

**Always Ahead**

# **VTURN A200/A260**

- *One-piece slant bed*
- *Shortened belt driven spindle with C-axis and Y-axis available*
- *Digital tailstock*
- *DDS built-in spindle and subspindle available*
- *Servo turret with high thrust force*
- *Box slideways with high rapid feed 24 m/min*
- *Rotary operation panel*



**Victor Taichung – an established ISO 9001, 14001 & 45001 company**



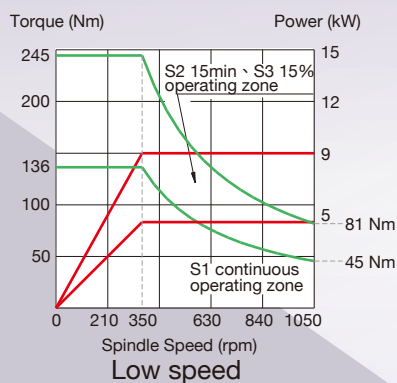
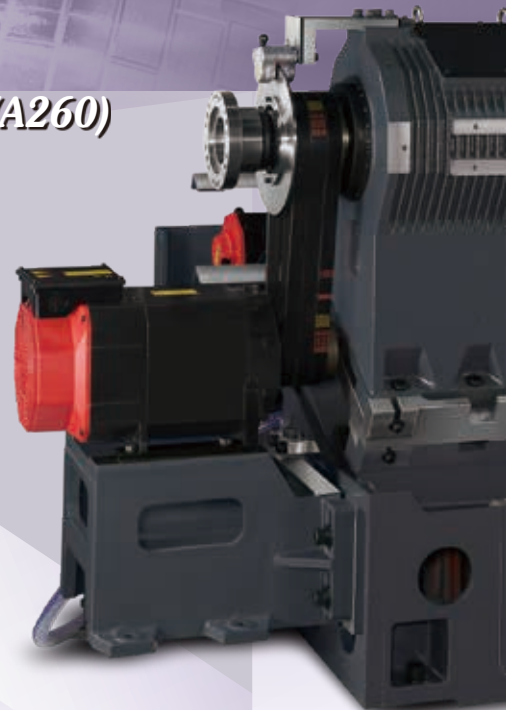
# Ahead of Performance

## Vturn-A200/A260 Turning Center

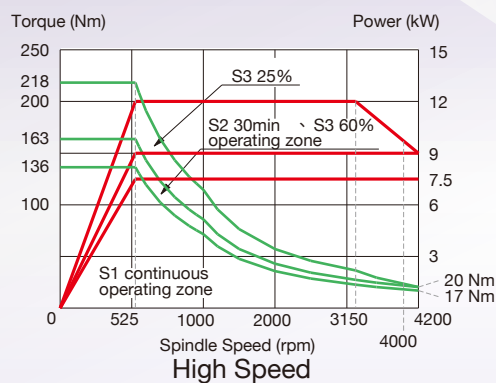
- One piece 30° slant bed with large swing diameter
- 8" Power chuck / 4200 rpm (A200)  
10" Power chuck / 3500 rpm (A260)
- Z-axis travel 600 mm (A200) / 750 mm or 1300 mm (A260)
- High thrust force by small pitch ballscrew
- High rapid feed 24 m/min (Z-axis)
- Shortened belt driven spindle
- Digital tailstock

### Spindle 12 KW (A200) / 22 KW (A260)

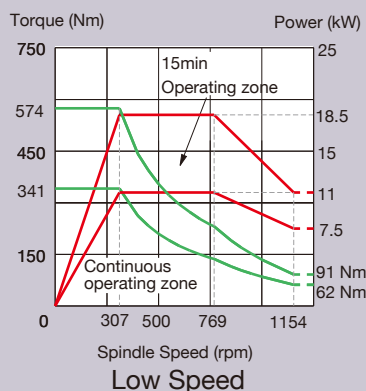
- 8" chuck / 4200 rpm (A200), 10" chuck / 3500 rpm (A260)
- Spindle output 245 Nm (A200, S3-15%) / 574 Nm (A260, S3-25%)
- Low base speed 350 rpm (A200) / 307 rpm (A260)
- Shortened belt length
- Victor Taichung's own spindle
- NN type (roller type) bearings



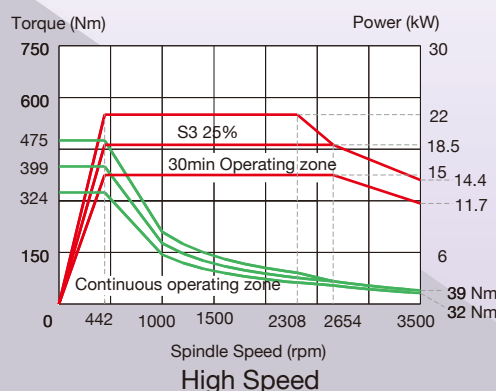
Fanuc αiP15 (A200)

