

Quality & Productivity Specialist

QUALITY ASSURANCE

Far East Machinery has standardized the processing and testing procedures for each specific model based on the machine characteristics, in order to guarantee quality and operational reliability. Assembly operators will use the fully featured auto-inspection function to test and record the system.

All machines manufactured by Far East Machinery conform to international testing standards.

All machines are QA tested with precision instruments before shipment to guarantee quality.

All machines manufactured by Far East Machinery confirm the international testing standards.



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Beyond Today's Possibilities, No Limits



CNC WHEEL TURNING LATHE

www.femco.com.tw

WHL-55

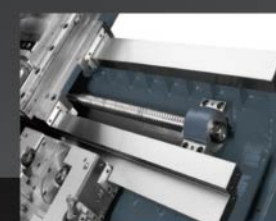
HORIZONTAL WHEEL TURNING LATHE

HIGH RIGIDITY, HEAVY-DUTY CUTTING
PROFESSIONAL MODEL



WHL-55 Specification And Features

- Max swing over bed : Ø727mm.
- Max turning diameter : Ø620mm.
- X-axis travel : 340mm.
- Rapid X-axis traverse : 16m/min.
- Z-axis travel : 700mm.
- Rapid Z-axis traverse : 20m/min.
- FANUC α30i spindle motor .
- Powerful, high rigidity servo turret, precision positioning, quick tool switching, tool switching time: 12-tool (standard) 0.09 seconds, 8-tool (optional) 0.13 seconds.
- One-piece MEEHANITE cast iron base and square structure, thermal treated machine bed, reduced internal force, deformation testing, and grinding process etc.
- Casted X-slideway and machine body, high frequency thermal treatment, improved strength and resistance to wear for the slider, higher turning performance.
- Grooved belt (Poly V) for low vibrations, low noise, high loads, and improved lifespan.
- Main spindle specifically designed for wheels, improved stability unmatched by generic CNC machining spindles.



SLANT BED LATHE

45° bed design for improved chip removal during the wheel turning process.

HIGH SPEED, HIGH PRECISION TURRET

Powerful, high strength servo turret, precision positioning, fast tool switching; turret spins left and right to switch to the nearest tool; tool switching time 12-tool (standard) 0.09 seconds, 8-tools (optional) 0.13 seconds.

SPINDLE MOTOR

FANUC α series spindle motor and servo motor for fast acceleration and deceleration; improved processing efficiency and shortened program execution time.

PROFESSIONAL SCRAPING

Machine scraping technology by Far East Machinery provides uniform distribution on all flat contacting surfaces, excellent lubrication and low friction results; scraping precision is measured using a micrometer gauge that exceeds CNS standards.

HIGH FREQUENCY TREATMENT OF BOXWAY

Casted X-slideway and machine body, high frequency thermal treatment, improved strength and resistance to wear for the slideway, higher turning performance.

HIGH PRECISION TRANSMISSION SYSTEM AND PRETENSION BALL SCREW

High performance AC servo motor drives the X/Z-axis, where the motor is directly connected to the ball screw for direct transmission system for synchronous axial transmission; beltless and gearless design to reduce backlash and vibration; pretension ball screw for minimum thermal deformation and high precision positioning of the working components.

HIGH RIGIDITY AND PRECISION MACHINE BED

One-piece MEEHANITE cast iron base and square structure, thermal treated machine tools, reduced internal force, deformation testing, and grinding process; unique design for minimum base area of the machine (excluding the chip conveyor) that maximizes the floor plan efficiency.

GROOVED BELT

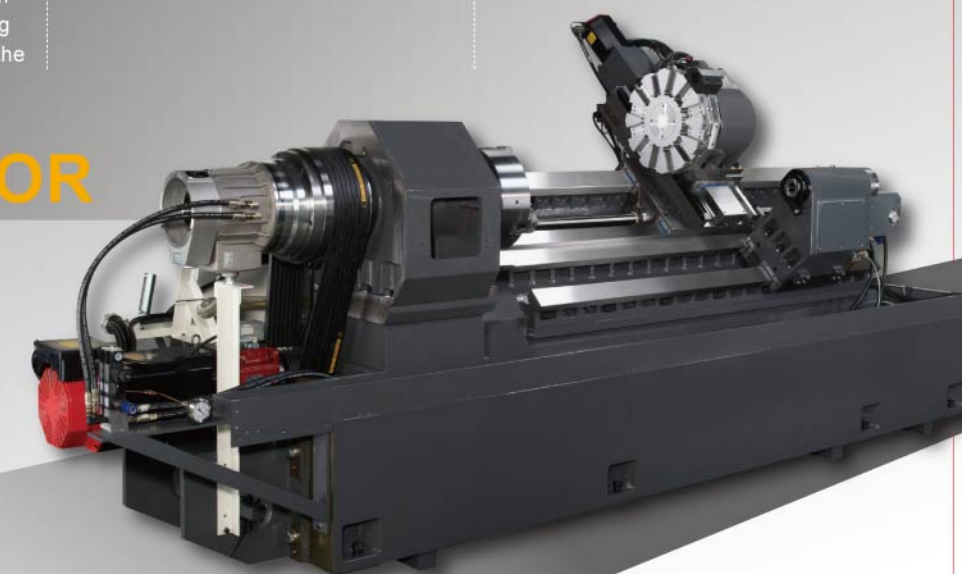
Designed for high speed and stable turning of wheels, a grooved belt (Poly V) is used for low vibrations, low noise, high loads, and improved lifespan.

EXTRA WIDE SPINDLE

Main spindle specifically designed for wheels, improved stability unmatched by generic CNC machining spindles.

MODEL SPECIFICALLY DESIGNED FOR WHEEL TURNING

Larger swing over bed specification than generic models for up to 22" wheels.



WHL-68

HORIZONTAL WHEEL TURNING LATHE

LARGE WHEELS TURNING



WHL-68 Specification And Features

- Max swing over bed : Ø800mm.
- Max turning diameter : Ø680mm.
- X-axis travel : 360mm.
- Rapid X-axis traverse : 16m/min.
- Z-axis travel : 770mm.
- Z-axis traverse : 20m/min.
- Larger turning capability – up to 24" wheels.
- Ergonomic and usability design for easy access to the front of the headstock to change the wheels, thus reducing operator stress.
- Larger bed area for improved stability during operation.
- Side window on the door to prevent flying chips injury while the operator monitors the wheel being turned; the offset window will not be damaged from flying chips.



SLANT BED LATHE
45° bed design for improved chip removal during the wheel turning process.

HIGH SPEED, HIGH PRECISION TURRET
Powerful, high strength servo turret, precision positioning, fast tool switching; turret spins left and right to switch to the nearest tool; tool switching time 6-tool (standard) 0.15 seconds, 12-tools (optional) 0.09 seconds.

SPINDLE MOTOR
FANUC α series spindle motor and servo motor for fast acceleration and deceleration; improved processing efficiency and shortened program execution time.

PROFESSIONAL SCRAPING
Machine scraping technology by Far East Machinery provides uniform distribution on all flat contacting surfaces, excellent lubrication and low friction results; scraping precision is measured using a micrometer gauge that exceeds CNS standards.

SIDE WINDOW
Side window on the door to prevent flying chips injury while the operator monitors the wheel being turned; the offset window will not be damaged from flying chips.

HIGH PRECISION TRANSMISSION SYSTEM AND PRETENSION BALL SCREW
High performance AC servo motor drives the X/Z-axis, where the motor is directly connected to the ball screw for direct transmission system for synchronous axial transmission; beltless and gearless design to reduce backlash and vibration; pretension ball screw for minimum thermal deformation and high precision positioning of the working components.

CHIP CONVEYOR
Higher capacity chip conveyor to accommodate for the larger wheels, chips will not pile up on the machine bed and thus produce good turning quality; separated large capacity coolant tank for simple maintenance.

ABSOLUTE COORDINATES CONTROL SYSTEM
The control uses an absolute coordinates system and the CNC system doesn't need return to zero point before next processing command.

SIMPLIFIED LOADING / UNLOADING DESIGN
Ergonomic and usability design for easy access to the front of the headstock to change the wheels, thus saves time, improves efficiency, and reduces operator stress.

LATHE SPECIFICALLY DESIGNED FOR LARGE WHEELS

Heavy duty model with high stability for large wheels up to **24"** ➡ ➡ ➡ ➡ ➡



WHL-55_{SP}/68_{SP}

HORIZONTAL WHEEL TURNING LATHE

PROFESSIONAL MODEL FOR MIRROR LIKE WHEELS



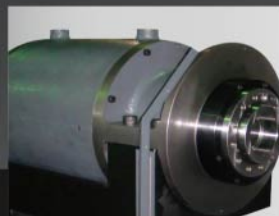
WHL-55_{SP}



WHL-68_{SP}

WHL-55SP/68SP SPECIFICATION and FEATURES

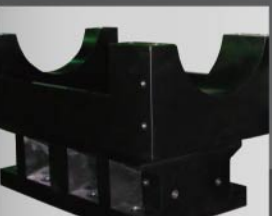
- C1 class ball screw for greatly improved precision.
- Built-in spindle motor eliminates noise and vibrations from a belt .
- Optional granite headstock to better absorb vibrations from the spindle and improve stability .
- Powerful, high strength servo turret, precision positioning, fast tool switching; turret spins left and right to switch to the nearest tool .
- One-piece MEEHANITE cast iron base and square structure, thermal treated machine bed, reduced internal force, deformation testing, and grinding process etc.
- Casted X-slideway and machine body, high frequency thermal treatment, improved strength and resistance to wear for the slider, higher turning performance.



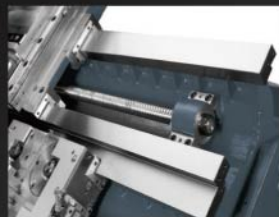
BUILT-IN SPINDLE MOTOR
Built-in spindle motor that eliminates noise and vibrations from a belt, and will not suffer from belt fatigue.



