

Art of **P**recision & **P**erformance

V TURN NP16/NP20/NP26

New & Narrow Lathe with High Performance

- Machine width 1.5/1.93 meters (NP16/NP20)
- Turning length 250/400/600 mm (NP16/NP20/NP26)
- Rapid feeds 30/30 m/min
- Roller guideways
- Servo turret
- One-piece slant bed
- Rear / Right chip disposal
- Ready for unmanned operation

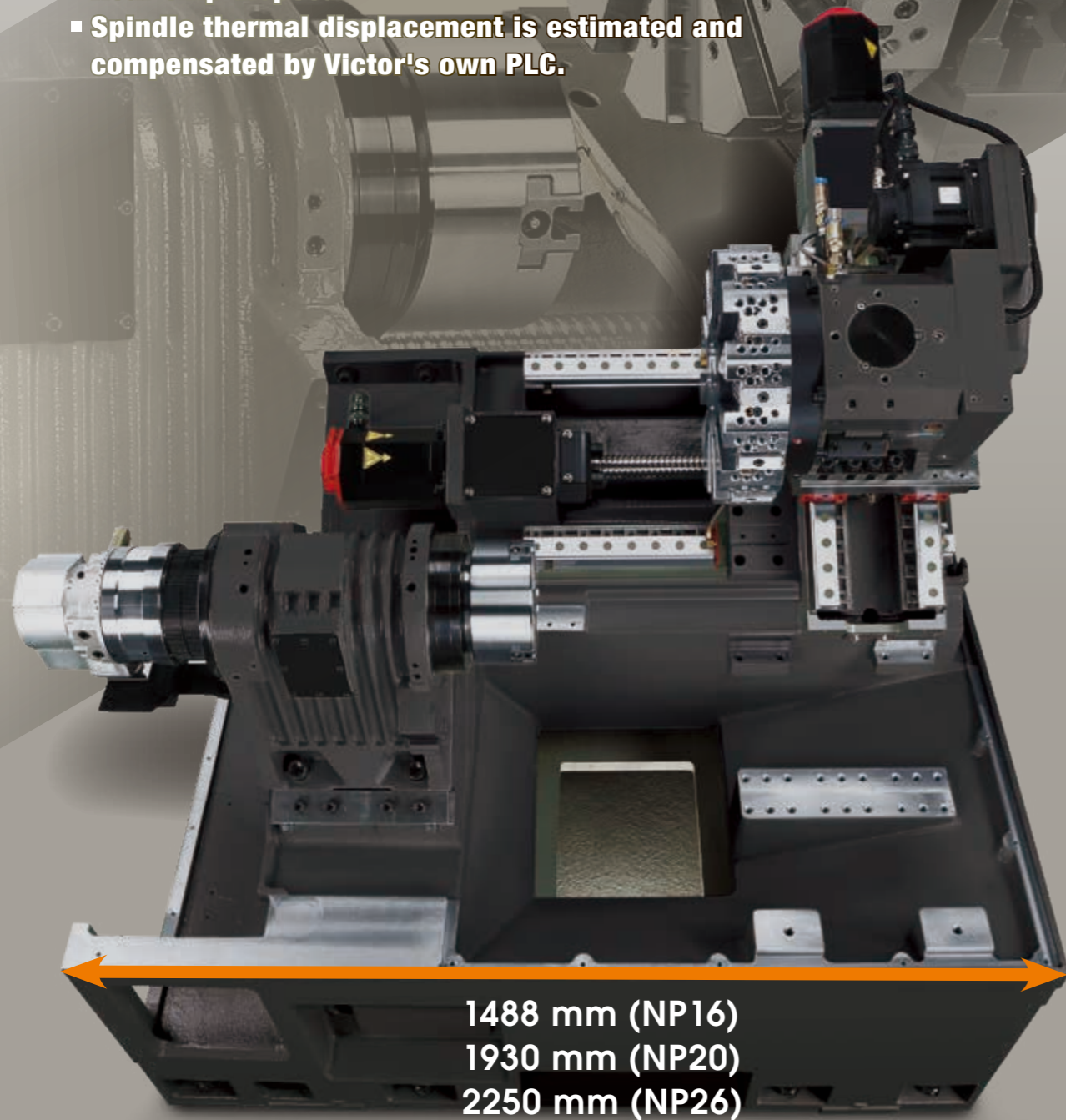


Pursuit of Productivity



New & Narrow Lathe NP16/NP20/NP26

- Machine width only 1488 mm / 1930 mm / 1488 mm
- Z-travel 250 mm / 400 mm / 610 mm
- High rapid feed 30 m/min
- 6" / 8" / 10" power chuck
- Rear chip disposal
- Spindle thermal displacement is estimated and compensated by Victor's own PLC.



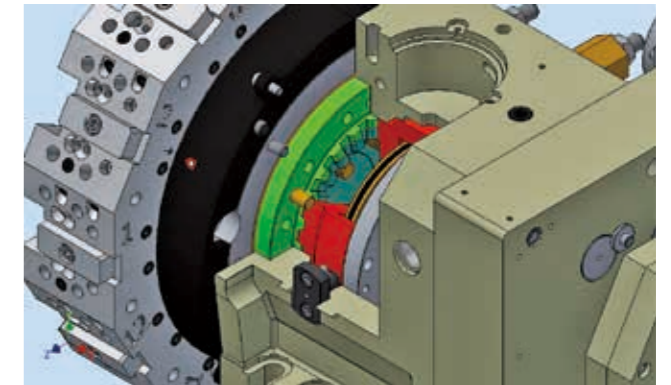
1488 mm (NP16)
1930 mm (NP20)
2250 mm (NP26)



*Vturn-NP26

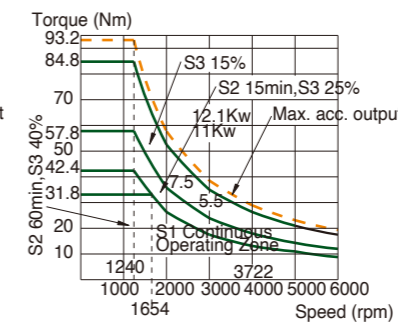
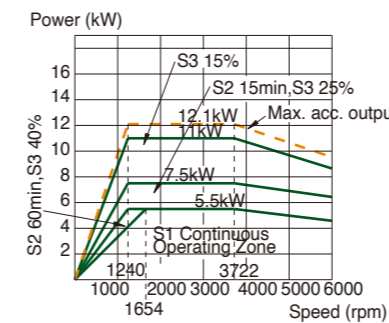
Servo driven Turret

- 3-piece coupling design without turret disk up/down (2 pieces for NP26) affords high pressure coolants without leakage during indexing.
- Turret indexing time 0.9 (T-T, opposite).
- C-axis option is available with BMT milling turret.

