleration after cutting feed interpolation | Std. |
| 9. | Feed rate Override | 0-150% |
| 10. | Jog Override | 0-100% |
| 11. | Feed Stop | Std. |

Program Input:

| | | |
|-----|--|------------------------|
| 1. | EIA / ISO Automatic Recognition | Std. |
| 2. | Label Skip | Std. |
| 3. | Parity Check | Std. |
| 4. | Control In / Out | Std. |
| 5. | Optional Block Skip | 1 |
| 6. | Max. Programmable Dimension | ± 8-Digit |
| 7. | Program Number | 08-Digit |
| 8. | Sequence Number | N5-Digit |
| 9. | Absolute / Incremental Programming | G90/G91 |
| 10. | Decimal Point Programming / Pocket Calculator Type Decimal Point Programming | Std. |
| 11. | Input Unit 10 Time Multiply | Std. |
| 12. | Diameter/radius programming | Std. |
| 13. | Plane Selection | G17, G18, G19 |
| 14. | Automatic Coordinate System Setting | Std. |
| 15. | Work piece Coordinate System | G52, G53, G54-G59 |
| 16. | Direct Drawing Dimension Programming | Std. |
| 17. | G code System A | Std. |
| 18. | Chamfering/corner R | Std. |
| 19. | Programmable Data Input | G10 |
| 20. | Sub Program Call | 10 folds nested |
| 21. | Custom Macro B | Std. |
| 22. | Canned Cycles | Std. |
| 23. | Multiple Repetitive Cycle | Std. (G70-G76) |
| 24. | Multiple Repetitive Cycle 2 (Pocket profile) | Std. (G70-G76 type II) |
| 25. | Canned Cycle for Drilling | Std. |
| 26. | Program Format | FANUC std. format |
| 27. | Program Stop / Program End | M00 / M01 / M02 / M30 |

Auxiliary Spindle Speed Function:

| | | |
|----|---|----------|
| 1. | Auxiliary Function Lock | Std. |
| 2. | High Speed M / S / T Interface | Std. |
| 3. | Spindle Speed Function | Std. |
| 4. | Constant Surface Speed Control | Std. |
| 5. | Spindle Override | 50-120% |
| 6. | Actual Spindle Speed Output | Std. |
| 7. | 1 st Spindle Orientation | Std. |
| 8. | 1 st Spindle Output Switching Function | Std. |
| 9. | M Code Function | M3 digit |

| | | |
|-----|-------------------------|----------|
| 10. | S Code Function | S5 digit |
| 11. | T Code Function | T2 digit |
| 12. | Rigid Tapping (Spindle) | Std. |

Tool Function & Tool Compensation:

| | | |
|----|--|--------------------|
| 1. | Tool Function | T7+1/T6+2digits |
| 2. | Tool Offset Pairs | ± 6-digit 64 pairs |
| 3. | Tool Nose Radius Compensation | Std. (G40/G41/G42) |
| 4. | Tool Geometry/wear Compensation | Std. |
| 5. | Number of Tool Offsets (in total) | 64 sets |
| 6. | Automatic Tool Offset | Std. |
| 7. | Direct Input of Tool Offset Value Measured B | Std. |

Accuracy Compensation:

| | | |
|----|---------------------------------|-------------------------------|
| 1. | Backlash Compensation | Rapid Traverse / Cutting Feed |
| 2. | Stored Pitch Error Compensation | Std. |

Edit Operation:

| | | |
|----|--|-------------------------|
| 1. | Part Program Storage Length (in total) | 1280m/512kB (Oi-F/32iB) |
| 2. | Number of Registerable programs (in total) | 400 (Oi-F), 400 (32iB) |
| 3. | Part Program Editing | Std. |
| 4. | Program Protect | Std. |
| 5. | Background Editing | Std. |
| 6. | Memory card editing | Std. |

Setting and Display:

| | | |
|-----|---|-------------------------------|
| 1. | Status Display | Std. |
| 2. | Clock Function | Std. |
| 3. | Current Position Display | Std. |
| 4. | Program Display | Program name 31 characters |
| 5. | Parameter Setting and Display | Std. |
| 6. | Self Diagnosis Function | Std. |
| 7. | Alarm Display | Std. |
| 8. | Alarm History Display | 25 |
| 9. | Operation History Display | Std. |
| 10. | Help Function | Std. |
| 11. | Run Hour and Parts Count Display | Std. |
| 12. | Actual Cutting Feedrate Display | Std. |
| 13. | Display Spindle Speed and T Code At All Screens | Std. |
| 14. | Dynamic Graphic Display | Std. |
| 15. | Servo Setting Screen | Std. |
| 16. | Display of Hardware and Software Configuration | Std. |
| 17. | Multi-Language Display | Std. |
| 18. | Data Protection Key | Std. |
| 19. | Erase CRT Screen Display | Std. |
| 20. | Spindle Setting Screen | Std. |
| 21. | Color LCD / MDI | 8.4" (O), 10.4" (Oi-F/1/32iB) |