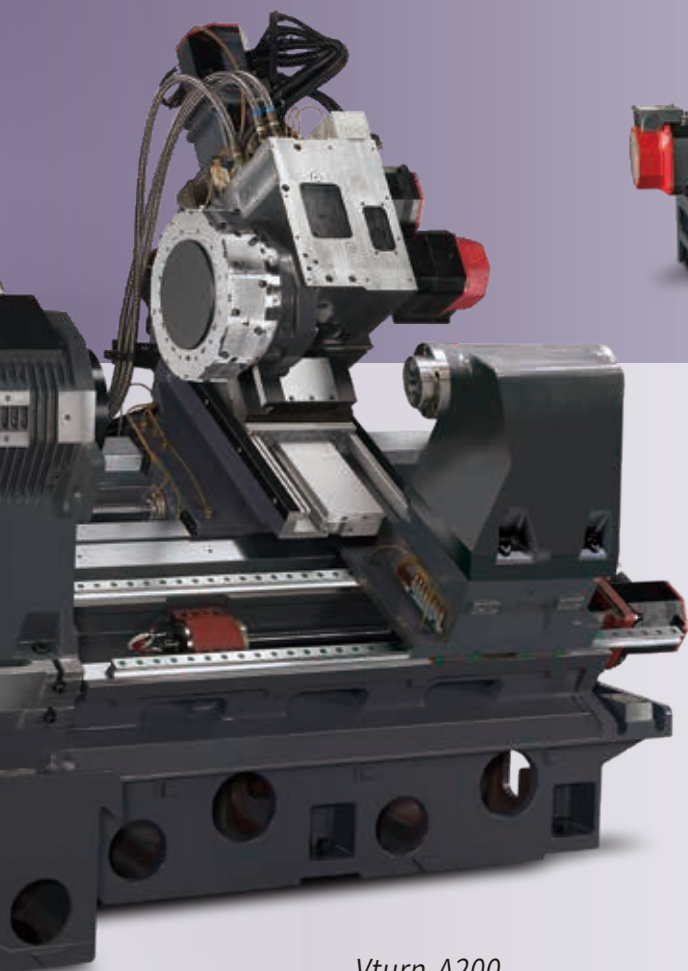


**Conventional design  
with much longer belts**



Fanuc αiP30 (A260)





Vturn-A200



Vturn-A260/75



## Servo Turret 1.0 sec. (adjacent tools)

- Victor Taichung's own turret
- Turret indexing time 1.0 sec (adj.), 1.45 (opposite)

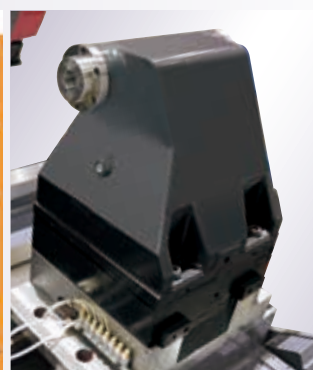


Certificated Casting

**GB300**

## Box Slideways (X/Z)

- 65/80 mm for Vturn-A200  
85/90 mm for Vturn-A260
- Victor Taichung's own casting



## Digital Tailstock

- NC tailstock (driven by E-axis servo motor)
- MT-4 (A200) / MT-5 (A260) without built-in bearing
- Quick moving and positioning without stroke detection
- Victor's GUI with guidance
- Opt. Subspindle available to complete a part in one set-up

# Ahead of Performance

## C-axis & Y-axis Application

- Optional C-axis by belt-driven spindle (std.) or built-in spindle (opt.)
- Belt-driven spindle good for drilling/milling
- Built-in DDS spindle good for contour milling
- Available with subspindle (opt.)



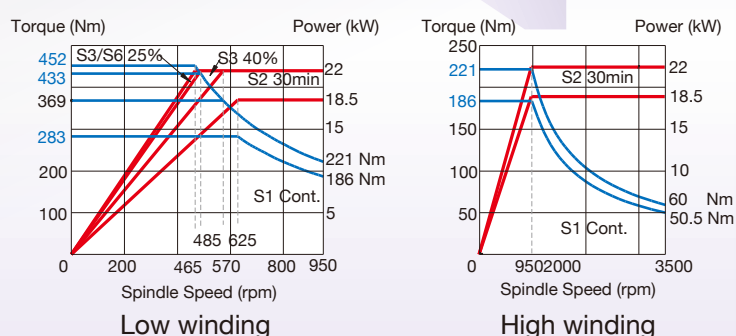
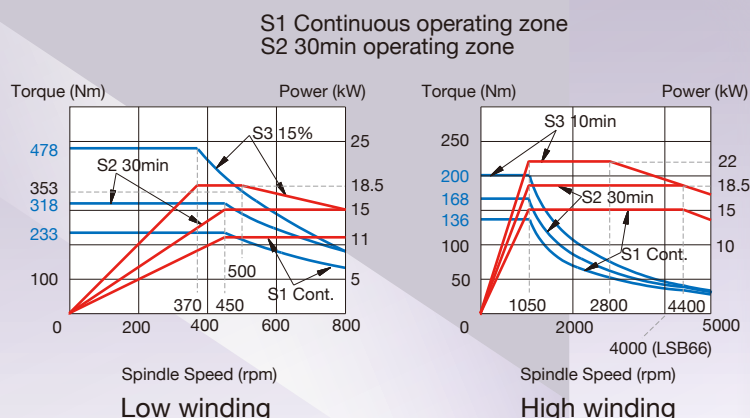
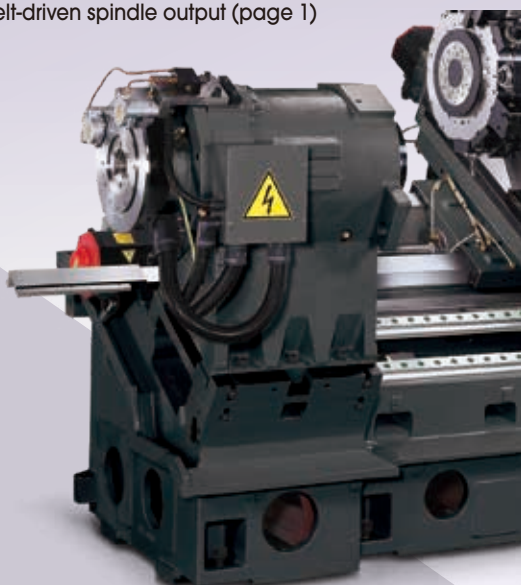
### Built-in Spindle\* (opt.)

