



YOU JI

Sincerity Responsibility Innovation



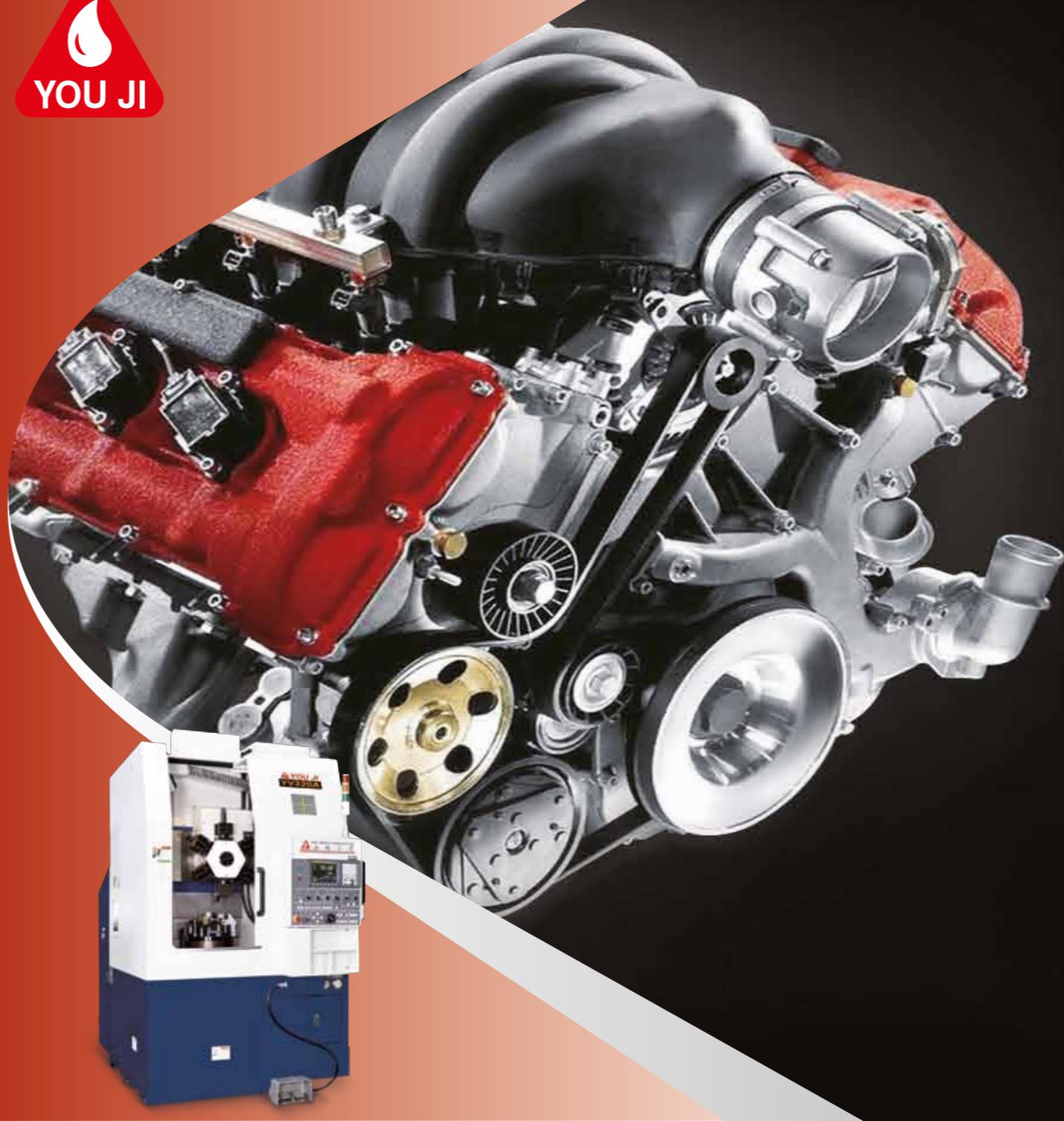
You Ji Machine Industrial Company Limited

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Distributor



YV 200-800 Series

You Ji Machine Industrial Company Limited
CNC Vertical Turning Center

High Accuracy · High Productivity Complex Machining · Space Saving Design

Our aim is always meet customer requirements by collaborating and exchanging information with global manufacturers and continuously developing and upgrading our design & production techniques to ensure that we are able to offer high quality products with prompt after-service and support. Customers are totally satisfied and benefit from our 30 years of vast experience and our total commitment to our manufacturing philosophy. For stand alone and flexible manufacturing systems the versatile design configuration of the You Ji product makes it the perfect choice for all aspects of industrial application:

Machine Features

Machine Features //

- Reduces inertia, avoiding out of round turning problems, achieving optimum accuracy.
- Excellent surface contact between work piece and chuck to ensure high precision turning.
- Suitable for irregular-shape, large, thin, and heavy work piece turning, easy part loading & unloading.
- Multiple fixturing possibilities helping to reduce cost.
- High rigidity designed machine base for low thermal displacement.
- The ergonomic design of Vertical Turning lathes for increased work flow.
- Vertical Turning Lathes occupy half the floor space of horizontal turning lathes.



Vertical Turning Lathe Twin Series //

- Simultaneous cutting using the twin series machines run by one operator, enhancing quality and reduce labour cost.
- Twin series machines are fitted with 2 independent controllers to operate 1 or 2 machines, the best flexible production capacity can be achieved.
- Twin series machines are combined together to provide the best clean environment and reduce turnaround times.
- Increase production flow, and reduce the physical strength and enhances working efficiency.
- Select the variety of turret options, to optimise the best machining methods.
- The design of high rigidity structure is fitted with telescopic guideway covers to prevent chip & coolant contamination.



YV200-800 series

CNC Vertical Turning Lathe

High Precision Human Factors Engineering Design

✓ Slideway Design

Superb high load linear guideways ensure high repeatability & heavy duty cutting. High precision ball screws with rigid pre-tensioned bearing housing blocks are driven directly by AC servo motor, enhancing repeatability and positioning accuracy (Box guide ways are also an available option)



< Operation Panel

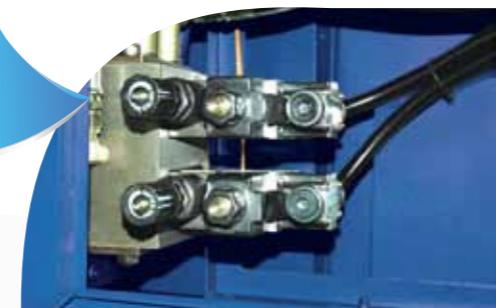
The ergonomic design of operation panel swivels 90° for operator convenience and ease of use.

< Operation Box Design

The operation box has been designed for operator convenience, the operators daily tools , such as inserts, and personal calculator, key, pen etc are tidily kept.

✓ Ease of Maintenance and Adjustment

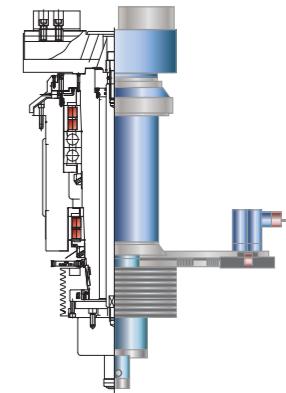
This design is convenient positioned for hydraulic pressure adjustment.



YV200~YV800 Model

| Model | YV200 | YV250 | YV320 | YV420 | YV500 | YV550 | YV600 | YV700 | YV800 |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| A type (Vertical Turret) | | ● | ● | ● | ● | ● | ● | ● | ● |
| B type (Gang Tool) | ● | ● | ● | | | | | | |
| C type (Vertical live turret) | | | ● | | ● | | | | |
| E type (Horizontal Turret) | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| V.D.I Turret (Horizontal live turret) | | | | | ● | | ● | | ● |
| ATC (Automatic Tool Changer) | ● | ● | ● | | ● | | ● | | ● |

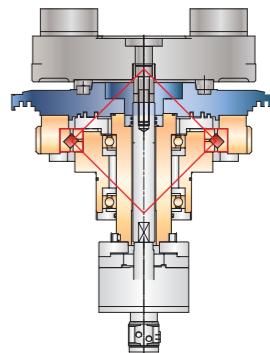
Select the above turret possibilities to optimise the turning operations, enhancing production in accordance with the various parts to be manufactured.



NN bearings

> Spindle Design

The spindle design construction is a high speed, high precision, and high rigidity concept, incorporating NN series bearings which are used to withstand radial & axial loads during heavy cutting conditions, trouble free, long-term high accuracy turning is a major feature.



Crossed roller bearing (YV800)

> Features of crossed roller bearing

- Two rows of rollers in the space of one.
- Saves space and lowers the machine base height for ease of operation.
- Low centre of gravity in the machine and low centrifugal forces.
- Nylon separators feature low inertia, ensuring the machine operation under low running torque.
- Heat dispersion and wear-resistant for longer bearing life.
- Provides high rigidity, high precision, shock-resistant and ease of lubrication.

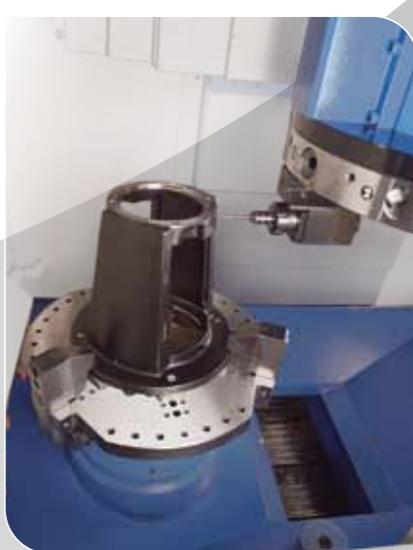


Excellent chips & coolant Removal >

- Chips are expelled to chip bucket via chip conveyor.
- Coolant wash system forces all chips from the machining area into the chip conveyor.

▲ Ease of Operation and Maintenance

Ease of access and maintenance for spindle encoder & belts.