C1 CLASS BALL SCREW
X/Z-axis uses C1 class ball screws for improved precision.



GRANITE HEADSTOCK
Granite headstock to better absorb vibrations from the spindle and improve stability. (optional)



SLANT BED LATHE
45° bed design for improved chip removal during the wheel turning process.



HIGH SPEED, HIGH PRECISION TURRET
Powerful, high strength servo turret, precision positioning, fast tool switching; turret spins left and right to switch to the nearest tool.



PROFESSIONAL SCRAPING
Machine scraping technology by Far East Machinery provides uniform distribution on all flat contacting surfaces, excellent lubrication and low friction results; scraping precision is measured using a micrometer gauge that exceeds CNS standards.



HIGH FREQUENCY TREATMENT OF BOXWAY
Casted X-slideway and machine body, high frequency thermal treatment, improved strength and resistance to wear for the slideway, higher turning performance.



HIGH PRECISION TRANSMISSION SYSTEM AND PRETENSION BALL SCREW
High performance AC servo motor drives the X/Z-axis, where the motor is directly connected to the ball screw for direct transmission system for synchronous axial transmission; beltless and gearless design to reduce backlash and vibration; pretension ball screw for minimum thermal deformation and high precision positioning of the working components.



HIGH RIGIDITY AND PRECISION MACHINE BED
One-piece MEEHANITE cast iron base and square structure, thermal treated machine tools, reduced internal force, deformation testing, and grinding process; unique design for minimum base area of the machine (excluding the chip conveyor) that maximizes the floor plan efficiency.

SCRAPING PRECISION TO WITHIN *Ra0.2* !

Optional granite headstock with appropriate conditions using coolant and tools, real-world *Ra0.117* turning performance achieve



WVL-T24

VERTICAL WHEEL MACHINE CENTER

TO ACHIEVE THE DIVERSE NEEDS OF THE WHEELS MARKET



WVL-T24 Specification and Features

- Occupy floor space is relatively small among the similar model. That brings convenience for production line arrangement.
- Light integrated machine bed structure design, with high rigidity.
- Patented spindle structure design. The height of working table is much lower than the other similar model on the market. This brings the convenient to the operator for loading and unloading, and prevent from injury.
- Vertical turret design, makes the tool installation easier, due to the center of chuck is near by the operating door.
- Lower location spindle design; the chips will not splash directly on the protective cover during machining. This can reduce the number of maintenance time and the cost.



ALL-SIZE PROCESSING CAPACITY

This machine works with all wheel sizes max. diameter 26" and max. height 14".

INTEGRATED MACHINE

Integrated machine bed structure design, has high rigidity, is processed with multi-face machining center. Without any deviation and shortcoming, which the general non-integrated machine bed has, while combine the structures together.

EASY FOR LOADING/UNLOADING

The height of working table is much lower than the other similar model on the market. This brings the convenient to the operator for loading and unloading, and prevent from injury.

SINGLE SLANT BED DESIGN (PATENT)

No more problem of difficulty clean. The new unique single slant bed type design use the strong water to remove the iron chip to outside, it make clean the machine easily.

LOWER LOCATION SPINDLE DESIGN

Lower location spindle design; the chips will not splash directly on the protective cover during machining. This can reduce the number of maintenance time and the cost.

EXTERNAL CHIP CONVEYOR

External chip conveyor is easy for maintain and clean, also small floor area.

VERTICAL TURRET

Vertical turret design, makes the tool installation easier, due to the center of chuck is near by the operating door.

TURRET COMPENSATING CYLINDER DEVICE

Z-axis compensating cylinder device reduce the weight of the turret, which increase the machining accuracy and the performance.

MACHINE CAN BE TRANSPORTED WITH CONTAINER

The occupy floor space for this machine is relatively small. It can be loaded into container as whole for transportation. To prevent the reassemble error occurs.

TWO DIFFERENT SIZE TURRETS

Different size of turret is available for motorcycle wheels, automotive wheels and truck wheels processing.

For different wheel type and more quantity of tool required. There are two different size of turret available for selection, **450mm and 550mm**, which will help to prevent the interference between tool and wheel. (Option)



Motorcycle Aluminum Wheels

CAR Aluminum Wheels

Truck Aluminum Wheels

WVL-F24

VERTICAL WHEEL MACHINE CENTER ERGONOMIC EXCELLENCE



WVL-F24 Specification And Features

- Max wheel turning : 26".
- Max swing over bed : Ø850mm.
- Max turning diameter : Ø660mm.
- Max turning height : 335mm.
- Spindle is close to the operator that shortens the loading/unloading distance for a more ergonomic design .
- Lower chuck position for easy loading/unloading that reduces stress from prolonged operator shifts .
- Works with different finger chuck for turning 13"~26" wheels. (optional)
- Rapid X/Z-axis traverse: industry record of 36m/min.
- Servo motor turret for fast tool switching, short down time, and greatly improved efficiency.
- High horsepower spindle motor for improved efficiency and reduced working.
- Absolute coordinates for the control system that does not need to return to zero point.



AUTOMATION CONTROL PANEL

The control system uses absolute coordinates, which allows system to process the next command directly, return to the zero point is not required. Control box with 180 degree rotatable design, is applicable for automation production line, which also bring the convenience to the operator.

SERVO DRIVEN DUAL TURRETS

High efficiency dual turrets in pairs for shorter work time; parts are shared between left/right turrets for simplified maintenance and reduced backend management.

HIGH HORSEPOWER SPINDLE MOTOR

High horsepower spindle motor (60/75kW) for improved efficiency, quick spindle acceleration/deceleration, and reduced work time.

ONE-PIECE MACHINE BED

High strength one-piece design for the machine bed manufactured from a five face machine center; eliminates the errors and faults of typical one-piece machine beds during assembly .

DOUBLE REAR DIRECT CHIP CONVEYOR

Chip conveyor is direct out from the both back side of the machine. This design made the possibility of saving floor space, easy to clean and convenient for production line dispose. Split type large capacity coolant tank is easy for maintenance and repair..

RAPID TRAVERSE RATE FASTEST IN THE INDUSTRY

36m/min rapid X/Z-axis traverse is the fastest in the industry; servo driven turret for quick tool switching, down time, and greatly improved processing efficiency.

DUAL INCLINED BED TYPE DESIGN (PATENT)

No more problem of difficulty clean. The new unique dual inclined bed type design use the strong water to remove the iron chip to outside, it make clean the machine easily.

HIGH CAPACITY DUAL COOLANT PUMPS

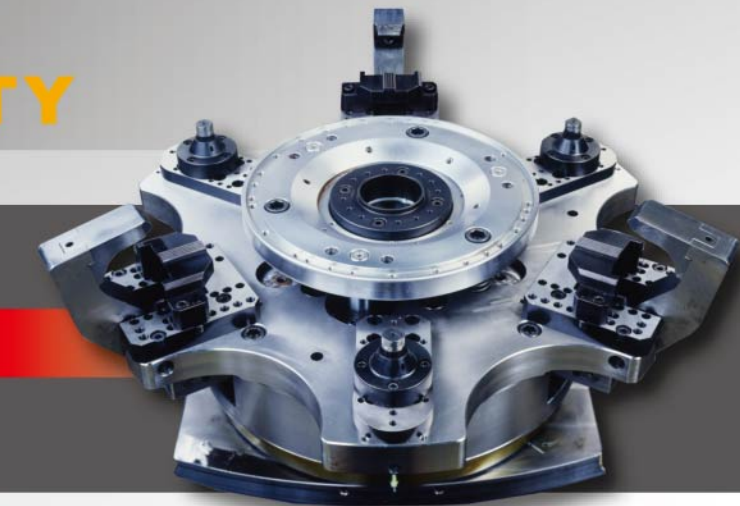
High capacity dual coolant pumps to supply coolant for lubricating and cooling of the tools, as well as less issues with chips.

MACHINE CAN BE TRANSPORTED WITH CONTAINER

The occupy floor space for this machine is relatively small. It can be loaded into container as whole for transportation. To prevent the reassemble error occurs.

FULL SIZE PROCESSING CAPACITY

Excellent full size processing capacity with appropriate finger chuck, ranging from **13" to 26"** (optiona)



WVL-F24A

VERTICAL WHEEL MACHINE CENTER

INTEGRATED MODEL OF OP1 & OP2
FIRST AND SECOND PASS PROCESSING

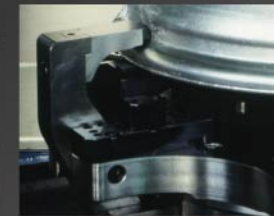
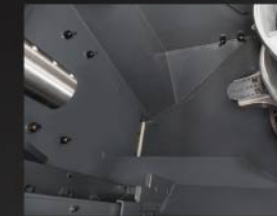


"Award of Excellence" received at 2007 TIMT



WVL-F24A Specification And Features

- Max wheel turning : 26".
- Max swing over bed : Ø830mm.
- Max turning diameter : Ø660mm.
- High horsepower Z-axis servo motor, balancing device is not required for simple design and easy maintenance.
- Test run function controlled from the outside and the next piece can be calibrated for improved efficiency; wheels can be properly positioned to guarantee safety and prevent accidents.
- Patented wheel chuck with electrical controlled mechanism, safety detection system and mechanical headstock locking to eliminate possible hazardous situations during power off, e.g. chuck coming loose from pressure loss.
- APC switching system under 7 seconds fastest in the industry.
- Innovative chuck air-blow device to prevent chip pileup and improve work efficiency.
- Absolute coordinates for the control system that does not need to return to zero point.
- Smart control interface for easier loading/unloading by the operator and improved work efficiency.



INDUSTRY FASTEST APC SWITCHING TIME

This is fastest in the industry. APC switching system works with OP1, OP2, or single processing; mechanical action door that is safe, quick, and secure.