Data Input / Output:

| | | |
|----|-----------------------------------|------------------|
| 1. | Reader / Puncher Interface | RS-232 interface |
| 2. | Memory Card Interface | Std. |
| 3. | External Work piece number search | 9999 |
| 4. | USB port | Std. |

C Axis Function (used on CV/Y models):

| | | |
|-----|--|---------------------------|
| 1. | Control Axes Expansion | Std. |
| 2. | Simultaneously Controlled Axes Expansion | Std. |
| 3. | Coordinate System Rotation | Std. |
| 4. | Rotary Axis Designation | Std. |
| 5. | Rotary Axis Roll-over | Std. |
| 6. | Axis Control by PMC | Std. |
| 7. | Control Axis Detach (for C axis) | Std. (used on Vturn only) |
| 8. | Polar Coordinate Interpolation | Std. (G112/G113) |
| 9. | Cylindrical Interpolation | Std. (G107) |
| 10. | CS Contouring Control | Std. |
| 11. | Coordinate System Rotation | Std. |
| 12. | Rigid Tapping (C-axis) with Victor's own PMC | Std. |

OPTIONS:

With hardware included:

| | Oi-F | 32iB |
|-----|--|------|
| 1. | Conversational programming (Manual guide i) ¹ | Std. |
| 2. | Conversational programming (Cap I) | N.A. |
| 3. | Date server (with PCB and ATA card) | Std. |
| 4. | Embedded Ethernet (10Mbps) | Std. |
| 5. | Fast Ethernet (100Mbps, available in Data server) | Std. |
| 6. | Tool life management | Std. |
| 7. | Part Program Storage Length 1280mm (in total) | Std. |
| 8. | Part Program Storage Length 2560mm (in total) | N.A. |
| 9. | Quick program restart | Std. |
| 10. | Optional block skip 2-9 blocks | Std. |
| 11. | Polygon turning (by C-axis) with Victor's own PLC | Std. |
| 12. | Manual handle feed 2 (2 nd MPG) | N.A. |
| 13. | Reader/Puncher interface 2 (2 nd RS232 interface) | N.A. |
| 14. | External data input | N.A. |
| 15. | Profibus | Std. |

Without hardware included:

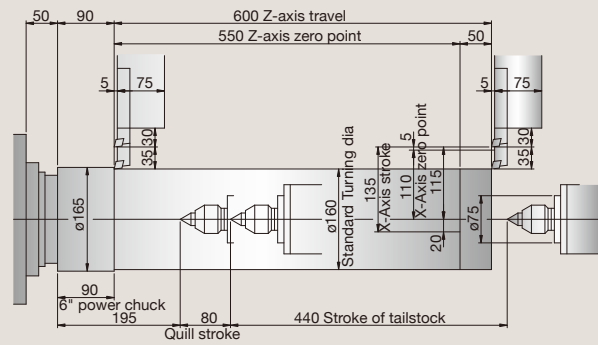
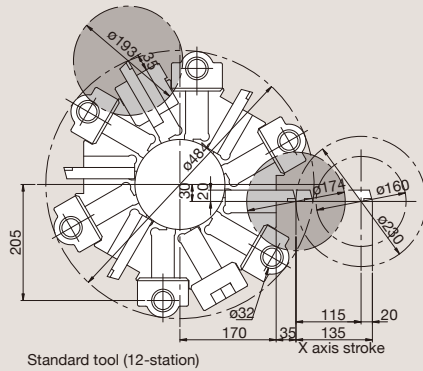
| | | |
|-----|---|------|
| 16. | Program number 08-digit | Std. |
| 17. | Circular thread cutting (G35) | N.A. |
| 18. | Circular interpolation by 9-digit R designation | N.A. |
| 19. | Tool offset value 7 digits | Std. |
| 20. | Number of registered program 1000 (in total) | N.A. |
| 21. | G code system B/C | N.A. |
| 22. | Type format for FS 15 | N.A. |
| 23. | Play back | N.A. |
| 24. | Three-dimensional coordinate conversion | N.A. |
| 25. | Direct input of offset value measured for 2 spindle lathe | N.A. |
| 26. | AI NANO control (G5.1 Q1) | N.A. |
| 27. | JERK control | N.A. |
| 28. | Bell-type acceleration/deceleration before look ahead interpolation | N.A. |

¹ Manual Guide i is available on Oi-F when the monitor is upgraded to 10.4" LCD.