YV200-800 series

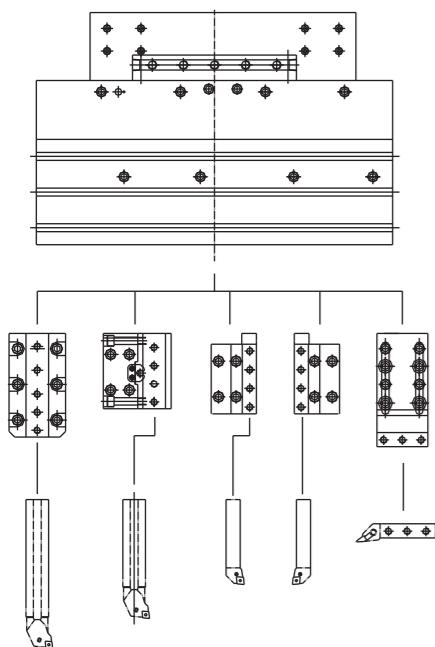
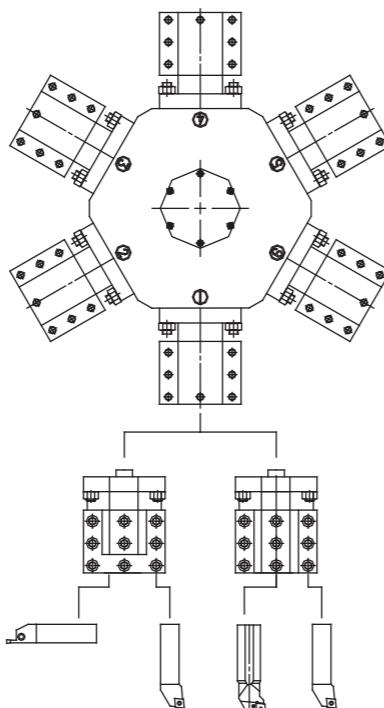
CNC Vertical Turning Lathe

Tooling System



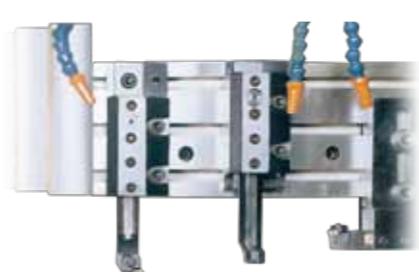
A type Turret (Vertical Turret)

Turret positioning is achieved with high accuracy curved coupling, providing positioning accuracy of 5" and repeatability 3". Turrets with curved coupling withstands heavy cutting forces, a high torque hydraulic motor ensures rotation. The speed of turret rotation and tool change smoothly is controlled by a cam system. The PLC ensures the shortest route and bi-directional tool selection reducing the tool change time.



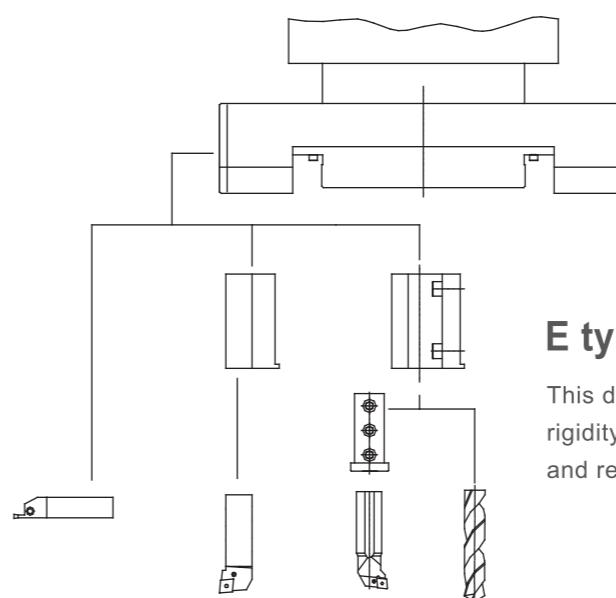
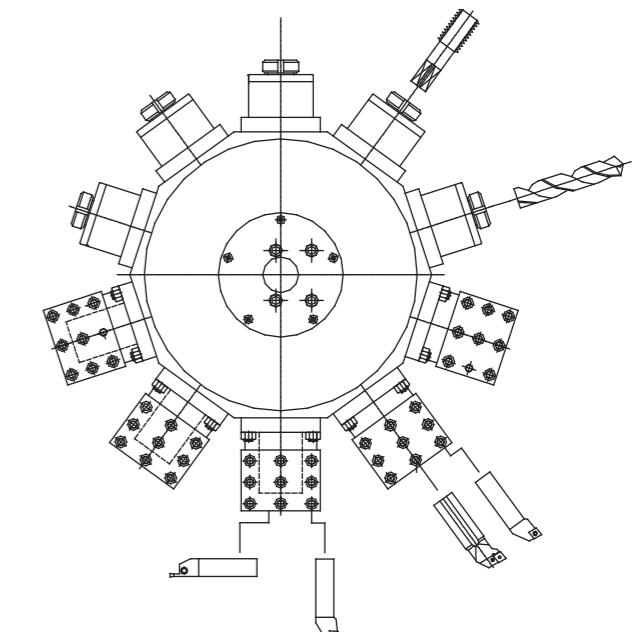
B type Turret (Gang Tool)

Gang tool is good choice for simple work piece machining.



C type Turret (Vertical live tool turret)

C type turrets do not only have the advantage of A type turret, but also have multiple functions such as drilling, tapping, and so on. This design reduces the time of loading & unloading, and precious production flow, reducing fixturing cost, and logistic space.



E type Turret (Horizontal Turret)

This design of turret has the shortest route tool selection, coupled with high rigidity & high accuracy curved coupling, providing high positioning accuracy and repeatability for the best turning capability.





▼V.D.I Turret (Horizontal live tool turret)

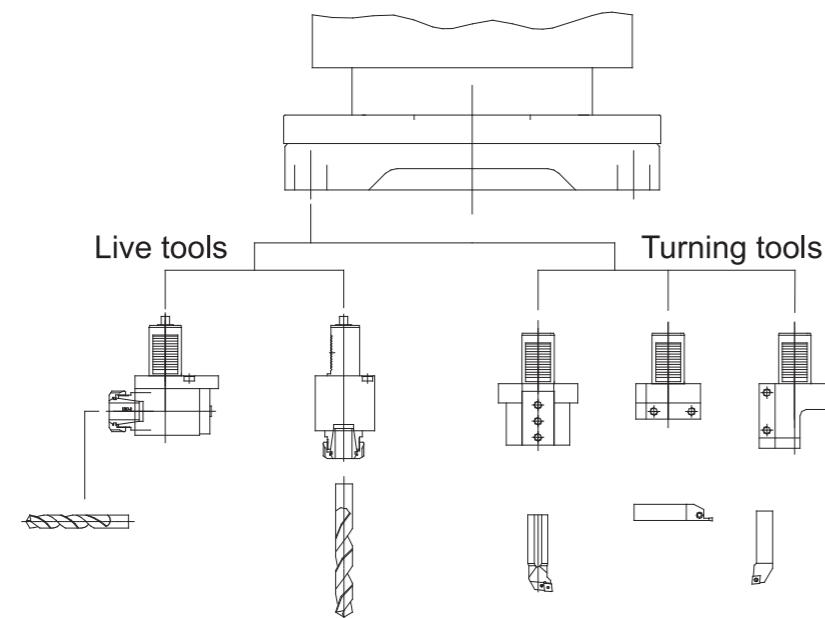
High rigidity V.D.I turrets are designed for turning, drilling, tapping operations, etc, reducing the time of loading & unloading and fixturing cost to help to reduce turn-around times.



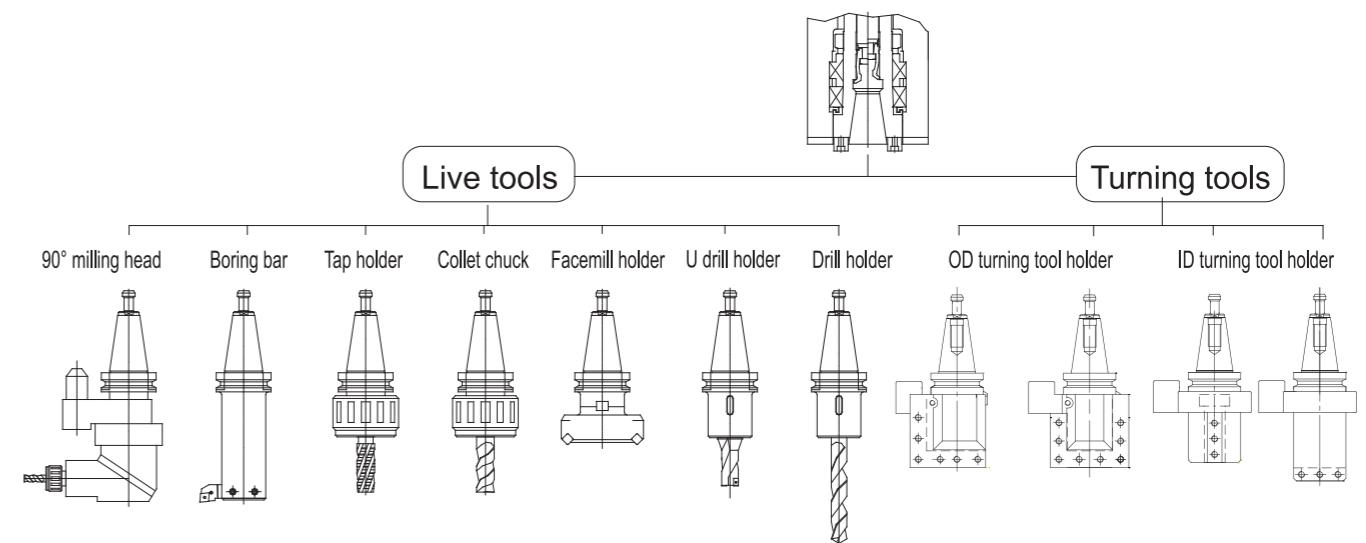
▼ATC (Automatic Tool Changer)

- There is no tooling interference when using single tool holder.
- ATC+C machines perform complex solutions, reducing the time of loading & unloading and fixturing costs.
- The design of CF axis (indexing accuracy is $\pm 7.5''$) provides the best machining accuracy and stability(For YV800 only).

V.D.I Turret – Tooling system



ATC+C Tooling system



YV200-800 series

CNC Vertical Turning Lathe

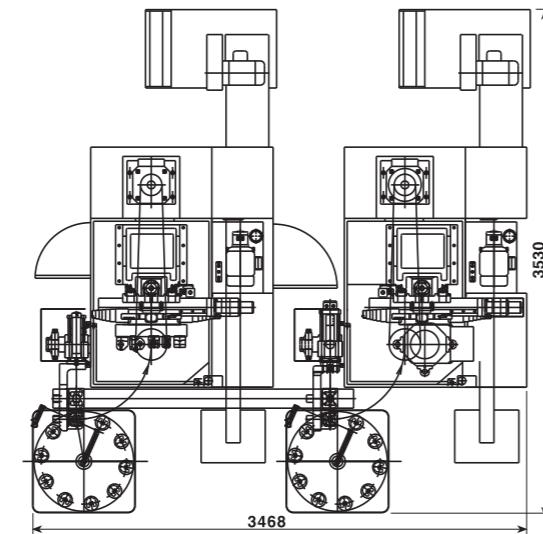
YV-200 series

YV-250 series

Features

- The compact design of the YV series provides advantages such as space saving and high rigidity for excellent accuracy.
- The versatile and flexible design greatly improves loading and unloading processes to ensure accurate work-piece location. 8 station turret and gang type tool holders are available to meet specific production requirements.
- Vertical Turning Lathes are equipped with C-axis (V.D.I turret) for drilling and tapping operations in addition to turning operation.

