

# Entry models

into **CNC machining**



**Vcenter-102E**



**Vturn-20E/26E**



# Vcenter-102E

**Economic & reliable for mass production!**

- Arm-type ATC
- Japanese-made linear motion guideways
- Meehanite® casting
- Victor Taichung's own spindle



### Efficient tool changer

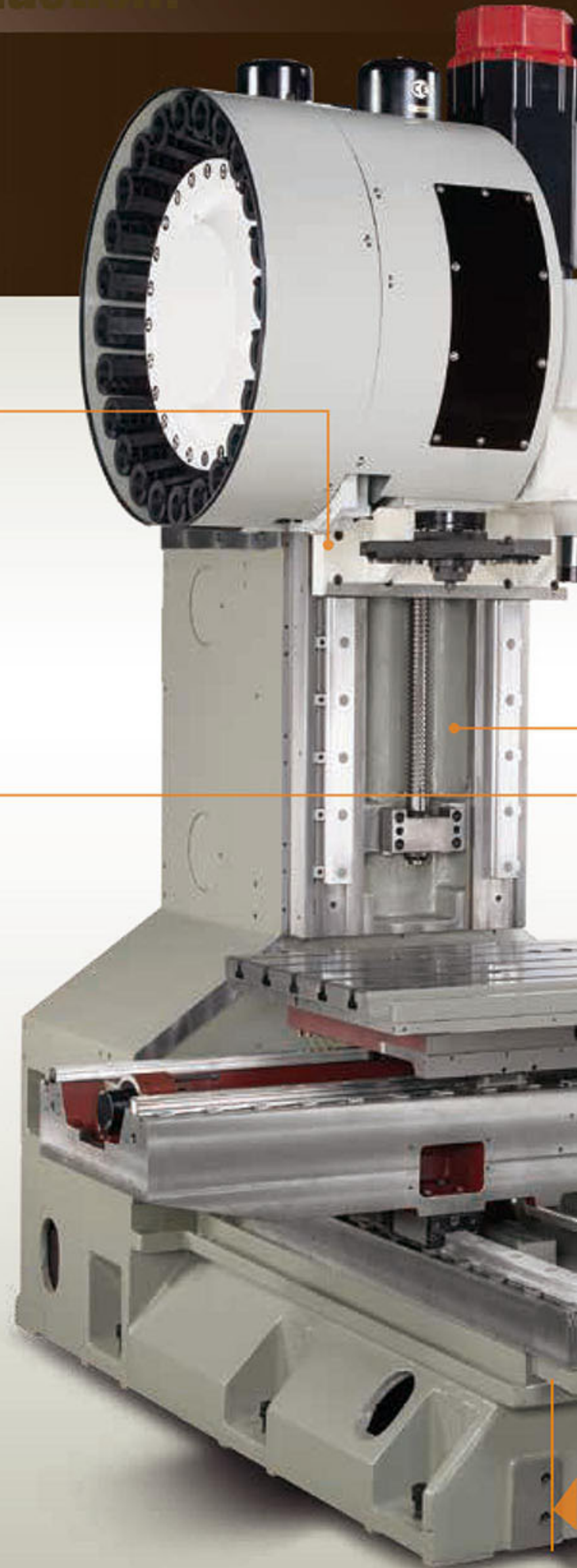
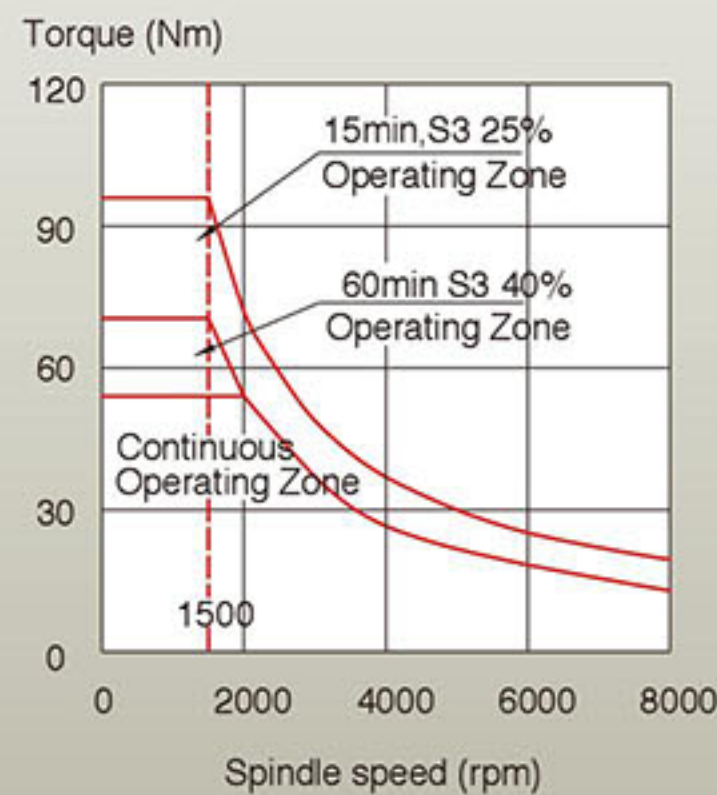
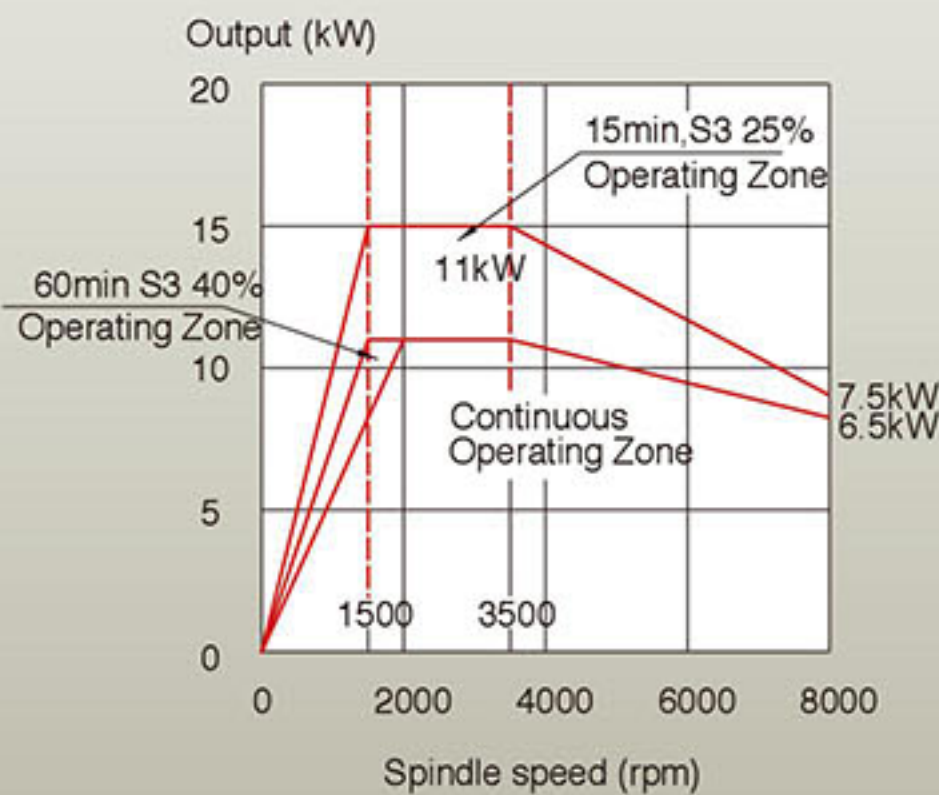
- Twin arm type ATC performs better overall continuous tool changes compared with disc type tool changer, while at the same time offering faster tool change - merely 3.5 seconds with BT-40 or CT-40 tooling.

### Victor Taichung's own spindle

- The spindle is supported with angular thrust bearings for large contact areas that easily handles large axial and radial loads, while computer modeling helps determine bearing locations for maximum spindle stiffness.
- 8000 rpm spindle meets versatile machining demands.



### Spindle Output Diagram



### Minimizing the effects of thermal growth

- Symmetrical design and construction means heat generation is limited to minimize the effects of thermal growth on machine accuracies.
- Double-anchored ballscrews are pretensioned during assembly to absorb heat with minimal thermal growth.
- Effective chip evacuation from the machining area improves heat dissipation from the working area, while spindle oil cooling prevents excessive spindle growth.
- Spindle oil cooler (optional) can be installed to enhance the spindle durability for long time machining.

### Strong machine structure

- Stiffness enhanced column with big triangle bottom offers the maximum cutting stability whenever this machine is used with rapid feed .
- Machine bed and saddle feature triangular cast structure to evenly distribute the machine loading, while cross diagonal ribbing in the column minimizes distortion and twisting during operation.
- All major structural components are made from Meehanite cast iron to ensure consistent homogenous castings.

