

We Are HONOR SEIKI Co., Ltd.

Precision, Reliability, Performance, No Compromises!

VL SERIES

 **HONOR SEIKI Co., Ltd.**

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Agent :

Imported by:

**CNC
SYSTEMS INC.**
THE POWER OF PRECISION

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202107 2000



CNC Vertical Turning Experts!

VL SERIES

VL-66C/CM

VL-86C/CM

VL-100C/CM



Honor Seiki Company, Co., Ltd.



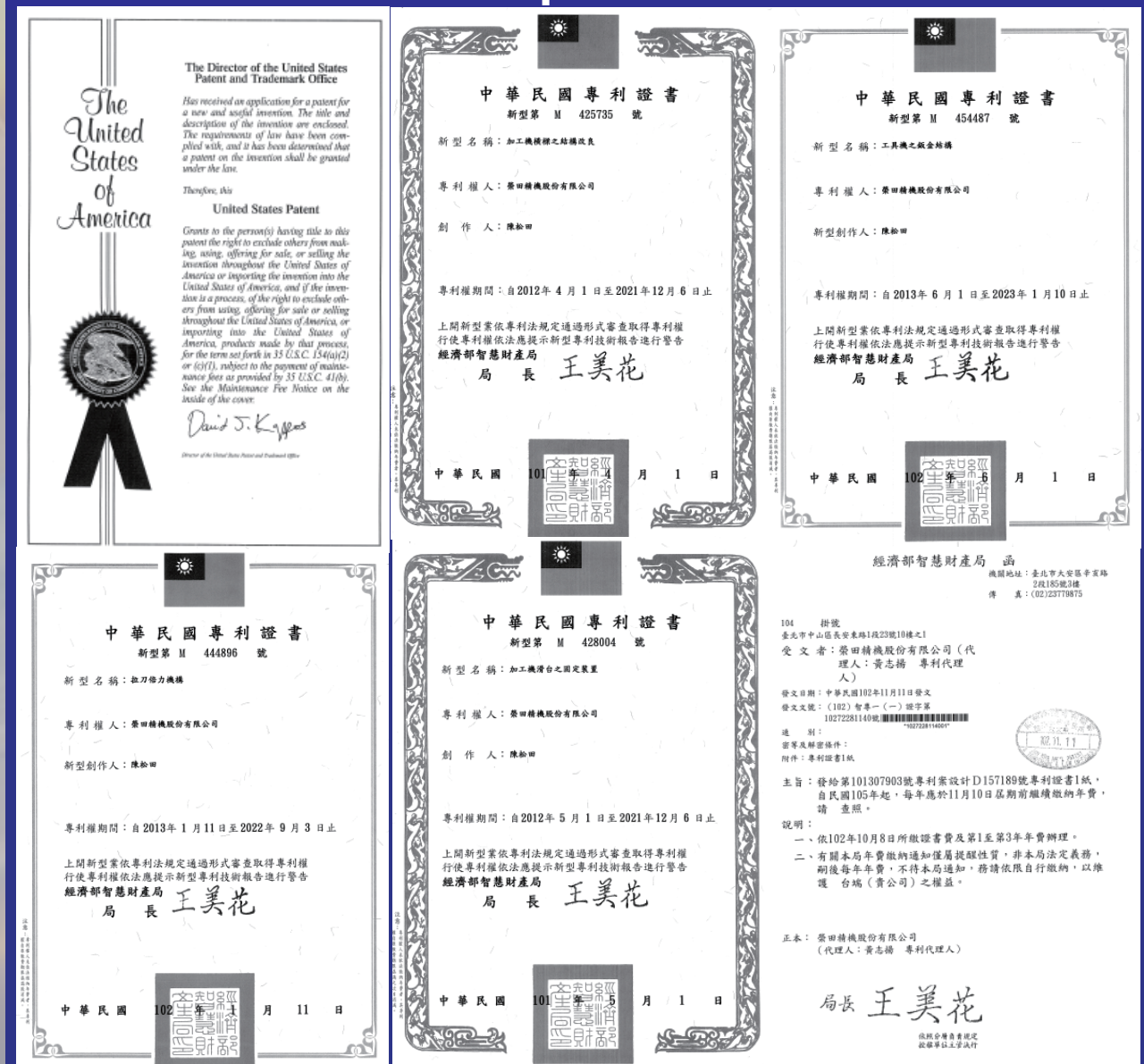


■ Honor Seiki continuous to develop quality machines to meet the highest standards in precision, efficiency and reliability.

With 30 years' experience in machine tool design and manufacturing, HONOR SEIKI is the most professional and largest machine tool maker in CNC Vertical Lathe, Vertical Turning Center and Gantry type Turning/Milling/Grinding Center in Taiwan. Honor Seiki brand is internationally recognized and sold over 50 countries with many repeated orders. Unlike others who over diversify, Honor Seiki focuses solely on vertical turning lathe, with an undivided aim to perfect our product line and bring about greatest customer satisfaction. We are very proud of providing our machines to many leading companies around the world. The industrials we provide include aerospace, automotive, railway, high speed rail, mining, oil and gas, wind power...etc. From outer space rockets to deep ocean submarines, all utilize Honor Seiki vertical lathe to maximize their machining potential. We are proud of our accomplishments in bringing accolades to Taiwan. Our business model is based on cooperation, lasting partnership and mutual benefits in order to best serve our clients and help them reap their greatest gain, with special emphasis on Quality, Efficiency, Accuracy, Honest and Responsibility. We always fulfill our promises to our customers. Honor Seiki LTD is your best partnership to prosper and grow your business.



With Multiple World Wide Patents Let HONOR's Experience Guide You .