FMS Flexible Manufacturing System:



● Housing held in fixture

● Motor cover held in fixture

● Motor part held in fixture

● Compressor housing held in fixture



● Motor held in fixture



● Fly wheel held in fixture



● Pump held in fixture



● Bearing base held in fixture



● Bearing case held in fixture



● Motor base held in fixture



● Hub held in fixture

YV200-800 series

CNC Vertical Turning Lathe

YV-320 series



YV-500 series



● Diff case held in fixture with tailstock



● Stub axle held in fixture



● Valve held in fixture



● Stub axle held in fixture



● Aluminum wheel held in fixture



● Encoder held in Fixture



● Pump held in fixture



● Press plate held in fixture



● Brake disc held in draw down chuck



● Brake drum held in fixture



● Stub axle held in fixture



● Wheel held in fixture



● Transmission support held in fixture



● Cradle held in fixture

YV200-800 series

CNC Vertical Turning Lathe

YV-600 series



YV-600A



YV-600ATC+G



YV-800ATC



YV-800ATC+C+APC

Double tool magazine and APC



● Tool presetter



● I.D. tool holder



● Coolant through spindle



● Grinding wheel dresser



● ATC magazine



● No tooling interference for ATC



● C-axis + milling head & APC



● Motor housing held in fixture



● Steering knuckle held in fixture



● Engine part held in fixture



● Brake drum (truck) held in fixture

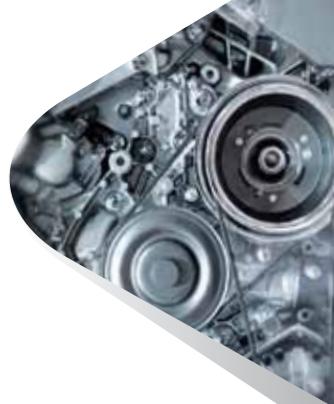


● Elevator part held in fixture

YV200-800 series

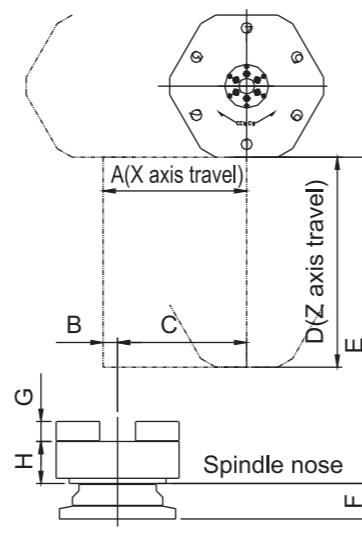
CNC Vertical Turning Lathe

Machining Range



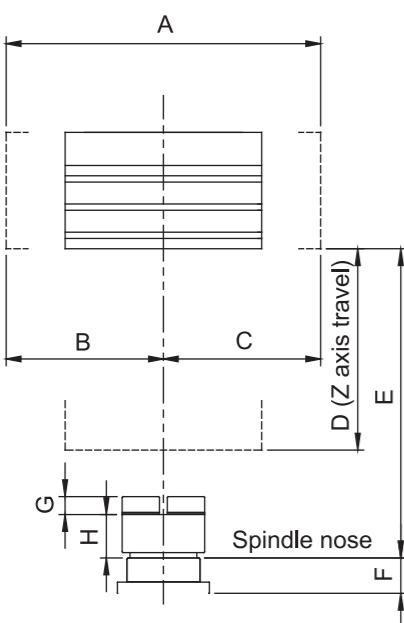
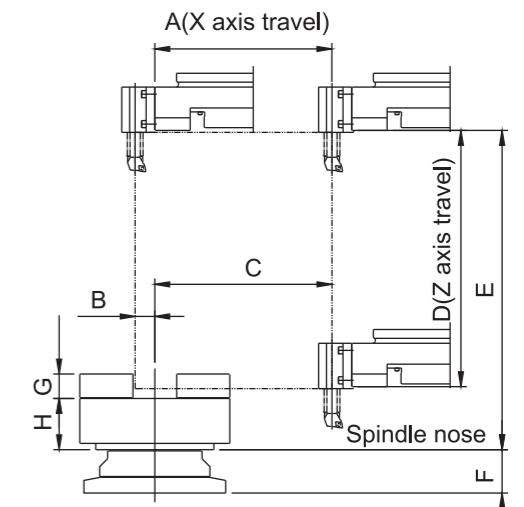
A type Turret

| Model | A | B | C | D | E | F | G | H |
|--------|-----|----|-----|-----|------|-----|----|-----|
| YV250A | 280 | 20 | 260 | 450 | 683 | 89 | 46 | 102 |
| YV320A | 340 | 40 | 300 | 500 | 759 | 91 | 54 | 118 |
| YV420A | 360 | 30 | 330 | 500 | 650 | 83 | 63 | 141 |
| YV500A | 440 | 40 | 400 | 620 | 1010 | 110 | 63 | 130 |
| YV550A | 790 | 50 | 740 | 620 | 900 | 110 | 63 | 130 |
| YV600A | 815 | 50 | 765 | 800 | 1184 | 145 | 76 | 146 |
| YV700A | 850 | 50 | 800 | 800 | 1045 | 138 | 76 | 146 |
| YV800A | 875 | 50 | 825 | 850 | 1224 | 90 | 76 | 146 |



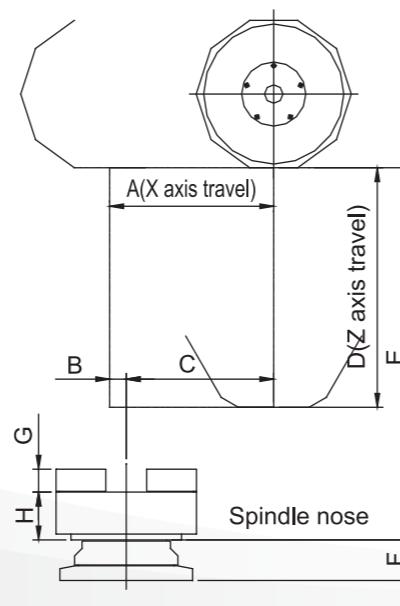
E type Turret

| Model | A | B | C | D | E | F | G | H |
|--------|-----|----|-----|-----|------|-----|----|-----|
| YV200E | 200 | 40 | 160 | 400 | 540 | 84 | 41 | 97 |
| YV250E | 250 | 50 | 200 | 450 | 540 | 89 | 46 | 102 |
| YV320E | 340 | 50 | 290 | 500 | 636 | 91 | 54 | 118 |
| YV420E | 362 | 12 | 350 | 500 | 630 | 61 | 63 | 141 |
| YV500E | 430 | 20 | 410 | 620 | 805 | 110 | 63 | 130 |
| YV550E | 480 | 50 | 430 | 620 | 735 | 110 | 63 | 130 |
| YV600E | 525 | 50 | 475 | 800 | 1040 | 138 | 76 | 146 |
| YV700E | 550 | 50 | 500 | 800 | 920 | 138 | 76 | 146 |
| YV800E | 665 | 50 | 615 | 850 | 1100 | 80 | 76 | 146 |



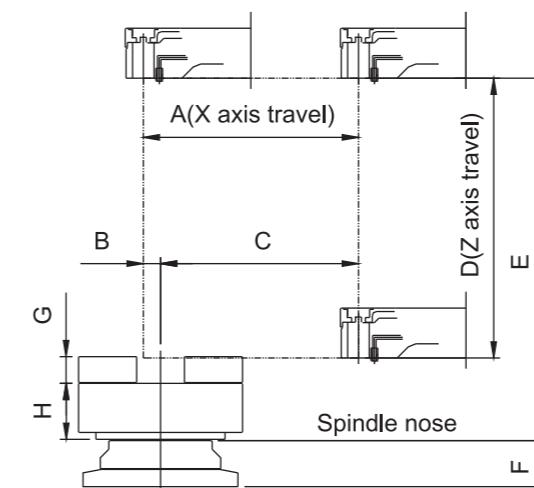
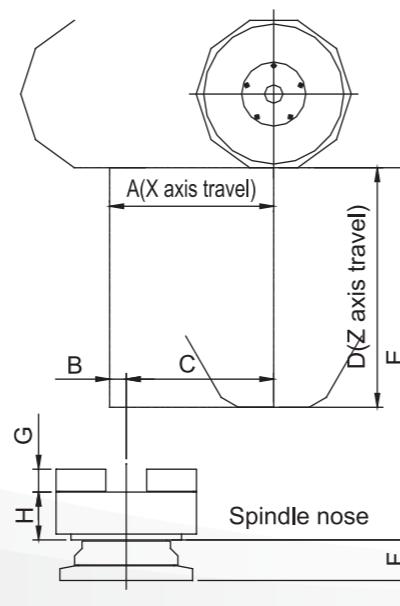
B type Turret

| Model | A | B | C | D | E | F | G | H |
|--------|------|-----|-----|-----|-----|----|----|-----|
| YV200B | 840 | 335 | 505 | 450 | 640 | 79 | 41 | 97 |
| YV250B | 870 | 435 | 435 | 450 | 650 | 89 | 46 | 102 |
| YV320B | 1055 | 520 | 535 | 500 | 663 | 91 | 54 | 118 |



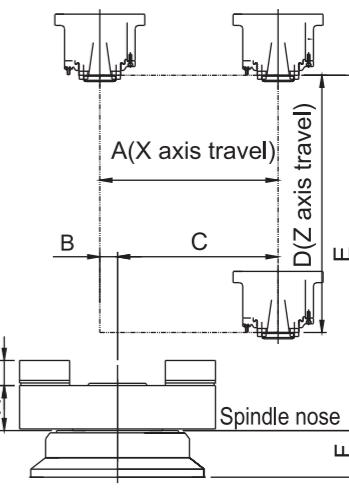
C type Turret

| Model | A | B | C | D | E | F | G | H |
|--------|-----|----|-----|-----|-----|-----|----|-----|
| YV320C | 360 | 50 | 310 | 500 | 720 | 91 | 54 | 118 |
| YV500C | 440 | 40 | 400 | 620 | 950 | 110 | 63 | 130 |