MEEHANITE

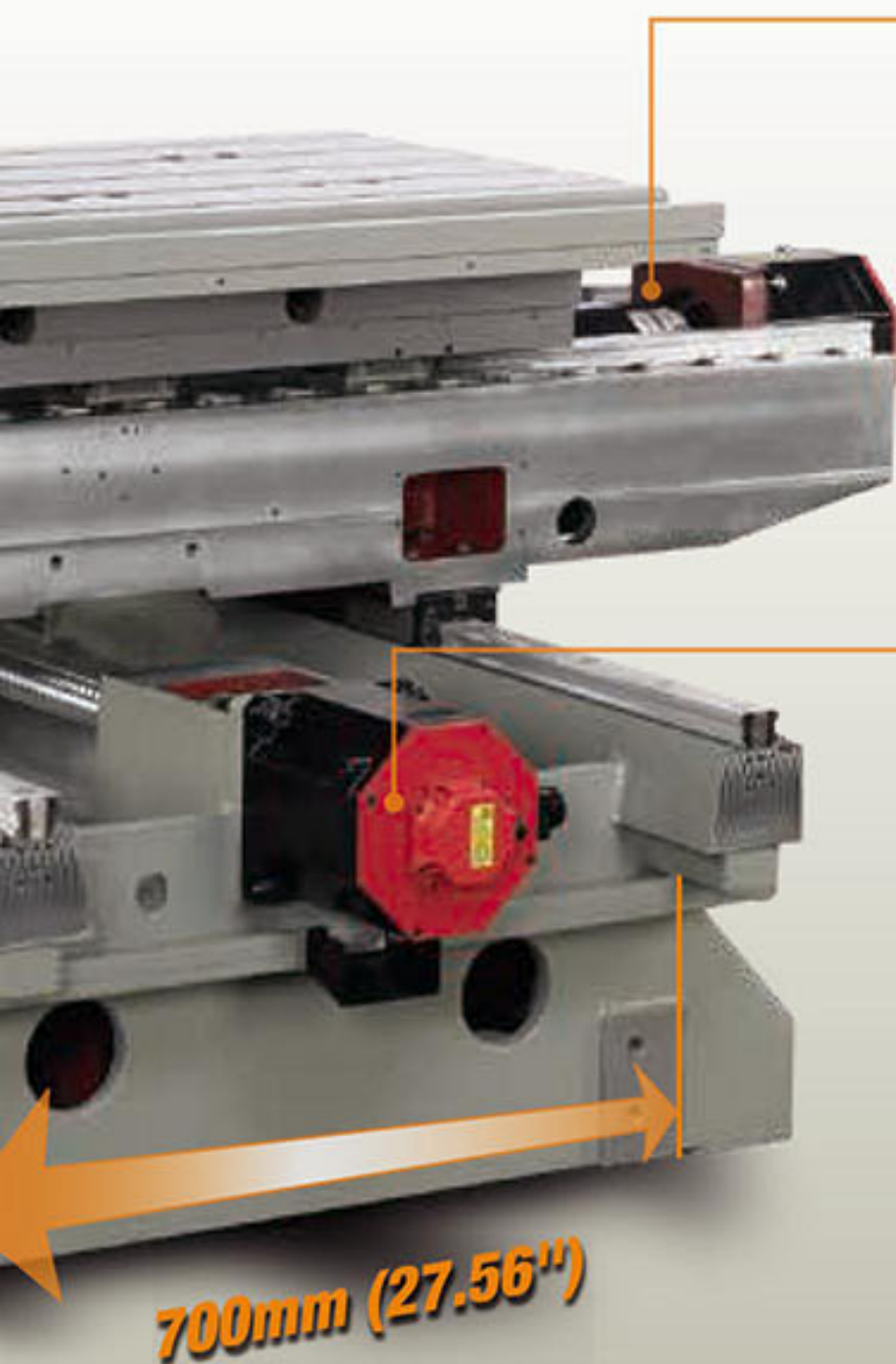


### Coolants and chips disposal

- Coolants are injected around the spindle ring to avoid chip build-up on machined parts.
- High pressure coolant flushing away the swarf from the bottom guarding assures optimal chip disposal efficiency during machining.
- " ^ " type telescopic cover reduce the swarf accumulation.

### Front mounted Y axis servo motor

- Superior structure stiffness with the optimal rail spacing 700 mm supports the long table at the travel end of X axis movement.
- THREE supporting blocks in each X-axis guide and 2 blocks in each Y-axis guide guarantees the accuracy requirement.
- The Y axis servo motor is front mounted to reduce the overall length of the ballscrew thus reducing the thermal displacement and increasing structure rigidity.
- Y-axis travel 600mm meets various machining requirements.



# Vturn-20E / 26E

**Economic & reliable for mass production!**

- Genuine 45° slant bed with box slideways
- Z-axis ball screw diameter 40mm
- 8"/10" chuck for Vturn-20E/26E
- Programmable tailstock and chip conveyor

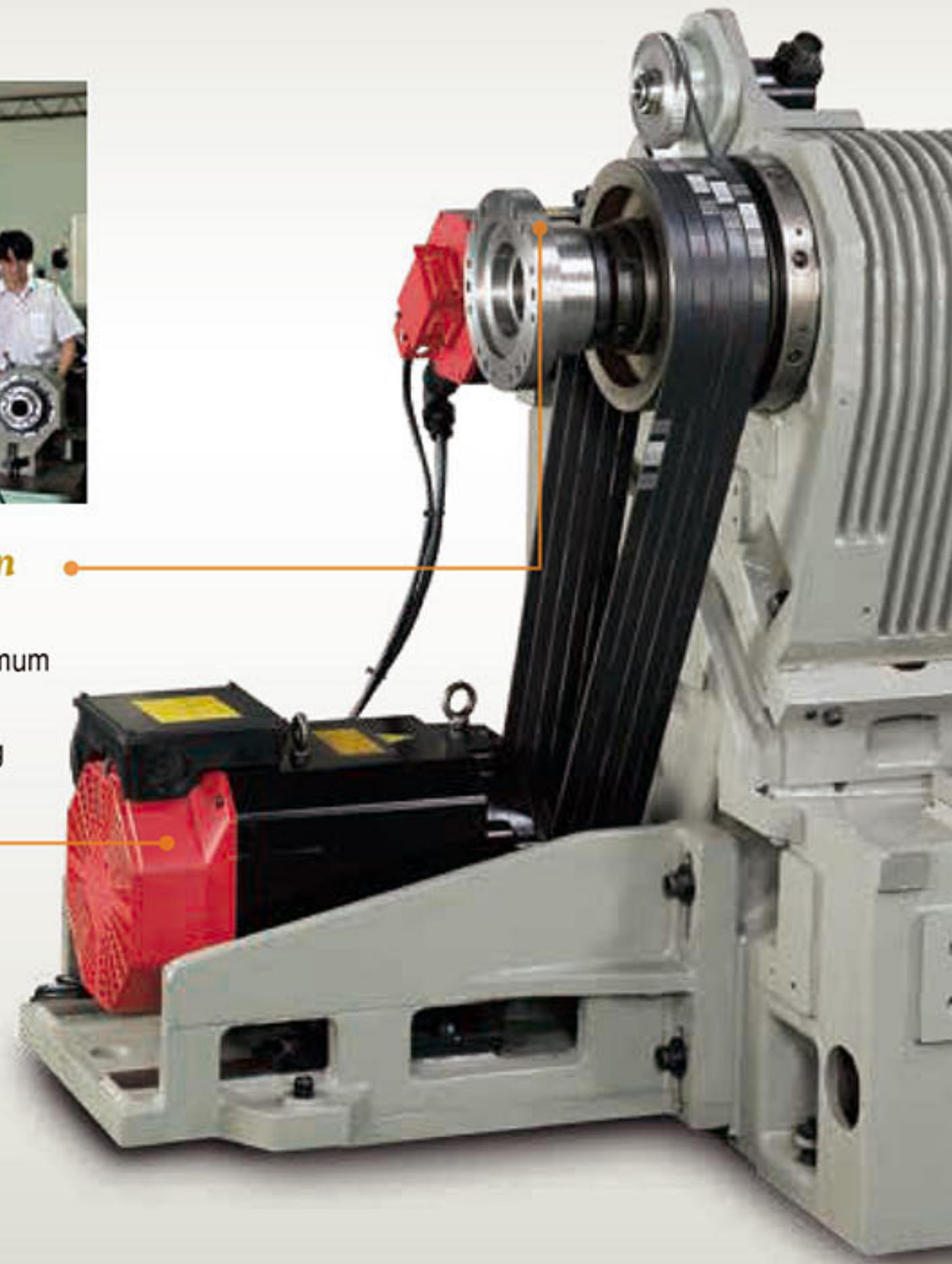
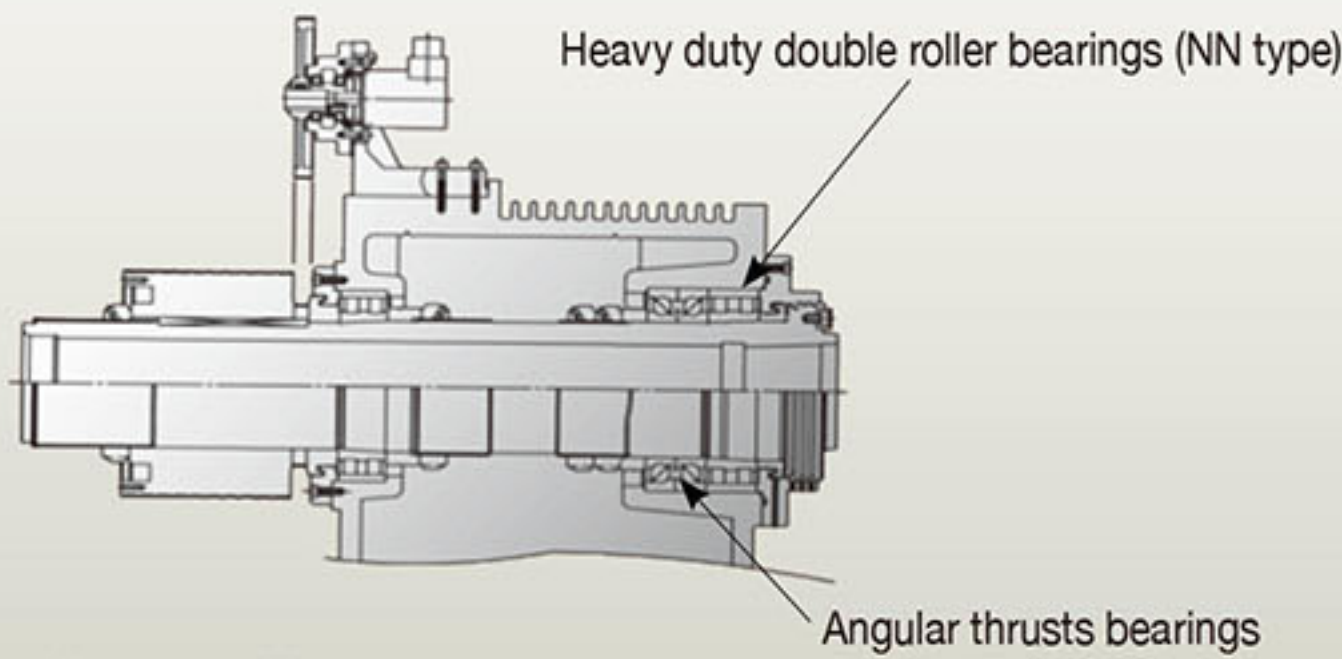