**18.5 KW (A200, S3-15%)**

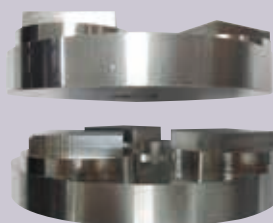
**22 KW (A260, S3-25%)**

- 5000 rpm / 8" chuck (A200), 3500 rpm / 10" chuck (A260)
- Good for contour milling
- Spindle output 478 Nm (A200, S3-15%) / 452 Nm (A260, S3-25%)
- Low base speed 370 rpm (A200) / 465 rpm (A260)
- NN type (roller type) bearings

\* belt-driven spindle output (page 1)



## Milling tests on Aluminum parts



Belt-driven spindle



Built-in spindle





Vturn-A260/75

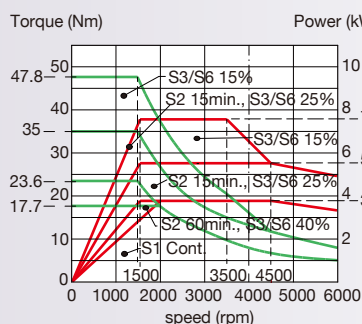


Vturn-A260/130

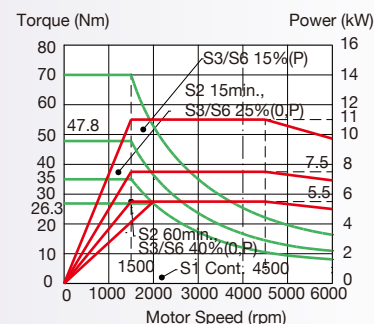
## BMT-55/65 Milling Turret



- 12 stations live tools (opt. half indexing 24 stations)
- Milling power 7.5 kW (S3-15%) for A200, 11kW (S3-15%) for A260
- Milling speed 4000 rpm (opt. 6000 rpm)



A200 (BMT-55)

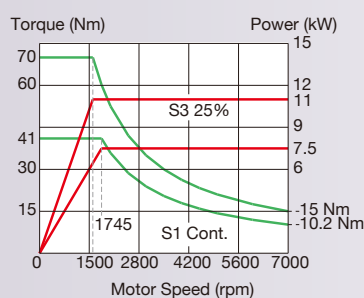


A260 (BMT-65)

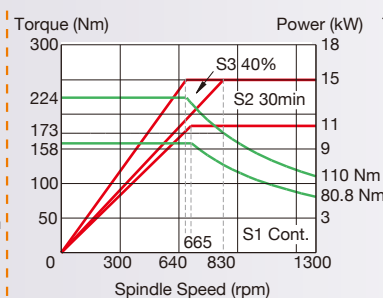
## Subspindle 11 KW (A200) / 15 KW (A260) (S3-25%)



- DDS built-in spindle
- 5" chuck / 7000 rpm / 11 kW (A200)
- 8" chuck / 5000 rpm / 15 kW (A260)
- Part changeover time: 20 sec.



Fanuc Bil 112S (A200)



Fanuc Bil 170S (A260)

# Standard and Options

- Fanuc Oi-TF Plus (type-1) control with 10.4" screen
- E-axis servo driven tailstock
- Pressure gauge in front
- Rotary operation panel
- Door moving along LM guideways
- Coolant flush onto Z-axis covers
- Built-in LED light
- Chip conveyor



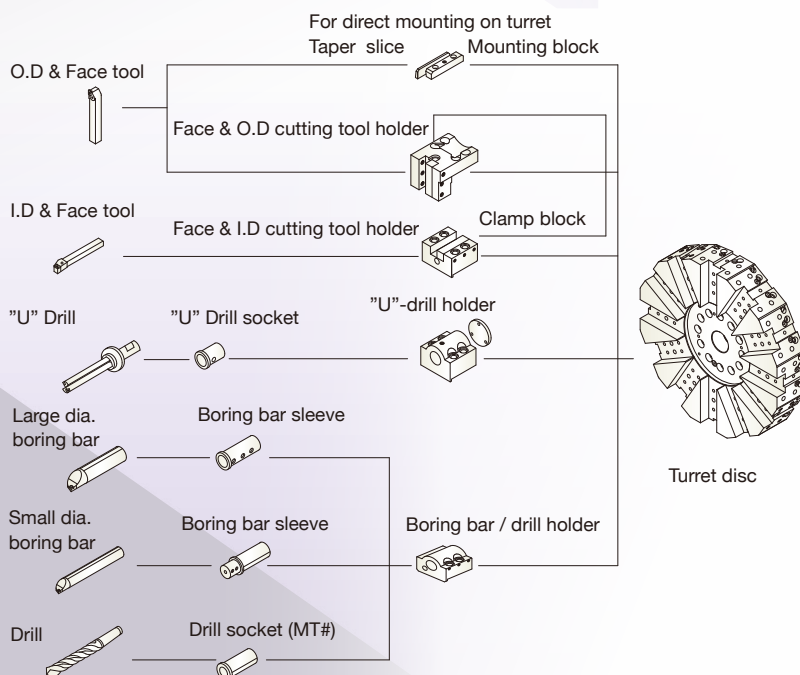
Chip conveyor (std.)