DUAL INCLINE BED TYPE DESIGN (PATENT)

No more problem of difficulty clean. The new unique dual incline bed type design use the strong water to remove the chip to outside, it make clean the machine easily.

SMART LOADING/UNLOADING CONTROL INTERFACE

Integrated buttons with the smart control interface for easier loading/unloading by the operator and improved work efficiency.

ONE-PIECE MACHINE BED

High strength one-piece design for the machine bed manufactured from a five face machine center; eliminates the errors and faults of typical one-piece machine beds during assembly.

SERVO DRIVEN DUAL TURRETS

High efficiency dual turrets effectively shorten the processing time. The parts are shared for left and right turret, which will simplify the maintenance and reduced the burden of management.

LARGE ALUMINUM WHEEL PROCESSING

High strength V6 tools with smaller swing and largest 63mm boring set suitable for processing of large wheels; high strength large ID, OD tools for 10" wide wheels.

CHUCK TESTING FROM OUTSIDE THE MACHINE

Chuck testing feature for OP1 & OP2 to prevent clash; Test run from outside the machine to ensure the correct and safe positioning of the wheel.

CHUCK AIR-BLOW DEVICE

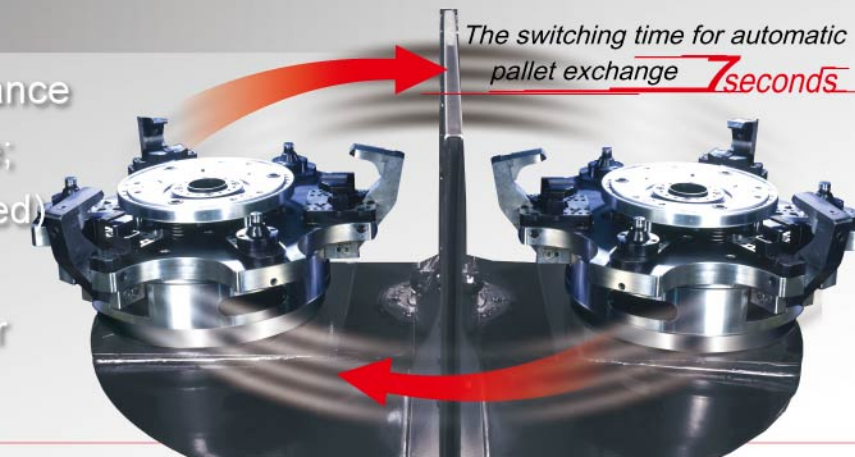
Innovative chuck air-blow device to prevent chip pileup, improve work efficiency, easy loading/unloading, and improved stability.

AUTOMATIC CONTROL PANEL

The control uses an absolute coordinates system and the NCN system will not need to return to zero point before issuing the next processing command. Control box design 180 degree rotation, which can be used with automated production line. It's convenient to operator.

INNOVATIVE APC SWIVEL SYSTEM:

Wheel can be loaded on the outside while spindle is in operation for balance testing (patented), thereby saves the need for testing inside the machine; the quick chuck clamp system (patented) and door panel design (patented) can shorten door access time to just **7 seconds** when switching pieces (fastest among world class models); this system works with OP1, OP2 or single processing works for significantly improved efficiency.



WVD-24x

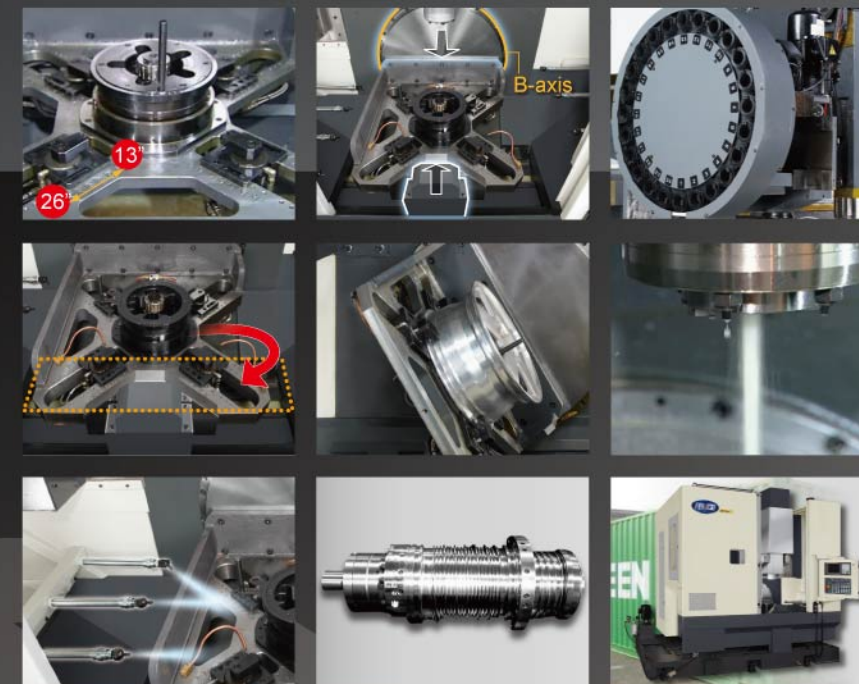
VERTICAL WHEEL DRILLING LATHE

DESIGN OF EXCELLENCE IN THE INDUSTRY



WVD-24x Specification And Features

- Max wheel size: 26"
- Rapid X/Y/Z-axis traverse: 48 m/min.
- All size wheels chucking device is available, can be adjust without purchasing an additional overturn fixture/ jig.
- Fourth axis design is available for drilling tire pressure inspection hole and backside machining.
- Coolant through spindle, supplies powerful coolant flushing capability, sufficiently lubricating and cooling the tools, reduce the possibility of wear and tear. (Optional)
- Occupy floor space is relatively small among the similar model. That brings convenience for production line arrangement.
- Magazine using wheel arrangement design, it is fast for tool switching and easy for maintenance.
- Optional machining fixture for motorbike wheel.



ALL-SIZE PROCESSING CAPACITY

This machine works with all wheel sizes between 13" to 26".

UNIQUE B AXIS SUPPORT DESIGN

Use a large size (B axis bearing) with support that improved stability and more suitable for heavy cutting.

ARM TYPE TOOL MAGAZINE

Arm Type ATC provide best reliable and good service lifetime by using the cam. The capacity is 24 tools. (Option: 40 tools)

OVERTOP CHIP REMOVAL DESIGN IN THE INDUSTRY

The large chip conveyor design is under the rotary working table. The working table rotated to remove the chip and the chip will unable to accumulate in the machine. The better chip removal is the optional trench-type design.

FOUR AXIS ROTARY WORKING TABLE

Unique four axis rotary machining can be processed simultaneously on the wheel's mounting surface weight loss holes and PCD back boring. Reduce complex machining processes, and increasing efficiency.

COOLANT THROUGH SPINDLE FUNCTION

Coolant through spindle, supplies powerful coolant flushing capability, sufficiently lubricating and cooling the tools, reduce the possibility of wear and tear. (Optional)

AUTOMATIC SPRAY CHIP DEVICE

Wheels on the fixed position and the design of spray device from the left and right hand side of the working table enable to remove the chips automatically, which reaches the automation required standard.

HIGH-PRECISION SPINDLE MOTOR

Standard spindle speed is 8000rpm, speed of 12000rpm and 15000rpm is also available for selection, for various processing needs.

MACHINE CAN BE TRANSPORTED WITH CONTAINER

The occupy floor space for this machine is relatively small. It can be loaded into container as whole for transportation. To prevent the reassemble error occurs.

Standard machine is equipped with "universal angle rotary table", "Adjustable height working center with back boring" and "All-size adjustable chuck", as well as other professional design. >>> (No extra cost need)



▲ Universal Angle Rotary Table

▲ Adjustable height working center with back boring

▲ All-size adjustable chucking



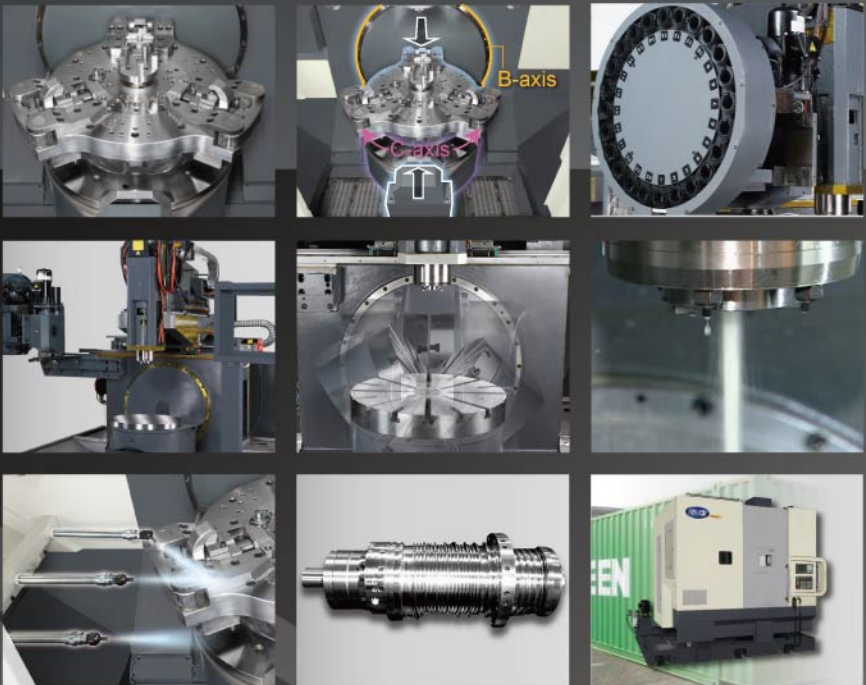
WVD-24C

UNIQUE DESIGN SPECIALLY FOR
HIGH CLASS AUTOMOTIVE FORGING
WHEELS AND TRUCK FORGING WHEELS



WVD-24C Specification And Features

- Max wheel size: 26"
- Rapid X/Y/Z-axis traverse: 48 m/min.
- All size wheels chucking device is available, can be adjust without purchasing an additional overturn fixture/ jig.
- Fourth axis design is available for drilling tire pressure inspection hole and backside machining.
- Coolant through spindle, supplies powerful coolant flushing capability, sufficiently lubricating and cooling the tools, reduce the possibility of wear and tear. (Optional)
- The horsepower and the speed of the spindle motor can be select according to the product type.
- Magazine using wheel arrangement design, it is fast for tool switching and easy for maintenance.
- Doing all the processing in one machine, to increase the efficiency of the production, reduce the processing time, save multi fixture/jig need and the quantity of the machine, and enhance the quality of the product.