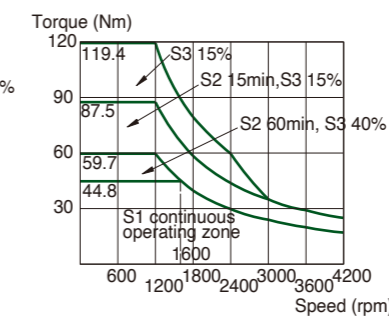
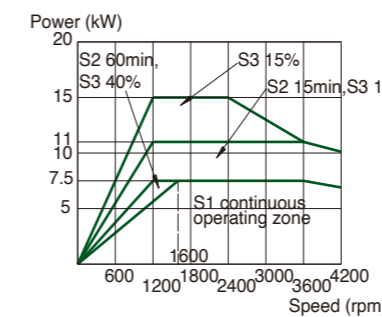


Victor Taichung's own spindle

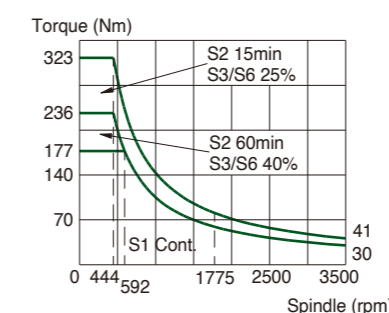
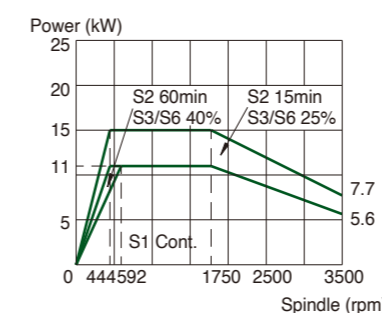
- NP16: Spindle output 11 kW (S3-15%)



- NP20: Spindle output 15 kW (S3-15%)

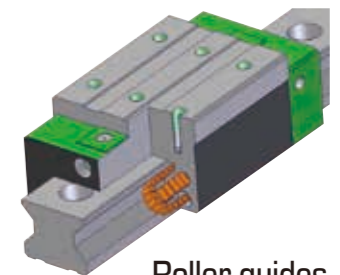


- NP26: Spindle output 22 kW (S3-15%)



Strong structure

- One piece slant bed
- High rapid feeds 30/30 m/min
- Roller type guideways
- Meehanite casting



Roller guides

35 mm (X/Z)



Certificated Casting

GB300

Standard Accessories

Fanuc 0i-TF Plus (10.4") control + Manual Guide I (MGI)

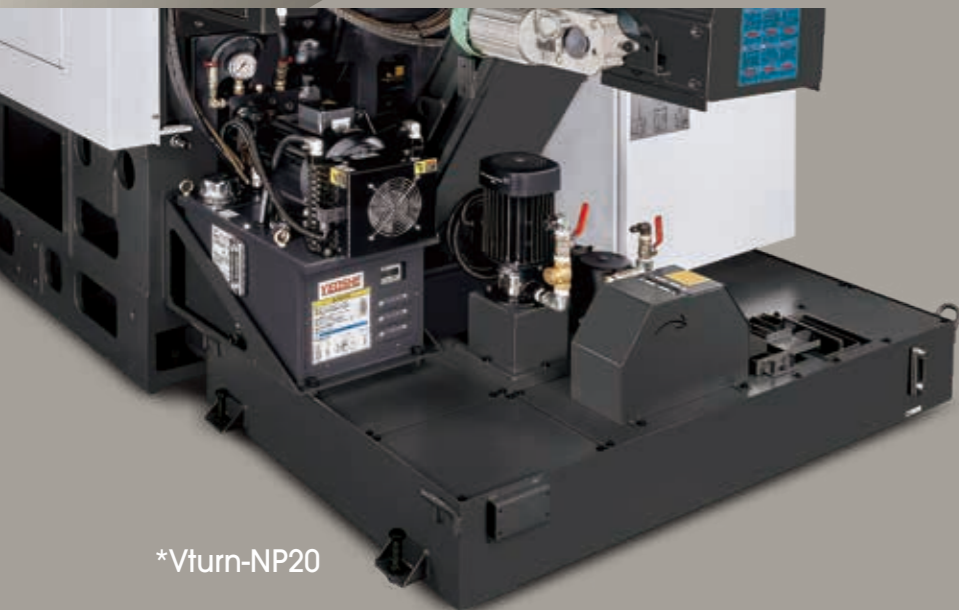
- Right side for easy operation
- Manual Guide I for easy programming
- Inverter type hydraulic tank reduces the temperature rise



Fanuc 0i-TF Plus (10.4")

Coolants & chips disposal

- Coolant flush on Z-axis covers.
- Cliff design minimizes chip built-up.
- Rear disposal chip conveyor minimizes machine width.



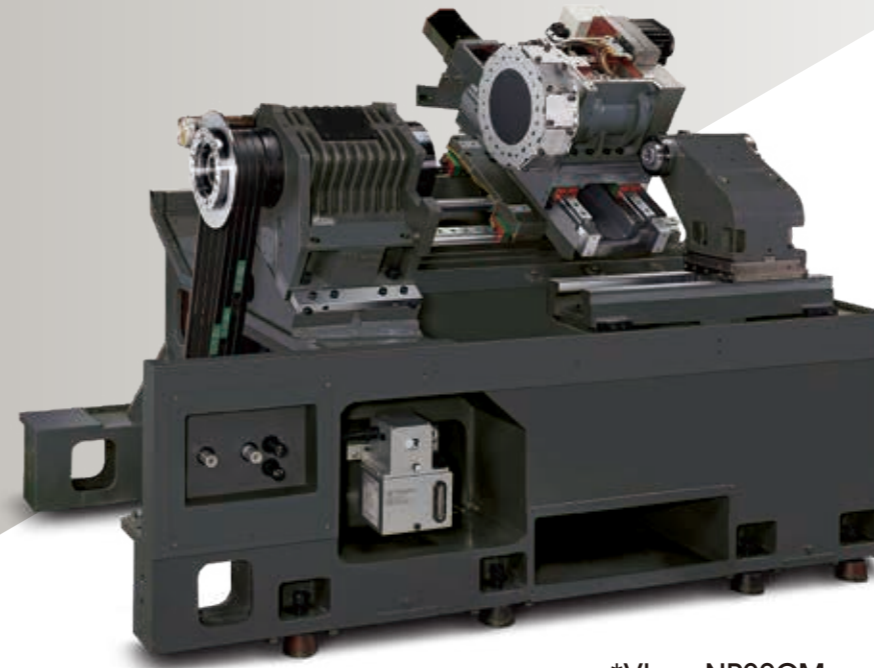
*Vturn-NP20



Coolant flush onto covers
(Photo with opt. pump Grundfos® MTH 4-4/4)



Programmable tailstock
(NP26 only)



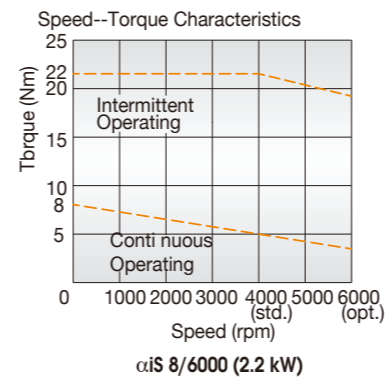
*Vturn-NP20CM

C-axis Turn Mill (opt.)

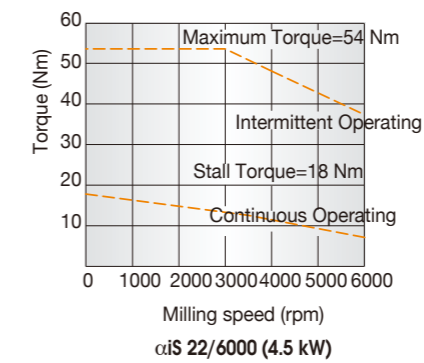
- Belt-driven spindle with magnetic speed sensor as position coder to ensure accuracy 0.01°.
- Milling motor by servo motor with spindle control (G96.4) for easy programming with Manual Guide I.
- Milling turret by BMT (bolt mounted tooling) for high static rigidity.
- Milling speed 4000 rpm (opt. 6000 rpm with oil mist lubrication).