V . D . I type Turret

| Model | A | B | C | D | E | F | G | H |
|----------|-----|----|-----|-----|------|-----|----|-----|
| YV200E+C | 250 | 40 | 210 | 450 | 570 | 84 | 42 | 97 |
| YV250E+C | 250 | 40 | 210 | 450 | 570 | 84 | 46 | 102 |
| YV320E+C | 315 | 15 | 300 | 500 | 630 | 91 | 54 | 118 |
| YV500E+C | 430 | 10 | 420 | 620 | 840 | 110 | 63 | 130 |
| YV600E+C | 705 | 50 | 655 | 800 | 1040 | 138 | 76 | 146 |
| YV800E+C | 780 | 50 | 730 | 850 | 1100 | 80 | 76 | 146 |



ATC

| Model | A | B | C | D | E | F | G | H |
|------------|-----|----|-----|-----|------|-----|----|-----|
| YV500ATC | 705 | 55 | 650 | 620 | 910 | 110 | 63 | 130 |
| YV500ATC+C | 705 | 55 | 650 | 620 | 910 | 110 | 63 | 130 |
| YV600ATC | 700 | 50 | 650 | 800 | 1100 | 145 | 76 | 146 |
| YV600ATC+C | 700 | 50 | 650 | 800 | 1100 | 145 | 76 | 146 |
| YV800ATC | 750 | 50 | 700 | 850 | 1170 | 90 | 76 | 146 |
| YV800ATC+C | 750 | 50 | 700 | 850 | 1200 | 90 | 76 | 146 |

Unit : mm

YV200-800 series

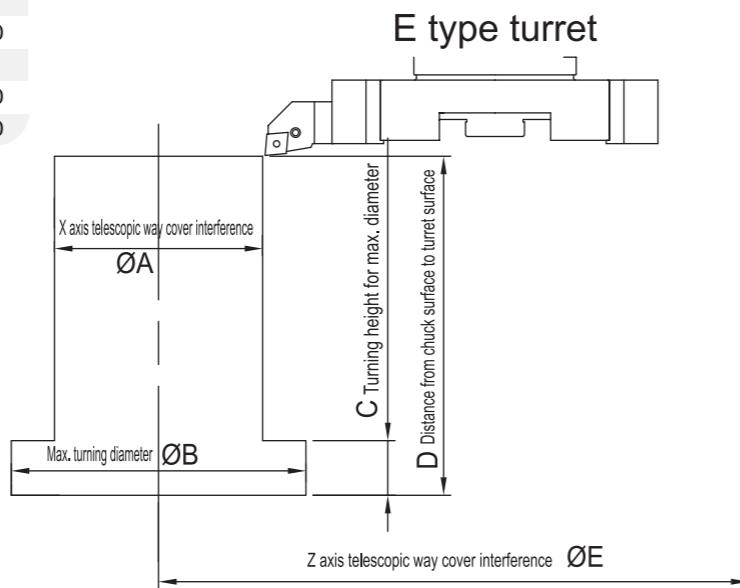
CNC Vertical Turning Lathe

Machining Range



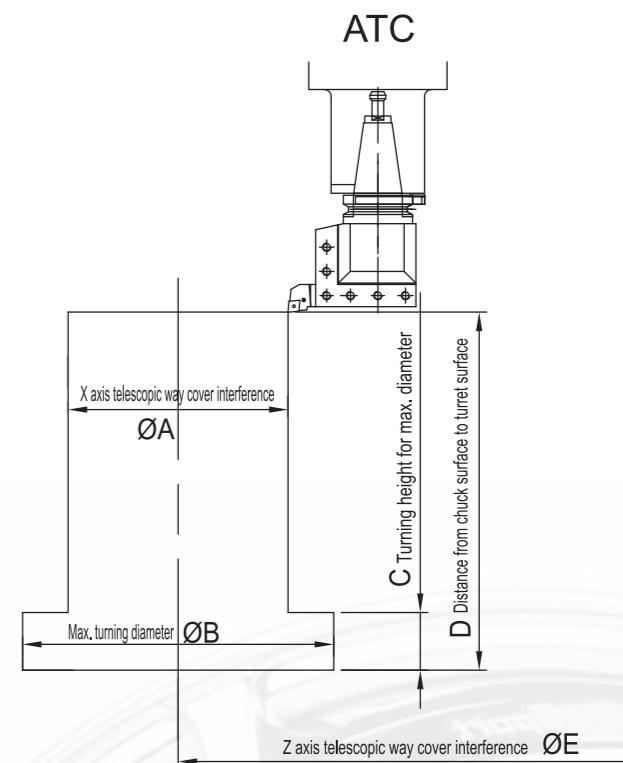
E type YV200-800 series

| Model | A | B | C | D | E |
|--------|------|------|-----|-----|------|
| YV200E | Ø290 | Ø250 | 443 | 443 | 620 |
| YV250E | Ø260 | Ø350 | 130 | 438 | 620 |
| YV320E | Ø315 | Ø450 | 125 | 390 | 665 |
| YV420E | Ø520 | Ø500 | 485 | 485 | 900 |
| YV500E | Ø570 | Ø550 | 675 | 678 | 950 |
| YV550E | Ø670 | Ø650 | 605 | 605 | 1200 |
| YV600E | Ø670 | Ø650 | 145 | 890 | 980 |
| YV700E | Ø500 | Ø800 | 145 | 770 | 1200 |
| YV800E | Ø895 | Ø900 | 145 | 950 | 1370 |



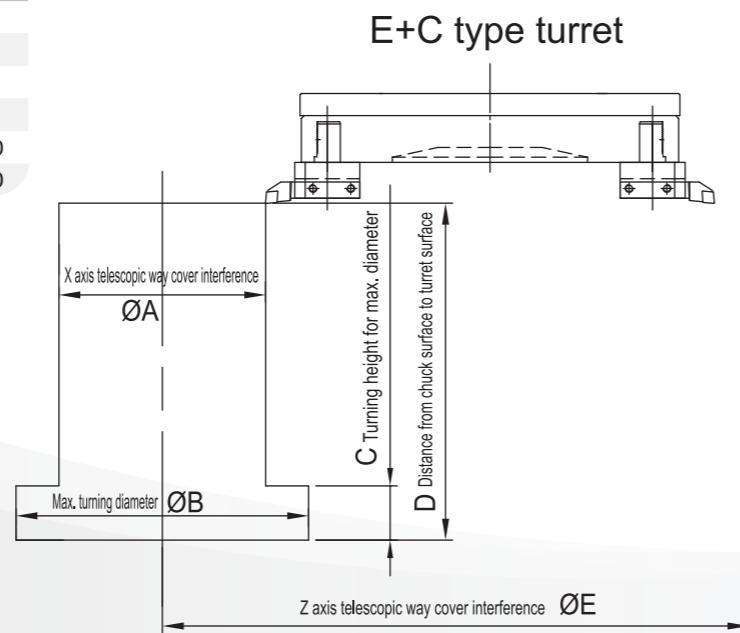
A T C type YV200-800 series

| Model | A | B | C | D | E |
|----------|------|------|-----|-----|------|
| YV500ATC | Ø570 | Ø550 | 780 | 780 | 1290 |
| YV600ATC | Ø770 | Ø750 | 950 | 950 | 1380 |
| YV800ATC | Ø890 | Ø900 | 260 | 755 | 1270 |



E + C type YV200-800 series

| Model | A | B | C | D | E |
|----------|------|------|-----|-----|------|
| YV200E+C | Ø260 | Ø250 | 473 | 473 | 620 |
| YV250E+C | Ø276 | Ø350 | 90 | 468 | 620 |
| YV320E+C | Ø470 | Ø450 | 510 | 510 | 900 |
| YV500E+C | Ø570 | Ø550 | 710 | 710 | 950 |
| YV600E+C | Ø770 | Ø750 | 890 | 890 | 1370 |
| YV800E+C | Ø890 | Ø900 | 110 | 950 | 1370 |