ALL-SIZE PROCESSING CAPACITY

This machine works with all wheel sizes between 13" to 24".

UNIQUE B AXIS SUPPORT DESIGN

Use a large size (B axis bearing) with s support that improved stability and more suitable for heavy cutting.

ARM TYPE TOOL MAGAZINE

Arm Type ATC provide best reliable and good service lifetime by using the cam. The capacity is 24 tools. (Option: 40 tools)

THE SPECIAL DESIGN OF MACHINE STRUCTURE

X, Y, Z axis are all located above the machine, the chips which generate from the processing will not affect the life time of main components. This does achieve the automation requirement, condition of no chips.

ROTATING WORKTABLE

Five axes structure design. Selection of 4+1 axis or 5axes simultaneously controller for process is available. Able to process special angle of vents on the forging truck wheel and advanced curved surface modeling of automotive forging wheels.

COOLANT THROUGH SPINDLE FUNCTION

Coolant through spindle, supplies powerful coolant flushing capability, sufficiently lubricating and cooling the tools, reduce the possibility of wear and tear. (Optional)

AUTOMATIC SPRAY CHIP DEVICE

Wheels on the fixed position and the design of spray device from the left and right hand side of the working table enable to remove the chips automatically, which reaches the automation required standard.

HIGH-PRECISION SPINDLE MOTOR

Standard spindle speed is 8000rpm, speed of 12000rpm and 15000rpm is also available for selection, for various processing needs.

MACHINE CAN BE TRANSPORTED WITH CONTAINER

The occupy floor space for this machine is relatively small. It can be loaded into container as whole for transportation. To prevent the reassemble error occurs.

COMPREHENSIVENESS ALUMINUM WHEELS TURNING MACHINE

Suitable for casting wheels,
Advanced automotive forging
wheels and truck forging wheels.



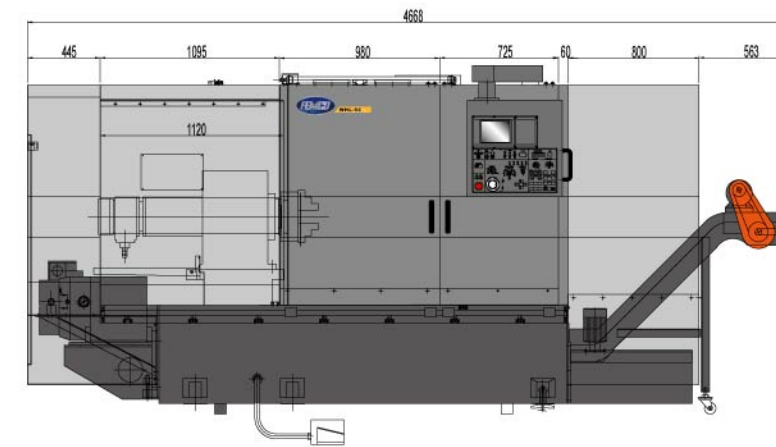
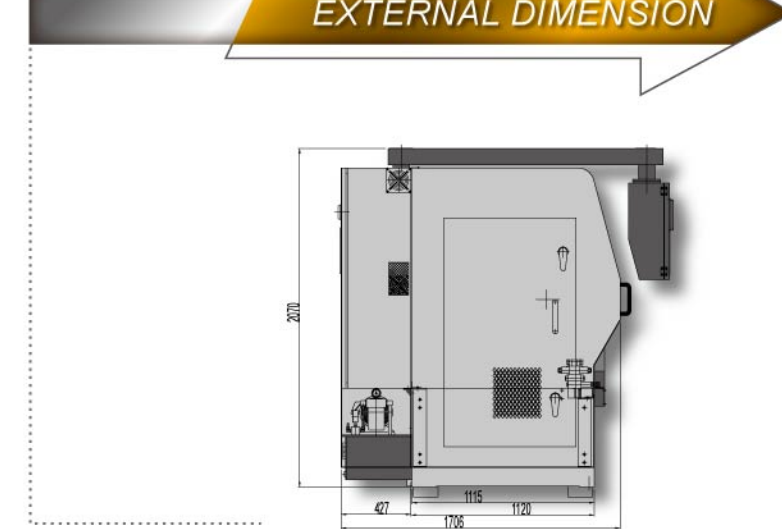
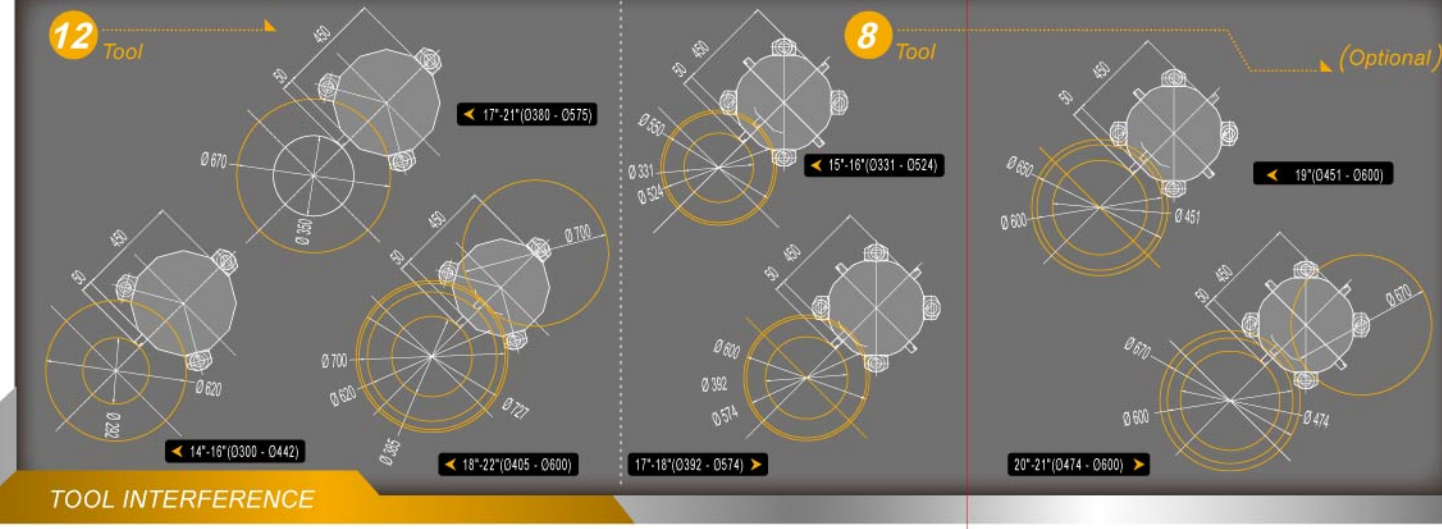
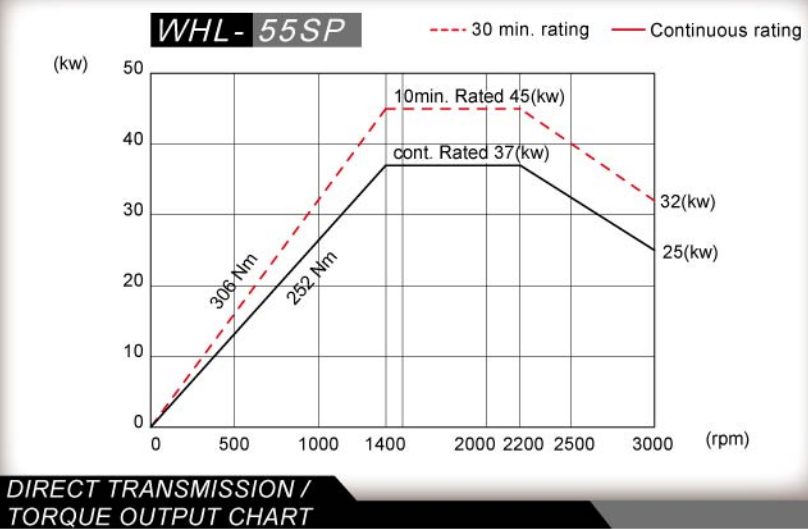
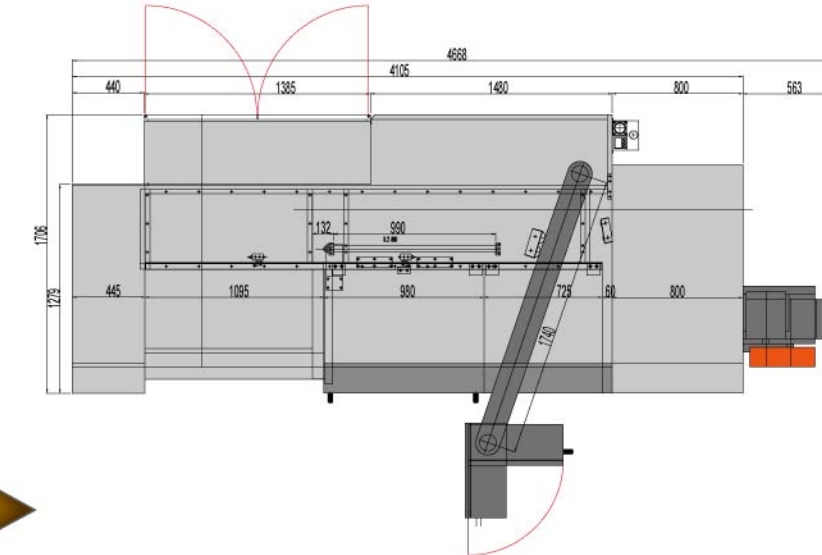
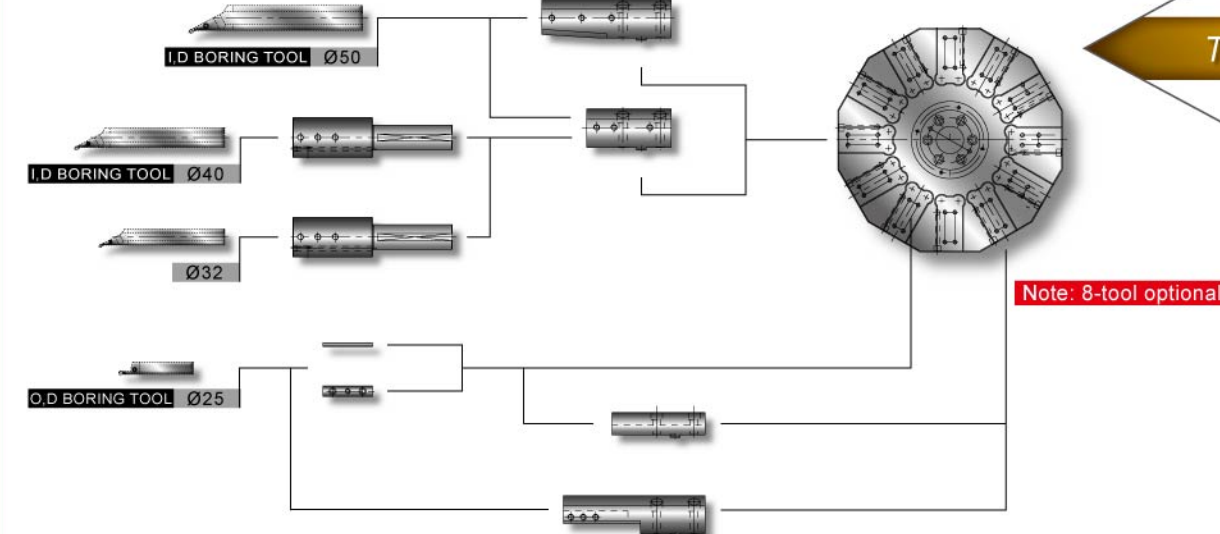
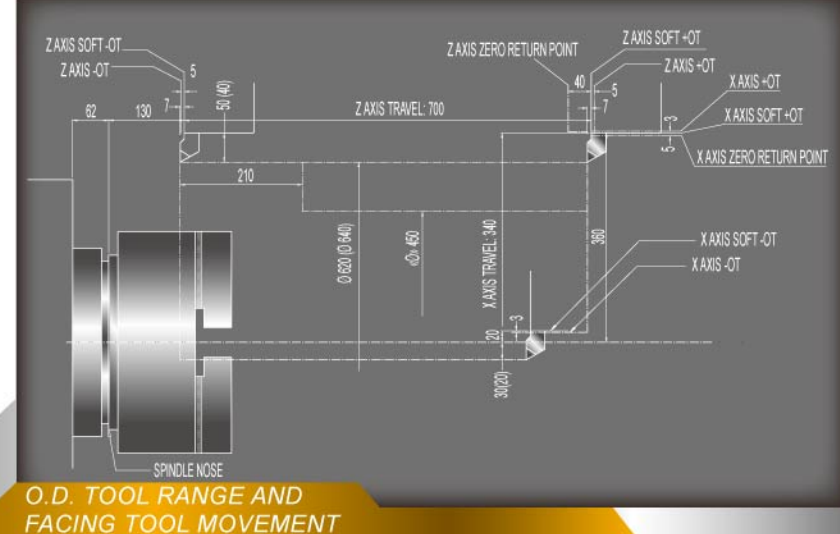
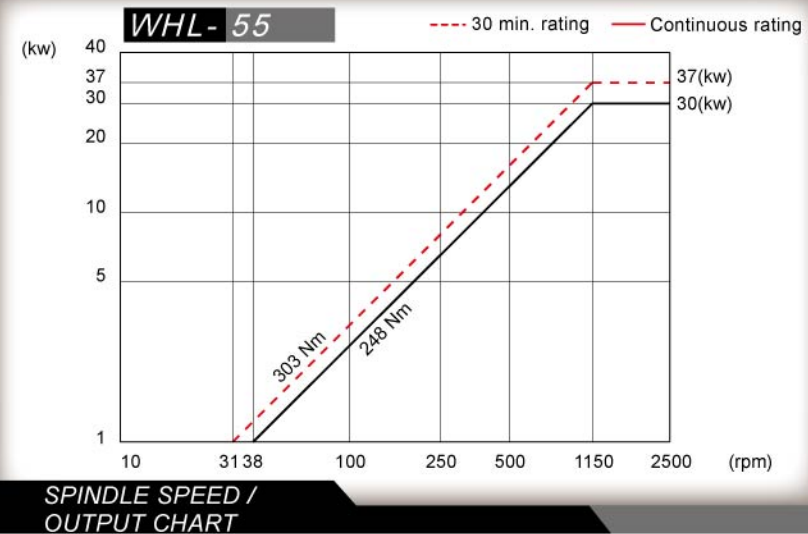
Casting wheels