VL SERIES

Heavy Duty Ram Small-Medium Series

VL-66C/CM

VL-86C/CM

VL-100C/CM



**Y-Axis with Turning
PL Specialty Series**



**Heavy Duty Ram
Medium-Large Series**

VL-125C/CM
VL-160C/CM
VL-200C/CM
VL-250C/CM
VL-300C/CM
VL-400C/CM
VL-500C/CM
VL-600C/CM



• Aerospace



• Aerospace



• Aerospace



• Aerospace



• Steering wheel



• Steering wheel



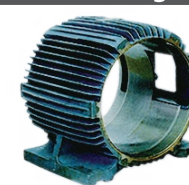
• Power plant



• Power plant



• Motor housing



• Motor housing



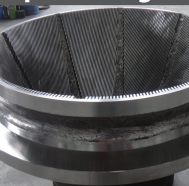
• Valve



• Oil pipe connector



• Papermaking



• Papermaking



• Textile machine



• Textile machine



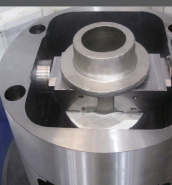
• Motor housing



• Elevator



• Valve



• Valve



- Work Station Changers
- Auto Pallet Changers
- Custom Tool Changers
- Special Fixtures / Tooling

Diverse Fields of Applications:

- Aerospace
- Rail
- Power Generation
- Wind Power
- Large Valves
- Gears
- Oil & Gas
- Agricultural
- Marine
- Defense
- Automotive
- Machine Tool

Machine Structure Design

One Piece Stable Column

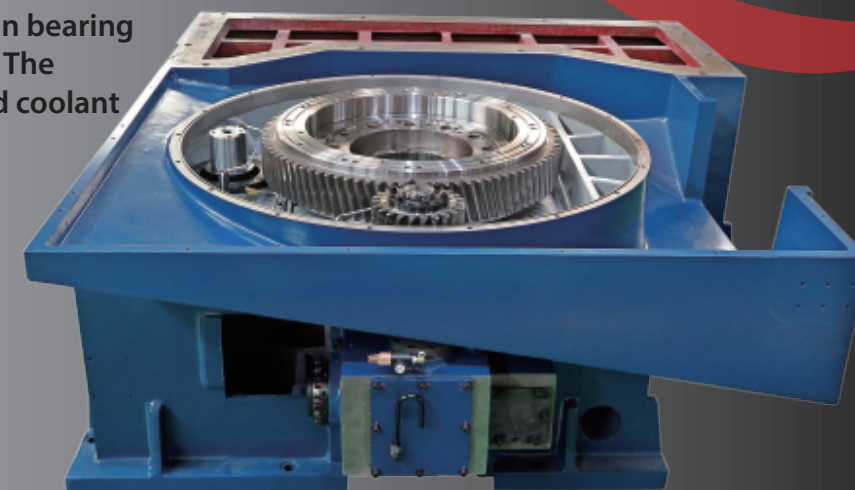
The massive symmetrically designed one piece double column is hand scraped and fitted to the oversized base with ultimate precision. The heavily ribbed Meehanite castings ensure dynamic stability, excellent thermal characteristics and high rigidity for machining tough alloy materials. All Honor Seiki machines are designed with massive box ways for superior cutting capabilities.



2-Speed Gear-Box Design

Largest Bearing Design in its Class

Large one piece base with oversized main bearing and heavy duty gear drive transmission. The tapered base makes for excellent chip and coolant flow for ease of chip evacuation.



Heavy Duty

Structure

Large Ram with Multiple Tooling Options

The RAM is made of high strength alloy steel specially ground and encapsulated in a heavy duty head casting. The ram is supported on eight (8) surfaces with turcite C that are hand scraped to ensure a high level of rigidity, precision and dynamic stability.

Ram Sizes: 200 x 200 mm
200 x 220 mm



VL SERIES

The X, and Z axis as well as the traveling cross rail are precision ground box ways with hand scraped turcite "C" mating surfaces. The Class 3 ballscrews are directly driven by high torque servo motors.

All sideways are automatically lubricated by a central system that controls the volume and timing to achieve proper amount of oils needed.

VL100C/CM

The cross rail is fully programmable in multiple increments of 200mm steps, The rail is precisely positioned by 3" diameter ground shot pins that come to rest on ground mating surfaces to ensure the highest level of accuracy and repeatability while changing the location plain.

VL66 & VL86 have fixed cross rail

Main gears are made from a high grade carbonized JIS grade SCM440 material ensuring an extremely efficient smooth running gear with low noise and a prolonged life.

The 2-speed gear-box is driven by a Fanuc spindle motor that produces torque from 12,000 NM (VL100C with 50HP) to over 14,000 NM for the VL-100C with 60HP drive.

The CM model with full C-axis uses a separate servo motor to engage the main gear with a zero-backlash system for highly accurate drilling and milling type work