### 3-jaw Power chuck

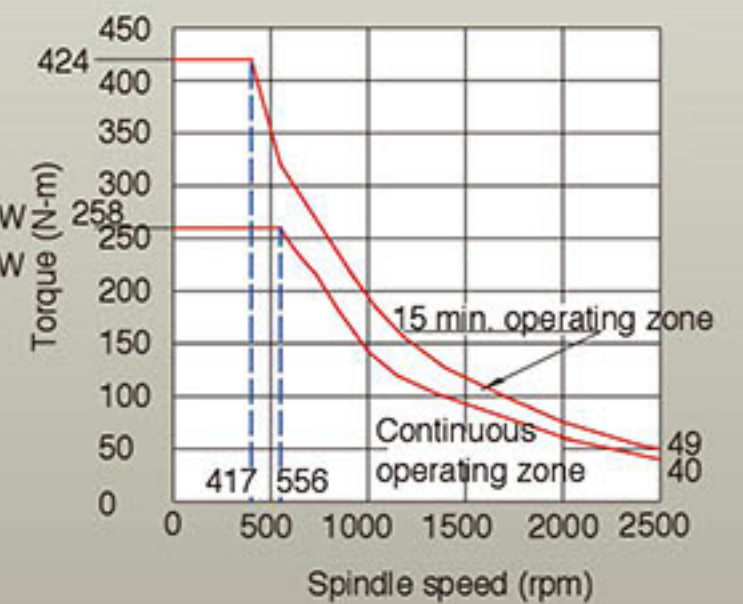
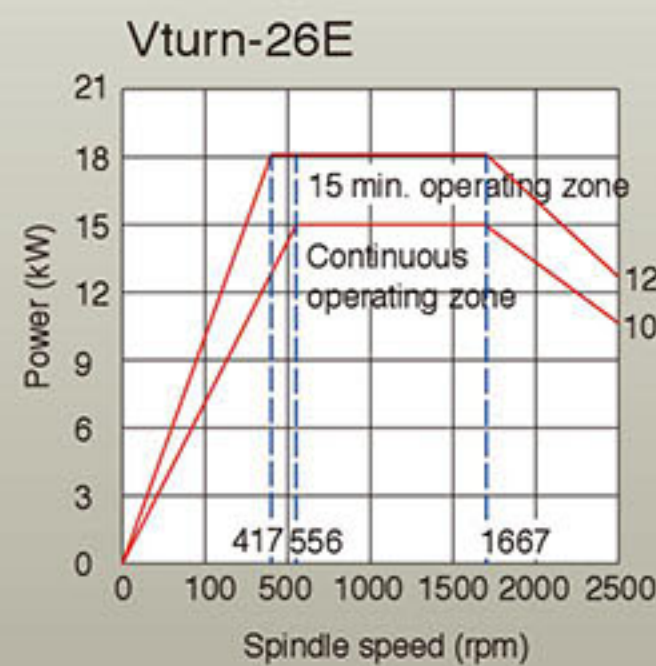
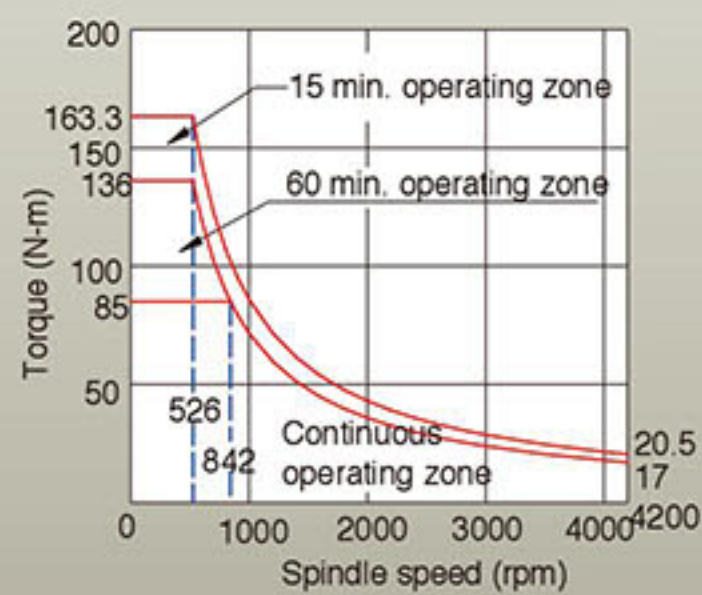
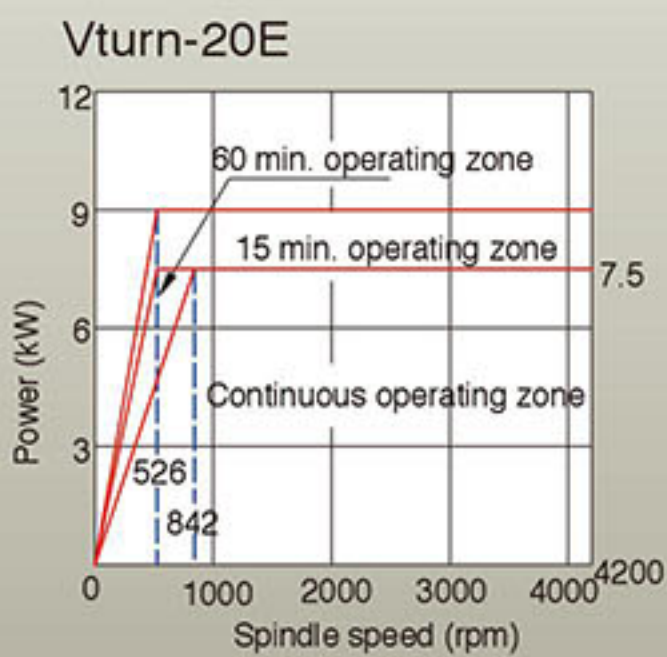
- Renowned reliability chuck is foot operated for safety and easy operation.

### 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 Output Diagram



### Hardened box slideways

- Box slideways even enhance the structure rigidity to afford intermittent cutting or hard material turning
- Hardness HRC 55 for heavy cutting
- Auto forced lubrication

### Victor Taichung's own turret

- Hydraulic clamping for high rigidity
- Curvic coupling for high accuracy

### Genuine 45° slant bed

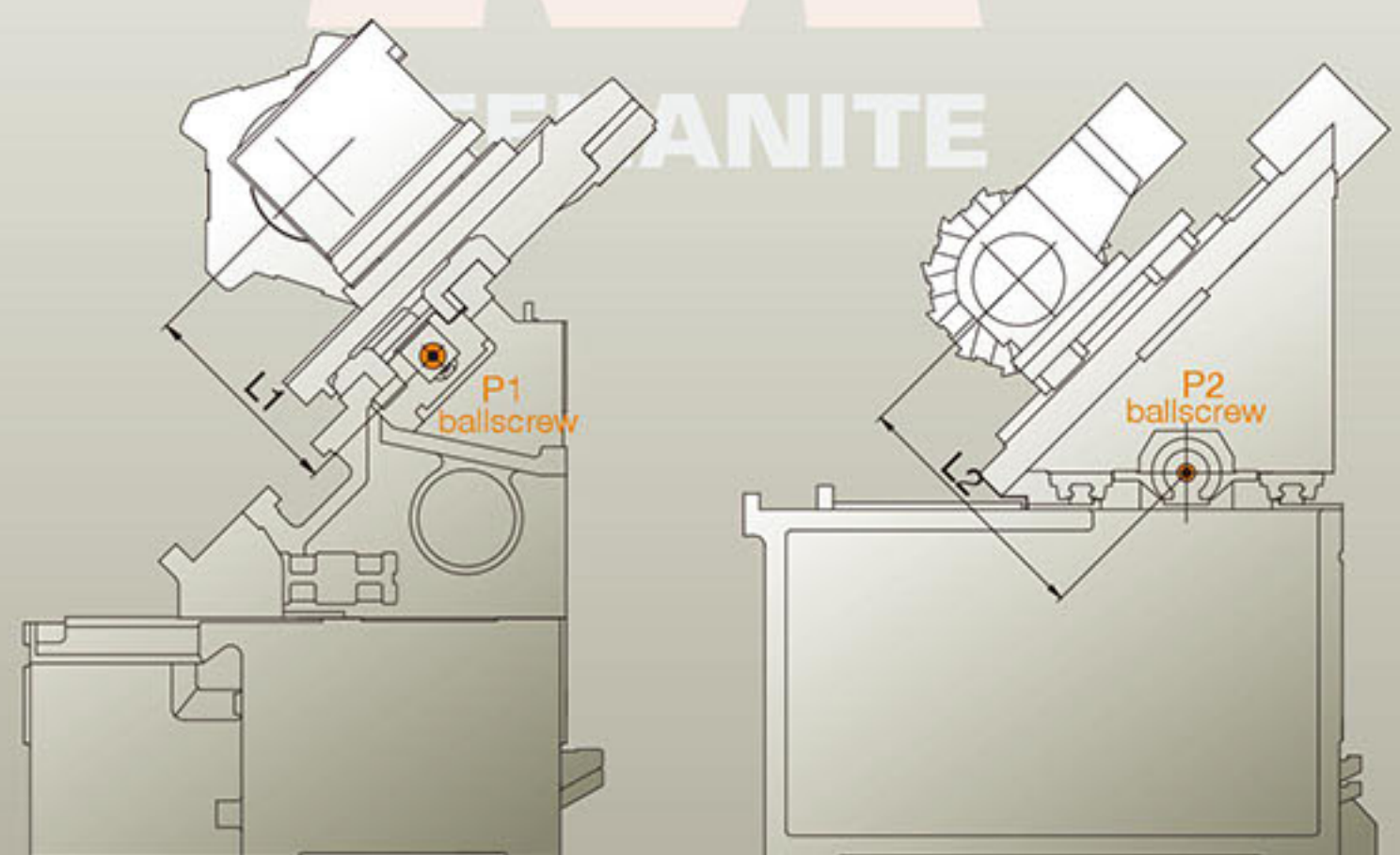
- Vturn-20E/26E lathes have the Z-axis ballscrew mounted on the slant bed (P1) instead of machine base (P2) to minimize the distance from ballscrew to the tool insert and thus upgrades the turret and carriage stiffness.
- Meehanite® certificated casting