Milling Motor Output

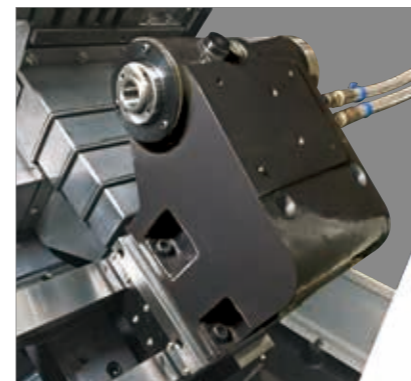
Vturn-NP16/NP20CM



Vturn-NP26CM



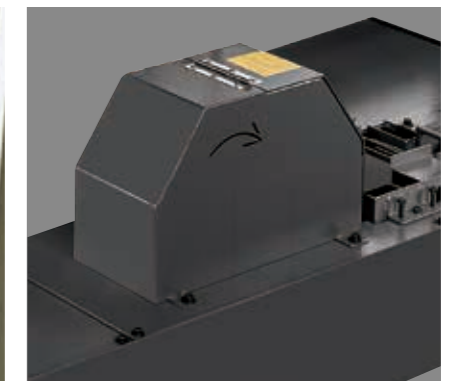
Manual tailstock (opt. for NP16/NP20)



Tool Presetter & Part catcher (opt.)



Oil skimmer (opt.)



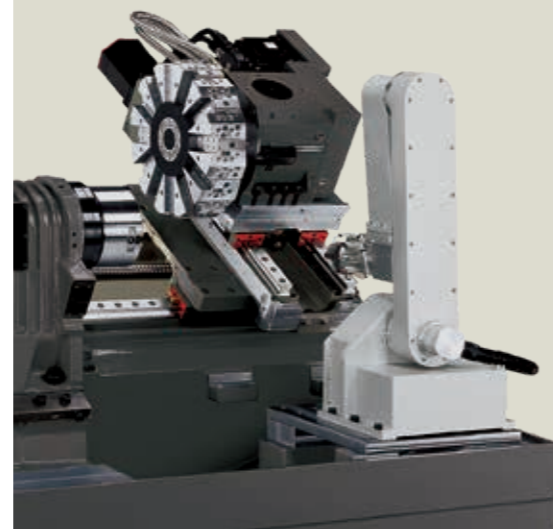
Built for Unmanned Operation

Built in articulated robot EWR-03 / EWR-10

- Maximum part weight: 3 kg / 10 kg
- Maximum part size: Ø120 x L.100mm (NP16/NP20) / Ø200 x L.150mm (NP26)
- Part loading/unloading time along chuck: 7 seconds / 11 seconds
- Slant-pallet work feeder for easy orientation and high flexibility.



Robot with grippers



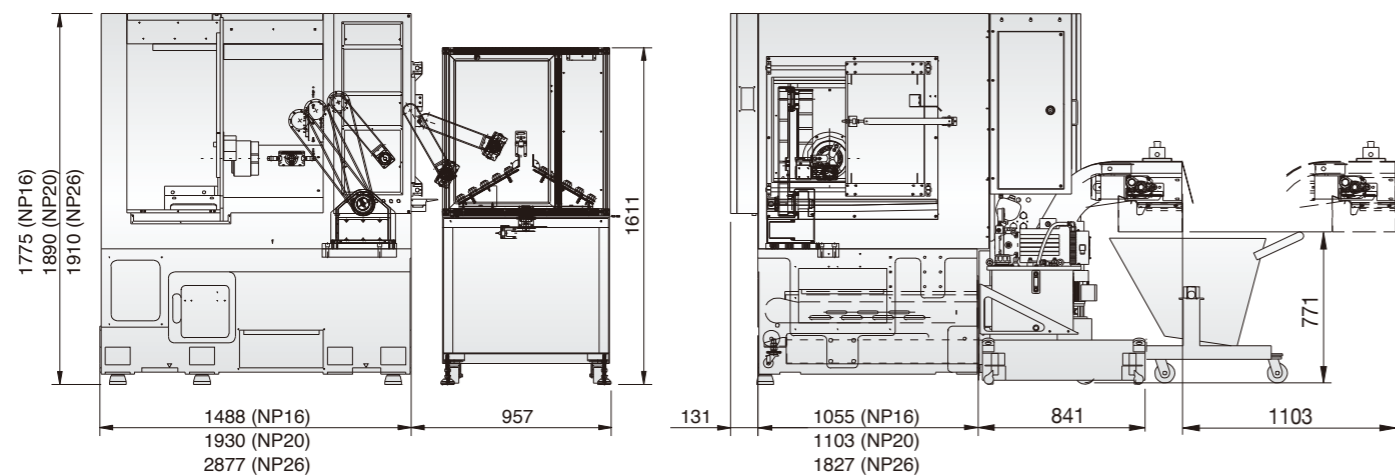
Work feeder (multiple pallets) and Turnover station



Work feeder (single pallet)



Work feeder (vibrator)



Gantry Robot

- Mounted on machine base composes a compact cell
- Heavier part (>3kg) or bigger part can be loaded:
 - NP16: Ø200 x L.80 mm (by I.D. clamping)
 - NP20: Ø220 x L.100 mm (by I.D. clamping)
- Part changeover time: 15 seconds (including door open/close time)
- One robot can take care two lathes.
- Measuring station can be integrated for on-line inspection.



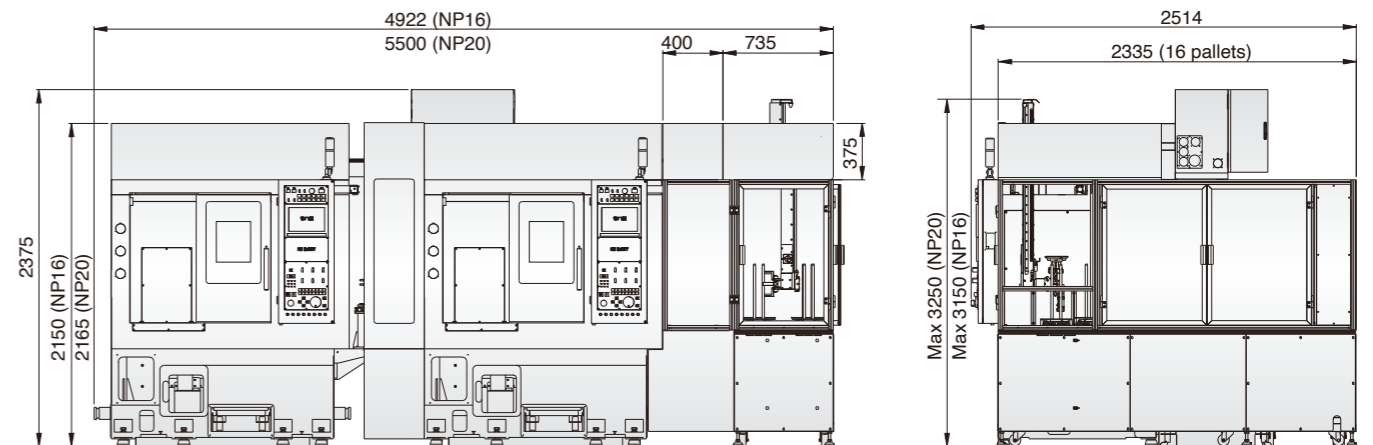
Work feeder (piled up type)



Work feeder (flexible)