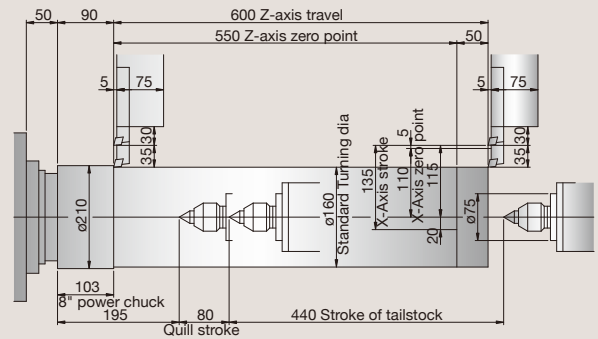
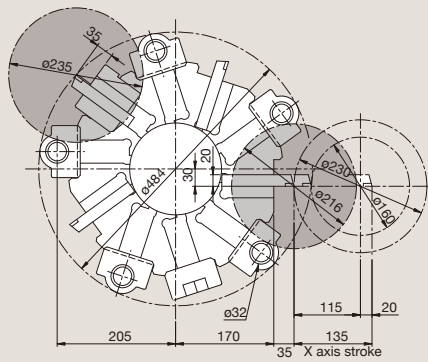
² Included in AI NANO control

Technical Drawings

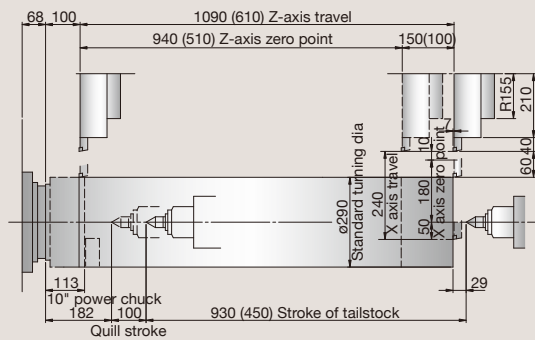
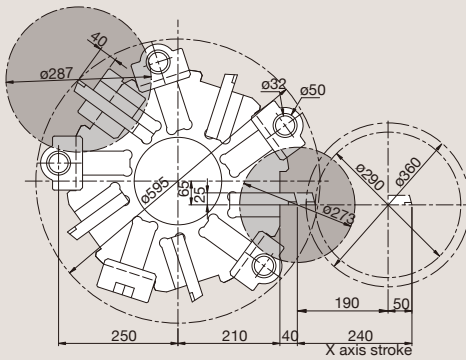
Vturn-16



Vturn-20

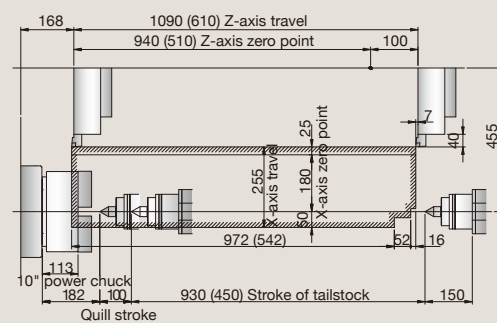
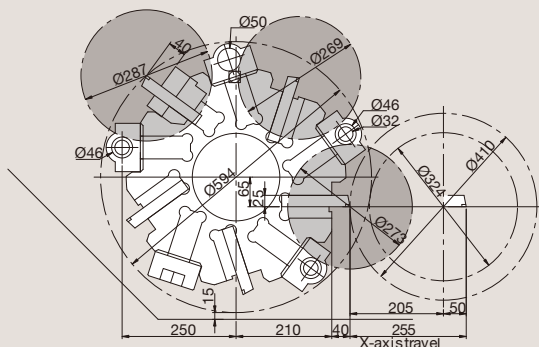


Vturn-26



Vturn-26/110 (Vturn-26/60)

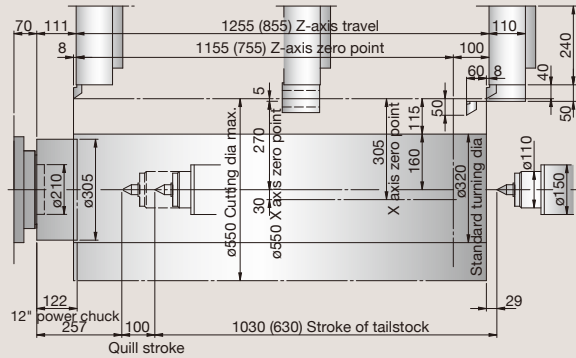
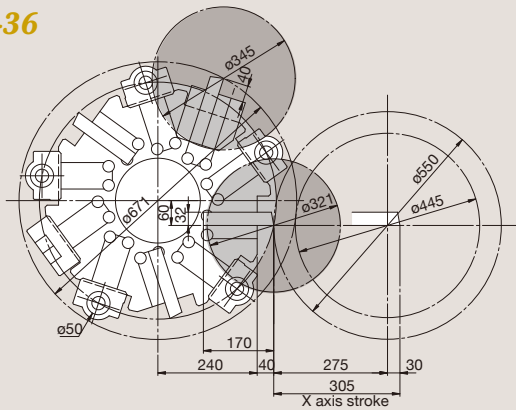
Vturn-26HD