advanced automotive forging wheels

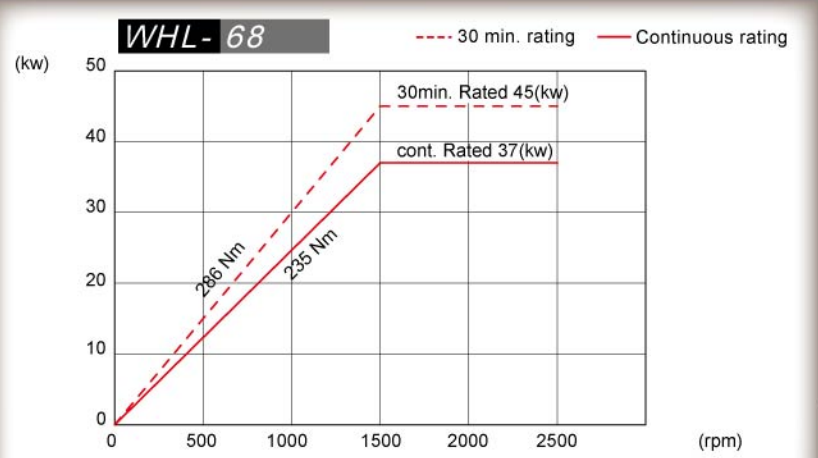
Truck forging wheels

WHL-55 / 55SP SPINDLE SPEED/TORQUE OUTPUT & TOOL MOVEMENT & TOOL INTERFERENCE

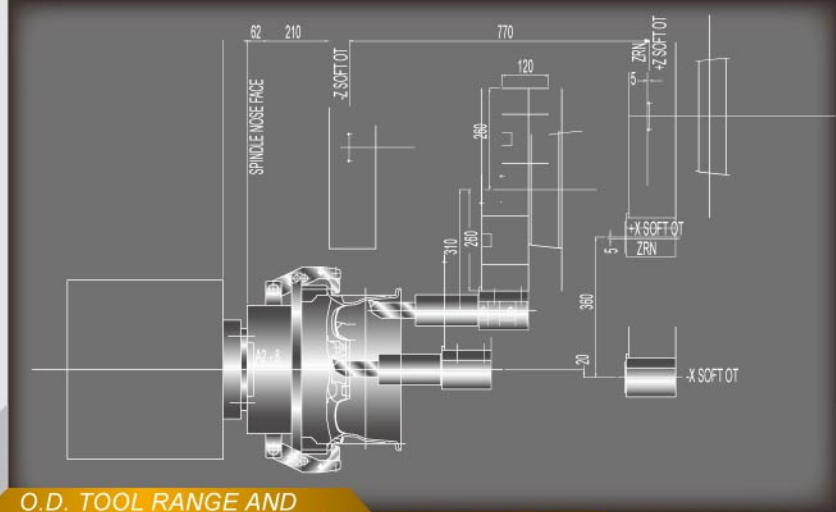
WHL-55 / 55SP EXTERNAL DIMENSION & TOOLING SYSTEM