### Programmable tailstock

- Smooth tow-along action by turret and programmable by M-code control

### Coolant and chip disposal

- Front removed coolant tank for easy chip clean-up
- High pressure coolant (1.1 bars/50Hz, 1.5 bars/60Hz) is offered as standard and optional 3.3 bars is available.



# VICTOR's FANUC Oi-MF type 3

## Control Specifications

### Standard

| ITEM                   | SPECIFICATION  | DESCRIPTION  |
|------------------------|--|--|
| <b>Controlled Axes</b> |  |  |
| 1.                     | Controlled Axes  | 3 Axes (X, Y, Z)   |
| 2.                     | Simultaneous Controlled Axes                                   | Position/Linear Interpolation/Circular Interpolation (3/3/2) |
| 3.                     | Least Input Increment  | 0.001 mm / 0.0001 inch / 0.001 deg                           |
| 4.                     | Least Input Increment 1/10                                     | 0.0001 mm / 0.00001 inch / 0.0001 deg.                       |
| 5.                     | Max. command value   | ±99999.999 mm (±9999.9999 in)                                |
| 6.                     | High Speed HRV Control   | Std.   |
| 7.                     | Inch / Metric Conversion                                       | Std. (G20 / G21)   |
| 8.                     | Interlock  | All Axes / Each Axis / Cutting Block Start                   |
| 9.                     | Machine Lock   | All Axes / Each Axis   |
| 10.                    | Emergency Stop   | Std.   |
| 11.                    | Over-travel  | Std.   |
| 12.                    | Stored Stroke Check 1 and Check 2                              | Std.   |
| 13.                    | Mirror Image   | Each Axis  |
| 14.                    | Mirror Image M/3, M/4, M/5, M/6                                | X, Y Axes  |
| 15.                    | Follow-up  | Std.   |
| 16.                    | Position switch (with Victor's own PLC)                        | Std.   |
| <b>Operation</b>       |  |  |
| 1.                     | Automatic Operatio   | 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  |
| 15.                    | Z Axis Neglect   | Std.   |
| <b>Interpolation</b>   |  |  |
| 1.                     | Positioning  | G00  |
| 2.                     | Single Direction Positioning                                   | G60  |
| 3.                     | Exact Stop Mode  | G61  |
| 4.                     | Exact Stop   | G09  |
| 5.                     | Linear Interpolation   | G01  |
| 6.                     | Circular Interpolation   | G02, G03 (multi-quadrant is possible).                       |
| 7.                     | Dwell  | G04  |
| 8.                     | Helical Interpolation  | Std.   |
| 9.                     | Skip Function  | G31  |
| 10.                    | Reference Position Return                                      | G28  |
| 11.                    | Reference Position Return Check                                | G27  |
| 12.                    | 2nd / 3rd/4th Reference Position Return                        | Std.   |
| <b>Feed</b>            |  |  |
| 1.                     | Rapid Traverse Rate  | Std.   |
| 2.                     | Rapid Traverse Override  | F0, 25%, 50%, 100%   |
| 3.                     | Feed Per Minute  | G94 ( mm / min )   |
| 4.                     | Tangential Speed Constant Control                              | Std.   |
| 5.                     | Cutting Feed rate Clamp  | Std.   |
| 6.                     | Automatic Acceleration / Deceleration                          | Rapid traverse: linear, Cutting feed: exponential            |
| 7.                     | Rapid traverse Bell-shaped Acc./Deceleration                   | Std. (G00)   |
| 8.                     | Bell-shaped Acc./Deceleration After Cutting Feed Interpolation | Std. (G01)   |
| 9.                     | Automatic Corner Deceleration                                  | Std. (G64)   |
| 10.                    | Linear Acc/Deceleration After Cutting Feed Interpolation       | Std. (G01)   |
| 11.                    | Feed rate Override   | 0-150%   |
| 12.                    | Jog Override   | 0-100%   |
| 13.                    | Automatic Corner Override                                      | G62  |
| 14.                    | Feed Stop  | Std.   |
| 15.                    | Feed rate clamp by arc radius (G02/G03)                        | Std.   |
| 16.                    | AI advanced preview control                                    | 12   |
| <b>Program Input</b>   |  |  |
| 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   | 04-Digit   |
| 8.                     | Sequence Number  | N5-Digit   |
| 9.                     | Absolute / Incremental Programming                             | G90/G91  |
| 10.                    | (Pocket Calculator Type) Decimal Point Programming             | Std.   |
| 11.                    | Input Unit 10 Time Multiply                                    | Std.   |

|     |  |                                     |
|-----|--|-------------------------------------|
| 12. | Plane Selection                              | G17, G18, G19                       |
| 13. | Rotary Axis Designation                      | Std.                                |
| 14. | Rotary Axis Roll-Over Function               | Std.                                |
| 15. | Polar coordinate Command                     | G16                                 |
| 16. | Coordinate System Setting                    | Std.                                |
| 17. | Automatic Coordinate System Setting          | Std.                                |
| 18. | Workpiece Coordinate System                  | G52, G53, G54-G59                   |
| 19. | Addition of Workpiece Coordinate System Pair | 48 Pairs                            |
| 20. | Manual Absolute On And Off                   | Std.                                |
| 21. | Optional Chamfering Corner R                 | Std.                                |
| 22. | Programmable Data Input                      | G10                                 |
| 23. | Sub Program Call                             | 10 folds nested.                    |
| 24. | Custom macro B                               | Std.                                |
| 25. | Addition of Custom Macro Common Variables    | #00-#199, #500-#999                 |
| 26. | Canned Cycles For Milling                    | G73 / G74 / G76, G80-G89, G98 / G99 |
| 27. | Small hole peck drilling cycle               | G83                                 |
| 28. | Circular Interpolation by R Programming      | Std.                                |
| 29. | Program Format                               | FANUC Std. format                   |
| 30. | Program Stop / Program End                   | M00 / M01 / M02 / M30               |
| 31. | Reset  | Std.                                |
| 32. | Scaling                                      | G51                                 |
| 33. | Coordinate System Rotation                   | G68                                 |

### Auxiliary Spindle Speed Function

|    |                                |          |
|----|--------------------------------|----------|
| 1. | Auxiliary Function Lock        | Std.     |
| 2. | High Speed M / S / T Interface | Std.     |
| 3. | Spindle Speed Function         | Std.     |
| 4. | Spindle Override               | 50-120%  |
| 5. | 1st Spindle Orientation        | Std.     |
| 6. | M Code Function                | M3 digit |
| 7. | S Code Function                | S5 digit |
| 8. | T Code Function                | T2 digit |
| 9. | Rigid Tapping                  | Std.     |

### Tool Function & Tool Compensation

|    |                          |                              |
|----|--------------------------|------------------------------|
| 1. | Tool Function            | T8 digit                     |
| 2. | Tool Offset Pairs        | 400                          |
| 3. | Tool Offset Memory C     | STD (DH codes are separated) |
| 4. | Tool Length Compensation | G43-G44, G45-G48, G49        |
| 5. | Cutting Compensation C   | 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)   | 512 MB |
| 2. | Number of Registered programs (in total) | 400    |
| 3. | Part Program Editing / Protect           | Std.   |
| 4. | Background 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 of Spindle Speed and T Code At All Screens | Std.                       |
| 14. | Graphic Function                                   | Std.                       |
| 15. | Servo Setting Screen                               | Std.                       |
| 16. | Spindle Setting Screen                             | Std.                       |
| 17. | Display of Hardware and Software Configuration     | Std.                       |
| 18. | Multi-Language Display                             | Std.                       |
| 19. | Data Protection Key                                | Std.                       |
| 20. | Erase CRT Screen Display                           | Std.                       |
| 21. | Machining Condition Selecting Screen               | Std.                       |
| 22. | Color LCD / MDI                                    | 8.4"                       |