Coolant flush (std.)

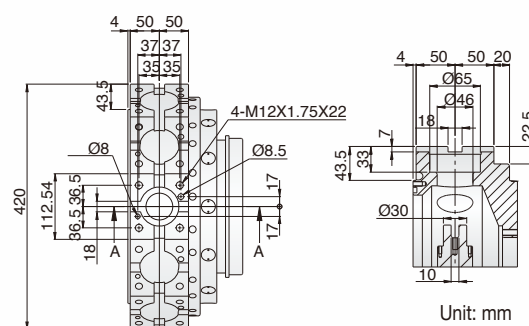
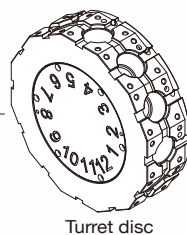


## Tooling accessories (excl. BMT turret model)

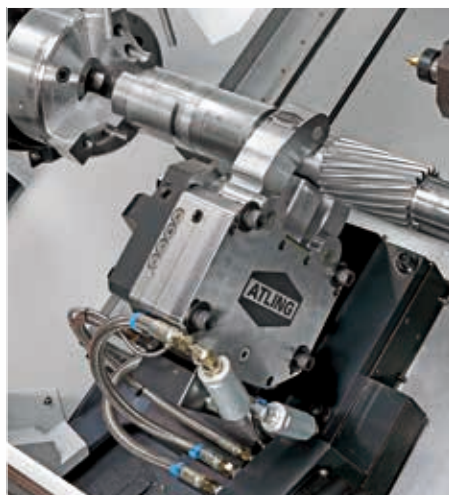
| Tools \ Model                  | Vturn-A200     | Vturn-A260 |
|--------------------------------|----------------|------------|
| Tool shank for turret disk     | 20 mm (3/4")   | 25 mm (1") |
| Maximum boring bar Dia,        | 40 mm (1 1/2") | 50 mm (2") |
| Face + OD cutting tool holder  | 1              | 1          |
| Face + ID. cutting tool holder | 1              | 1          |
| <b>Boring bar holder</b>       |                |            |
| 32 mm (1 1/4")                 | 6              | -          |
| 40 mm (1 1/2")                 | -              | 6          |
| 50 mm (2")                     | -              | 1          |
| <b>Boring bar sleeve</b>       |                |            |
| 8 mm (5/16")                   | 1              | 1          |
| 10 mm (3/8")                   | 2              | 2          |
| 12 mm (1/2")                   | 2              | 2          |
| 16 mm (5/8")                   | 2              | 2          |
| 20 mm (3/4")                   | 2              | 2          |
| 25 mm (1")                     | 2              | 2          |
| 32 mm (1 1/4")                 | -              | 2          |
| 40 mm (1 1/2")                 | -              | -          |
| <b>Drill socket</b>            |                |            |
| MT1                            | Opt.           | -          |
| MT2                            | 1              | 1          |
| MT3                            | Opt.           | 1          |
| MT4                            | -              | 1          |
| <b>'U' Drill holder</b>        |                |            |
| 20 mm (3/4")                   | Opt.           | Opt.       |
| 25 mm (1")                     | 1              | 1          |
| 32 mm (1 1/4")                 | -              | 1          |



## BMT-55/65 Turret



Unit: mm

**Part catcher (opt.)**

## Machine Color Option

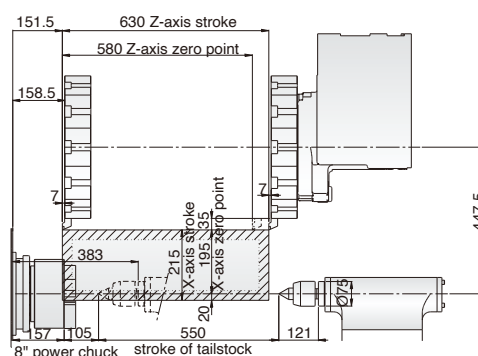


**Oil skimmer (opt.)**

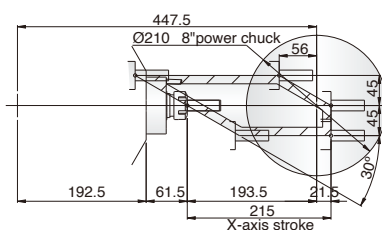
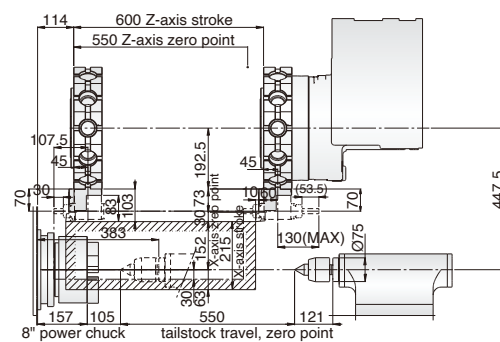