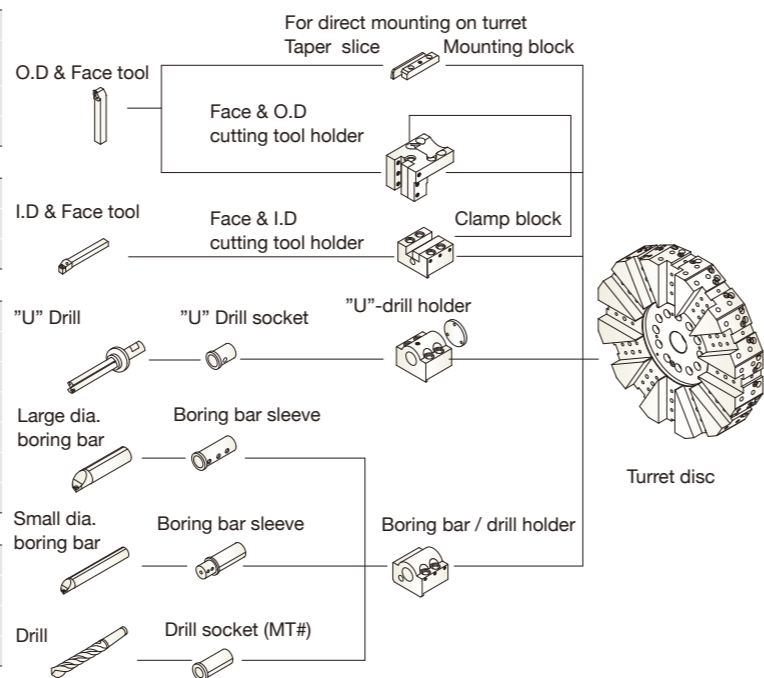


Turnover station



Tooling accessories (Excl. BMT Turret)

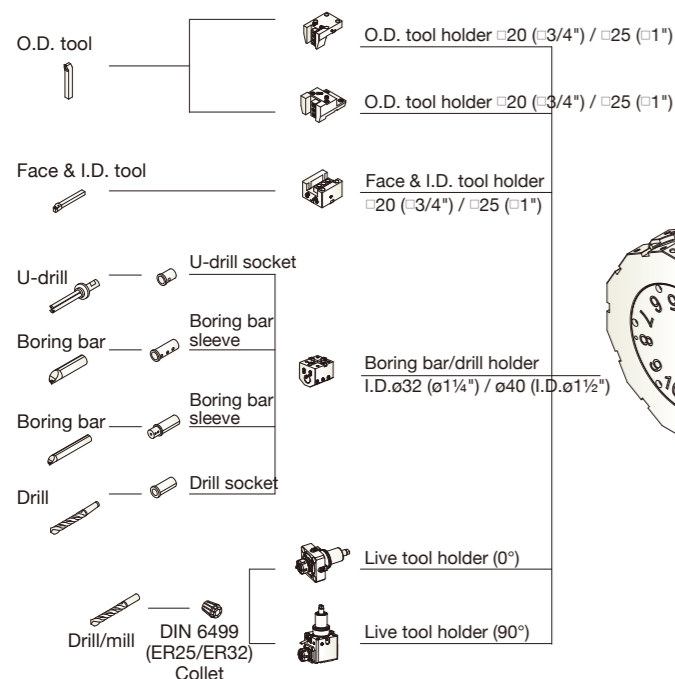
| TOOLS \ MODEL | Vturn-NP16 | Vturn-NP20 | Vturn-NP26 |
|--------------------------------|----------------|------------|------------|
| Tool shank for turret disk | 20 mm (3/4") | 25 mm (1") | 25 mm (1") |
| Maximum boring bar Dia. | 32 mm (1 1/4") | 50 mm (2") | 50 mm (2") |
| Face + OD cutting tool holder | 2 | 1 | 1 |
| Face + ID. cutting tool holder | 1 | 1 | 1 |
| Boring bar holder | | | |
| 32 mm (1 1/4") | 7 | - | - |
| 40 mm (1 1/2") | - | 7 | 6 |
| 50 mm (2") | - | 1 | 1 |
| Boring bar sleeve | | | |
| 8 mm (5/16") | 1 | 1 | 1 |
| 10 mm (3/8") | 2 | 2 | 2 |
| 12 mm (1/2") | 2 | 2 | 2 |
| 16 mm (5/8") | 2 | 2 | 2 |
| 20 mm (3/4") | 2 | 2 | 2 |
| 25 mm (1") | 2 | 2 | 2 |
| 32 mm (1 1/4") | - | 2 | 2 |
| Drill socket | | | |
| MT1 | Opt. | Opt. | Opt. |
| MT2 | 1 | 1 | 1 |
| MT3 | Opt. | 1 | 1 |
| MT4 | - | 1 | 1 |
| U drill socket | | | |
| 20 mm (3/4") | 1 | Opt. | Opt. |
| 25 mm (1") | 1 | 1 | 1 |
| 32 mm (1 1/4") | - | 1 | 1 |



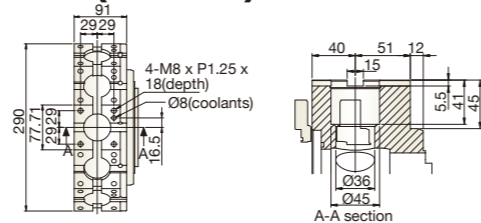
C-axis Application

Vturn-NP16CM/NP20CM/NP26CM with BMT-45/55/65

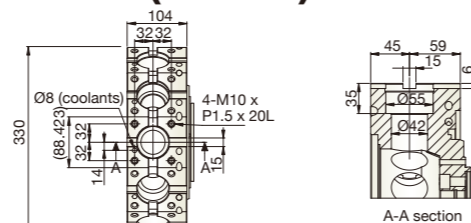
Milling Turret (Opt.)



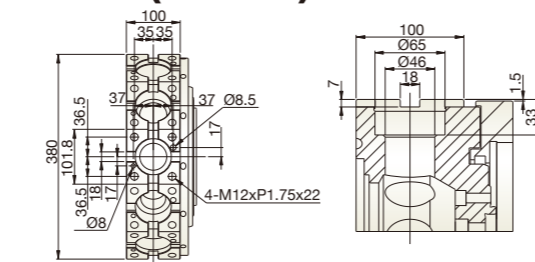
BMT-45 (NP16CM)



BMT-55 (NP20CM)



BMT-65 (NP26CM)



VICTOR Taichung's FANUC Oi-TF Plus 10.4" Control (Type I) Specifications



Standard

| ITEM/SPECIFICATION | DESCRIPTION |
|--|---------------------------------|
| Controlled Axes | |
| 1. Controlled axes | 2 Axes (X, Z) |
| 2. Simultaneous controlled axes | 2 Axes |
| 3. Least input increment | 0.001mm |
| 4. Least command increment | 0.0005mm (X) / 0.001mm (Z) |
| 5. Command system | Incremental / Absolute |
| 6. HRV Control | HRV3+ |
| 7. Unexpected disturbance torque detection (AIR-BAG) | Std. |
| 8. Backlash compensation | Std. |
| 9. Stored pitch error compensation | Std. |
| 10. External data input (by ETDC: Estimating the Time Displacement for Compensation) | Std. |
| Operation & Program Input | |
| 1. Input / Output interface | RS-232, PCMCIA Card, USB |
| 2. Tool offset | 99 sets |
| 3. Sequence number | N5-digit |
| 4. Program number | O8-digit |
| 5. Program name | 31-characters |
| 6. M code function | M3-digit |
| 7. S code function | S4-digit |
| 8. T code function | T4-digit |
| 9. Positioning | G00 |
| 10. Linear interpolation | G01 |
| 11. Circular interpolation | G02, G03 |
| 12. Programmable data input | G10 |
| 13. Plane selection | G17-G19 |
| 14. Inch / Metric conversion | G20 / G21 |
| 15. Reference position return | G28, G30 |
| 16. Thread cutting | G32, G34 |
| 17. Threading retract | Std. |
| 18. Tool nose radius compensation | G40-G42 |
| 19. Work piece coordinate system | G52-G59 |
| 20. Macro, Sub program call | G65, M98, M99 (10 folds nested) |
| 21. Multiple repetitive cycle I & II | G70-G76 |
| 22. Canned cycle for drilling | G80-G89 |
| 23. Canned cycles | G90, G92, G94 |
| 24. Program stop / end | M00-M02 / M30 |
| 25. Rigid tapping (Spindle) | M29 |
| 26. Manual Guide I | Std. |
| 27. Optional blocks skip 2-9 | Std. |