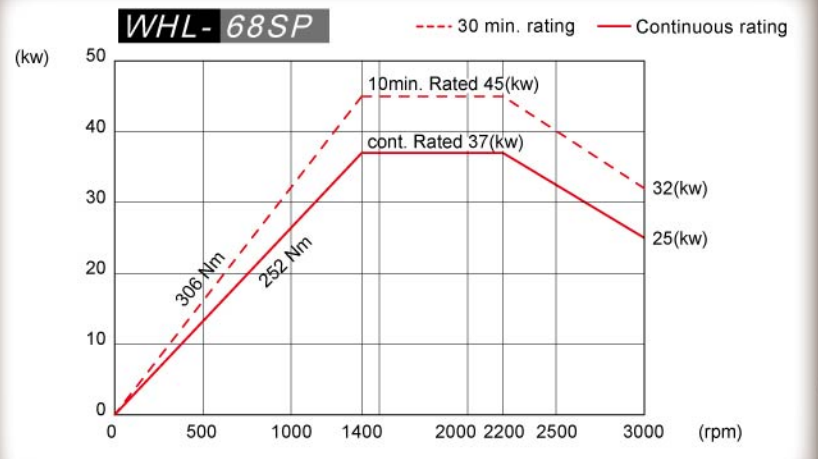
WHL-68 / 68SP SPINDLE SPEED/TORQUE OUTPUT & TOOL MOVEMENT & TOOL INTERFERENCE



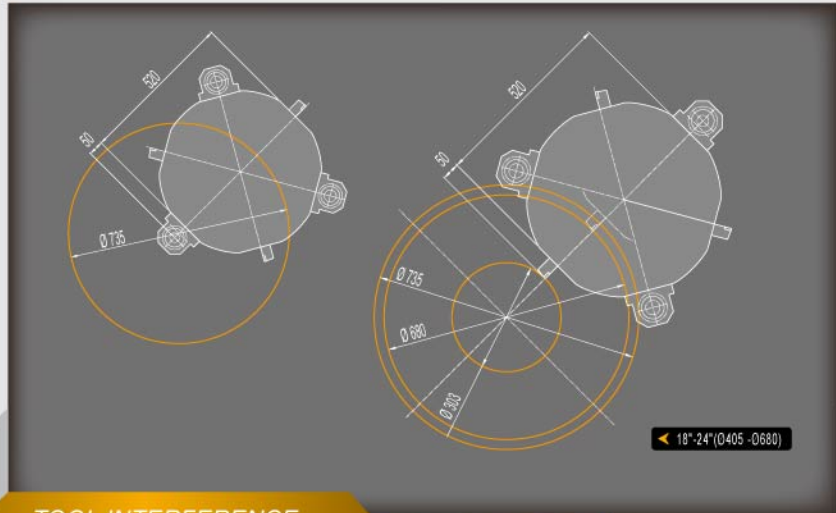
SPINDLE SPEED /
OUTPUT CHART



O.D. TOOL RANGE AND
FACING TOOL MOVEMENT

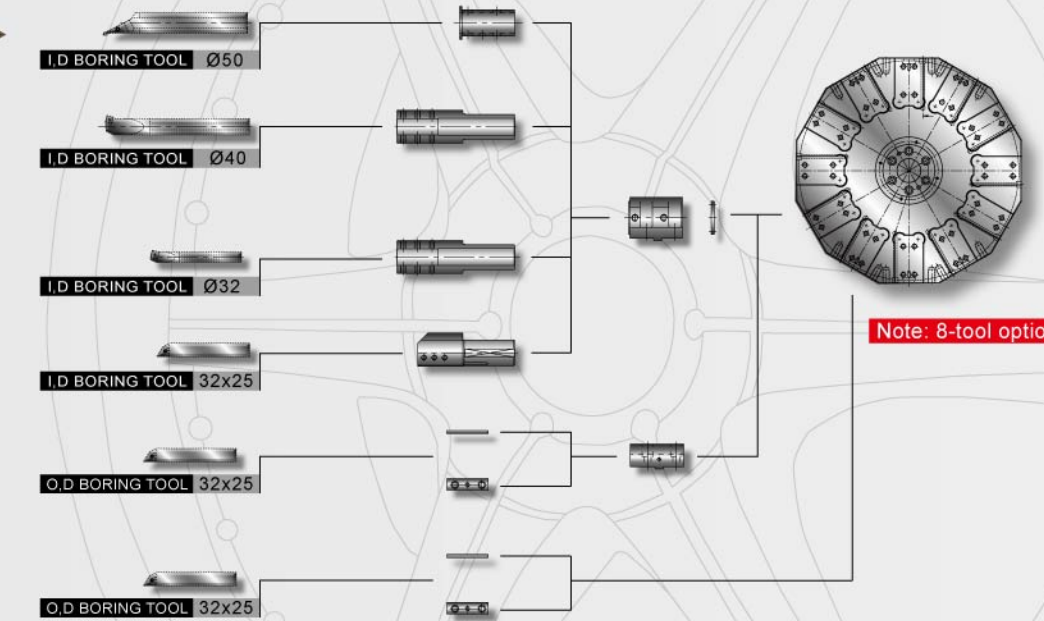
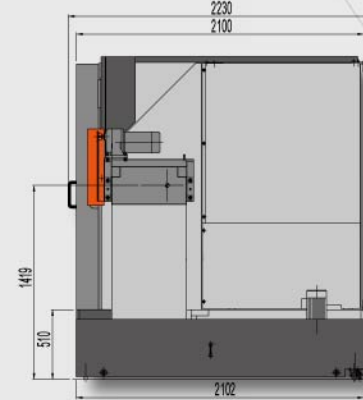
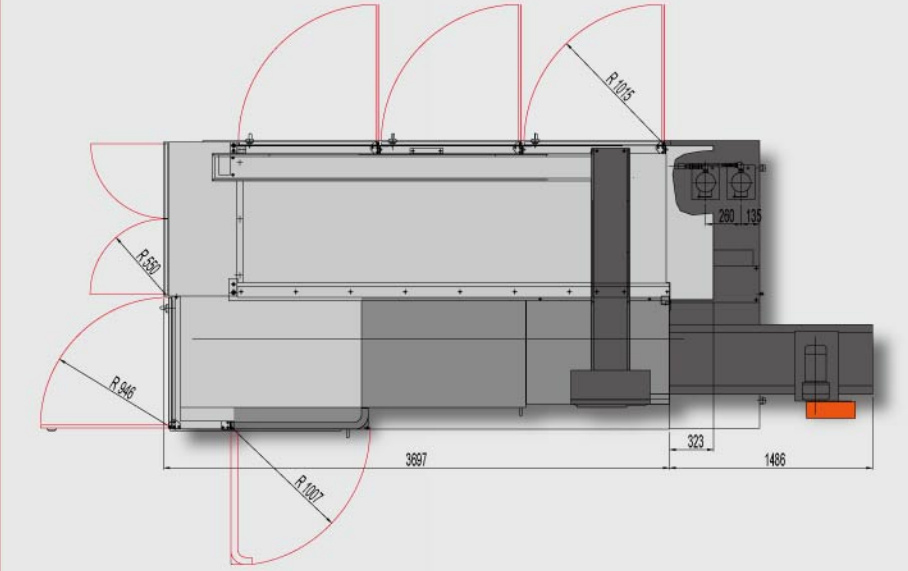
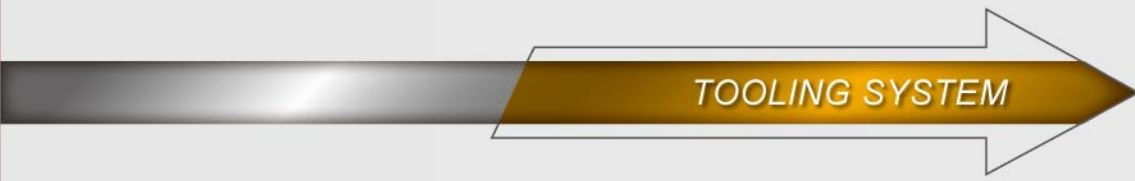


DIRECT TRANSMISSION /
TORQUE OUTPUT CHART



TOOL INTERFERENCE

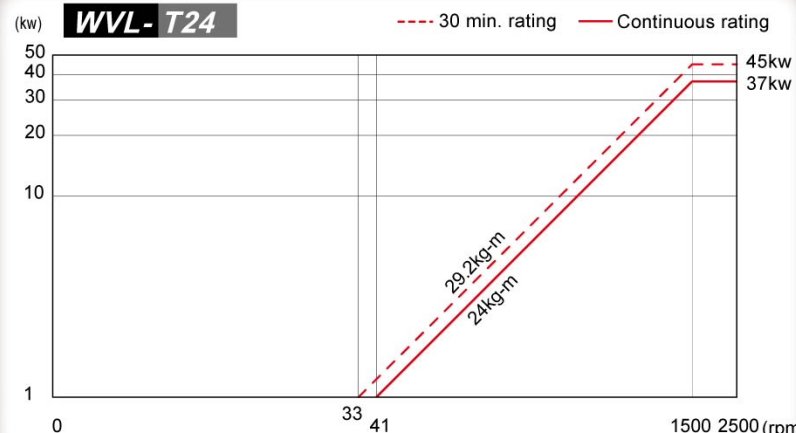
WHL-68 / 68 SP EXTERNAL DIMENSION & TOOLING SYSTEM



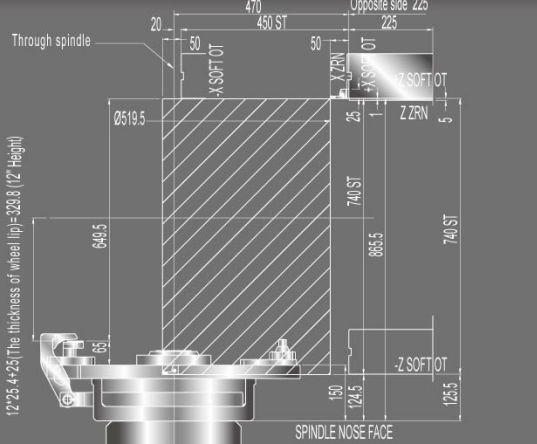
Note: 8-tool optional

EXTERNAL DIMENSION

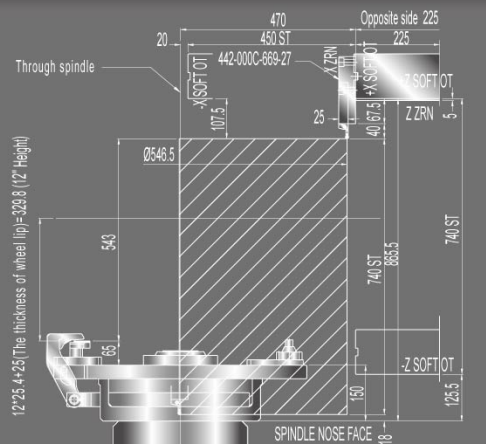
& TOOL MOVEMENT & TOOL INTERFERENCE



SPINDLE SPEED / OUTPUT CHART



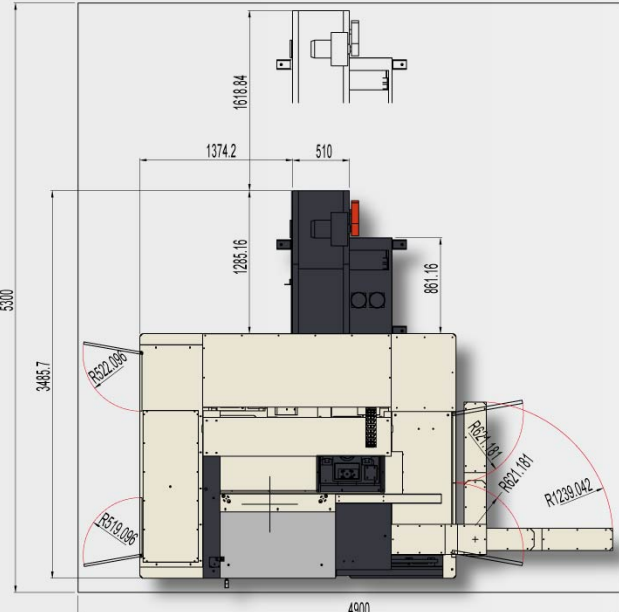
O.D. TOOL RANGE AND FACING TOOL MOVEMENT