2-Speed Gear-Box Design
Large Carbonized Gears

Large Beveled Gears Ensures
Higher Torque and Low Noise

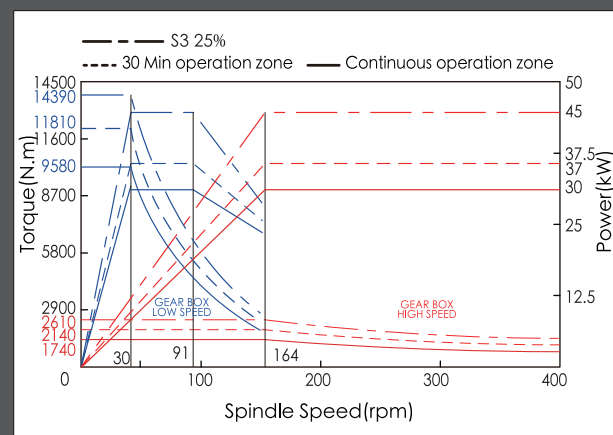


Servo Driven Split Gear for a" 0" Zero Backlash C-Axis Drive System

Heavy Duty Spindle

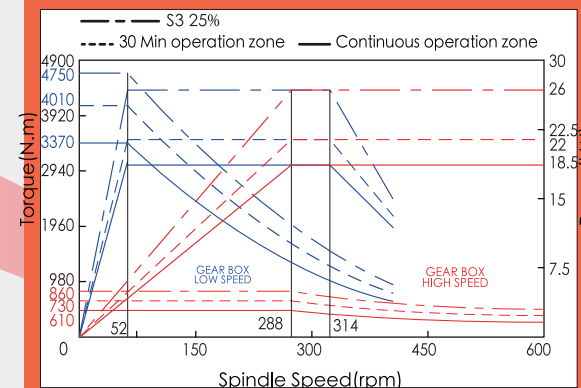
VL-100C/CM

VL-100 series 30/37kW, 2 steps

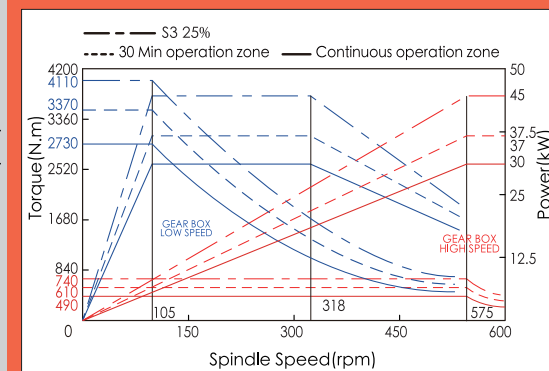


VL-86C/CM

VL-86C 18.5/22kW, 2 steps

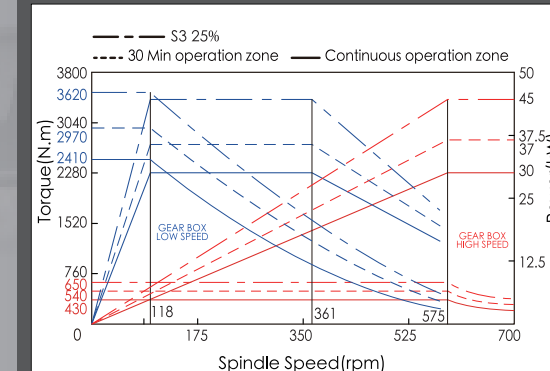


VL-86CM 30/37kW, 2 steps

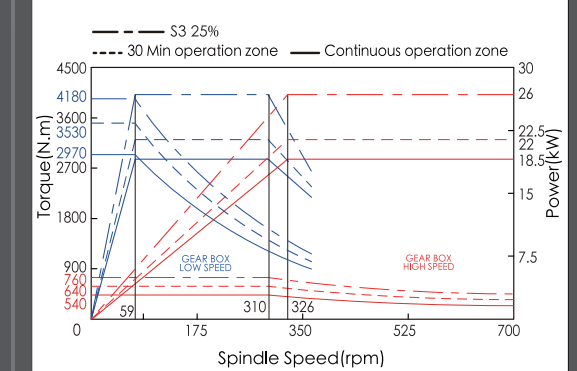


VL-66C/CM

VL-66CM 30/37kW, 2 steps



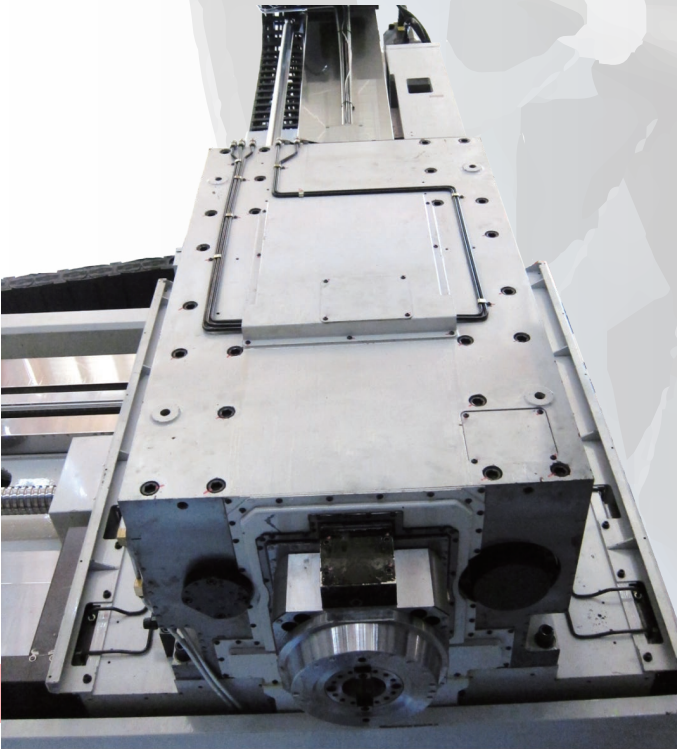
VL-66C 18.5/22kW, 2 steps



8 Turcite support surfaces



The machine headstock is designed for ultimate rigidity and accuracy by incorporating eight (8) Hand scraped turcite support surfaces for heavy machining of all materials.