Feed Function

| | |
|---------------------------------|--------------------|
| 1. Manual handle feed rate | X1, X10, X100 |
| 2. Rapid traverse rate | F0, 25%, 50%, 100% |
| 3. Cutting feed rate | 0-150% |
| 4. Spindle override | 50-120% |
| 5. Feed per Minute / Revolution | G98 / G99 |

Edit Operation

| | |
|---|-------------|
| 1. Part Program Storage Length (in total) | 5120m / 2MB |
| 2. Number of Registerable programs (in total) | 1000 |
| 3. Part Program Editing | Std. |

C Axis Function

| | |
|-------------------------------------|------------|
| 1. Polar coordinate interpolation | G112, G113 |
| 2. Cylindrical interpolation | G107 |
| 3. CS contouring control | Std. |
| 4. Spindle control with servo motor | G96.4 |
| 5. Coordinate System Rotation | Std. |

OPTIONS

| With hardware included | Oi-TF Plus |
|---|--------------------------|
| 1. Tool life management | <input type="checkbox"/> |
| 2. Program restart | <input type="checkbox"/> |
| 3. Data server (with PCB and CF card 1GB) | <input type="checkbox"/> |
| 4. Ethernet/IP (to be linked to robot) | <input type="checkbox"/> |
| 5. PROFIBUS-DP (to be linked to robot) | <input type="checkbox"/> |
| 6. ProfiNet (to be linked to robot) | <input type="checkbox"/> |
| 7. Fast Ethernet (required for SCADA Web with additional RJ45 port) | <input type="checkbox"/> |
| Without hardware included | |
| 8. Circular thread cutting (G35, G36) | <input type="checkbox"/> |
| 9. AICC-1 (G5.1 Q1, 40 blocks) | <input type="checkbox"/> |
| 10. AICC-2 (G5.1 Q1, 200 blocks) | <input type="checkbox"/> |
| 11. Helical interpolation (C-axis only) | <input type="checkbox"/> |
| 12. Arbitrary speed threading | <input type="checkbox"/> |
| 13. Memory card program entry count extension (Max. 1000) | <input type="checkbox"/> |

Machine Color Option

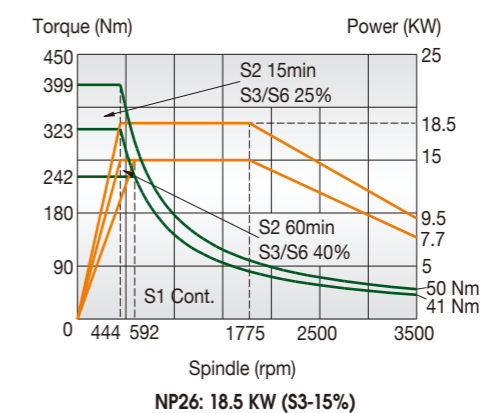
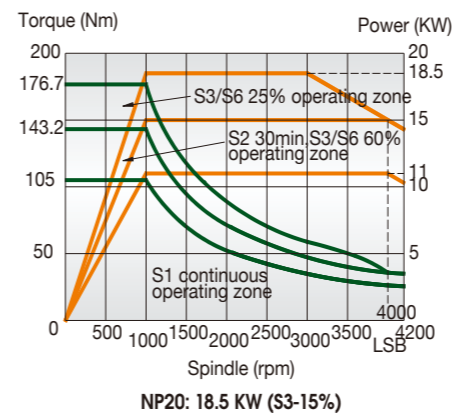


Standard



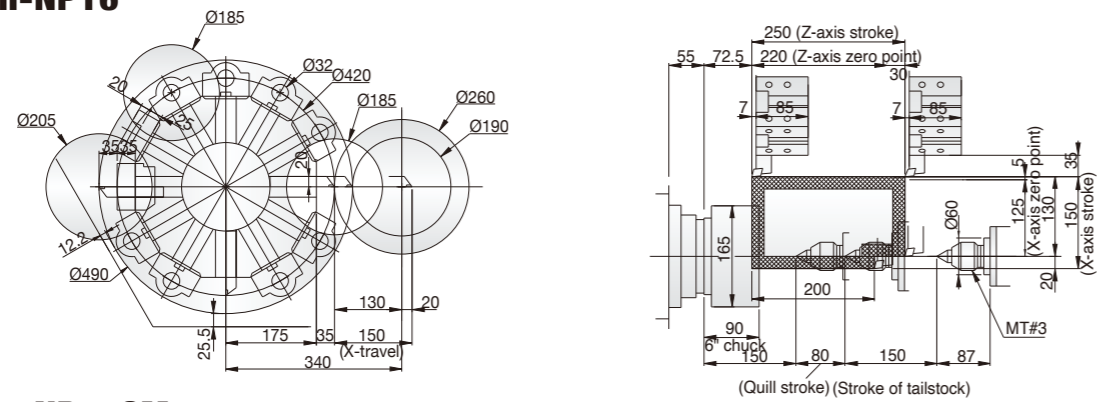
RAL-7024

Bigger Spindle Output (opt.)