Unit : mm

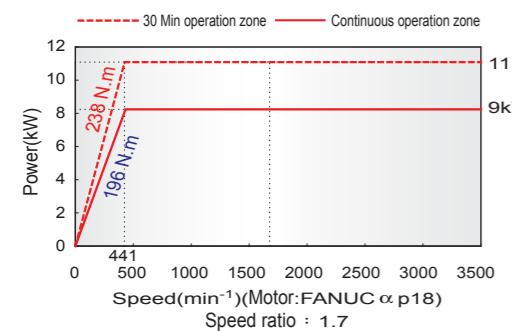
YV200-800 series

CNC Vertical Turning Lathe

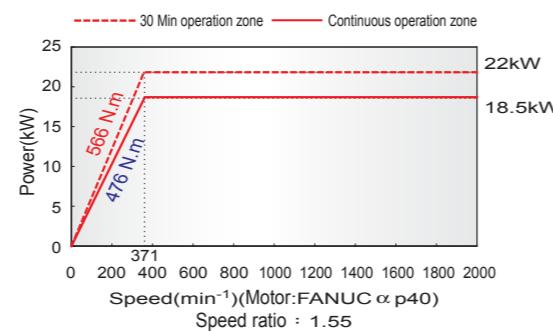
Machining Range

Live Spindle Torque Chart

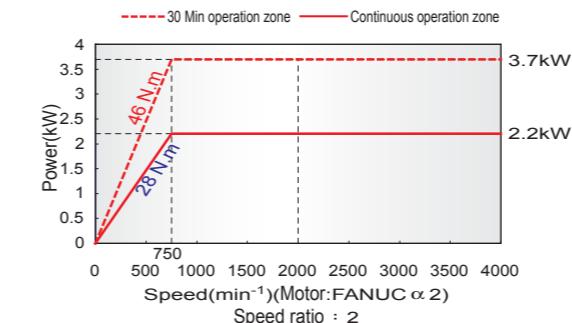
YV200 Series



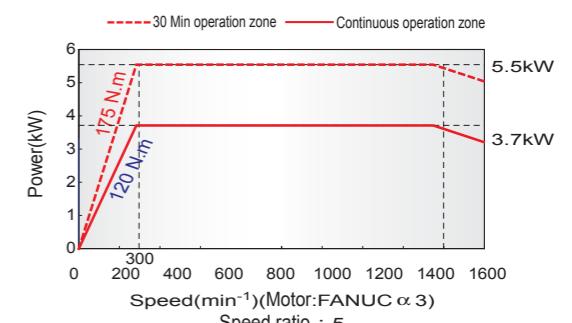
YV500 / YV550 Series



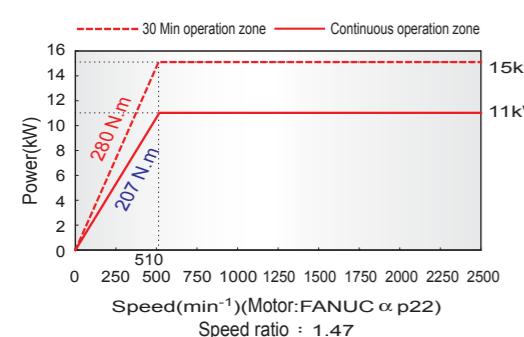
YV200E+C/YV250E+C



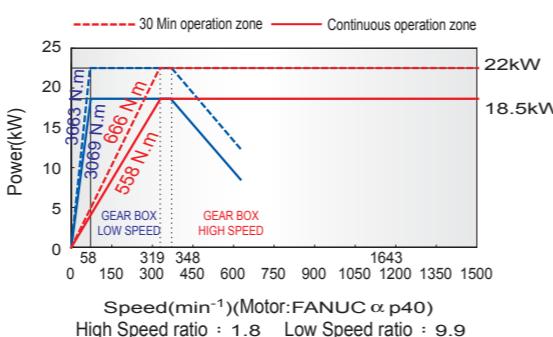
YV320E+C/YV500E+C



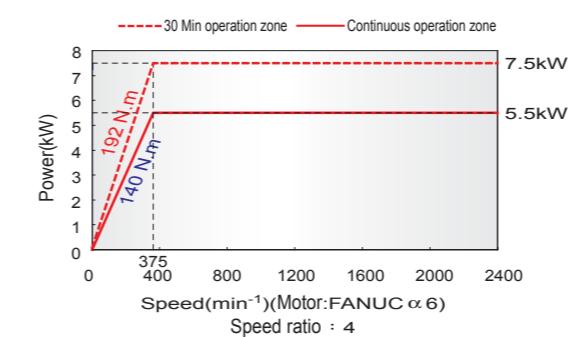
YV250 Series



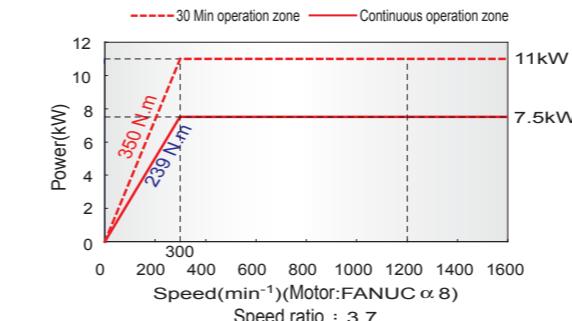
YV600/ YV700 Series



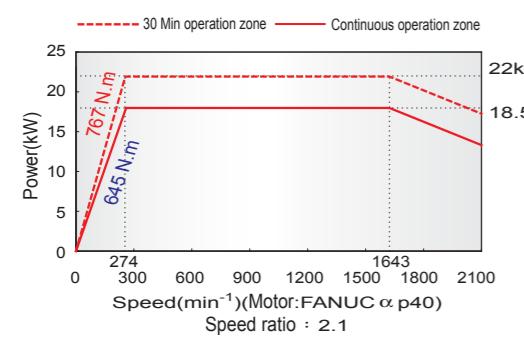
YV500ATC+C / YV600ATC+C



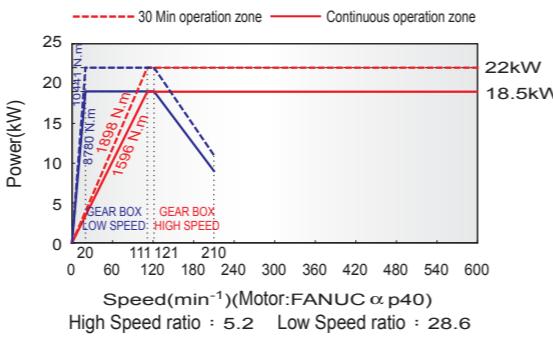
YV800E+C



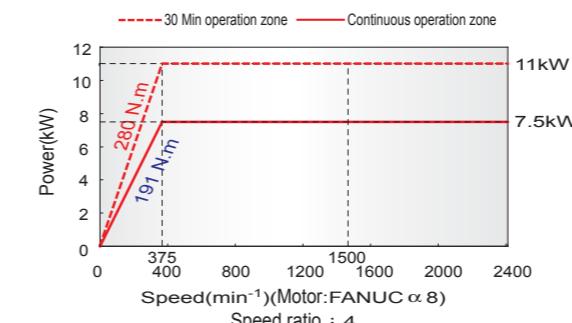
YV320 / YV420 Series



YV800 Series



YV800ATC+C

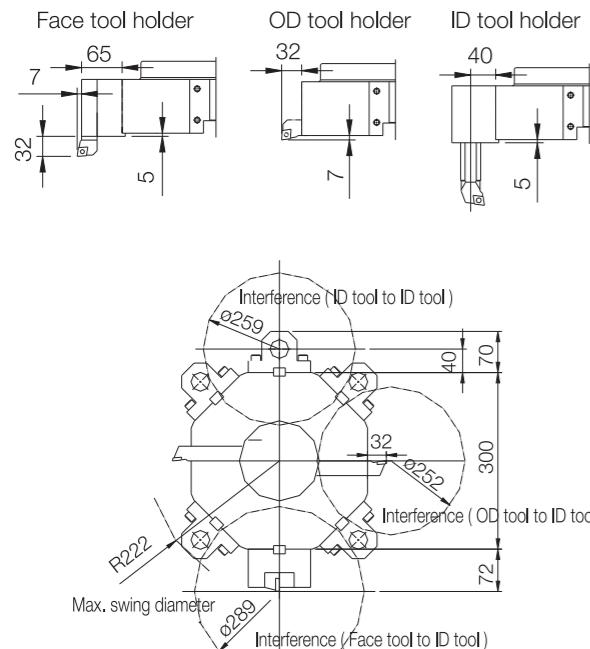


YV200-800 series

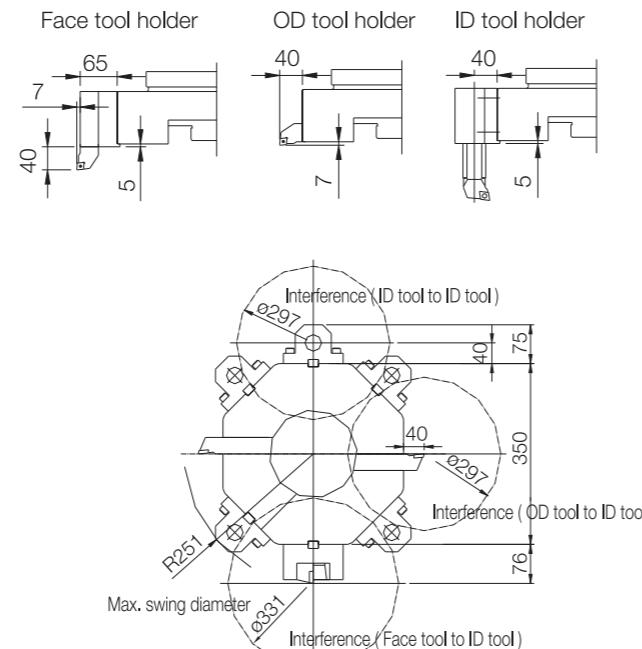
CNC Vertical Turning Lathe

Tooling Interference Diagram

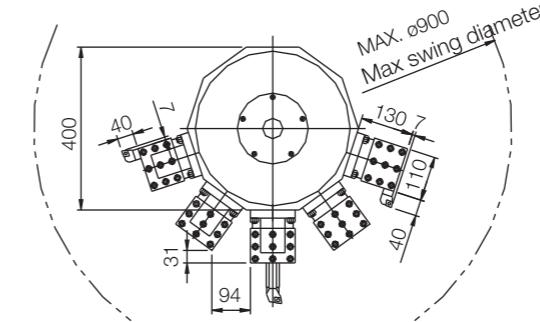
YV200E, YV250E



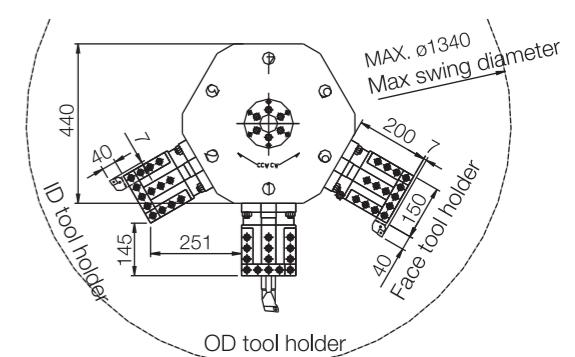
YV320E



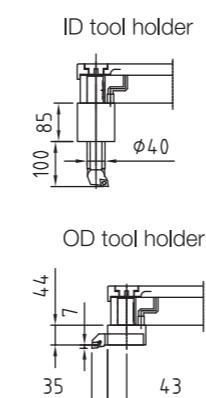
YV-320C, YV-500C



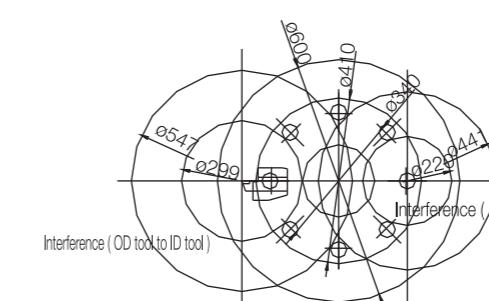
YV500A, YV600A, YV800A



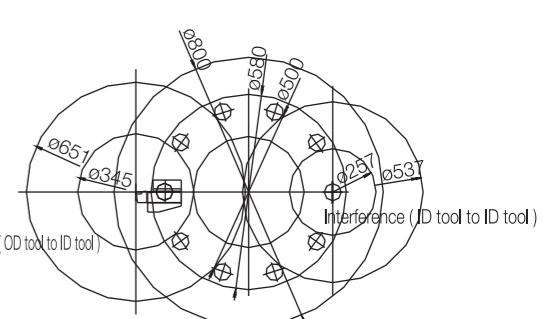
V.D.I. 40



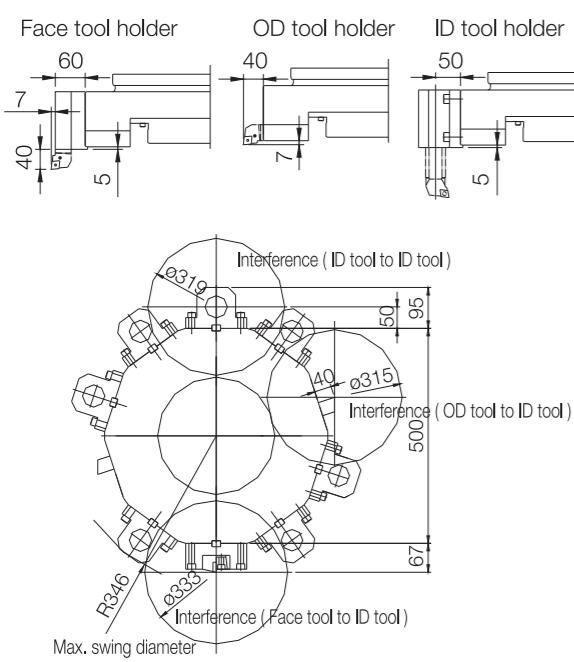
YV200E+C, YV250E+C



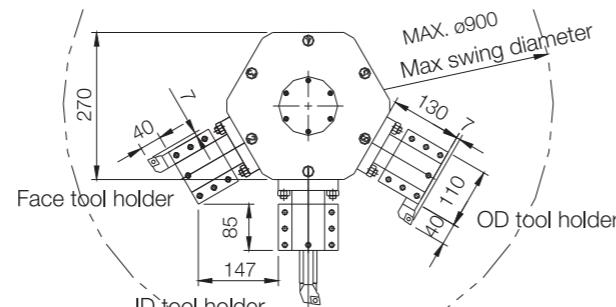
YV320E+C



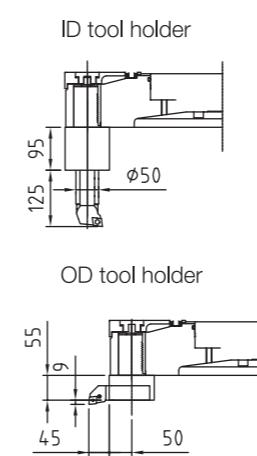
YV500E, YV600E, YV800E



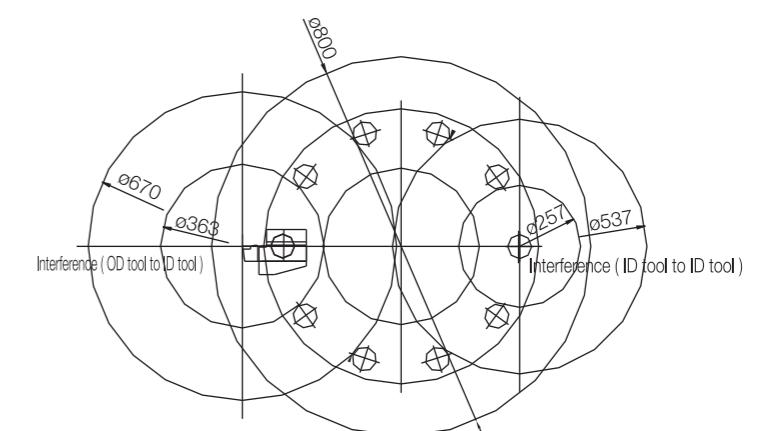
YV250A, YV320A



V.D.I. 50



YV500E+C, YV600E+C, YV800E+C

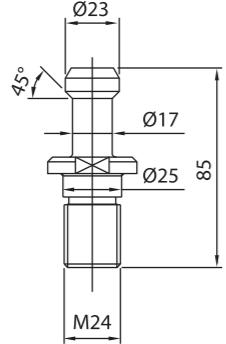


YV200-800 series

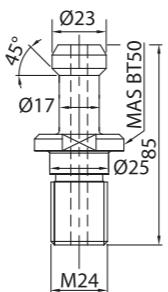
CNC Vertical Turning Lathe

ATC Tool Holder

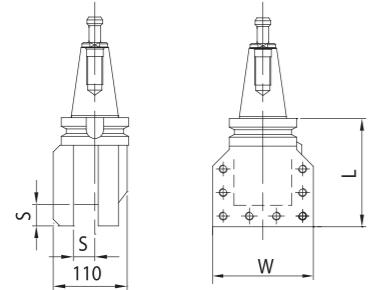
BT50 Pull Stud



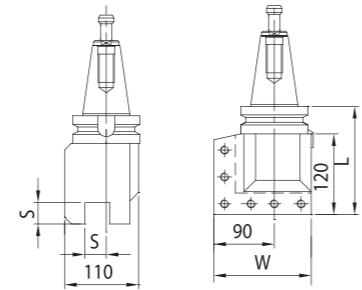
Pull stud for CTS



ATC Series

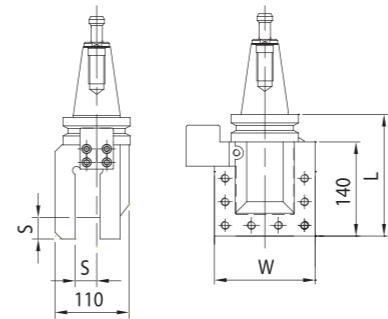


| Model | L | S | W |
|-----------------|-----|----|-----|
| BT50-STSST16032 | 160 | 32 | 150 |
| BT50-STSST20032 | 200 | 32 | 150 |

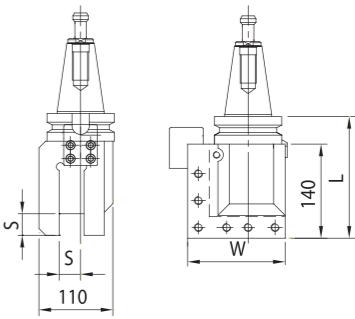