Vturn-26/110HD (Vturn-26/60HD)

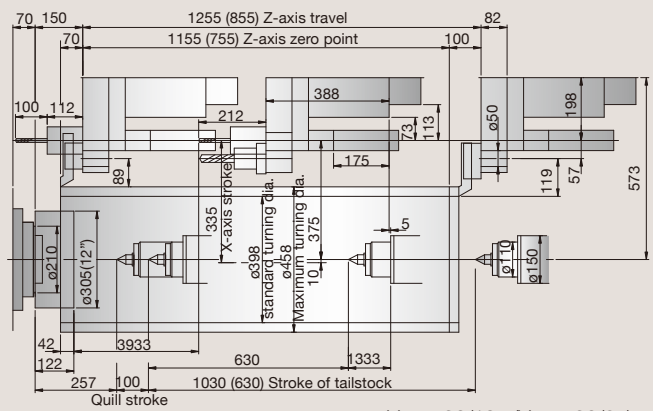
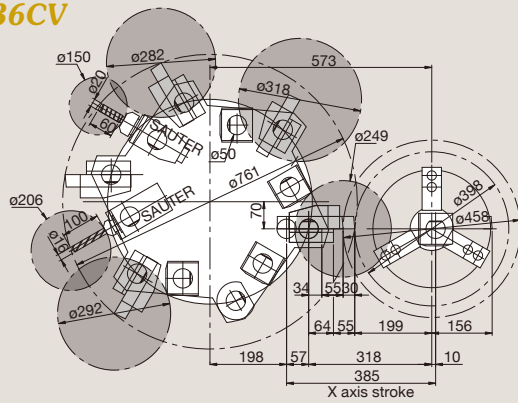
Technical Drawings

Vturn-36



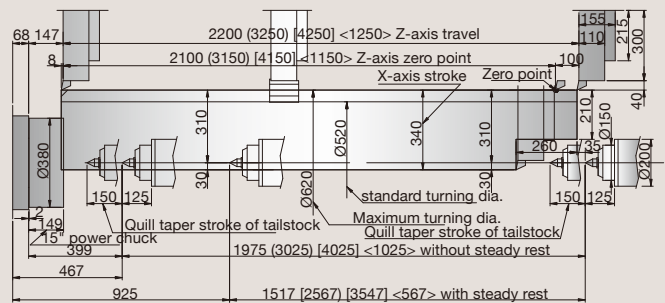
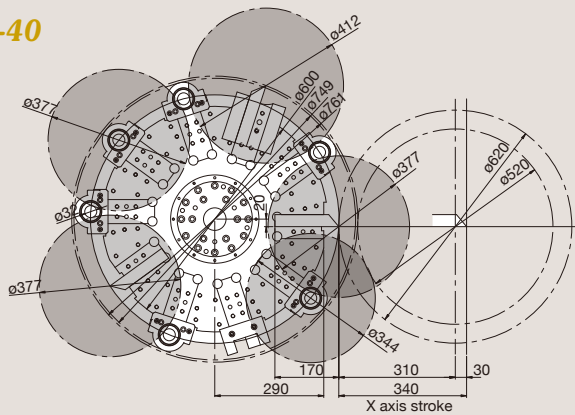
Vturn-36/125 (Vturn-36/85)

Vturn-36CV



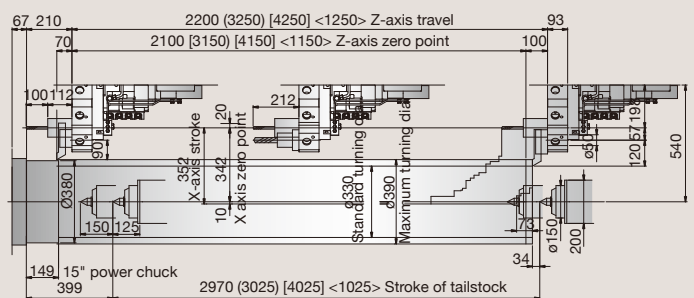
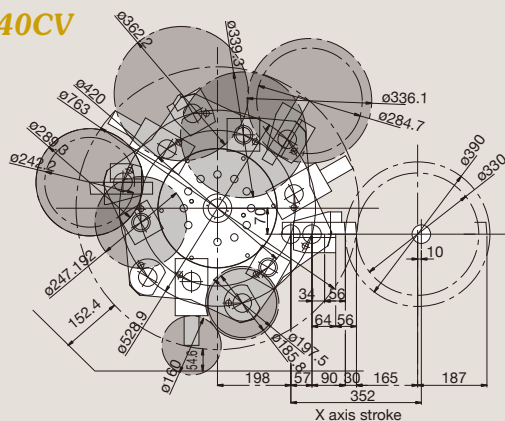
Vturn-36/125 (Vturn-36/85)