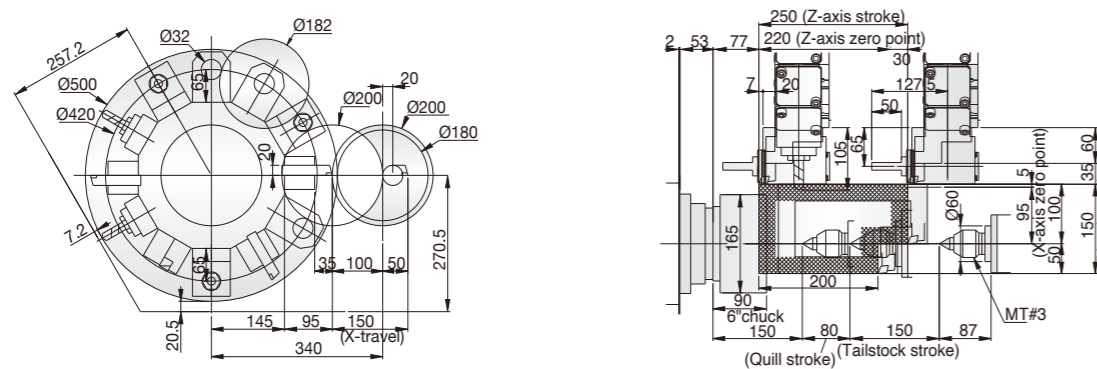


Technical Drawings

Vturn-NP16

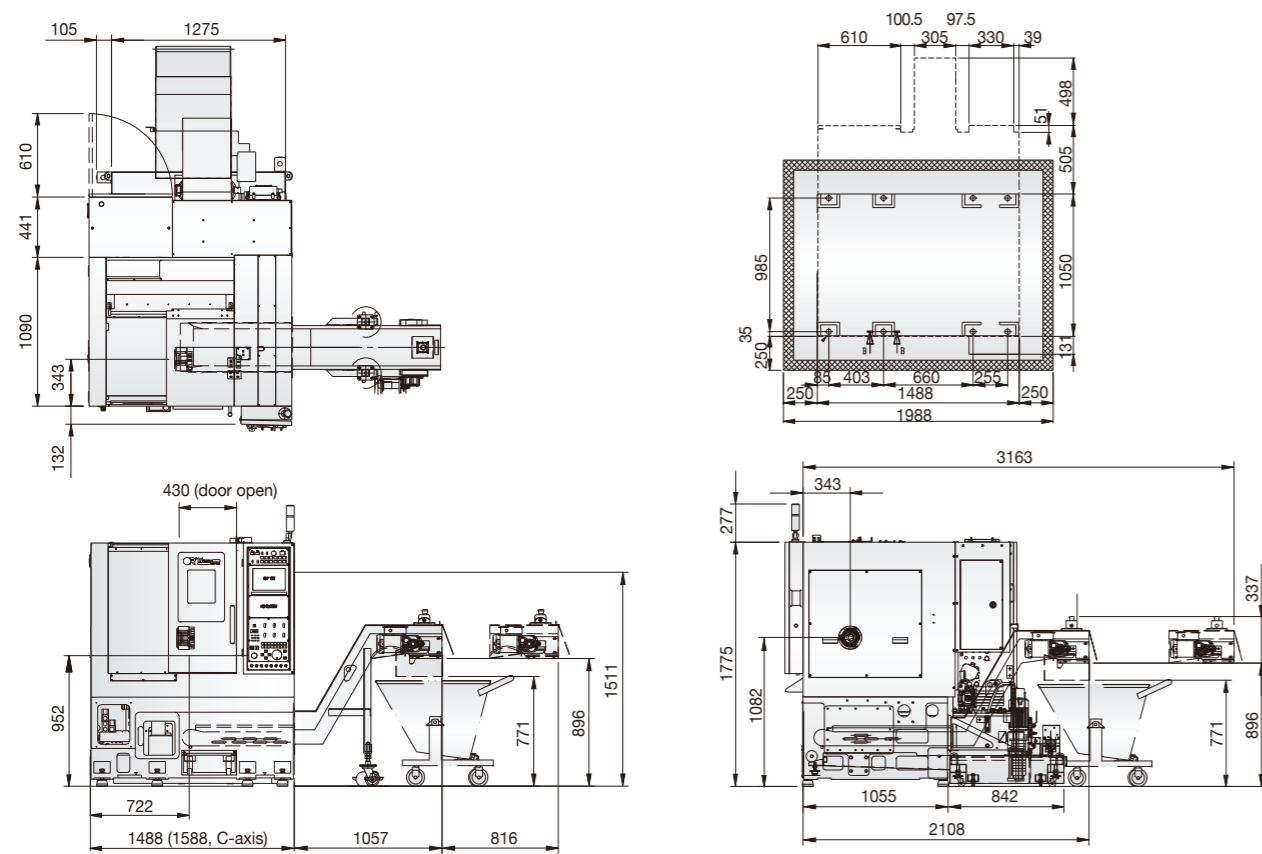


Vturn-NP16CM



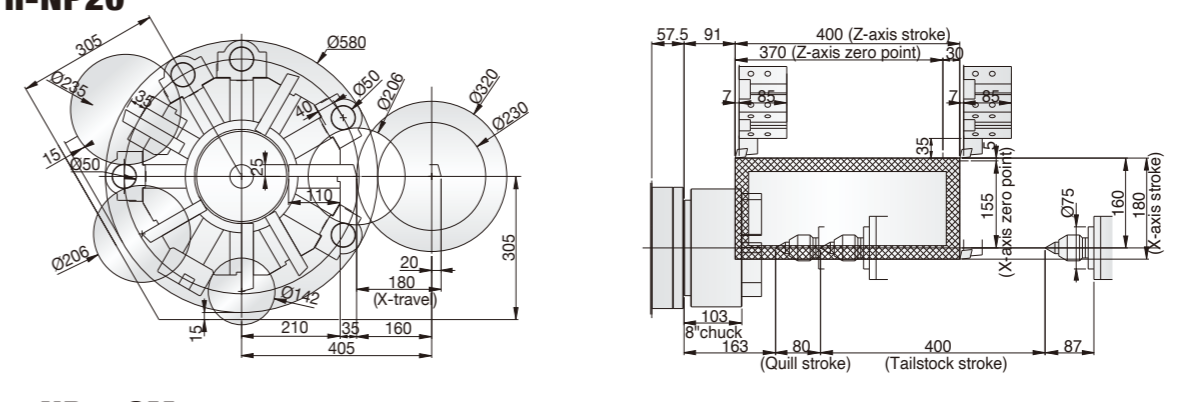
Machine Layout

Vturn-NP16

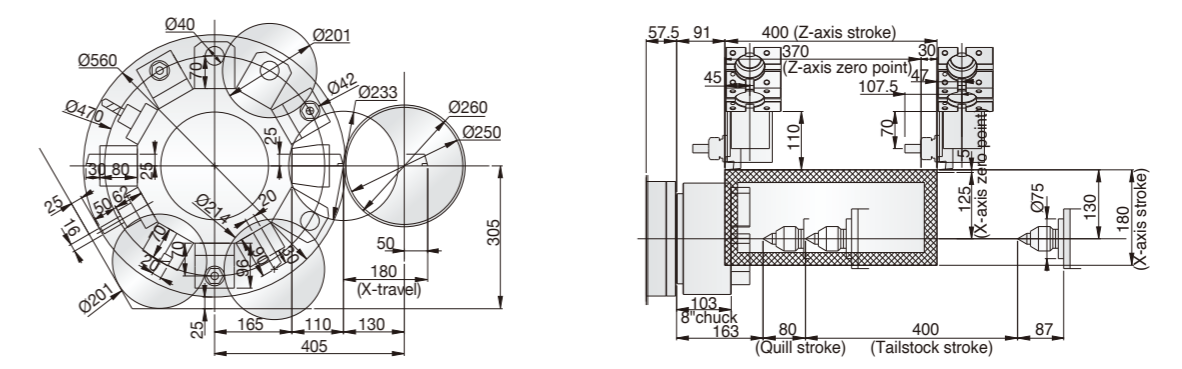


Technical Drawings

Vturn-NP20

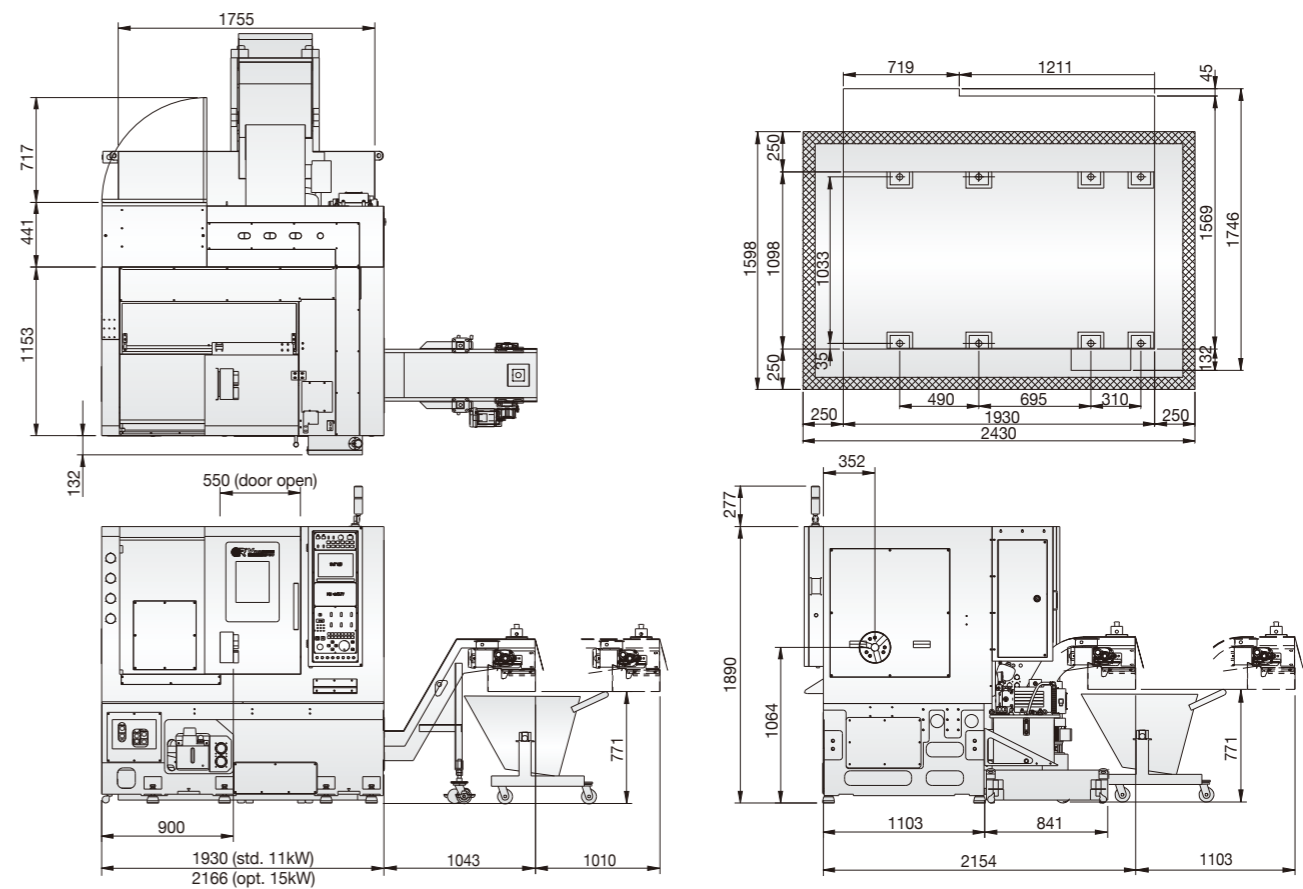


Vturn-NP20CM



Machine Layout