RAL-7024

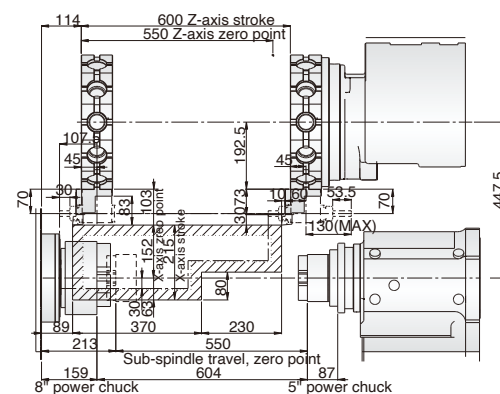
## Vturn-A200



## Vturn-A200CM or YCM



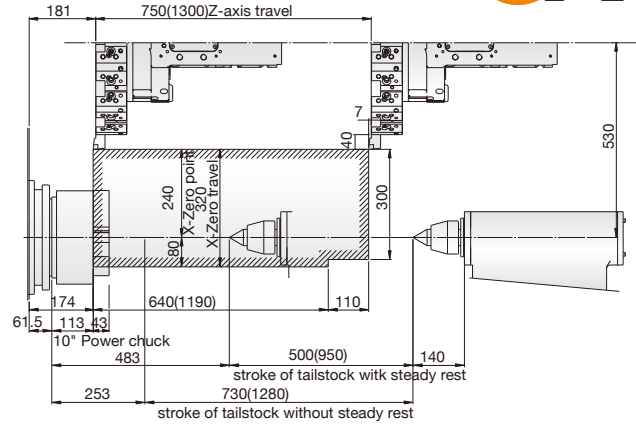
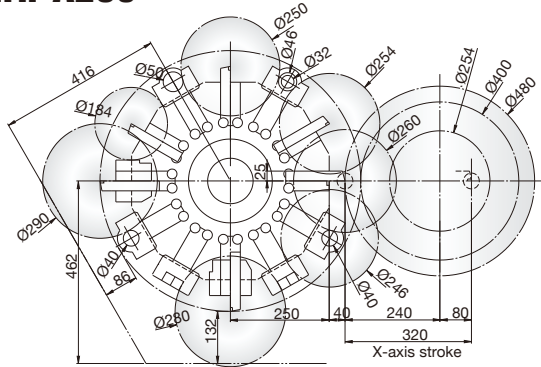
## Vturn-A200SCM or YSCM



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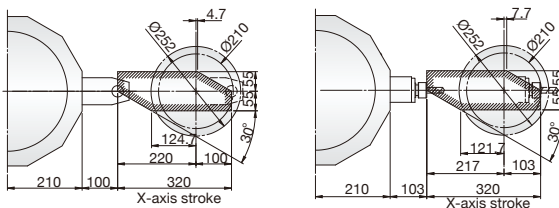


## Vturn-A260

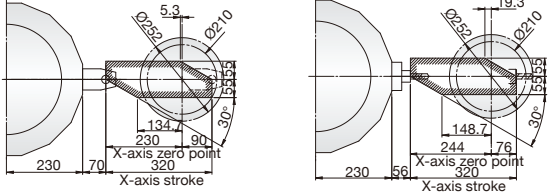


## Y-axis travel

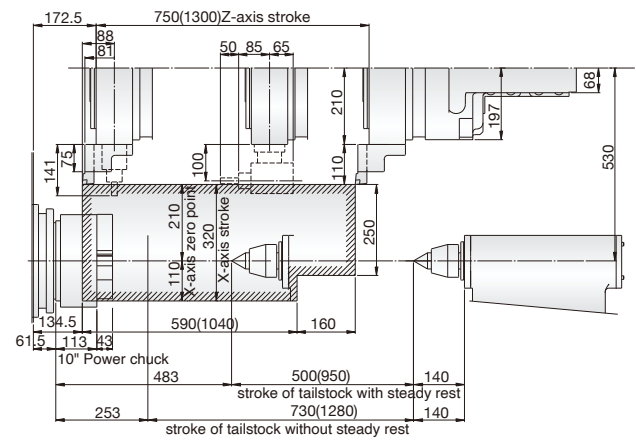
BMT-65  
(12 tools)



BMT-55  
(16 tools)