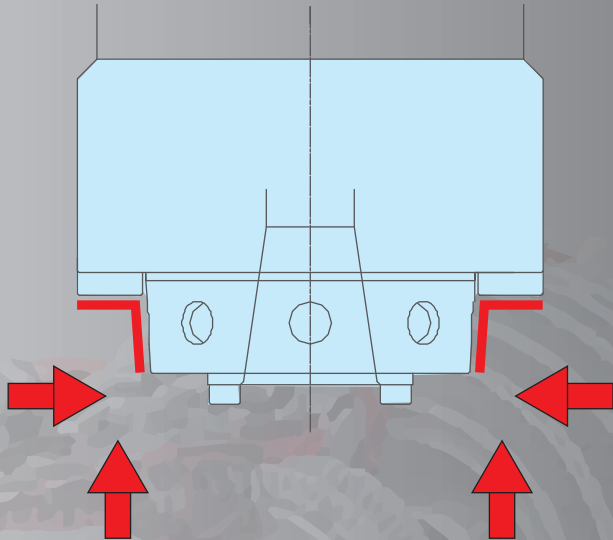


200 x 220mm
Ram Size



The Patented and extremely rigid Solid Lock tooling system is where Honor Seiki machines out perform all other brands. Utilizing a high level of tool holder and ram contact surface with the special ball lock clamping 100 HP cuts in exotic materials is easily achieved.

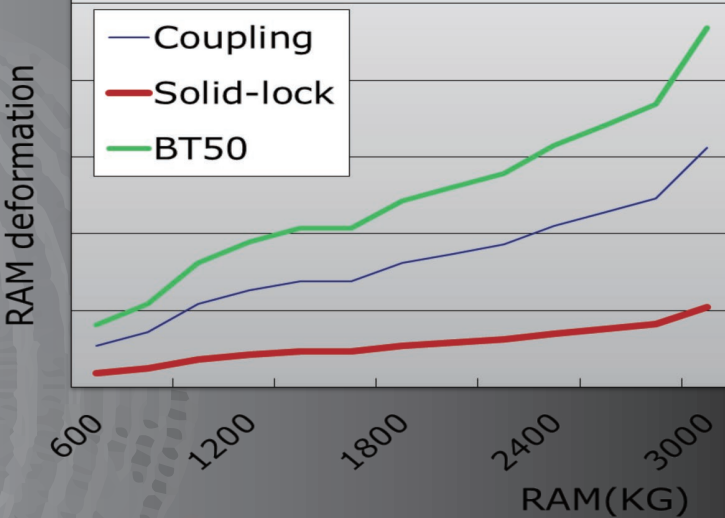
Solid Lock System



Two face contact
ball clamping anti-vibration
Max. 8,000kg clamping force

• Honor Patent !

Clamping Stiffness Comparision



■ Milling Capacity

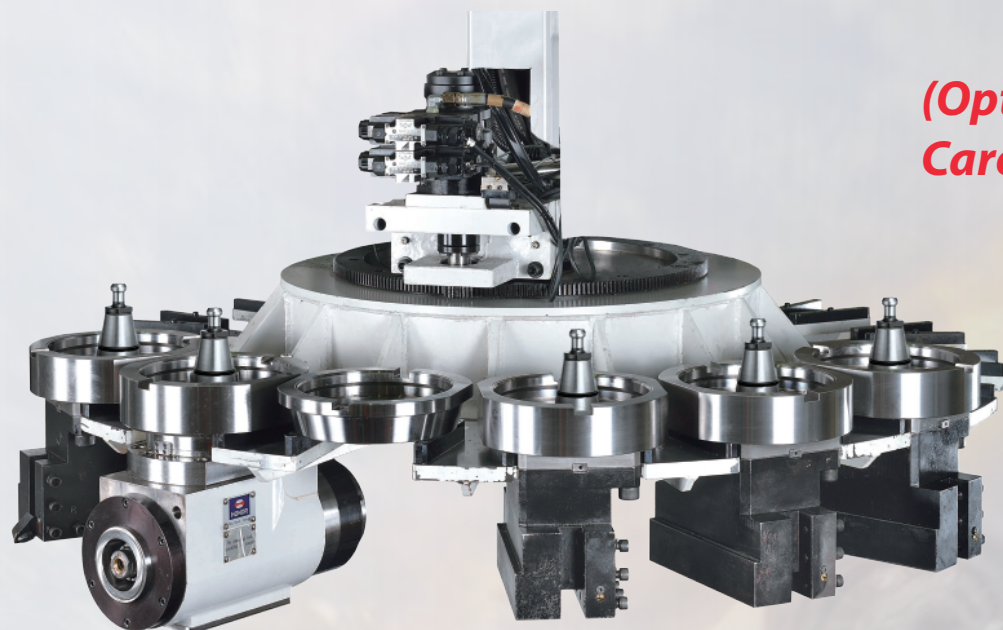
| Model | VL-160CM |
|-------------------------|-------------|
| Spindle motor | 11/15 kW |
| Material | S45C |
| Milling cutters | Ø100x7 |
| Cutting depth | 4.5 mm |
| Feed rate | 720 mm/min |
| Cutting speed | 160 m/min |
| Material removable rate | 320 cm³/min |



VL-Series Tool Changers

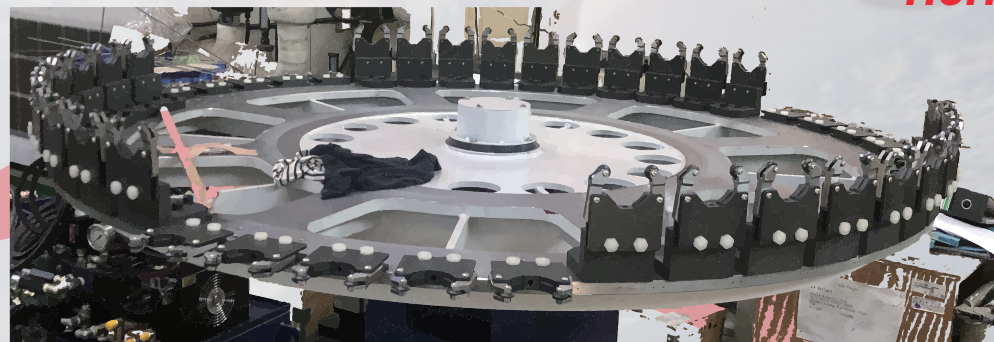


**Standard C-Type Tools
Carousel Type ATC**



**(Optional) Solid Lock
Carousel Type ATC**

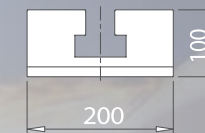
**CAPTO Vertical and
Horizontal Type ATC**