### Data Input / Output

|    |                            |                  |
|----|----------------------------|------------------|
| 1. | Reader / Puncher Interface | RS-232 interface |
| 2. | Memory Card Interface      | Std.             |

### OPTIONS

|    |  |            |
|----|--|------------|
| 1. | Dynamic graphic display and simple Conversational programming (Manual guide 0) | 0          |
| 2. | Programmable mirror image (G50.1)  | 0          |
| 3. | AICC   | 40 blocks  |
| 4. | AICC-2   | 200 blocks |

# VICTOR's FANUC Oi-TF Type 3

## Control Specifications

### Standard

| ITEM                   | SPECIFICATION  | DESCRIPTION  |
|------------------------|--|--|
| <b>Controlled Axes</b> |  |  |
| 1.                     | Controlled Axes  | 2 Axes (X, Z)                                      |
| 2.                     | Simultaneous Controlled Axes   | Position/Linear Circular Interpolation (2 / 2 / 2) |
| 3.                     | Linear input increment   | 0.001 mm / 0.0001 inch / 0.01 deg.                 |
| 4.                     | Least input increment 1/10   | 0.001 mm / 0.0001 inch / 0.01 deg.                 |
| 5.                     | Max. command value   | ±9999.999 mm (±9999.9999 in)                       |
| 6.                     | HRV Control  | Std.   |
| 7.                     | Inch / Metric Conversion   | Std. (G20 / G21)                                   |
| 8.                     | Interlock  | All Axes / Each Axis / Cutting Block Start.        |
| 9.                     | Machine Lock   | All Axes / Each Axis                               |
| 10.                    | Emergency Stop   | Std.   |
| 11.                    | Over-travel  | Std.   |
| 12.                    | Stored Stroke Check 1  | Std.   |
| 13.                    | Mirror Image   | Each Axis  |
| 14.                    | Chamfering on/off  | Std.   |
| 15.                    | Follow-up  | Std.   |
| <b>Operation</b>       |  |  |
| 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                                      |
| <b>Interpolation</b>   |  |  |
| 1.                     | Positioning  | G00  |
| 2.                     | Threading synchronous cutting  | Std.   |
| 3.                     | Multiple Threading   | Std.   |
| 4.                     | Threading retrad   | 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.                    | Z <sup>RD</sup> Reference Position Return                                    | Std.   |
| <b>Feed</b>            |  |  |
| 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.                     | Rapid traverse bell-shaped acceleration/deceleration                         | Std.   |
| 9.                     | Linear accel/deceleration after cutting feed interpolation                   | Std.   |
| 10.                    | Feed rate Override   | 0-150%   |
| 11.                    | Jog Override   | 0-100%   |
| 12.                    | Feed Stop  | Std.   |
| <b>Program Input</b>   |  |  |
| 1.                     | Type code EIA / ISO  | 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   | 04-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.                    | Workpiece 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.                  |
| 24. | Multiple Repetitive Cycle 2 (Pocket profile) | Std.                  |
| 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.  | 1st Spindle Orientation        | Std.     |
| 8.  | M Code Function                | M3 digit |
| 9.  | S Code Function                | S4 digit |
| 10. | T Code Function                | T4 digit |
| 11. | Rigid Tapping (Spindle)        | Std.     |

### Tool Function & Tool Compensation

|    |  |                        |
|----|--|------------------------|
| 1. | Tool Function                                | T7+1/T6+2/digits       |
| 2. | Tool Offset Pairs                            | ±6-digit 99 pairs      |
| 3. | Tool Nose Radius Compensation                | Std. (G40 / G41 / G42) |
| 4. | Tool Geometry/wear Compensation              | Std.                   |
| 5. | Number of Tool Offsets (in total)            | 99 sets                |
| 6. | Automatic Tool Offset                        | Opt.                   |
| 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)     | 1280 m |
| 2. | Number of Registerable programs (in total) | 400    |
| 3. | Part Program Editing                       | Std.   |
| 4. | Program Protect                            | Std.   |
| 5. | Background Editing                         | Std.   |
| 6. | Play back                                  | 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. | Manual Guide Oil                                | Std.                       |
| 16. | Servo Setting Screen                            | Std.                       |
| 17. | Display of Hardware and Software Configuration  | Std.                       |
| 18. | Multi-Language Display                          | Std.                       |
| 19. | Data Protection Key                             | Std.                       |
| 20. | Erase CRT Screen Display (Energy saving)        | Std.                       |
| 21. | Spindle Setting Screen                          | Std.                       |
| 22. | Color LCD / MDI (Horizontal Type)               | 8.4"                       |
| 23. | Dynamic Display Language Switch                 | Std.                       |

### Data Input / Output

|    |                            |                       |
|----|----------------------------|-----------------------|
| 1. | Reader / Puncher Interface | RS-232, USB interface |
| 2. | Memory Card Interface      | Std.                  |

### OPTIONS

|    |                       |                            |
|----|-----------------------|----------------------------|
| 1. | Automatic Tool Offset | <input type="checkbox"/>   |
| 2. | Manual Guide I        | <input type="checkbox"/>   |
| 3. | G code system B/C     | please specify if required |
| 4. | Type format for FS 15 | please specify if required |

# Vcenter-102E Machine Specifications

| Item \ Model                                | Units              | Vcenter-102E         |
|---|--------------------|----------------------|
| <b>Travel</b>                               |                    |                      |
| X axis travel                               | mm                 | 1020                 |
| Y axis travel                               | mm                 | 600                  |
| Z axis travel                               | mm                 | 560                  |
| <b>Distance</b>                             |                    |                      |
| Spindle center to column                    | mm                 | 600                  |
| Spindle nose to table surface               | mm                 | 150 ~ 710            |
| <b>Table</b>                                |                    |                      |
| Table work area                             | mm                 | 1100 x 510           |
| Dimension of T-slot                         | mm                 | 5 x 18 x 100         |
| Max. table load                             | kg                 | 750                  |
| <b>Spindle</b>                              |                    |                      |
| Spindle taper                               |                    | BT-40                |
| Spindle motor - cont / 30min                | KW                 | 11/15                |
| Spindle speed                               | rpm                | 8000 (opt. 10000)    |
| <b>Feed rate</b>                            |                    |                      |
| Rapid feed rate - X/Y/Z                     | m/min              | 24 / 24 / 20         |
| Axis feed motor - X/Y/Z                     | kW                 | 2.5 / 2.5 / 2.5      |
| Cutting feedrate by table                   | m/min              | 7.5                  |
| X/Y ballscrew (dia. x pitch)                | mm                 | 40 x P12             |
| Z ballscrew                                 | m/min              | 40 x P10             |
| <b>Tools</b>                                |                    |                      |
| Max. tool length                            | mm                 | 250                  |
| Max. tool weight                            | kg                 | 7                    |
| Magazine capacity                           |                    | 24 (Round)           |
| Max. tool diameter (without adjacent tools) | mm                 | 80                   |
| Tool exchange time                          | sec.               | 3.5                  |
| Pull stud angle                             | deg.               | 90 (opt. 45)         |
| Tool selection method                       |                    | Random               |
| <b>Machine</b>                              |                    |                      |
| Power requirement                           | kVA                | 30                   |
| Min/Max. air pressure                       | kg/cm <sup>2</sup> | 5.5 ~ 6.5            |
| Coolant tank capacity                       | L.                 | 280                  |
| Std. NC controller                          |                    | FANUC 0i-MF (type 3) |
| Floor space requirement                     | mm                 | 2750 x 2485          |
| Max. machine height                         | mm                 | 2640                 |
| Net weight                                  | kg                 | 6100                 |