| Model | L | S | W |
|-----------------|-----|----|-----|
| BT50-STSET16032 | 160 | 32 | 145 |
| BT50-STSET20032 | 200 | 32 | 145 |

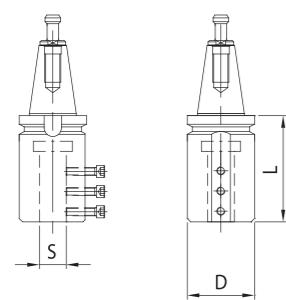
ATC+C series Turning Tool Holder



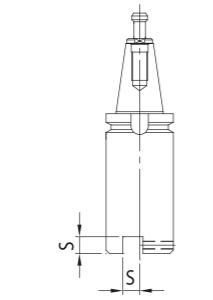
| Model | L | S | W |
|-----------------|-----|----|-----|
| BT50-SMSST18032 | 180 | 32 | 150 |
| BT50-SMSST22032 | 220 | 32 | 150 |



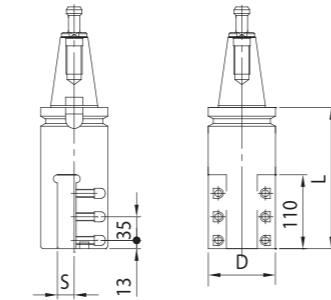
| Model | L | S | W |
|-----------------|-----|----|-----|
| BT50-SMSET18032 | 180 | 32 | 145 |
| BT50-SMSET22032 | 220 | 32 | 145 |



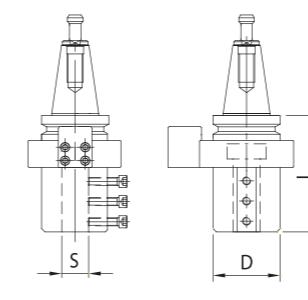
| Model | L | S | D |
|------------------|-----|----|-----|
| BT50-STSBBH17332 | 173 | 32 | 100 |
| BT50-STSBBH17340 | 173 | 40 | 100 |
| BT50-STSBBH17350 | 173 | 50 | 100 |
| BT50-STSBBH27332 | 273 | 32 | 100 |
| BT50-STSBBH27340 | 273 | 40 | 100 |
| BT50-STSBBH27350 | 273 | 50 | 100 |



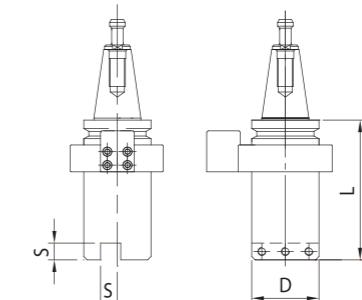
| Model | L | S | D |
|-----------------|-----|----|-----|
| BT50-STSBB21025 | 210 | 25 | 100 |
| BT50-STSBB36025 | 360 | 25 | 100 |



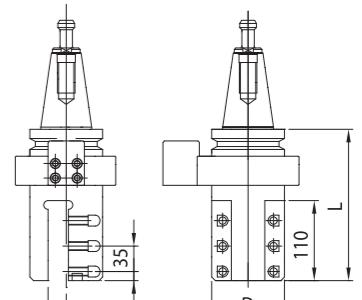
| Model | L | S | D |
|------------------|-----|----|-----|
| BT50-STSBBT21025 | 210 | 25 | 100 |
| BT50-STSBBT36025 | 360 | 25 | 100 |



| Model | L | S | D |
|-----------------|-----|----|-----|
| BT50-SMSBH17332 | 173 | 32 | 100 |
| BT50-SMSBH17340 | 173 | 40 | 100 |
| BT50-SMSBH17350 | 173 | 50 | 100 |
| BT50-SMSBH27332 | 273 | 32 | 100 |
| BT50-SMSBH27340 | 273 | 40 | 100 |
| BT50-SMSBH27350 | 273 | 50 | 100 |



| Model | L | S | D |
|-----------------|-----|----|-----|
| BT50-SMSBB21025 | 210 | 25 | 100 |
| BT50-SMSBB36025 | 360 | 25 | 100 |



| Model | L | S | D |
|-----------------|-----|----|-----|
| BT50-SMSBT21025 | 210 | 25 | 100 |
| BT50-SMSBT36025 | 360 | 25 | 100 |

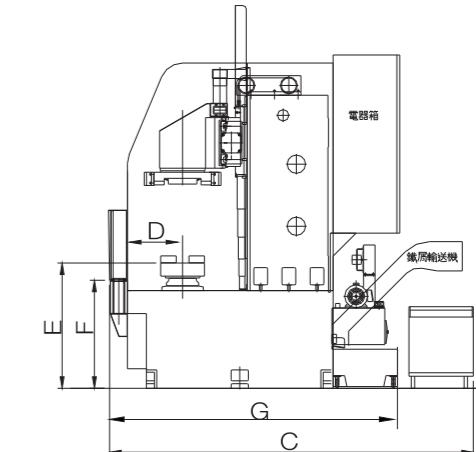
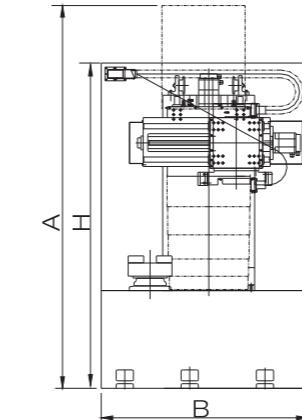
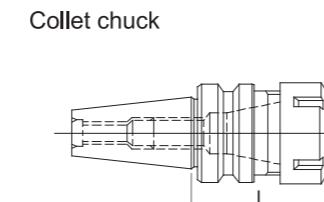
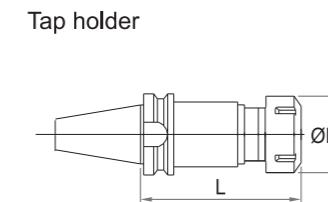
YV200-800 series