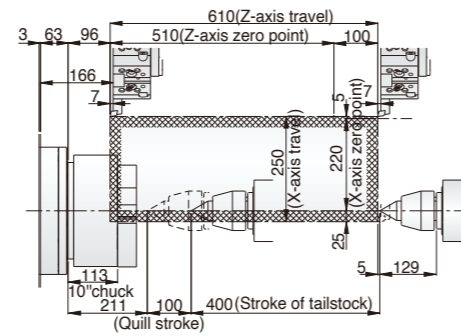
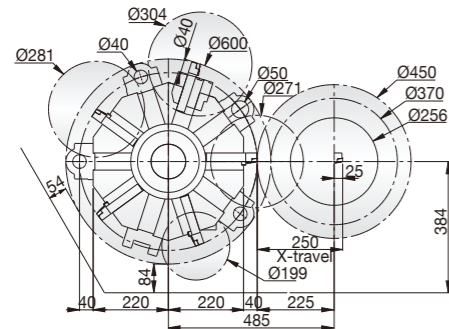
Vturn-NP20



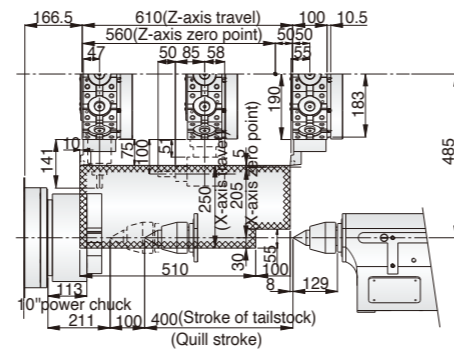
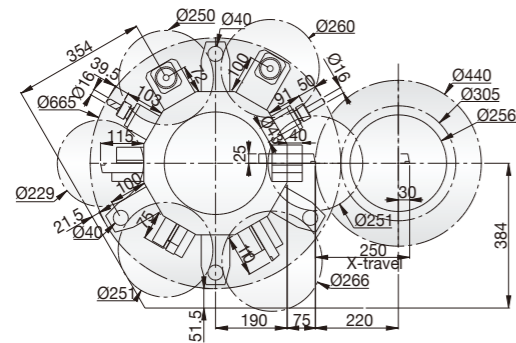
Technical Drawings



Vturn-NP26

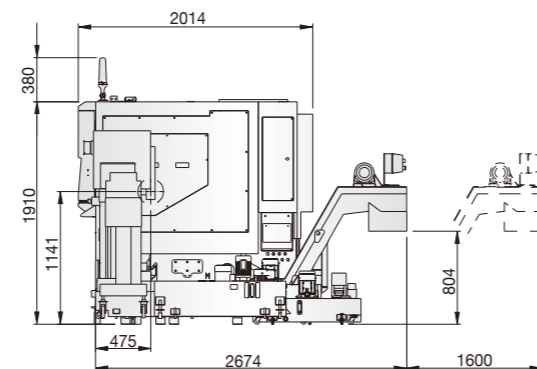
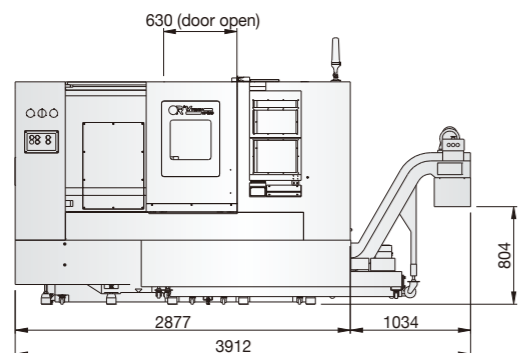
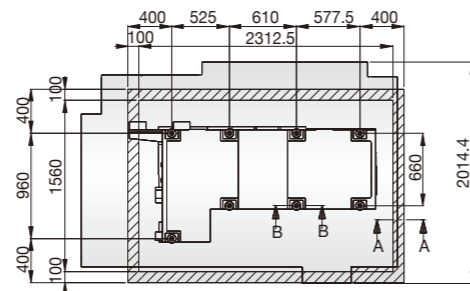
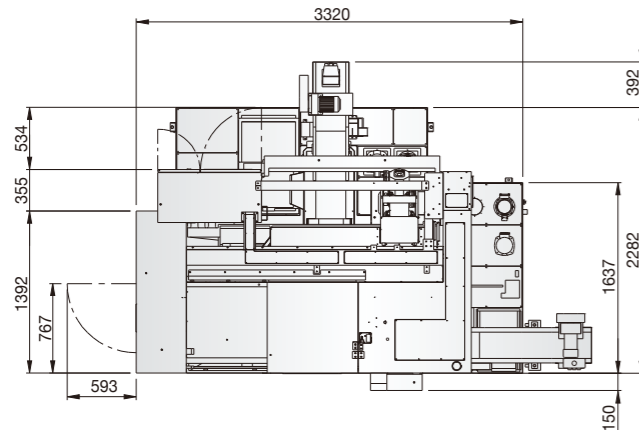