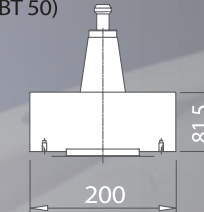
VL-Series Tooling Charts

■ Tool holder base :

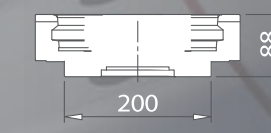
GC-200
(Gear Coupling)



BT-50 (□200/□220)
(BT 50)



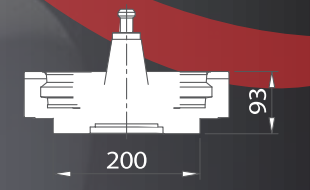
SL-17T (□220/□250)
(Two face contact tooling)



SL-17A (□220)
(Two face contact tooling)

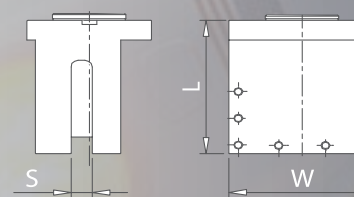


SL-22A (□250/300)
(Two face contact tooling)



■ GC-200 / RG250 / SL-17T / SL-17A / SL-22A Tool holder :

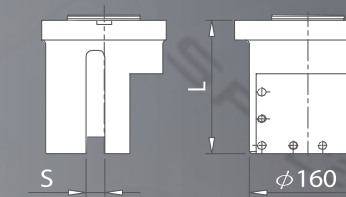
O.D. / Facing tool holder



| Model | L | S | W |
|-----------------|-----|----|-----|
| IDF25-200-200 | 200 | 25 | 200 |
| IDF32-200-200 | 200 | 32 | 200 |
| * IDF32-240-200 | 200 | 32 | 240 |
| IDF40-285-200 | 200 | 40 | 285 |

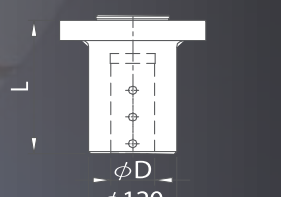
Note : Only for SL-17A & SL-22A

I.D. / Facing tool holder



| Model | L | S |
|---------------|-----|----|
| IFL25-160-200 | 200 | 25 |
| IFL32-160-200 | 200 | 32 |

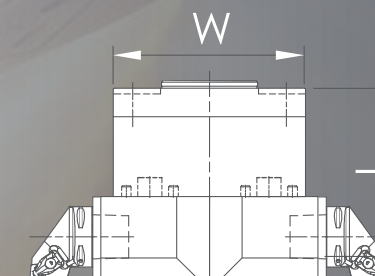
Boring tool holder



| Model | L | D |
|---------------|-----|----|
| BOS40-120-200 | 200 | 40 |
| BOS50-120-200 | 200 | 50 |
| BOS60-120-200 | 200 | 60 |

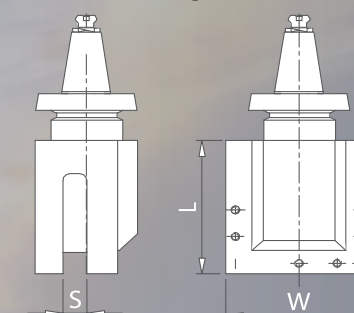
■ Capto Tool Holder

| Model | L | W |
|--------------|-----|-----|
| BDC6-220-200 | 200 | 220 |
| BDC6-250-200 | 200 | 250 |



■ BT50 Tool holder :

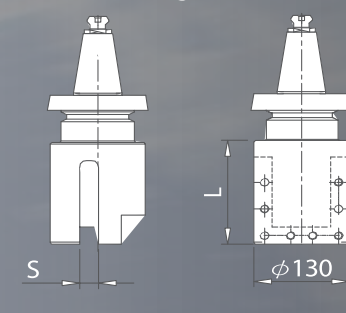
O.D. / Facing tool holder



| Model | L | S | W |
|--------------------|-----|----|-----|
| BT50-IDF25-200-200 | 200 | 25 | 200 |
| BT50-IDF32-200-200 | 200 | 32 | 200 |
| BT50-IDF32-240-200 | 200 | 32 | 240 |

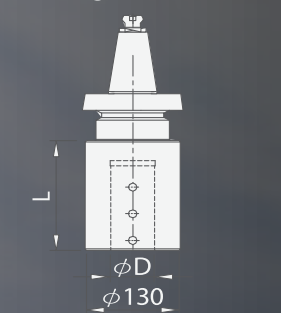
Note : W200 is only for □220 / W240 is only for □250

I.D. / Facing tool holder



| Model | L | S |
|--------------------|-----|----|
| BT50-IFL25-130-200 | 200 | 25 |
| BT50-IFL32-130-200 | 200 | 32 |