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

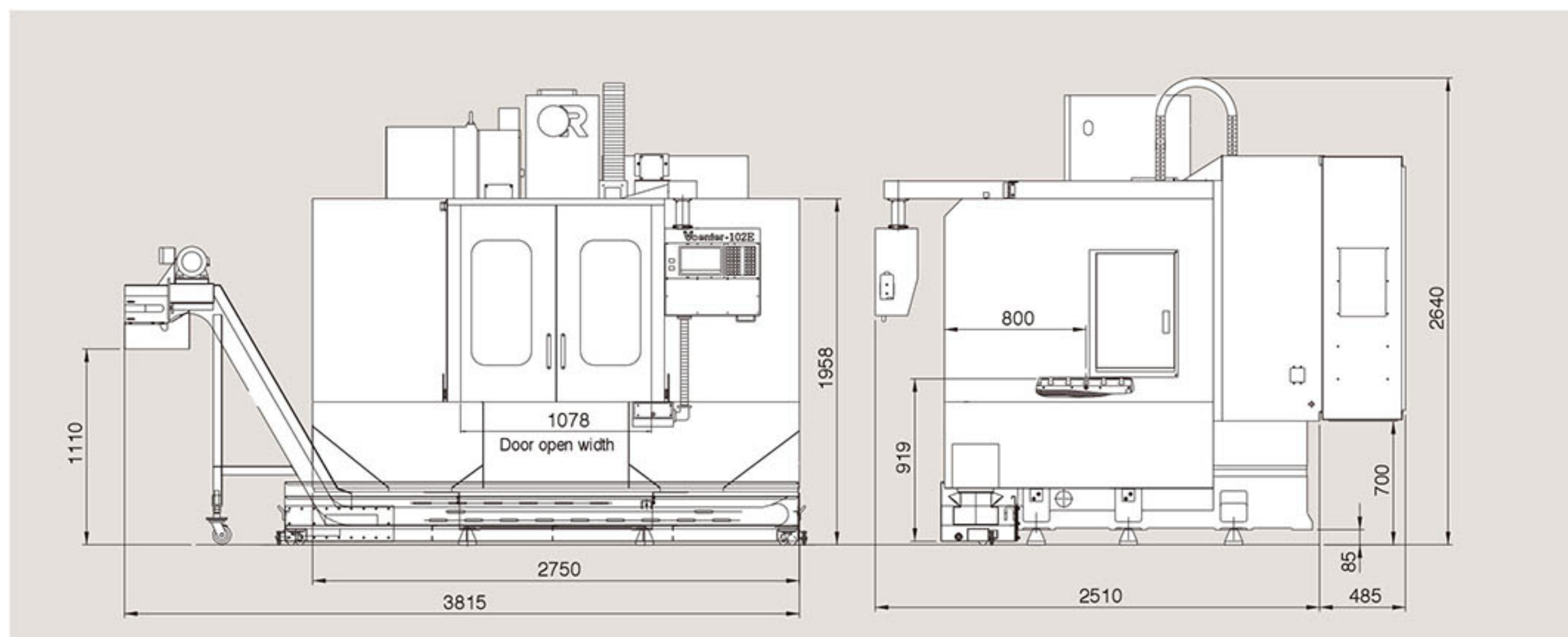
## Standard Accessories

- Fully enclosed splash guard
- T nuts for table slot
- Hand tools and toolbox
- Rigid tapping
- High pressure coolants (5 bars/50Hz, 7 bars/60Hz)
- Remote MPG
- 3-step warning light
- Leveling blocks
- Fanuc manuals by CD-ROM

## Optional Accessories

- Dynamic graphic display (including Manual guide 0i)
- Spindle oil cooler
- Air conditioner for electric cabinet
- Chip conveyor with cart
- Full 4<sup>th</sup> axis control
- Auto tool length measurement
- Air gun
- Coolant gun
- Oil skimmer
- Oil mist collector
- Fanuc manuals
- CE marked components