CNC Vertical Turning Lathe

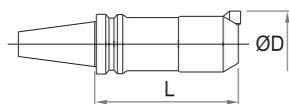
ATC Tool Holder

Machine Layout Dimension YV200-800 Series

ATC Live Tool Holder

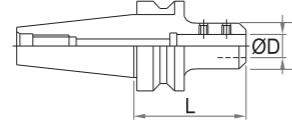


Boring bar (Rough boring)

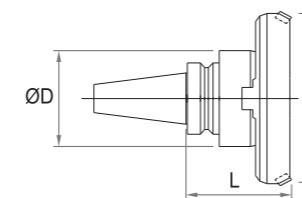


| Model | L | D |
|-----------------|-----|---------|
| BT50-BSB62-300 | 300 | 62~90 |
| BT50-BSB72-285 | 285 | 72~110 |
| BT50-BSB105-195 | 195 | 105~160 |

Side lock chuck



Facemill holder
(Milling cutter excluded)



| Model | L | C | D |
|------------------|-----|----|------|
| BT50-SLA20-105 | 105 | 50 | 20 |
| BT50-SLA25-105 | 105 | 55 | 25 |
| BT50-SLA32-105 | 105 | 60 | 32 |
| BT50-SLA40-105 | 105 | 80 | 40 |
| BT50-SLA50.8-105 | 105 | 95 | 50.8 |

| Model | L | D | C |
|-------------------|-----|----|-----|
| BT50-FMA25.4-105 | 155 | 60 | 80 |
| BT50-FMA31.75-105 | 160 | 70 | 100 |
| BT50-FMA38.1-75 | 75 | 85 | 125 |
| BT50-FMA50.8-75 | 135 | 95 | 150 |

| Model | A | B | C | D | E | F | G | H |
|----------|------|------|------|-----|------|------|------|------|
| YV200B | 2460 | 1530 | 2880 | 320 | 956 | 1120 | 2320 | 2190 |
| YV200E | 2460 | 1480 | 2880 | 320 | 956 | 1120 | 2320 | 2190 |
| YV200E+C | 2520 | 1480 | 2920 | 380 | 956 | 1120 | 2330 | 2450 |
| YV250A | 2480 | 1530 | 2920 | 320 | 971 | 1120 | 2350 | 2305 |
| YV250B | 2480 | 1530 | 2920 | 320 | 971 | 1120 | 2350 | 2305 |
| YV250E | 2480 | 1480 | 2950 | 320 | 971 | 1120 | 2350 | 2300 |
| YV250E+C | 2600 | 1500 | 3200 | 380 | 971 | 1120 | 2330 | 2460 |
| YV320A | 2855 | 1785 | 3500 | 375 | 1011 | 1140 | 2580 | 2500 |
| YV320B | 2855 | 1785 | 3500 | 375 | 1011 | 1140 | 2580 | 2500 |
| YV320C | 2970 | 1980 | 3520 | 470 | 1051 | 1140 | 2530 | 2850 |
| YV320E | 2845 | 1770 | 2960 | 375 | 1011 | 1140 | 2305 | 2500 |
| YV320E+C | 2950 | 1935 | 2975 | 495 | 1011 | 1140 | 2555 | 2750 |
| YV420A | 2845 | 2060 | 2975 | 495 | 1020 | 1140 | 2540 | 2680 |
| YV420E | 2845 | 1935 | 2975 | 495 | 1020 | 1140 | 2540 | 2680 |
| YV500A | 3395 | 1900 | 3250 | 480 | 1100 | 1140 | 2685 | 3050 |
| YV500C | 3395 | 1900 | 3250 | 480 | 1100 | 1140 | 2685 | 3050 |
| YV500E | 3330 | 1880 | 3250 | 480 | 1100 | 1140 | 2685 | 2830 |

| Model | A | B | C | D | E | F | G | H |
|------------|------|------|------|-----|------|------|------|------|
| YV500E+C | 3330 | 1800 | 3250 | 550 | 1100 | 1140 | 2740 | 2965 |
| YV500ATC | 3395 | 2330 | 3720 | 650 | 1100 | 1140 | 3010 | 3150 |
| YV500ATC+C | 3395 | 2330 | 3720 | 650 | 1100 | 1140 | 3010 | 3300 |
| YV550A | 3395 | 2330 | 3720 | 600 | 1100 | 1140 | 2965 | 2950 |
| YV550E | 3395 | 2330 | 3720 | 600 | 1100 | 1140 | 2965 | 2950 |
| YV600A | 4000 | 2350 | 4000 | 500 | 1330 | 1600 | 3310 | 3350 |
| YV600E | 4120 | 2350 | 4000 | 500 | 1330 | 1600 | 3310 | 3350 |
| YV600E+C | 4120 | 2450 | 4300 | 700 | 1330 | 1600 | 4100 | 3430 |
| YV600ATC | 4120 | 2450 | 4300 | 700 | 1330 | 1600 | 4100 | 3350 |
| YV600ATC+C | 4450 | 2450 | 4300 | 700 | 1330 | 1600 | 4100 | 3790 |
| YV700A | 4120 | 2450 | 4300 | 700 | 1330 | 1600 | 4100 | 3360 |
| YV700E | 4120 | 2450 | 4300 | 700 | 1330 | 1600 | 4100 | 3360 |
| YV800A | 4000 | 2590 | 3700 | 680 | 971 | 1145 | 3000 | 3055 |
| YV800E | 4000 | 2590 | 3700 | 680 | 971 | 1145 | 3000 | 3055 |
| YV800E+C | 4200 | 2590 | 3810 | 800 | 1102 | 1215 | 3000 | 3530 |
| YV800ATC | 4000 | 2590 | 3700 | 680 | 971 | 1155 | 3000 | 3055 |
| YV800ATC+C | 4260 | 2590 | 3810 | 800 | 1102 | 1215 | 3300 | 3530 |

YV200-800 series

CNC Vertical Turning Lathe

Machine Specifications

| Machine Specifications | unit | YV200B | YV200E | YV200E+C | YV250A | YV250B | YV250E | YV250E+C | YV320A | YV320B | YV320C | YV320E | YV320E+C | YV420A | YV420E | YV500A | YV500C | YV500E | |
|-----------------------------|-------------------|------------|------------|----------------|-------------|-------------|-------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|--|
| | | YV200BR/BL | YV200ER/EL | YV200ER+C/EL+C | YV250AR/AL | YV250BR/BL | YV250ER/EL | YV250ER+C/EL+C | YV320AR/AL | YV320BR/BL | | YV320ER/EL | YV320ER+C/EL+C | YV420AR/AL | YV420ER/EL | YV500AR/AL | | YV500ER/EL | |
| Machine capacity | | | | | | | | | | | | | | | | | | | |
| 3 jaw hydraulic chuck | mm | 8" | 8" | 8" | 10" | 10" | 10" | 10" | 12" | 12" | 12" | 12" | 12" | 15" | 15" | 15" | 15" | 15" | |
| Max. swing diameter | mm | Ø400 | Ø 400 | Ø 400 | Ø 500 | Ø 500 | Ø 500 | Ø 500 | Ø 600 | Ø 600 | Ø 600 | Ø 600 | Ø 700 | Ø 700 | Ø 750 | Ø 750 | Ø 750 | Ø 750 | |
| Max. turning diameter | mm | Ø250 | Ø 250 | Ø 250 | Ø 350 | Ø 350 | Ø 350 | Ø 350 | Ø 450 | Ø 450 | Ø 450 | Ø 450 | Ø 500 | Ø 500 | Ø 550 | Ø 550 | Ø 550 | Ø 550 | |
| Max. turning height | mm | 200 | 200 | 250 | 250 | 250 | 250 | 250 | 300 | 300 | 300 | 300 | 400 | 400 | 500 | 500 | 500 | 500 | |
| Max. work piece weight | kg | 200 | 200 | 200 | 300 | 300 | 300 | 300 | 500 | 500 | 500 | 500 | 500 | 500 | 1,200 | 1,200 | 1,200 | 1,200 | |
| Travel | | | | | | | | | | | | | | | | | | | |
| X axis travel | mm | -40,+250 | -40,+160 | -40,+210 | -20,+260 | -40,+250 | -50,+200 | -40,+210 | -40,+300 | -75,+295 | -50,+310 | -50,+290 | -15,+300 | -30,330 | -12,+350 | -40,+400 | -40,+400 | -20,+410 | |
| Z axis travel | mm | 450 | 400 | 450 | 450 | 450 | 450 | 450 | 500 | 500 | 500 | 500 | 500 | 500 | 620 | 620 | 620 | 620 | |
| Spindle | | | | | | | | | | | | | | | | | | | |
| Spindle bearing | mm | 80 | 80 | 80 | 100 | 100 | 100 | 100 | 120 | 120 | 120 | 120 | 120 | 120 | 160 | 160 | 160 | 160 | |
| Spindle nose | | A2-6 | A2-6 | A2-6 | A2-8 | A2-8 | A2-8 | A2-8 | A2-8 | A2-8 | A2-8 | A2-8 | A2-8 | A2-8 | A2-11 | A2-11 | A2-11 | A2-11 | |
| Drilling & tapping capacity | mm | N/A | N/A | Ø12/M10(FC) | N/A | N/A | N/A | Ø12/M10(FC) | N/A | N/A | Ø20/M16(FC) | N/A | Ø20/M16(FC) | N/A | N/A | Ø20/M16(FC) | N/A | N/A | |
| Spindle speed | min ⁻¹ | 50~3500 | 50~3500 | 50~3500 | 50~2500 | 50~2500 | 50~2500 | 50~2500 | 50~2500 | 50~2500 | 50~2500 | 50~2500 | 50~2500 | 50~2500 | 50~2000 | 50~2000 | 50~2000 | 50~2000 | |
| Live spindle speed | min ⁻¹ | | | 1~4000 | | | | 1~4000 | | | | 1~1600 | | | | | | | |
| Max. spindle torque | N.m(kgf·m) | 238(24) | 238(24) | 238(24) | 280(28) | 280(28) | 280(28) | 280(28) | 767(78) | 767(78) | 767(78) | 767(78) | 767(78) | 767(78) | 566(57) | 566(57) | 566(57) | 566(57) | |
| Feed rate | | | | | | | | | | | | | | | | | | | |
| X axis rapid traverse | m/min | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Z axis rapid traverse | m/min | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 20 | 20 | 20 | |
| Turret | | | | | | | | | | | | | | | | | | | |
| Turret type | | Gang Tool | Horizontal | V.D.I 40 | Vertical | Gang Tool | Horizontal | V.D.I 40 | Vertical | Gang Tool | V.D.I 50 | Horizontal | V.D.I 40 | Vertical | Horizontal | Vertical | V.D.I 50 | Horizontal | |
| Number of tools | pcs | 4 | 8 | 8 | 6 | 4 | 8 | 8 | 6 | 4 | 10 | 8 | 10 | 6 | 8 | 6 | 10 | 10 | |
| Tool shank size | mm | Ø25,Ø40 | Ø25,Ø32 | Ø25,Ø40 | Ø25,Ø40 | Ø25,Ø40 | Ø25,Ø32 | Ø25,Ø40 | Ø25,Ø40 | Ø25,Ø40 | Ø32,Ø50 | Ø32,Ø40 | Ø25,Ø40 | Ø25,Ø40 | Ø32,Ø50 | Ø32,Ø50 | Ø32,Ø50 | Ø32,Ø50 | |
| FANUC Motor | | | | | | | | | | | | | | | | | | | |
| Spindle motor | kW | 9/11(ap18) | 9/11(ap18) | 9/11(ap18) | 11/15(ap22) | 11/15(ap22) | 11/15(ap22) | 11/15(ap22) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | |
| Live spindle motor | kW | | | 2.2/3.7(a2) | | | | 2.2/3.7(a2) | | | 3.7/5.5(a3) | | 3.7/5.5(a3) | | | | | 3.7/5.5(a3) | |
| X axis servo motor | kW | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 3 | 3 | 3 | |
| Z axis servo motor | kW | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | |
| Hydraulic motor | kW | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | |
| Coolant pump | kW | 0.5 | 0.5 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | |
| Electrical system | | | | | | | | | | | | | | | | | | | |
| Controller | | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | |
| Power capacity | KVA | 25 | 25 | 30 | 30 | 30 | 30 | 35 | 40 | 40 | 45 | 40 | 45 | 40 | 40 | 45 | 50 | 45 | |
| Tank capacity | | | | | | | | | | | | | | | | | | | |
| Hydraulic tank | L | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | |
| Coolant tank | L | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 380 | 380 | 280 | 300 | 300 | 300 | 300 | 250 | 250 | 250 | |
| Lubrication tank | L | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | |
| Machine dimension | | | | | | | | | | | | | | | | | | | |
| Floor space | mm | 2880x1530 | 2880x1480 | 2880x1480 | 2920x1530 | 2920x1530 | 2950x1480 | 3200x1500 | 3500x1785 | 3500x1785 | 3520x1980 | 2960x1770 | 2975x1935 | 2975x2060 | 2975x1935 | 3250x1900 | 3250x1900 | 3250x1800 | |
| Machine height | mm | 2,460 | 2,460 | 2,460 | 2,4 | | | | | | | | | | | | | | |