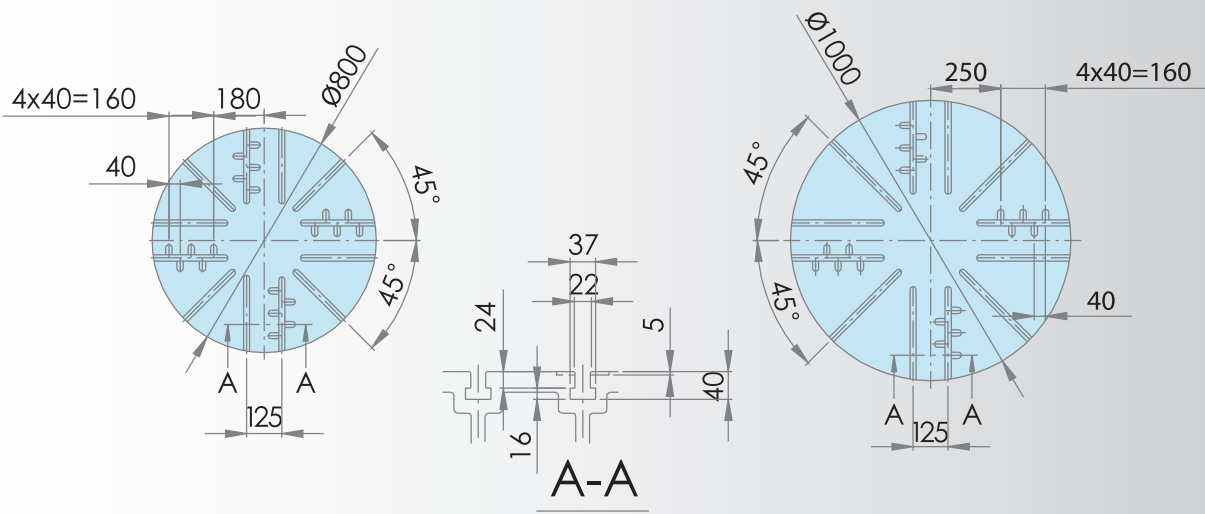
Boring tool holder



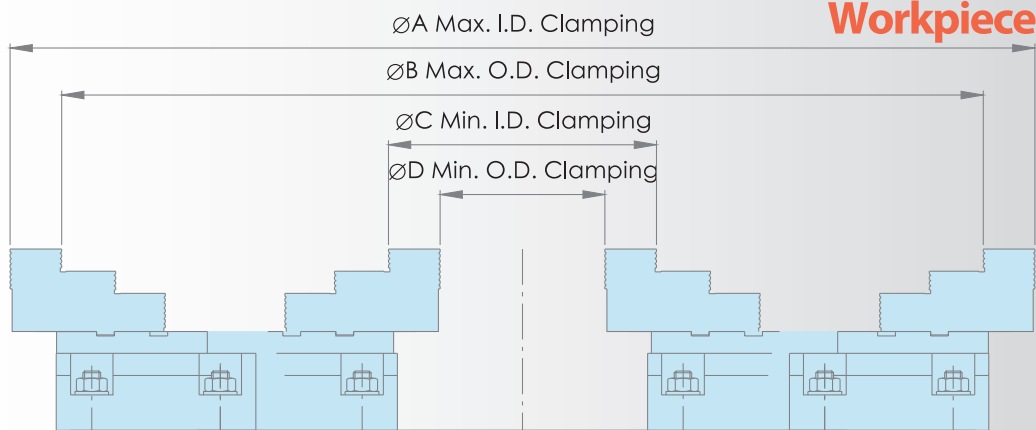
| Model | L | D |
|--------------------|-----|----|
| BT50-BOS40-130-200 | 200 | 40 |
| BT50-BOS50-130-200 | 200 | 50 |
| BT50-BOS60-130-200 | 200 | 60 |

Table / Working Area / Jaws

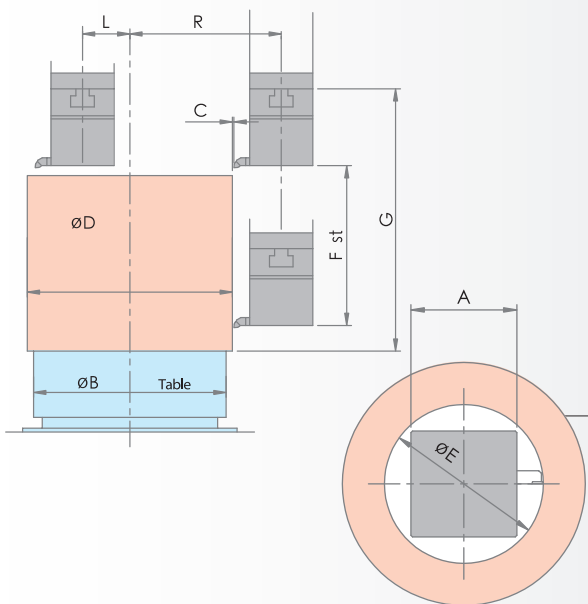
VL-86 Series



Workpiece Clamping



| Model | A | B | C | D | E |
|--------------------|------|------|-----|-----|------|
| VL-86C / VL-86CM | 900 | 830 | 240 | 140 | 800 |
| VL-100C / VL-100CM | 1150 | 1040 | 300 | 190 | 1000 |