Vturn-40



Vturn-40/220 (Vturn-40/325) [Vturn-40/425] <Vturn-40/125>

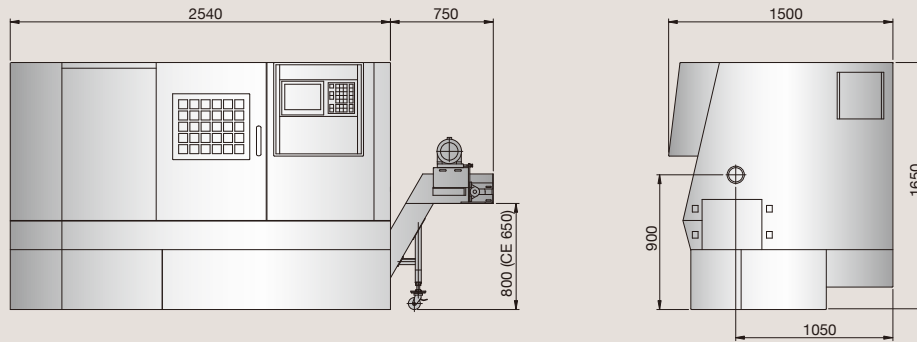
Vturn-40CV



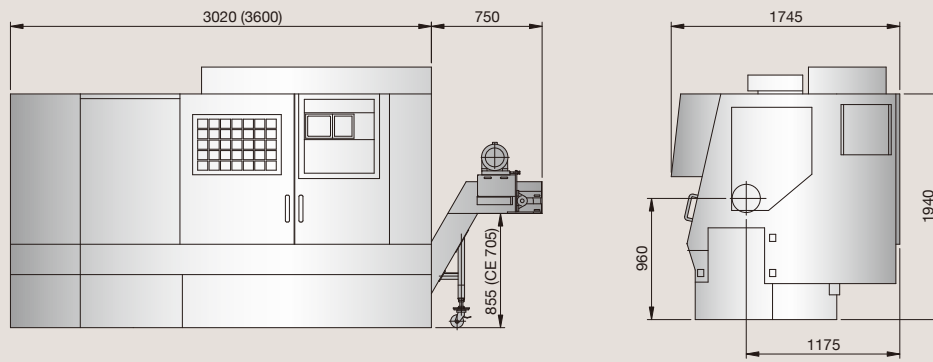
Vturn-40/220 (Vturn-40/325) [Vturn-40/425] <Vturn-40/125>

Machine Layout (excl. Transformer)

Vturn-16/20

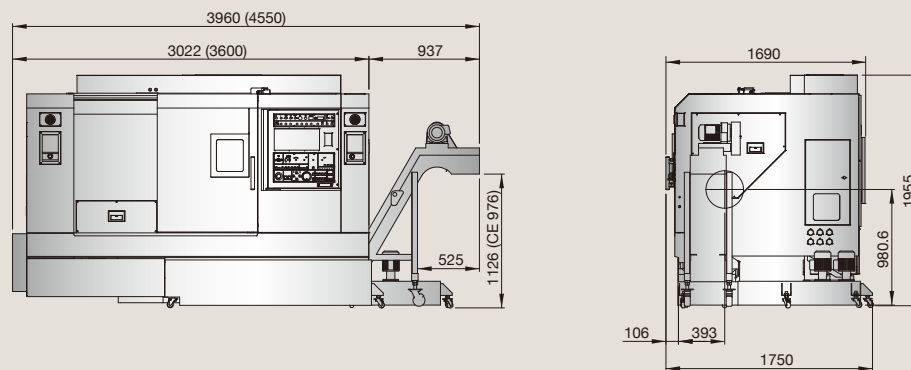


Vturn-26



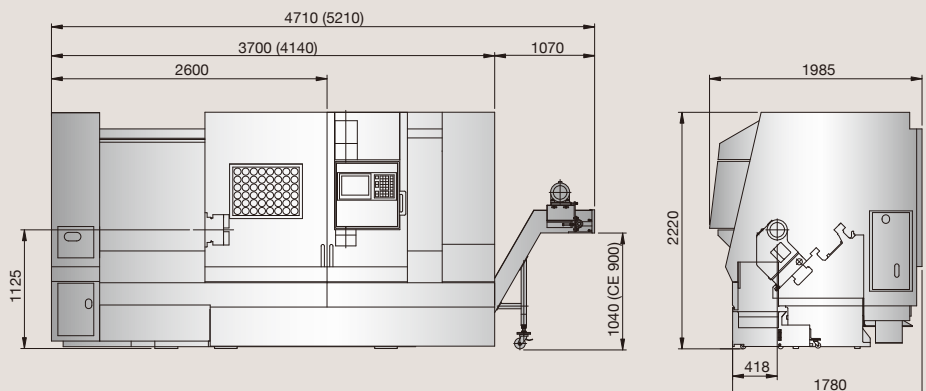
Vturn-26/60 (Vturn-26/110)