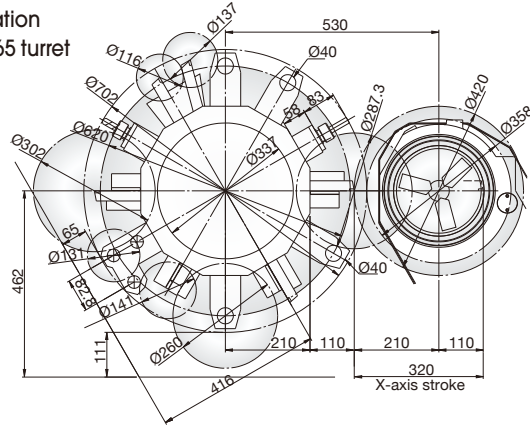


## Vturn-A260CM or YCM

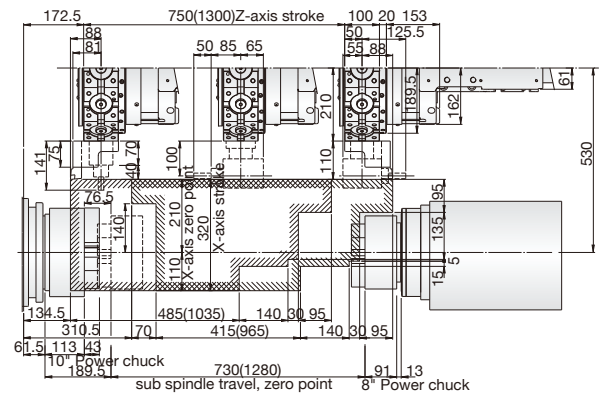


## Vturn-A260(Y)(S)CM

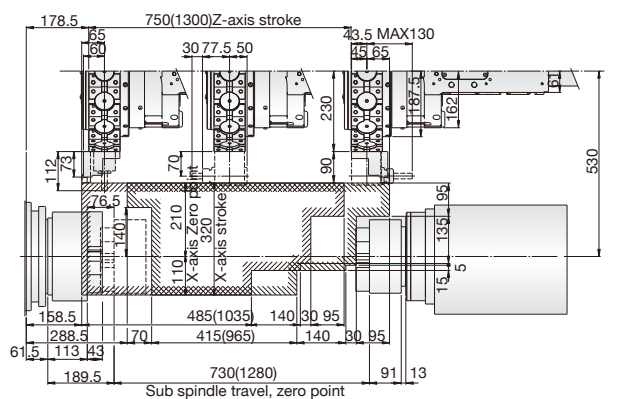
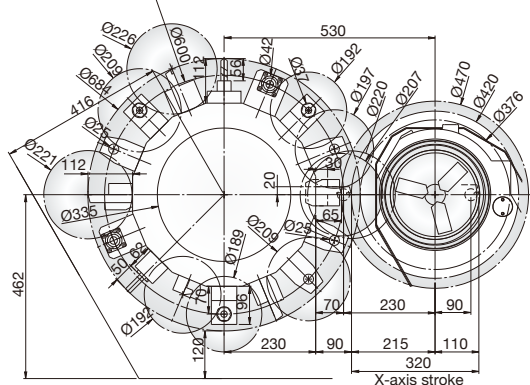
12 station  
BMT-65 turret



## Vturn-A260SCM or YSCM (12 stations)

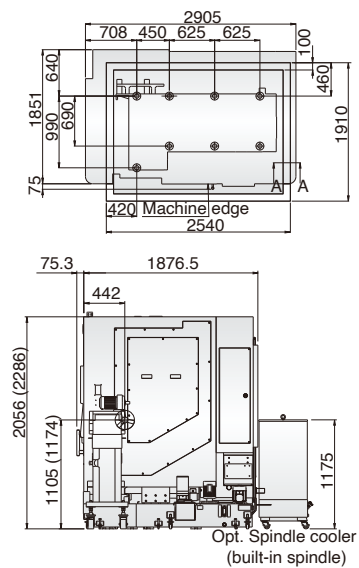


## 16 station BMT-55 turret (opt.)



Unit: mm

## Vturn-A200[Y]

[illegible]

Technical drawing of the machine structure showing top and side views with dimensions.

**Top View Dimensions:**

- Overall width: 3580
- Overall height: 1940
- Internal width segments: 400, 540, 570, 570, 600, 450
- Internal height segments: 100, 100, 310, 770, 430
- Internal width segments (bottom): 455, 3715
- Internal height segments (right): 1736, 90
- Internal width segments (bottom right): 310, 770, 430
- Internal height segments (left): 20
- Machine outline indicated by a dashed line.

**Side View Dimensions:**

- Overall height: 2337
- Overall width: 2202
- Internal height segments: 1178.5, 450
- Internal width segments: 125, 450, 530, 1265