Working Area And Tool interference

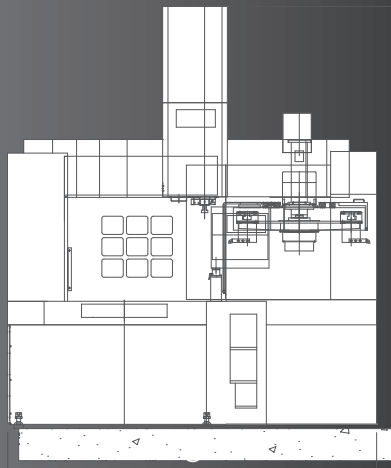
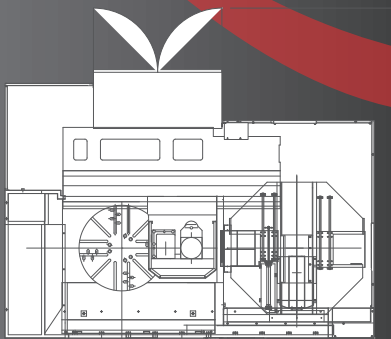
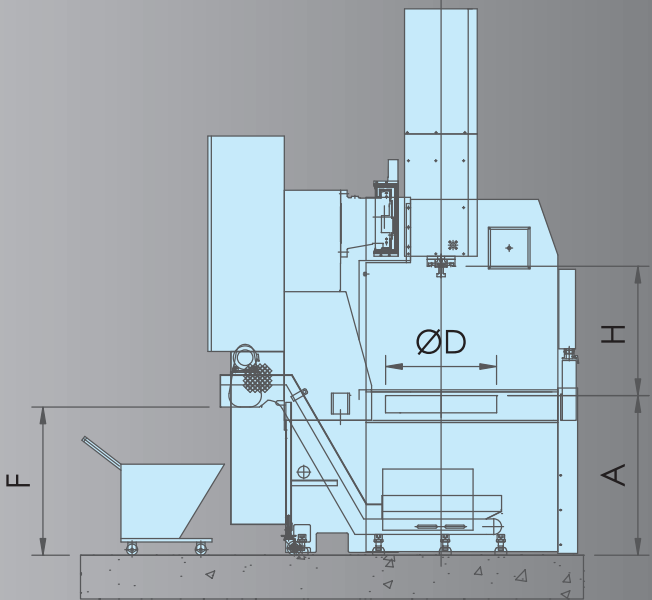
| Model | A | ØB | C | ØD | ØE | F | G | R | L |
|-----------|-----|------|----|------|-----|-----|----------|-----|-----|
| VL-66C | 200 | 610 | 10 | 800 | 300 | 600 | 920 | 650 | 100 |
| VL-66CM | 220 | 610 | 10 | 800 | 330 | 600 | 910 | 650 | 100 |
| VL-86C | 200 | 800 | 15 | 900 | 300 | 600 | 920 | 750 | 100 |
| VL-86CM | 220 | 800 | 15 | 900 | 330 | 600 | 910 | 750 | 100 |
| VL-100C | 200 | 1000 | 20 | 1200 | 300 | 700 | 930 | 750 | 100 |
| VL-100CM | 220 | 1000 | 20 | 1200 | 330 | 700 | 870 | 750 | 100 |
| VL-100CR | 200 | 1000 | 20 | 1200 | 300 | 700 | 530-1130 | 750 | 100 |
| VL-100CRM | 220 | 1000 | 20 | 1200 | 330 | 700 | 480-1180 | 750 | 100 |

Machine Dimensions



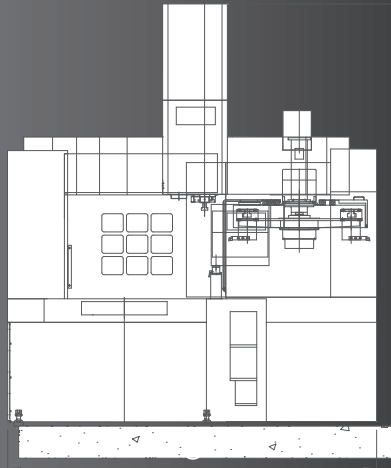
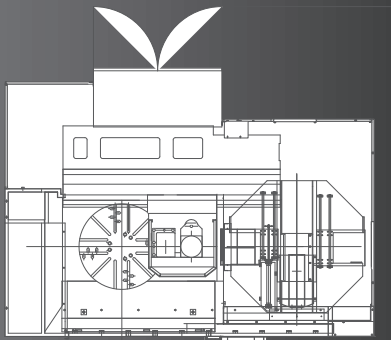
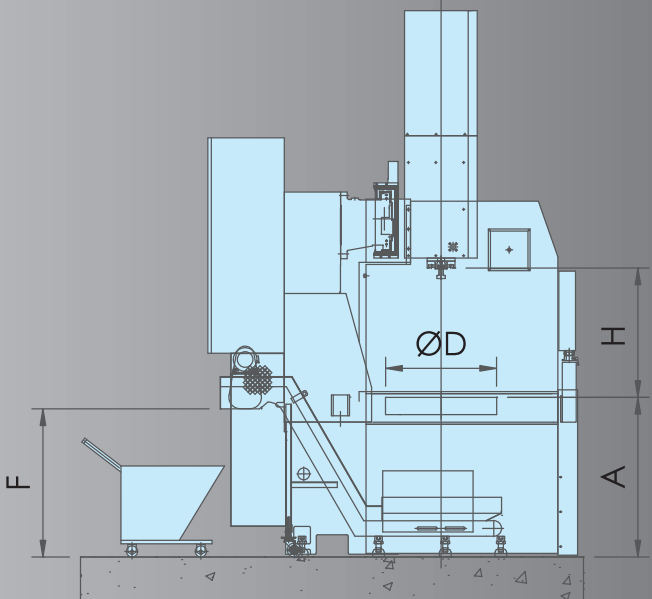
VL-66 / VL-86 series

| | A | B | C | ØD | E | F | G | H |
|---------|------|------|------|------|------|------|------|-----|
| VL-66C | 1150 | 4500 | 3600 | Ø610 | 2350 | 1000 | 3450 | 920 |
| VL-66CM | 1150 | 4800 | 3600 | Ø610 | 2350 | 1000 | 3450 | 910 |
| VL-86C | 1150 | 4500 | 3600 | Ø800 | 2350 | 1000 | 3450 | 920 |
| VL-86CM | 1150 | 4800 | 3600 | Ø800 | 2350 | 1000 | 3450 | 910 |