## Machine Layout





# Vcenter-102E Cutting Tests on Mild Steel (S45C)

## Face mill $\varnothing 65$ mm



Depth of cut :  
**4 mm** (spindle loading 127%)  
**312 cc/min**

---

- Spindle speed : 1500 rpm
- Feed rate : 1200 mm/min

## Drilling



Drill diameter:  
 **$\varnothing 35$  mm**

---

- Spindle speed : 545 rpm
- Feed rate : 109 mm/min

## Rigid Tapping



Tap spec. :  
**M30 x P3.5 mm**

---

- Spindle speed : 104 rpm
- Feed rate : 364 mm/min

## Machine Options



Spindle oil cooler



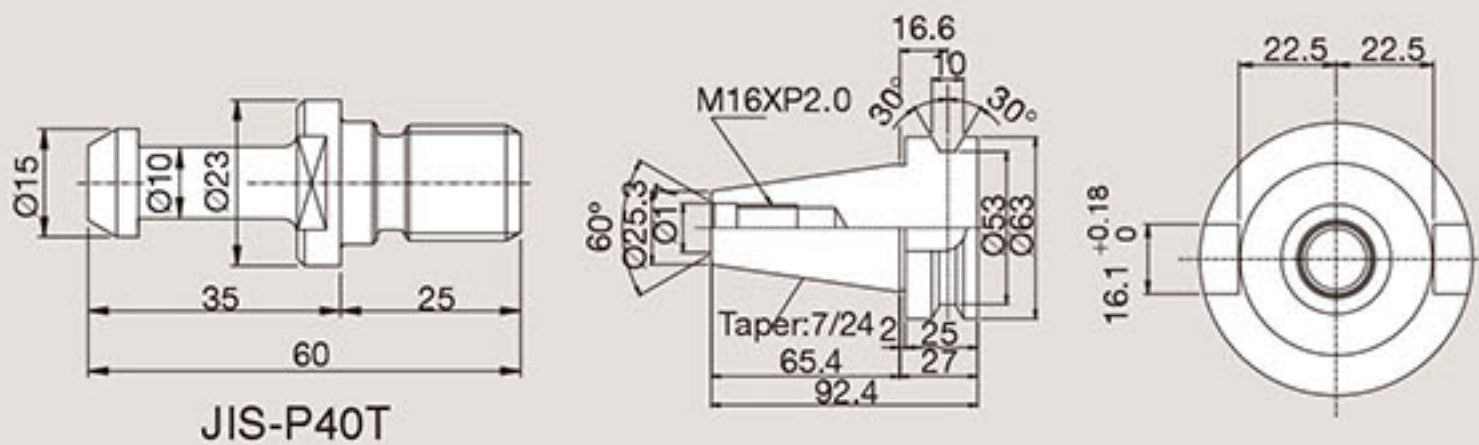
Chip conveyor



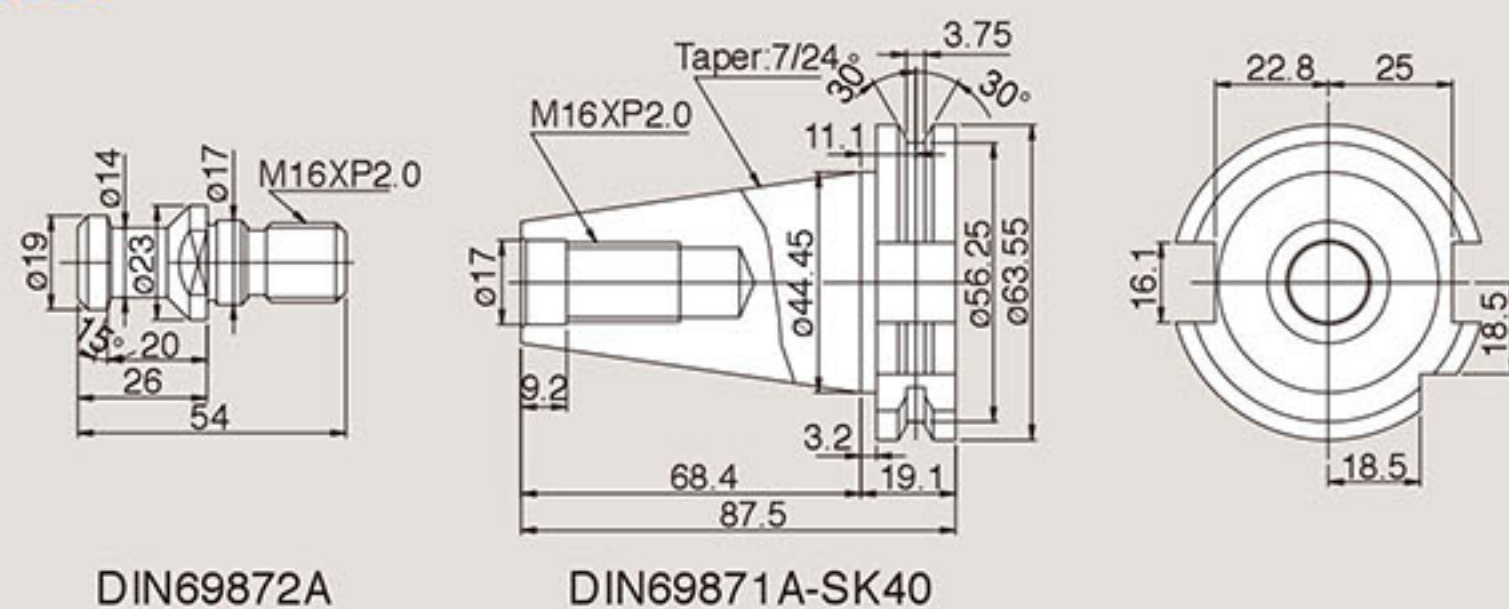
Oil Skimmer

## Tool Shank

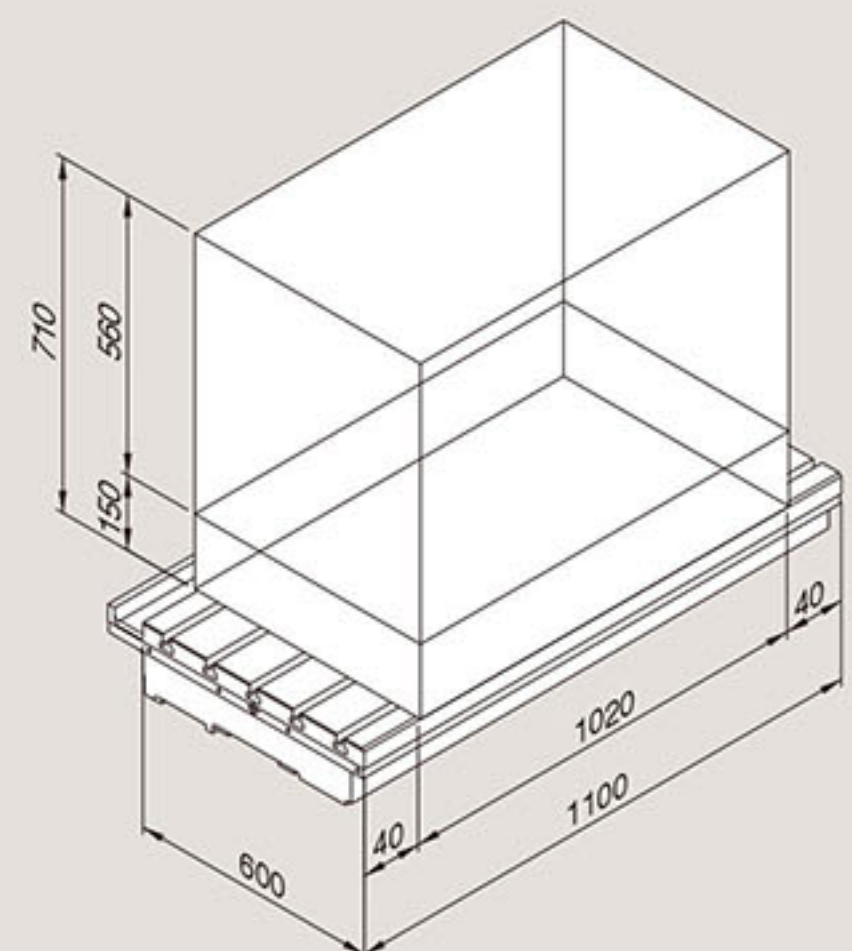
### BT 40



### SK 40



### Machining Range

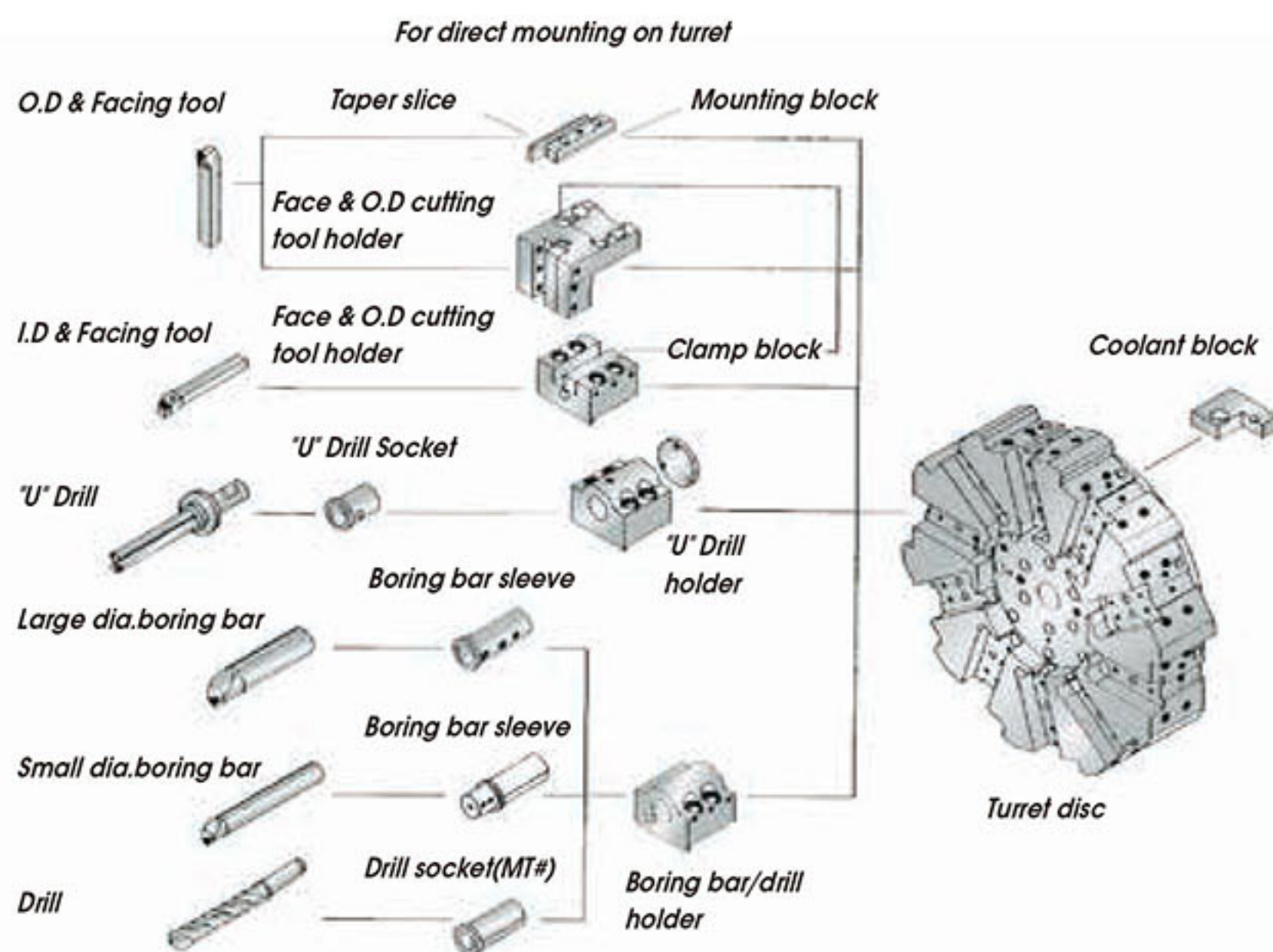


# Vturn-20E/26E Machine Specifications

| Item \ Model                     | Units  | Vturn-20E                   | Vturn-26/60E<br>Vturn-26/110E            |
|----------------------------------|--------|-----------------------------|--|
| <b>Machine Capacity</b>          |        |                             |  |
| Swing over bed                   | mm     | 450                         | 520                                      |
| Std. turning dia.                | mm     | 160                         | 260                                      |
| Max. turning dia.                | mm     | 230                         | 380                                      |
| Swing over carriage              | mm     | 300                         | 350                                      |
| Center distance                  | mm     | 635                         | 650<br>1130                              |
| <b>Axis Feeds</b>                |        |                             |  |
| X axis travel                    | mm     | 115+20                      | 190+50                                   |
| Z axis travel                    | mm     | 600                         | 610<br>1090                              |
| Rapid feed - X/Z axis            | m/min  | 12 / 15                     | 12 / 15                                  |
| Feed motor - X/Z axis            | kW     | 1.8 / 2.5                   | 2.5 / 2.5                                |
| JOG feedrate                     | mm/min | 0 ~ 1260                    | 0~1260                                   |
| Ball screw dia x pitch           | mm     | 28 x P6 (X)<br>40 x P10 (Z) | 28 x P6 (X)<br>40 x P10 (Z)              |
| <b>Spindle</b>                   |        |                             |  |
| Spindle nose (chuck)             | inch   | A2-6 (8")                   | A2-8 (10")                               |
| Max. spindle speed               | rpm    | 4200 (opt. 3500)            | 2500 (opt. 3500)                         |
| Spindle motor power (cont/30min) | kW     | 7.5 / 9.0                   | 15 / 18.5                                |
| Bearing inside dia.              | mm     | 100                         | 130                                      |
| Spindle bore                     | mm     | 62                          | 87                                       |
| Hole through draw bar            | mm     | 52                          | 75                                       |
| <b>Turret</b>                    |        |                             |  |
| No. of tools                     | no.    | 10 (opt. 8)                 | 10 (opt. 12)                             |
| Tool shank size                  | mm     | 20 (opt. 25)                | 25                                       |
| Max. boring bar dia.             | mm     | 40                          | 50                                       |
| Exchange time (T-T)              | sec    | 1                           | 1  |
| <b>Tailstock</b>                 |        |                             |  |
| Quill dia.                       | mm     | 75                          | 110                                      |
| Quill stroke                     | mm     | 80                          | 100                                      |
| Quill taper                      | mm     | MT#4                        | MT#5                                     |
| <b>Machine</b>                   |        |                             |  |
| CNC controller                   |        | 0i-TF (type 3)              | 0i-TF (type 3)                           |
| Tank capacity                    | L.     | 87                          | 100<br>130                               |
| Power requirement                | kVA    | 23                          | 40                                       |
| Machine dimension                | mm     | 3267 x 1425 x 1650          | 3774 x 1700 x 2000<br>4210 x 1700 x 2000 |
| Machine weight                   | kg     | 4000                        | 5400<br>6000                             |

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

## Tooling Accessories



### Standard Accessories

- 3-jaw Power chuck with soft jaws
- Programmable tailstock
- Chip conveyor with cart
- Automatic forced lubrication
- Fully enclosed splash guarding
- Tool holders
- 3 step warning light
- FANUC manuals by CD ROM

### Optional Accessories

- Hard jaws
- Tailstock center
- Manual tool presetter (Renishaw)
- Higher pressure coolants (3.3 bars/50Hz, 4.7 bars/60Hz)
- Air conditioner for electrical cabinet
- Part catcher
- Bar feeder interface
- Auto door
- Fanuc manuals
- CE marked components