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# Machine Specification

| Item \ Model           |                                             | Unit   | Vturn-A200 (SM)                            | Vturn-A200 Y(S)CM                                                   | Vturn-A260/75 (SM)<br>Vturn-A260/130 (SM)  | Vturn-A260/75 Y(S)CM<br>Vturn-A260/130 Y(S)CM                           |
|------------------------|---------------------------------------------|--------|--------------------------------------------|---------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------|
| Capacity               | Swing over bed                              | mm     | 750                                        | 750                                                                 | 800 (limited by front door)                | 800 (limited by front door)                                             |
|                        | Swing over carriage                         | mm     | 555                                        | 720                                                                 | 620                                        | 770                                                                     |
|                        | Between centers                             | mm     | 604                                        | 604                                                                 | 810 (850)<br>1360 (1400)                   | 810 (850)<br>1360 (1400)                                                |
|                        | Max. turning dia.                           | mm     | 390 (330)                                  | 330                                                                 | 480                                        | 420                                                                     |
|                        | Std. Turning dia.                           | mm     | 320 (286)                                  | 286                                                                 | 400 (358)                                  | 358                                                                     |
|                        | Bar capacity                                | mm     | 52 (opt. 66)                               | 52 (opt. 66)                                                        | 75 (opt. 91 LSB)                           | 75 (opt. 91 LSB)                                                        |
| Axis Feeds             | X axis travel                               | mm     | 195+20 (165+50)                            | 165+50 (165+50)                                                     | 240+80 (210+110)                           | 210+110 (210+110)                                                       |
|                        | Z axis travel                               | mm     | 600                                        | 600                                                                 | 750<br>1300                                | 750<br>1300                                                             |
|                        | E axis travel (subspindle)                  | mm     | 550 (550)                                  | 550 (550)                                                           | 730 (730)<br>1280 (1280)                   | 730 (730)<br>1280 (1280)                                                |
|                        | Y axis travel                               | mm     | -                                          | ± 45                                                                | -                                          | ± 55                                                                    |
|                        | Rapid feedrate                              | m/min  | X/Z: 24/24 (E: 15)                         | X/Z: 24/24, Y: 10 (E: 15)                                           | X/Z: 18/24 (E: 15)                         | X/Z: 18/24, Y: 10 (E: 15)                                               |
|                        | Feed servo motor                            | KW     | X: 3, Z: 4 (E: 2.5)                        | X: 3, Z: 4, Y: 3 (E: 2.5)                                           | X: 4, Z: 4 (E: 2.5)                        | X: 4, Z: 4, Y: 4 (E: 2.5)                                               |
|                        | JOG feedrate                                | mm/min | X/Z=0~1260                                 | X/Z=0~1260                                                          | X/Z=0~1260                                 | X/Z=0~1260                                                              |
|                        | Ballscrew dia. x pitch                      | mm     | Ø32 × P6 (X), Ø40 × P8 (Z)<br>Ø40 × P8 (E) | Ø32 × P6 (X), Ø40 × P8 (Z)<br>Ø32 × P6 (Y), Ø40 × P8 (E)            | Ø36 × P6 (X), Ø50 × P8 (Z)<br>Ø40 × P8 (E) | Ø36 × P6 (X), Ø50 × P8 (Z)<br>Ø32 × P6 (Y), Ø40 × P8 (E)                |
| Spindle                | Max. spindle speed                          | rpm    | 4200 (belt-driven)                         | 4200 (belt-driven)                                                  | 3500 (belt-driven)                         | 3500 (belt-driven)                                                      |
|                        | Spindle nose (chuck)                        | Inch   | A2-6 (8")                                  | A2-6 (8")                                                           | A2-8 (10")                                 | A2-8 (10")                                                              |
|                        | Spindle bore                                | mm     | 62 (opt. 76)                               | 62 (opt. 76)                                                        | 87 (opt. 105 LSB)                          | 87 (opt. 105 LSB)                                                       |
|                        | Spindle motor<br>(cont./30min)              | KW     | 7.5/9 (αilP15)<br>opt. 11/15 (αilP22)      | 7.5/9 (αilP15)<br>opt. 11/15 (αilP22)<br>opt. 15/18.5 (βil180M) DDS | 15/18.5 (αilP30)<br>opt. 18.5/22 (αilP40)  | 15/18.5 (αilP30)<br>opt. 18.5/22 (αilP40)<br>opt. 18.5/22 (βil200M) DDS |
|                        | Bearing inside dia.                         | mm     | 100 (opt. 120)                             | 100 (opt. 120)                                                      | 130 (opt. 160 LSB)                         | 130 (opt. 160 LSB)                                                      |
| Subspindle<br>(E axis) | Max. spindle speed                          | rpm    | 7000 (built-in)                            | 7000 (built-in)                                                     | 5000 (built-in)                            | 5000 (built-in)                                                         |
|                        | Spindle nose (chuck)                        | inch   | A2-5 (5")                                  | A2-5 (5")                                                           | A2-6 (8")                                  | A2-6 (8")                                                               |
|                        | Spindle motor<br>(cont./25%)                | KW     | 7.5/11 (βil112S)                           | 7.5/11 (βil112S)                                                    | 11/15 (βil170S)                            | 11/15 (βil170S)                                                         |
|                        | Bearing Inside dia.                         | mm     | 75                                         | 75                                                                  | 100                                        | 100                                                                     |
|                        | Spindle bore                                | mm     | 42                                         | 42                                                                  | 62                                         | 62                                                                      |
| Turret                 | Bar capacity                                | mm     | 30                                         | 30                                                                  | 52                                         | 52                                                                      |
|                        | No. of tools                                | no.    | 12                                         | 12                                                                  | 12                                         | 12                                                                      |
|                        | No. of live tools                           | no.    | -                                          | 12 (DIN 1809)                                                       | -                                          | 12 (DIN 1809), opt. 16                                                  |
|                        | Tool shank size                             | mm     | 20 (opt. 25)                               | 20 (opt. 25)                                                        | 25                                         | 25                                                                      |
|                        | Max. boring bar dia.                        | mm     | Ø40 (BMT-55)                               | Ø40 (BMT-55)                                                        | Ø50 (BMT-65)                               | Ø50 (BMT-65)<br>opt. Ø40 (BMT-55)                                       |
|                        | Exchange time (T-T)                         | sec    | 0.3                                        | 0.3                                                                 | 0.3                                        | 0.3                                                                     |
|                        | Exchange time (including<br>disk up & down) | sec    | 1.04 (Adjacent)<br>1.45 (opposite)         | 1.04 (Adjacent)<br>1.45 (opposite)                                  | 1.04 (Adjacent)<br>1.45 (opposite)         | 1.04 (Adjacent)<br>1.45 (opposite)                                      |
|                        | Milling speed                               | rpm    | -                                          | 4000 (opt. 6000)                                                    | -                                          | 4000 (opt. 6000)                                                        |
| Tailstock              | Milling motor (cont./15%)                   | KW     | -                                          | 3.7/7.5 (βil3_12000)                                                | -                                          | 5.5/11                                                                  |
|                        | Quill diameter                              | mm     | N.A. (digital)                             | N.A. (digital)                                                      | N.A. (digital)                             | N.A. (digital)                                                          |
|                        | Quill taper                                 |        | MT#4                                       | MT#4                                                                | MT#5                                       | MT#5                                                                    |
| Accuracy               | Stroke (E-axis)                             | mm     | 550                                        | 550                                                                 | 730<br>1280                                | 730<br>1280                                                             |
|                        | Positioning accuracy<br>(bi-directional)    | mm     | 0.01                                       | 0.01                                                                | 0.01                                       | 0.01                                                                    |
|                        | Repeatability                               | mm     | ± 0.004                                    | ± 0.004                                                             | ± 0.004                                    | ± 0.004                                                                 |
| Machine                | Coolant tank capacity                       | L.     | 330                                        | 330                                                                 | 360<br>470                                 | 360<br>470                                                              |
|                        | NC controller                               | Fanuc  | 0i-TF Plus (10.4")                         | 0i-TF Plus (10.4")                                                  | 0i-TF Plus (10.4")                         | 0i-TF Plus (10.4")                                                      |
|                        | Power requirement                           | KVA    | 21 (29)                                    | 26 (36)                                                             | 31 (44)                                    | 39 (51)                                                                 |
|                        | L × W × H<br>(with chip conveyor)           | mm     | 3882 × 2430 × 2056                         | 3882 × 2430 × 2286 (2056)                                           | 4528 × 2616 × 2020<br>5280 × 2616 × 2020   | 4528 × 2616 × 2335<br>5280 × 2616 × 2335                                |
|                        | Net weight                                  | kg     | 6500 (6700)                                | 6800 (7000)                                                         | 7000 (7200)<br>8000 (8200)                 | 7300 (7500)<br>8300 (8500)                                              |