Vturn-NP26CM



Machine Layout

Vturn-NP26



Machine Specifications

| Item | Unit | Vturn-NP16 (CM) | Vturn-NP20 (CM) | Vturn-NP26 (CM) |
|--|--------|--------------------------------|--|---|
| Capacity | | | | |
| Swing over bed dia. | mm | Ø570 | Ø650 | Ø740 |
| Standard turning dia. | mm | Ø185 (Ø200) | Ø206 (Ø233) | Ø271 (Ø266) |
| Maximum turning dia. | mm | Ø260 (Ø200) | Ø320 (Ø260) | Ø450 (Ø440) |
| Swing over carriage dia. | mm | Ø325 | Ø365 | Ø540 |
| Between centers | mm | 270 | 520 | 640 |
| Bar capacity (Hole thru draw bar) | mm | Ø42 | Ø52 (opt. Ø42 SSB, Ø66 LSB) | Ø75 (opt. Ø77) |
| Axis Feeds | | | | |
| X axis travel | mm | 20+130 (50+100) | 20+160 (50+130) | 25+225 (30+220) |
| Z axis travel | mm | 250 | 400 | 610 |
| Rapid feed - X / Z axis | m/min | 30 / 30 | 30 / 30 | 30 / 30 |
| Feed motor - X / Z axis | kW | 1.8 / 1.8 | 1.8 / 1.8 | 3 / 3 |
| JOG feed | mm/min | X/Z: 0~1260 | X/Z: 0~1260 | X/Z: 0~1260 |
| Ball screw dia. x pitch | mm | Ø25 x P10 (X) Ø40 x P10 (Z) | Ø25 x P10 (X) Ø40 x P10 (Z) | Ø32 x P10 (X) Ø40 x P10 (Z) |
| Guideway width - X / Z axis | mm | 35 / 35 | 35 / 35 | 35 / 35 |
| Spindle | | | | |
| Spindle speed | rpm | 6000 | 4200 (opt. 6000 SSB, 4000 LSB) | 3500 |
| Spindle nose (chuck) | inch | A2-5 (6") | A2-6 (8") opt. A2-5 (6", SSB) | A2-8 (10") |
| Spindle motor power (cont./30min/25%) | kW | 5.5 / 7.5 / 11 | 7.5 / 11 / 15 (opt. 11 / 15 / 18.5) | 11 / 15 / 18.5 (opt. 15 / 18.5 / 22) |
| Spindle bearing inside dia. | mm | Ø80 | Ø100 | Ø130 |
| Spindle bore dia. | mm | Ø52 | Ø62 (opt. Ø52 SSB, Ø78 LSB) | Ø87 |
| Spindle taper | | 1/20 | 1/20 | 1/20 |
| Turret | | | | |
| No. of tools (live) | | 12 (12) | 12 (12) | 10 (12) |
| Tool shank size | mm | □20 | □25 | Ø25 |
| Max. boring bar dia. | mm | Ø32 (BMT-45) | Ø40 (BMT-55) | Ø50 (BMT-65) |
| Exchange time (T-T) | sec | 0.9 (opposite) | 0.9 (opposite) | 0.9 (opposite) |
| Milling speed | rpm | 4000 (opt. 6000) | 4000 (opt. 6000) | 4000 (opt. 6000) |
| Milling motor | kW | 2.2 | 2.2 | 4.5 |
| Tailstock (Optional) | | | | |
| Tailstock quill dia. | mm | Ø60 | Ø75 | Ø110 |
| Quill stroke | mm | 80 | 80 | 100 |
| Quill taper | | M.T. #3 | M.T. #4 | M.T. #5 |
| Machine | | | | |
| NC controller | Fanuc | 0i-TF Plus (10.4") | 0i-TF Plus (10.4") | 0i-TF Plus (10.4") |
| Coolant tank capacity | L | 160 | 240 | 330 |
| Power requirement | kVA | 14.4 (15.1) | 16.6 (17.3) | 22 (24) |
| Machine dimension L x W x H (with chip conveyor) | mm | 1488 x 1956 (2108) x 1855 | 1930 x 2125 (2125) x 1970 | 2877 x 2282 (2674) x 1990 |
| Net weight (incl. standard accessories) | kgs | 3700 (3900) | 4000 (4200) | 5200 (5300) |

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

** Available with CE / UKCA / TS / GB certificates.

Standard accessories:

- Fanuc 0i-TF Plus (10.4") with Manual Guide i
- Hydraulic chuck with soft jaws
- Chip conveyor (rear disposal)
- Fully enclosed splash guarding
- Tool holders (only for standard turret)
- Coolant flush on Z-axis cover
- 3 step warning light
- Programmable tailstock (for NP26 only)

Optional accessories:

- Manual tailstock with power quill (for NP16, NP20)
- Chip conveyor (right disposal)
- 15" screen (for NP26 only)
- Manual tool presetter
- Auto tool presetter
- Parts catcher (swing type)
- KITAGAWA® power chuck
- Air conditioner for electrical cabinet
- Higher pressure coolants
- Bar feeder interface
- Air blow
- Oil skimmer
- Oil mist collector
- Hard jaws
- Tailstock center
- Auto door
- Small spindle bore (SSB) for NP20 (Ø42 mm, 6000 rpm)
- Large spindle bore (LSB) for NP20 (Ø66 mm, 4000 rpm)
- C-axis
- Robot system



ONWARD RISE

To ensure the return on investment, Victor Taichung has invested considerably in setting up a distribution network in terms of global vision local touch for our sales and service supports worldwide. Besides the qualified exclusive agents around the world, Victor Taichung has 7 overseas subsidiaries to provide our customers efficient after-sales service and technical supports.



Vturn-A200 with Y-axis and subspindle



VMT-X400 Multitasking



Vturn-V1000 vertical lathe



THE VICTOR-TAICHUNG COMPANIES



HTL

VTL

VMC

HMC

XMT

PIM

TAIWAN

<http://www.victortaichung.com>
E-mail :info@mail.or.com.tw
□ Victor Taichung Machinery Works Co., Ltd.
No. 1, Jingke Central 2nd Rd.,
Nantun Dist., Taichung 40852,
TAIWAN, R.O.C.
TEL : 886-4-23592101
FAX : 886-4-23593389

FRANCE

□ Victor France
TEL : 33-1-64772000
FAX : 33-1-64772063

GERMANY

□ Victor GmbH
TEL : 49-2261-478434
FAX : 49-2261-478327

SOUTH AFRICA

□ Victor Fortune (PTY) Ltd.
TEL : 27-11-3923800
FAX : 27-11-3923899

MALAYSIA

□ Victor Machinery (M) SDN. BHD.
TEL : 60-3-56337180
FAX : 60-3-56337191

THAILAND

□ Victor CNC (Thailand) Co., Ltd.
TEL : 66-2-9263735
FAX : 66-2-9032373

INDONESIA

□ PT. Victor Machinery Indonesia
TEL : +62-21-88958504
FAX : +62-21-88958513

USA

□ Fortune International Inc.
TEL : 1-732-2140700
FAX : 1-732-2140701

CHINA

□ Victor Taichung
Machinery (Shanghai)
TEL : 86-21-59768018
FAX : 86-21-59768009



was also marketed under the brand names **VICTOR** (outside North America) and **FORTUNE** GB1GE25EG