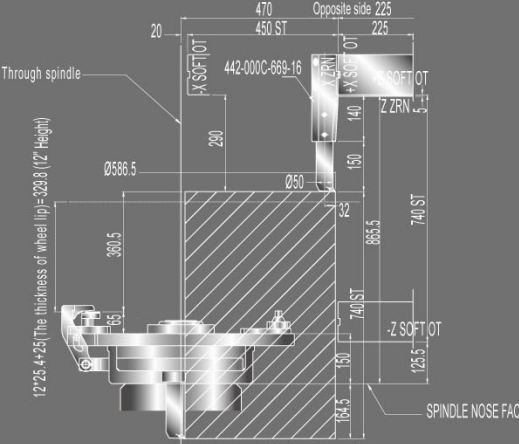
▲ **FACING TOOL MOVEMENT**

WVL-T24 *EXTERNAL DIMENSION* & TOOLING SYSTEM

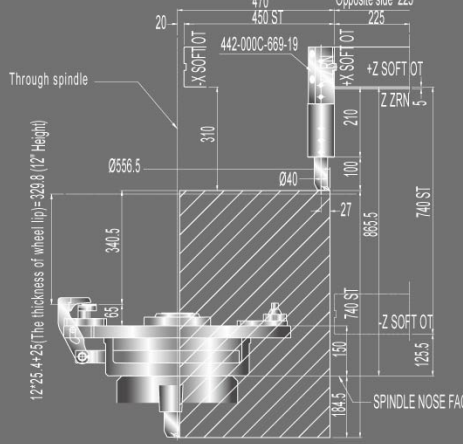
EXTERNAL DIMENSION



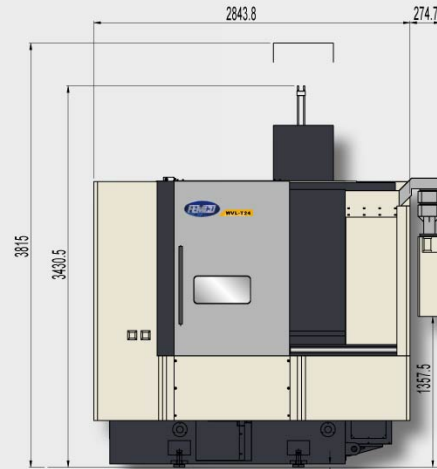
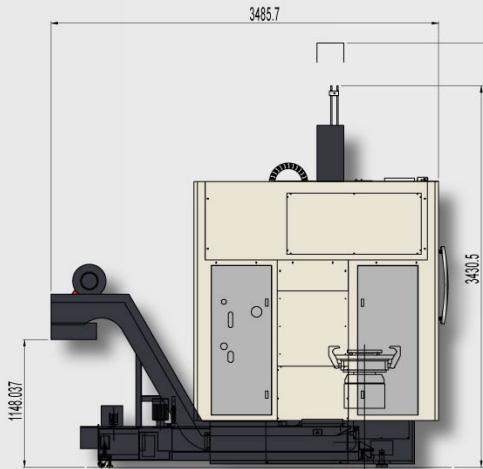
TOOL INTERFERENCE



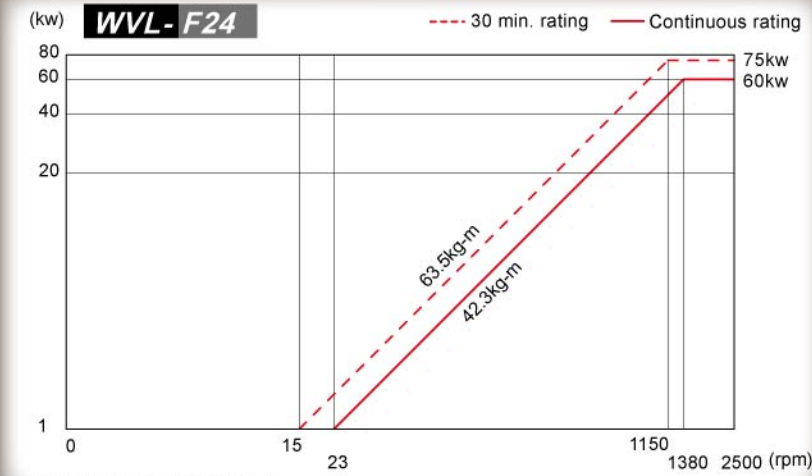
INNER DIAMETER BORING, INNER TOOL STROKE DISTANCE



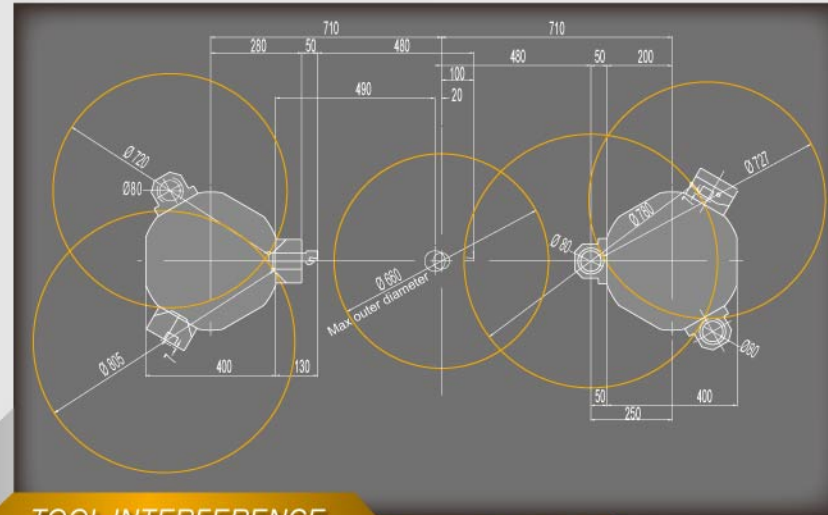
▲ Drawing of Distance from turret disc to slide way end
(Current position is at lowest point of turret.)



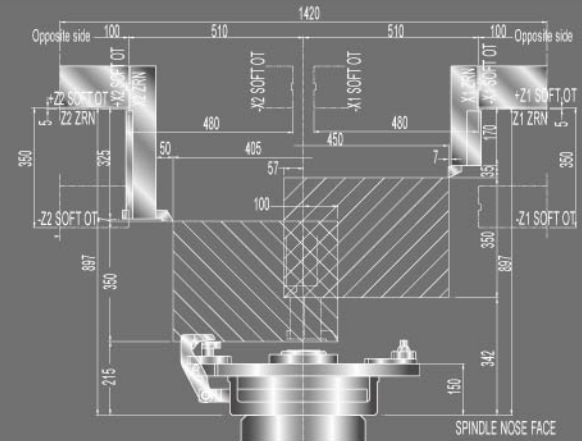
WVL-F24 SPINDLE SPEED/TORQUE OUTPUT & TOOL MOVEMENT & TOOL INTERFERENCE



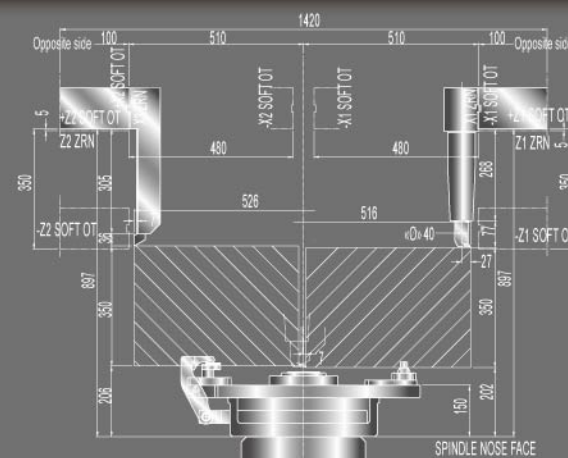
SPINDLE SPEED / OUTPUT CHART



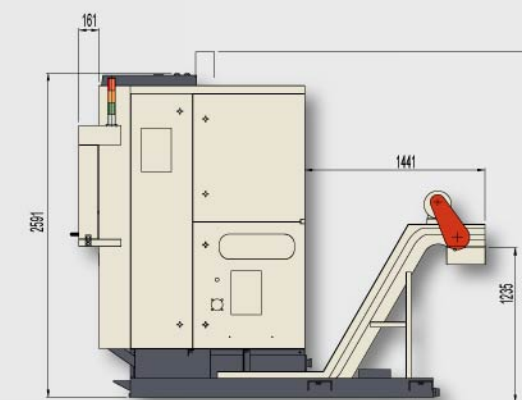
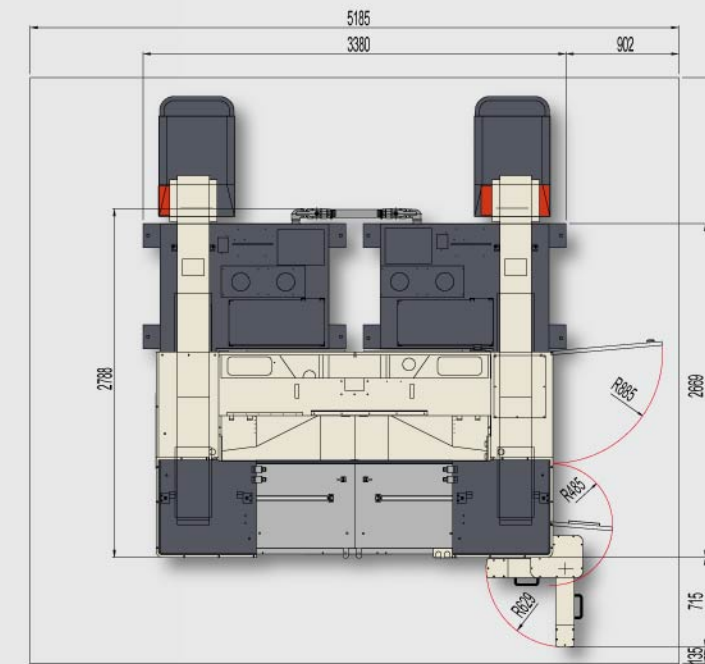
TOOL INTERFERENCE