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

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

## Standard Accessories:

- Fanuc 0iTF Plus (10.4", type-1) control
- Power chuck with soft jaws
- Digital tailstock (E-axis driven)
- Chip conveyor with cart
- Fully enclosed splash guarding
- Hand-wheel
- Tool holders (excl. VDI/BMT turret)
- Coolant flush on Z-axis cover
- 3 step warning light
- Fanuc e-book (CD)

## Optional Accessories:

- Air conditioner for electrical cabinet
- Manual tool presetter (Renishaw®)
- Auto tool presetter (Renishaw®)
- Parts catcher (swing type)
- KITAGAWA® hydraulic chuck
- Auto door
- Bar feeder interface
- Air blow system
- Higher pressure coolants
- Oil skimmer
- Sub-spindle (direct drive)
- Large spindle bore
- Fanuc manuals
- Hard jaws
- Handy handwheel (remote MPG)
- Steady rest (manual or hydraulic)

# 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.                       |

#### 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.        |
| 4. Memory card program entry count extension (Max. 1000) | Std.        |

#### C Axis Function:

|                                   |                  |
|-----------------------------------|------------------|
| 1. Polar coordinate interpolation | Std. (G112/G113) |
| 2. Cylindrical interpolation      | Std. (G107)      |
| 3. CS contouring control          | Std.             |
| 4. Coordinate System Rotation     | Std.             |

## OPTIONS

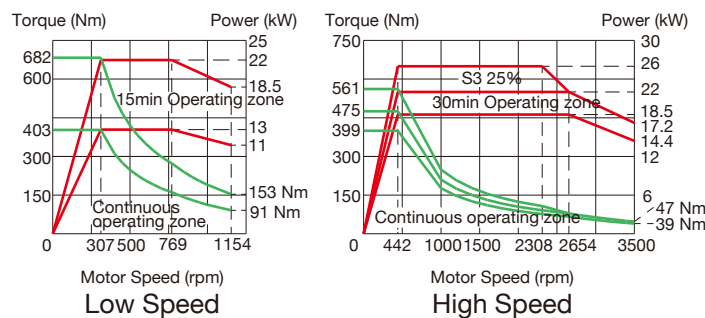
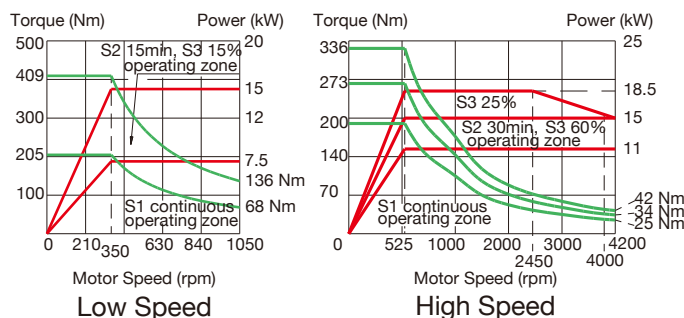
#### With hardware included

|                                                                     |                          |
|---------------------------------------------------------------------|--------------------------|
| 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. CC-Link (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"/> |

## Spindle Motor Upgrade (opt.)



THE VICTOR-TAICHUNG COMPANIES

#### TAIWAN

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- ☐ Victor Taichung Machinery Works Co., Ltd.  
No. 1, Jingke Central 2nd Rd.,  
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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

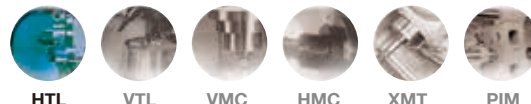
- ☐ PT. Victor Machinery Indonesia  
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- ☐ Fortune International Inc.  
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TEL : 86-21-59768018  
FAX : 86-21-59768009



HTL

VTL

VMC

HMC

XMT

PIM



was also marketed under the brand names **VICTOR** (outside North America) and **FORTUNE** KM1GE24EA