YV200-800 series

CNC Vertical Turning Lathe

Machine Specifications



| Machine Specifications | unit | YV500E+C YV500ER+C/EL+C | YV500ATC | YV500ATC+C | YV550A YV550AR/AL | YV550E YV550ER/EL | YV600A YV600AR/AL | YV600E YV600ER/EL | YV600E+C YV600ER+C/EL+C | YV600ATC | YV600ATC+C | YV700A YV700AR/AL | YV700E YV700ER/EL | YV800A YV800AR/AL | YV800E YV800ER/EL | YV800E+C YV800ER+C/EL+C | YV800ATC | YV800ATC+C |
|-----------------------------|-------------------|----------------------------|---------------|---------------|----------------------|----------------------|----------------------|----------------------|----------------------------|---------------|---------------|----------------------|----------------------|----------------------|----------------------|----------------------------|---------------|------------|
| Machine capacity | | | | | | | | | | | | | | | | | | |
| 3 jaw hydraulic chuck | mm | 15" | 15" | 15" | 18" | 18" | 24" | 24" | 24" | 24" | 24" | 24" | 24" | 24" | 24" | 24" | 24" | |
| Max. swing diameter | mm | Ø 750 | Ø 750 | Ø 750 | Ø 800 | Ø 800 | Ø 850 | Ø 850 | Ø 850 | Ø 850 | Ø 850 | Ø 900 | Ø 900 | Ø 1000 | Ø 1000 | Ø 1000 | Ø 1000 | |
| Max. turning diameter | mm | Ø 550 | Ø 550 | Ø 550 | Ø 650 | Ø 650 | Ø 750 | Ø 750 | Ø 750 | Ø 750 | Ø 750 | Ø 800 | Ø 800 | Ø 900 | Ø 900 | Ø 900 | Ø 900 | |
| Max. turning height | mm | 500 | 500 | 500 | 500 | 500 | 600 | 600 | 600 | 600 | 600 | 600 | 700 | 700 | 700 | 700 | 700 | |
| Max. work piece weight | kg | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,800 | 1,800 | 1,800 | 1,800 | 1,800 | 1,800 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | |
| Travel | | | | | | | | | | | | | | | | | | |
| X axis travel | mm | -10,+420 | -55,+650 | -55,+650 | -50,740 | -50,+430 | -50,+700 | -50,+475 | -50,+415 | -50,+415 | -50,+650 | -50,800 | -50,+500 | -30,+750 | -50,+615 | -50,+730 | -50,+600 | |
| Z axis travel | mm | 620 | 620 | 620 | 620 | 620 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 850 | 850 | 850 | 850 | |
| Spindle | | | | | | | | | | | | | | | | | | |
| Spindle bearing | mm | 160 | 160 | 160 | 160 | 160 | 200 | 200 | 200 | 200 | 200 | 200 | 330 | 330 | 330 | 330 | 330 | |
| Spindle nose | | A2-11 | A2-11 | A2-11 | A2-11 | A2-11 | A2-11 | A2-11 | A2-11 | A2-11 | A2-11 | A2-11 | A2-11 | A2-11 | A2-11 | A2-11 | A2-11 | |
| Drilling & tapping capacity | mm | Ø20/M16(FC) | N/A | Ø25/M20(FC) | N/A | N/A | N/A | Ø25/M20(FC) | N/A | Ø25/M20(FC) | N/A | N/A | N/A | Ø25/M20(FC) | N/A | Ø25/M20(FC) | N/A | |
| Spindle speed | min ⁻¹ | 50~2000 | 50~2000 | 50~2000 | 50~2000 | 20~340 | 20~340 | 20~340 | 20~340 | 20~340 | 20~340 | 20~340 | 10~120 | 10~120 | 10~120 | 10~120 | 10~120 | |
| High gear | | | | | | 340~1500 | 340~1500 | 340~1500 | 340~1500 | 340~1500 | 340~1500 | 340~1500 | 120~600 | 120~600 | 120~600 | 120~600 | 120~600 | |
| Live spindle speed | min ⁻¹ | 1~1600 | | 1~2400 | | | | 1~1600 | | 1~2400 | | | | 1~1600 | | 1~2400 | | |
| Max. spindle torque | N.m(kgf·m) | 566(57) | 566(57) | 566(57) | 566(57) | 3663(373) | 3663(373) | 3663(373) | 3663(373) | 3663(373) | 3663(373) | 3663(373) | 10441(1065) | 10441(1065) | 10441(1065) | 10441(1065) | 10441(1065) | |
| Feed rate | | | | | | | | | | | | | | | | | | |
| X axis rapid traverse | m/min | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | |
| Z axis rapid traverse | m/min | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | |
| Turret | | | | | | | | | | | | | | | | | | |
| Turret type | | V.D.I 50 | ATC | ATC | Vertical | Horizontal | Vertical | Horizontal | V.D.I 50 | ATC | ATC | Vertical | Horizontal | Vertical | Horizontal | V.D.I 50 | ATC | ATC |
| Number of tools | pcs | 10 | 12 | 12 | 6 | 10 | 6 | 10 | 10 | 12 | 12 | 6 | 10 | 6 | 10 | 10 | 12 | 12 |
| Tool shank size | mm | □32,Ø50 | BT50 | BT50 | □32,Ø50 | □32,Ø50 | □32,Ø50 | □32,Ø50 | □32,Ø50 | BT50 | BT50 | □32,Ø50 | □32,Ø50 | □32,Ø50 | □32,Ø50 | □32,Ø50 | BT50 | BT50 |
| FANUC Motor | | | | | | | | | | | | | | | | | | |
| Spindle motor | kW | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | 18.5/22(ap40) | |
| Live spindle motor | kW | 3.7/5.5(a3) | | 5.5/7.5(a6) | | | | | 5.5/7.5(a6) | | 5.5/7.5(a6) | | | | | 7.5/11(a8) | | 7.5/11(a8) |
| X axis servo motor | kW | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| Z axis servo motor | kW | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| Hydraulic motor | kW | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | |
| Coolant pump | kW | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | 0.5+1 | |
| Electrical system | | | | | | | | | | | | | | | | | | |
| Controller | | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | FANUC 0i-T | |
| Power capacity | KVA | 50 | 50 | 55 | 50 | 50 | 50 | 50 | 60 | 50 | 60 | 50 | 50 | 50 | 50 | 60 | 50 | 60 |
| Tank capacity | | | | | | | | | | | | | | | | | | |
| Hydraulic tank | L | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | |
| Coolant tank | L | 250 | 250 | 250 | 250 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 350 | 350 | 350 | 350 | 350 | |
| Lubrication tank | L | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | |
| Machine dimension | | | | | | | | | | | | | | | | | | |
| Floor space | mm | 3250x1800 | 3720x2330 | 3720x2330 | 3720x2330 | 3720x2330 | 4000x2350 | 4000x2350 | 4300x2450 | 4300x2450 | 4300x2450 | 4300x2450 | 4300x2450 | 3700x2590 | 3700x2590 | 2810x2590 | 3700x2590 | 3810x2590 |
| Machine height | mm | 3,330 | 3,395 | 3,395 | 3,395 | 3,395 | 4,000 | 4,120 | 4,120 | 4,120 | 4,450 | 4,120 | 4,120 | 4,000 | 4 | | | |