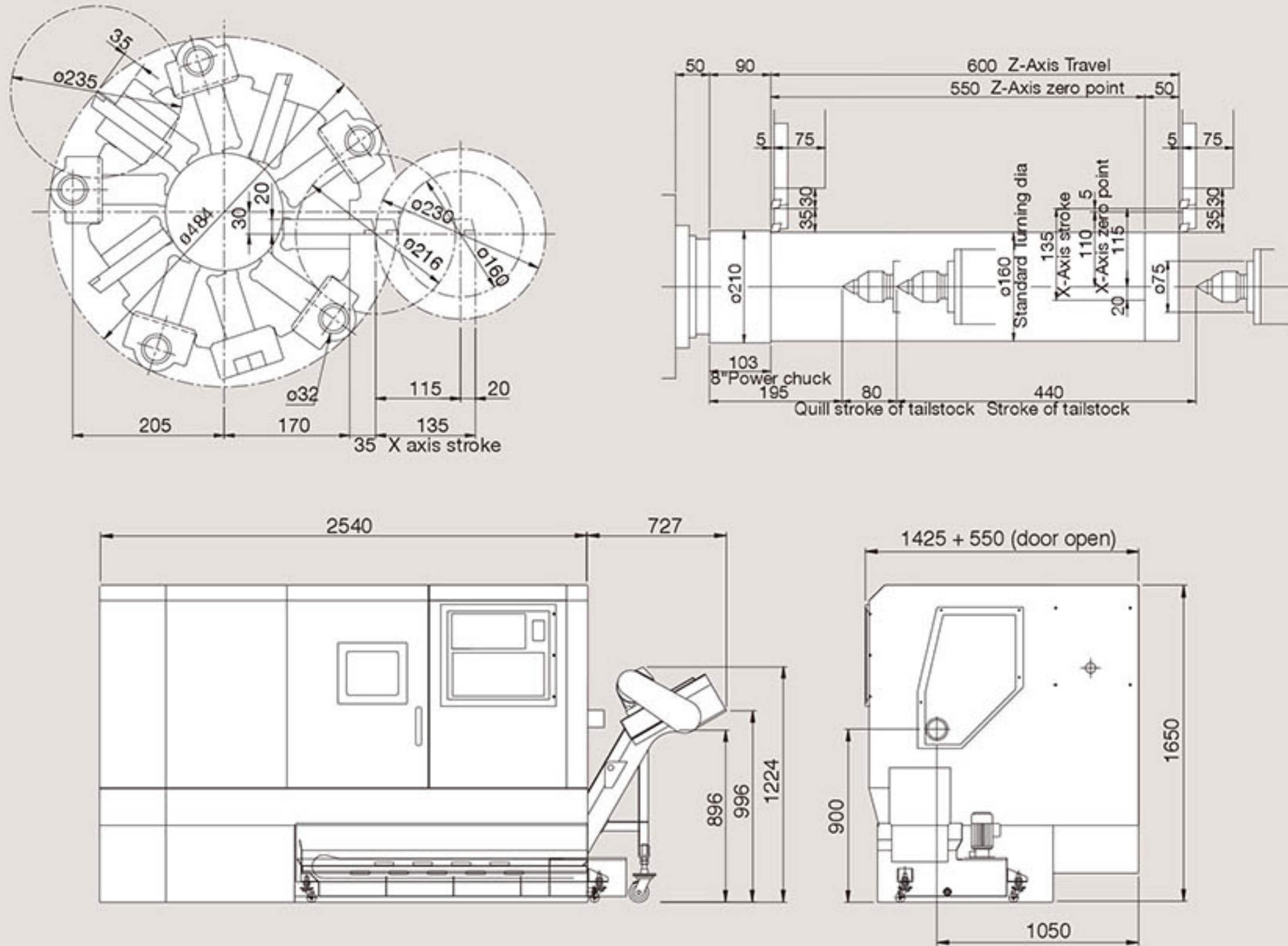
| Tool \ Model                    | Vturn-20E<br>(10 tools) | Vturn-26E<br>(10 tools) |
|---------------------------------|-------------------------|-------------------------|
| Tool shank for turret disk      | 20 mm                   | 25 mm                   |
| Maximum boring tool diameter    | 32 mm                   | 50 mm                   |
| Face + O.D. cutting tool holder | 2                       | 2                       |
| Face + I.D. cutting tool holder | 1                       | 1                       |
| <b>Boring bar tool holder</b>   |                         |                         |
| 32 mm                           | 5                       | -                       |
| 40 mm                           | -                       | 5                       |
| 50 mm                           | -                       | 1                       |
| <b>Boring bar sleeve</b>        |                         |                         |
| 8 mm                            | 1                       | -                       |
| 10, 12, 16, 20, 25 mm           | 2                       | 2                       |
| 32 mm                           | -                       | 2                       |
| <b>Drill Socket</b>             |                         |                         |
| MT-1                            | Opt.                    | -                       |
| MT-2                            | 1                       | Opt.                    |
| MT-3                            | Opt.                    | 1                       |
| MT-4                            | -                       | Opt.                    |
| <b>U drill holder</b>           |                         |                         |
| 32 mm                           | 1                       | -                       |
| 40 mm                           | -                       | 1                       |
| <b>U drill socket</b>           |                         |                         |
| 20 mm                           | 1                       | Opt.                    |
| 25 mm                           | 1                       | 1                       |
| 32 mm                           | -                       | 1                       |

\*Tooling accessories are subject to change without notice.

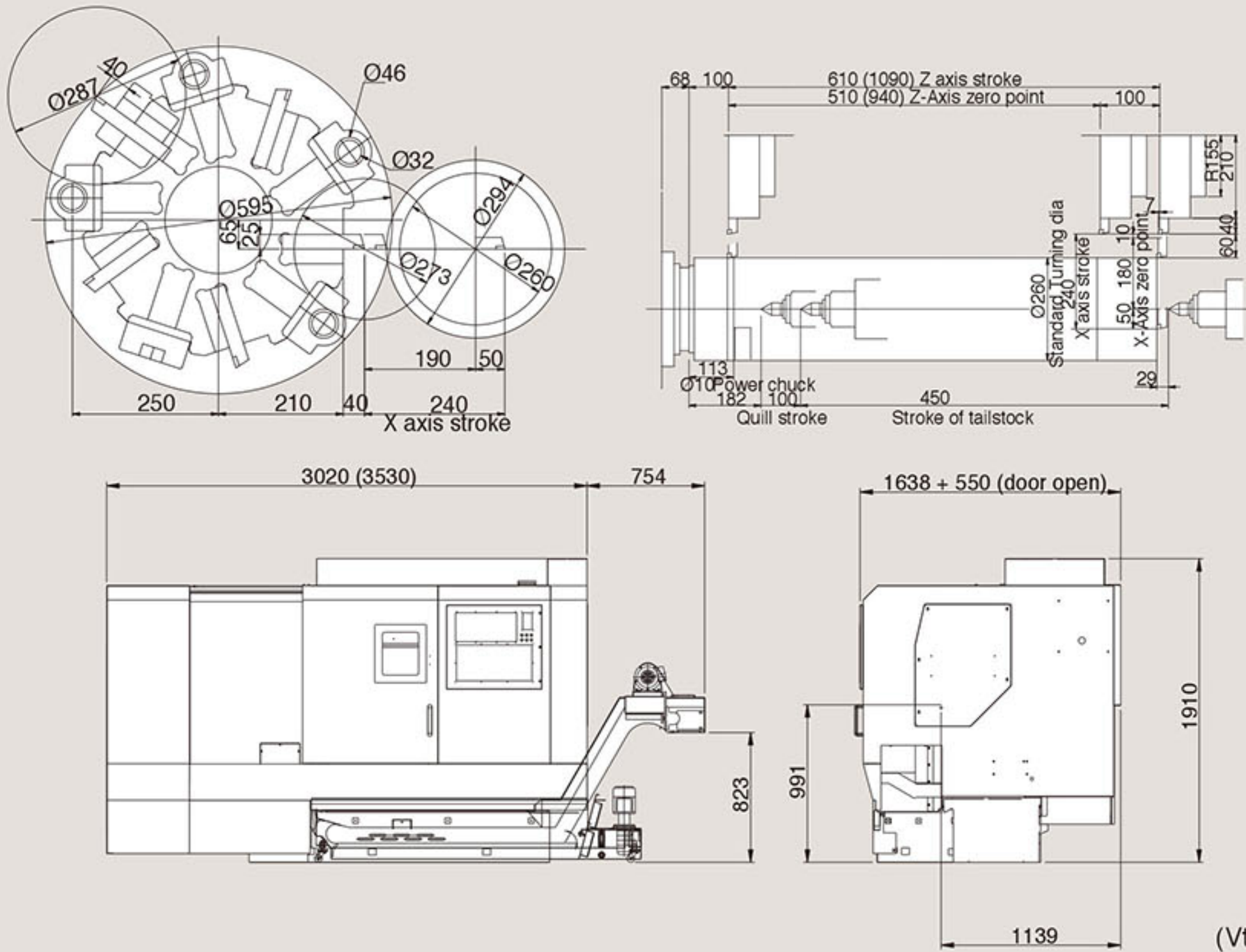
# Technical Drawings



## Vturn-20E



## Vturn-26E



(Vturn-26/110E)

# Vturn-20E/Vturn-26E Cutting Tests on Mild Steel (S45C)

## O.D. Turning



## Drilling



## Rigid tapping



### Depth of cut:

| Vturn-20E   | Vturn-26E  |
|---|--|
| <b>3 mm</b><br>(spindle loading 95%)<br>·Part: Ø150xL.150 mm<br>·Spindle speed: 456 rpm<br>·Feed rate: 0.2 mm/rev | <b>6 mm</b><br>(spindle loading 96%)<br>·Part: Ø200xL.100 mm<br>·Spindle speed: 438 rpm<br>·Feed rate: 0.35 mm/rev |

### Drill diameter:

| Vturn-20E   | Vturn-26E   |
|---|---|
| <b>Ø35 mm</b><br>·Part: Ø75xL.100 mm<br>·Spindle speed: 1000 rpm<br>·Feed rate: 0.15 mm/rev | <b>Ø60 mm</b><br>·Part: Ø75xL.100 mm<br>·Spindle speed: 1000 rpm<br>·Feed rate: 0.15 mm/rev |

### Tap spec.:

| Vturn-20E   | Vturn-26E   |
|---|---|
| <b>M27 x P3.0 mm</b><br>·Part: Ø75xL.100 mm<br>·Spindle speed : 200 rpm<br>·Feed rate: 600 mm/min | <b>M36 x P4.0 mm</b><br>·Part: Ø75xL.100 mm<br>·Spindle speed : 130 rpm<br>·Feed rate: 520 mm/min |



Vturn-S26CM



Vcenter-P106



Vcenter-H630HS

**VictorTaichung profile:**  
Sales turnover: USD 145 mil's (in 2018)\*  
No. of employees: 836  
\*Exchange rate: 1 USD=30 TWD.



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