VL-100 series

| | A | B | C | ØD | E | F | G | H |
|-----------|------|------|------|-------|------|------|------|----------|
| VL-100C | 990 | 4100 | 3700 | Ø1000 | 2735 | 1000 | 4100 | 930 |
| VL-100CM | 1025 | 4700 | 3700 | Ø1000 | 2735 | 1000 | 4100 | 870 |
| VL-100CR | 990 | 4300 | 3700 | Ø1000 | 2735 | 1000 | 4100 | 530-1130 |
| VL-100CRM | 1025 | 4900 | 3700 | Ø1000 | 2735 | 1000 | 4100 | 480-1180 |



Machine Specifications

| Model/Description | | Unit | VL-66C | VL-66CM | VL-86C | VL-86CM | VL-100C | VL-100CM | VL-100CR | VL-100CRM |
|-------------------|-----------------------------|--------|------------|------------|------------|------------|-------------|------------|---------------------------|---------------------------|
| Capacity | Max. swing diameter | mm | 850(33.4") | | 950(37.4") | | 1200(47.2") | | 1200(47.2") | |
| | Max. turning diameter | mm | 850(33.4") | | 950(37.4") | | 1200(47.2") | | 1200(47.2") | |
| | Distance from ram to table | mm | 920(36.2") | 910(35.8") | 920(36.2") | 910(35.8") | 930(36.6") | 870(34.2") | 530-1130 (20.8"-44.4") | 480-1080 (18.8"-42.5") |
| | Max. turning height | mm | 650(25.5") | | 650(25.5") | | 650(25.5") | | 800(31.4") | |
| | Max. workpiece weight | kg | 1500 | | 2000 | | 3500 | | 3500 | |
| Spindle | Table diameter | mm | 610 | | 800 | | 1000 | | 1000 | |
| | Range of table speed | rpm | 1-700 | | 1-600 | | 1-400 | | 1-400 | |
| | Change gear speed | | 2-step | | 2-step | | 2-step | | 2-step | |
| | Spindle nose | mm | A2-11 | | A2-11 | | - | | - | |
| | Tool live spindle speed | rpm | - | 50-2250 | - | 50-2250 | - | 50-2250 | - | 50-2250 |
| ATC | ATC(Automatic Tool Change) | | 12 | | 12 | | 12 | | 12 | |
| | Tool size | mm | □25, □32 | | □25, □32 | | □25, □32 | | □25, □32 | |
| | Cross-section of ram | mm | 200x200 | 220x220 | 200x200 | 220x220 | 200x200 | 220x220 | 200x200 | 220x220 |
| Feed | Rapid rate (X-Axis) | m/min | 10 | | 10 | | 10 | | 10 | |
| | Rapid rate (Z-Axis) | m/min | 10 | | 10 | | 10 | | 10 | |
| | Horizontal travel(X-Axis) | mm | -100+650 | | -100+750 | | -100+750 | | -100+750 | |
| | Vertical travel (Z-Axis) | mm | 600 | | 600 | | 700 | | 700 | |
| | Cutting feed rate | mm/min | 1-5000 | | 1-5000 | | 1-5000 | | 1-5000 | |
| | Feed override | % | 0-150 | | 0-150 | | 0-150 | | 0-150 | |
| | Cross-rail travel | mm | Fixed | | Fixed | | Fixed | | 200x3 step | |
| Control System | | | Fanuc 0i-T | | Fanuc 0i-T | | Fanuc 0i-T | | Fanuc 0i-T | |
| Motor | Spindle motor (Cont./30min) | kW | 18.5/22 | 30/37 | 18.5/22 | 30/37 | 30/37 | | 30/37 | |
| | Feed motor(X/Z axis) | kW | 4.0/4.0 | | 4.0/4.0 | | 4.0/4.0 | | 4.0/4.0 | |
| | Live tool motor | kW | - | 11/15 | - | 11/15 | - | 11/15 | - | 11/15 |
| Power requirement | | kVA | 40 | 55 | 40 | 55 | 75 | 90 | 75 | 90 |
| Machine size | Floor space(LxW) | mm | 3450x4100 | | 3450x4100 | | 4100x4400 | | 4100x4400 | |
| | Max. height(H) | mm | 4500 | 4800 | 4500 | 4800 | 4100 | 4700 | 4300 | 4900 |
| | Net weight | kg | 12500 | | 13500 | | 17800 | 18600 | 18300 | 19100 |

Specifications are subject to change for improvement without notice:

Standard accessories

1. Complete splash guard.
2. Hydraulic 3-jaw chuck & cylinder, size as spec. (VL-66/ VL- 86)
3. Table with manual 4-jaw chuck as spec.(VL-100)
4. Hydarulic chuck soft jaw x 1 set. (VL-66/ VL-86)
5. Foot switch for hydraulic chuck.
6. Hydraulic power unit.
7. Protection door.
8. Automatic lubrication system.
9. Working light.
10. Warning light.(R/Y/G)

11. Workpiece counter.(CNC controller)
12. Coolant system with tank.
13. Coolant bed wash down system.
14. Heat exchanger for electrical cabinet.
15. Hand tool set with tool box.
16. Leveling bolts & seat pads.
17. Chip conveyor.(Hinge type)
18. Chip trolley.
19. Spindle orientation.
20. VL-100C, 100CM fixed type crossrail.
21. Manual of operation & maintenance.
22. Manual of electrical & hydraulic circuit diagram.



Y-Axis + Turning Machines



Dual Ram Machines



Pallet Machines



Special Guarding



Vertical Grinding Machines



Production Machines