Vturn-26HD



Vturn-26/60HD (Vturn-26/110HD)

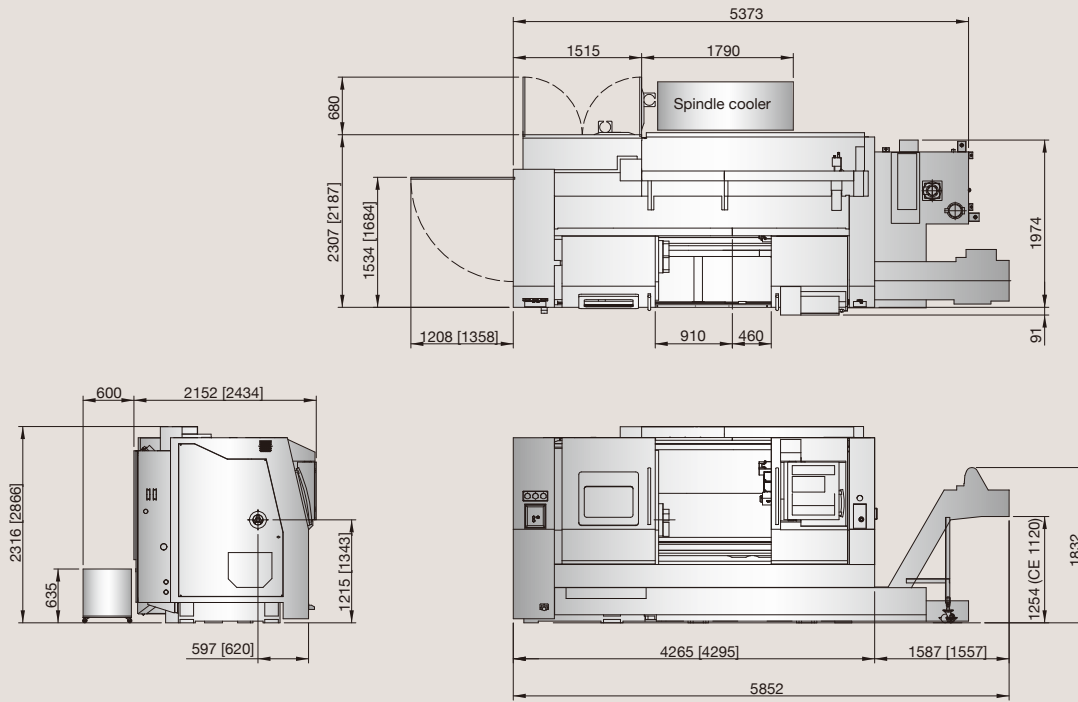
Vturn-36



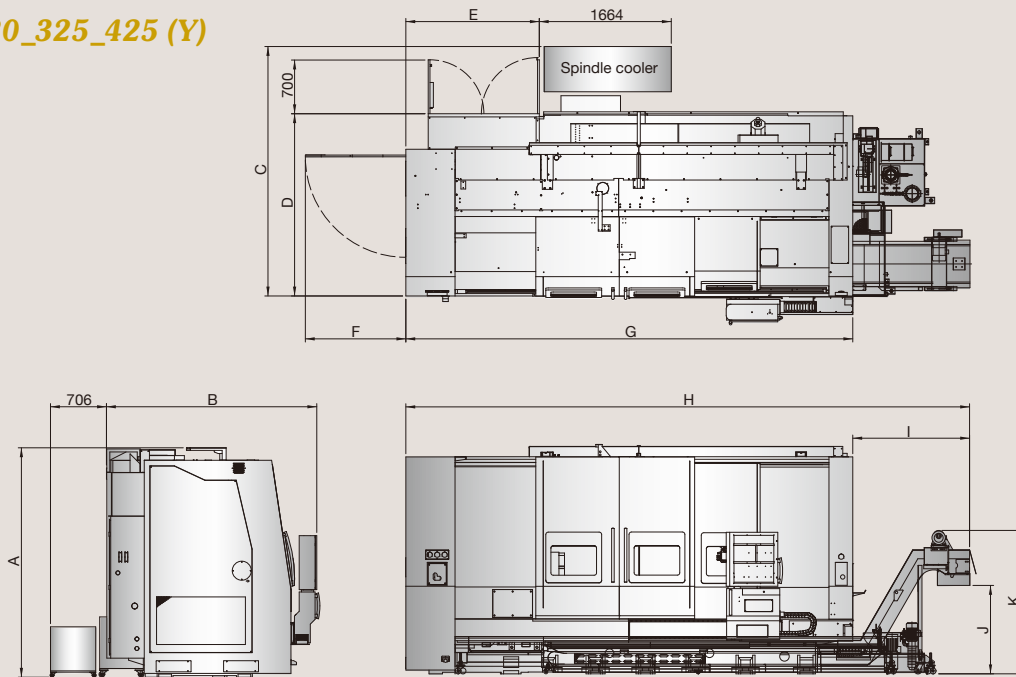
Vturn-36/85 (Vturn-36/125)

Machine Layout (excl. Transformer)

Vturn-40/125 (Y) (CV/CM/YCM, built-in spindle)



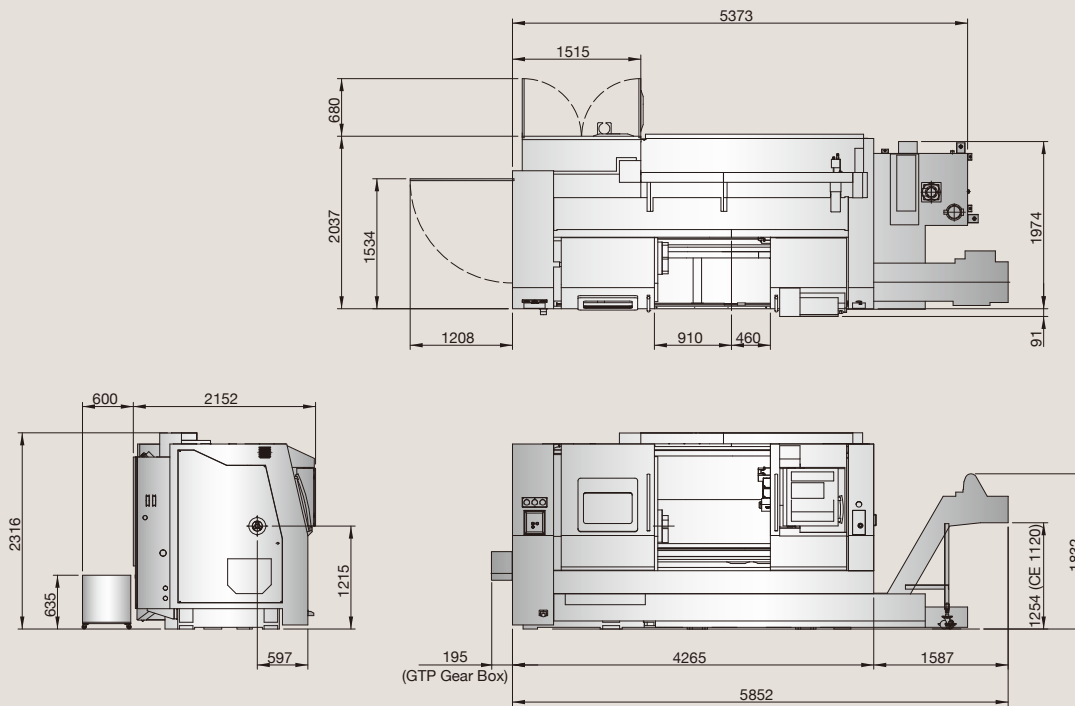
Vturn-40/220_325_425 (Y)



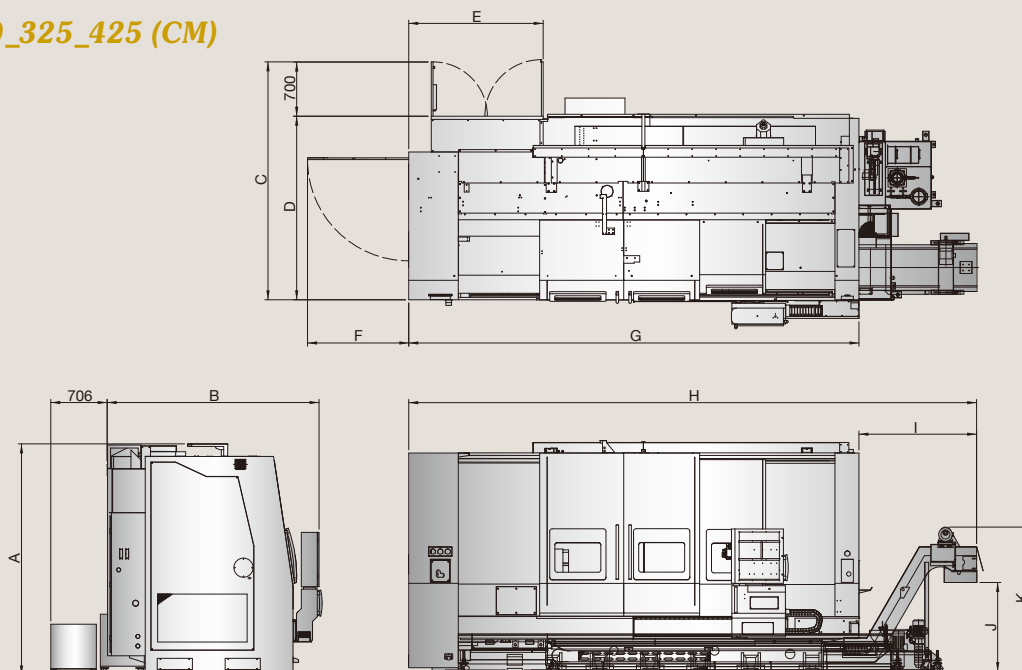
| ITEM \ MODEL | A | B | C | D | E | F | G | H | I | J | K |
|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|----------------|
| Vturn-40/220 (Y) | 2342 (2892) | 1914 (2174) | 2909 (3168) | 2037 (2297) | 1679 (1682) | 1130 (1330) | 5633 (5633) | 7110 (7110) | 1477 (1477) | 1254 (CE 914) | 1847 (1847) |
| Vturn-40/325 (Y) | 2370 (2920) | 1956 (2182) | 2909 (3184) | 2037 (2312) | 1734 (1734) | 1244 (1330) | 6955 (6955) | 8432 (8665) | 1477 (1710) | 1254 (CE 914) | 1807 (2148) |
| Vturn-40/425 (Y) | 2376 (2920) | 1956 (2182) | 2929 (3204) | 2037 (2312) | 1852 (1852) | 1244 (1330) | 8273 (8273) | 9750 (9983) | 1477 (1710) | 1254 (CE 914) | 1807 (2184) |

Machine Layout (excl. Transformer)

Vturn-45/125 (CM, belt-driven spindle with gearbox)



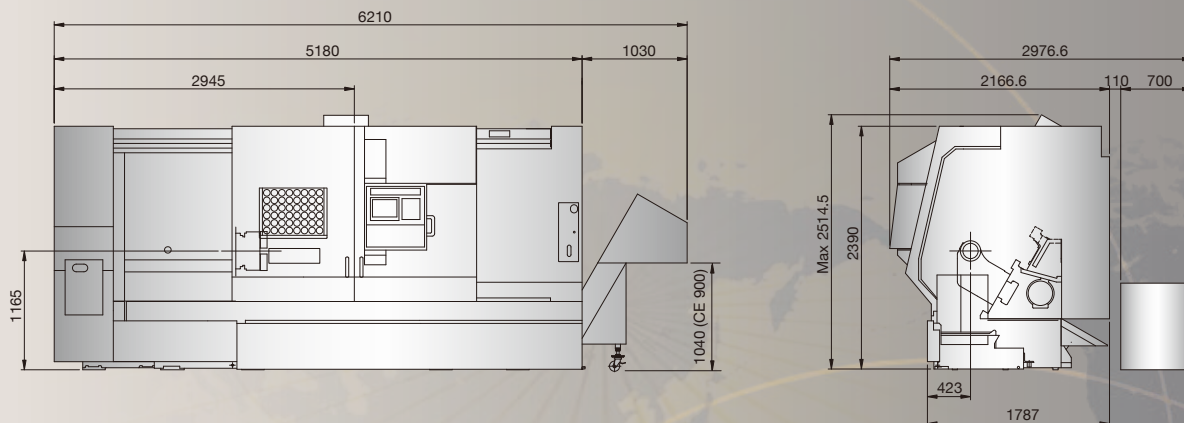
Vturn-45/220_325_425 (CM)



| ITEM \ MODEL | A | B | C | D | E | F | G | H | I | J | K |
|--------------|------|------|------|------|------|------|------|------|------|------------------|------|
| Vturn-45/220 | 2342 | 1914 | 2737 | 2037 | 1679 | 1130 | 5633 | 7110 | 1477 | 1254 (CE 914) | 1847 |
| Vturn-45/325 | 2370 | 1956 | 2737 | 2037 | 1734 | 1244 | 6955 | 8432 | 1477 | 1254 (CE 914) | 1807 |
| Vturn-45/425 | 2376 | 1956 | 2737 | 2037 | 1852 | 1244 | 8273 | 9750 | 1477 | 1254 (CE 914) | 1807 |

Machine Layout (excl. Transformer)

Vturn-46



Vturn-NP16 with built-in robot



Vturn-A20Y with Y-axis BMT turret



Vturn-V1000 vertical lathe

VictorTaichung profile:
 Sales turnover: USD 125 mil's (in 2016)*
 No. of employees: 831
 *Exchange rate: 1 USD=30 TWD.



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