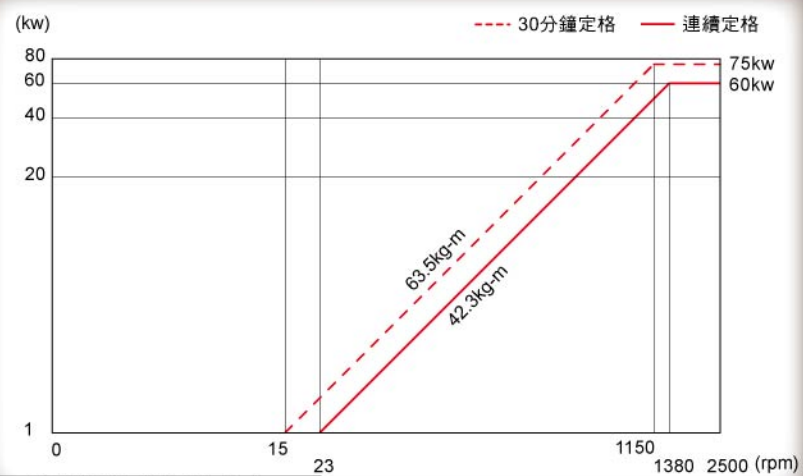
O.D. TOOL RANGE AND FACING TOOL MOVEMENT



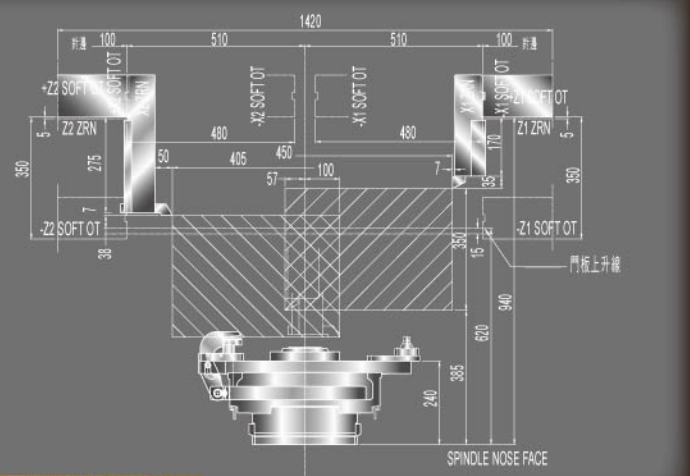
INNER DIAMETER BORING,
INNER TOOL STROKE DISTANCE



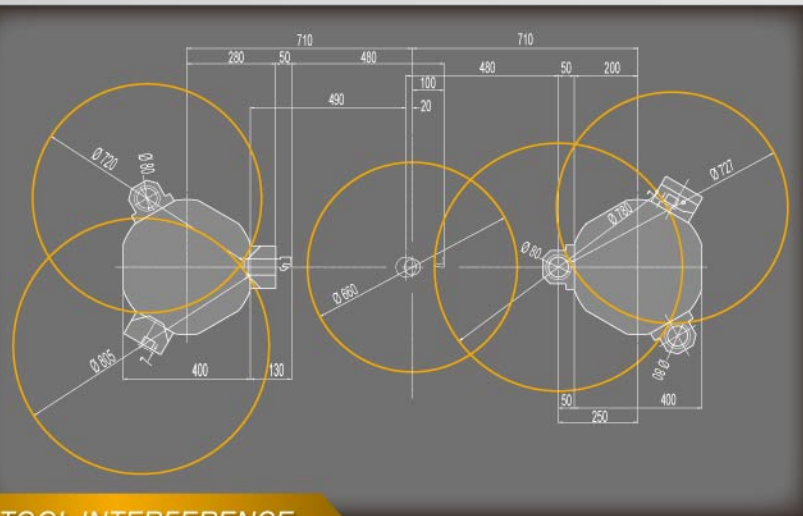
& TOOL MOVEMENT & TOOL INTERFERENCE



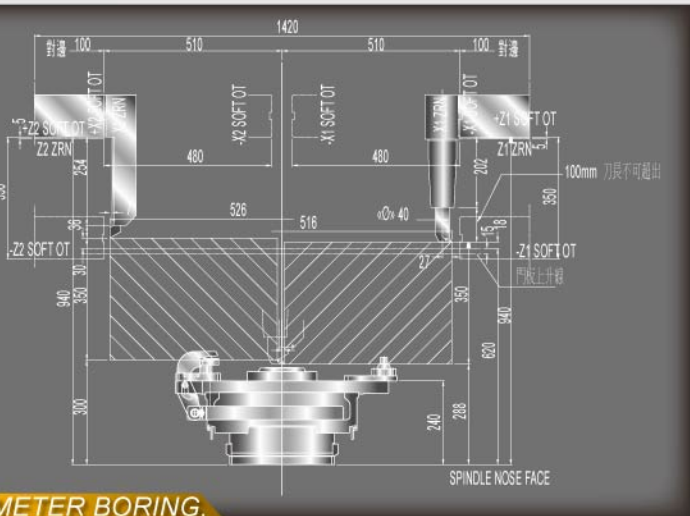
SPINDLE SPEED / OUTPUT CHART



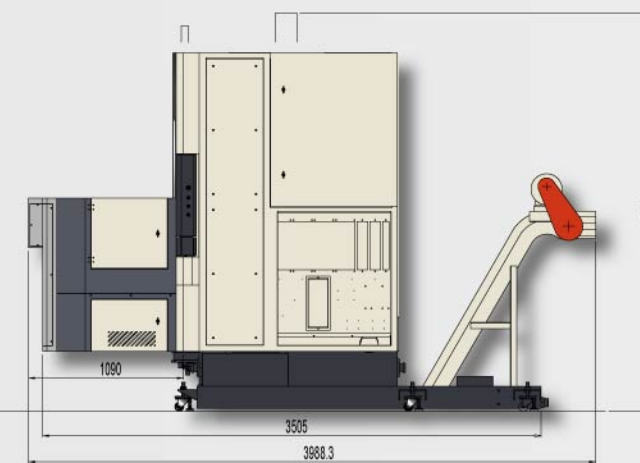
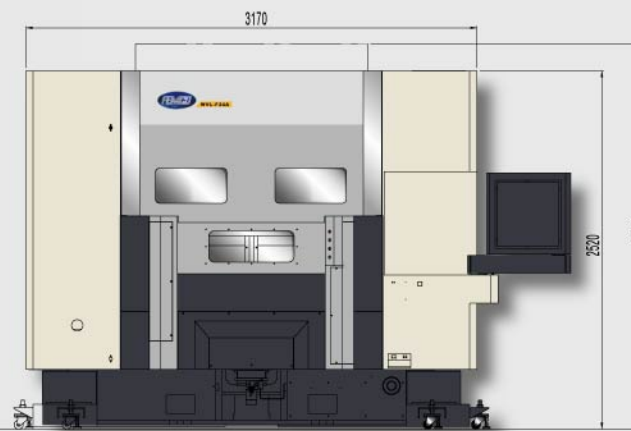
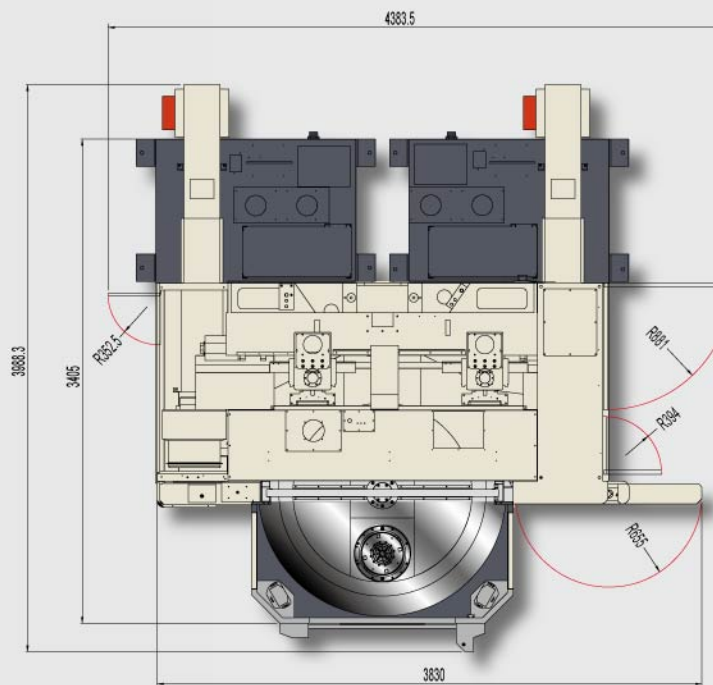
O.D. TOOL RANGE AND FACING TOOL MOVEMENT



TOOL INTERFERENCE

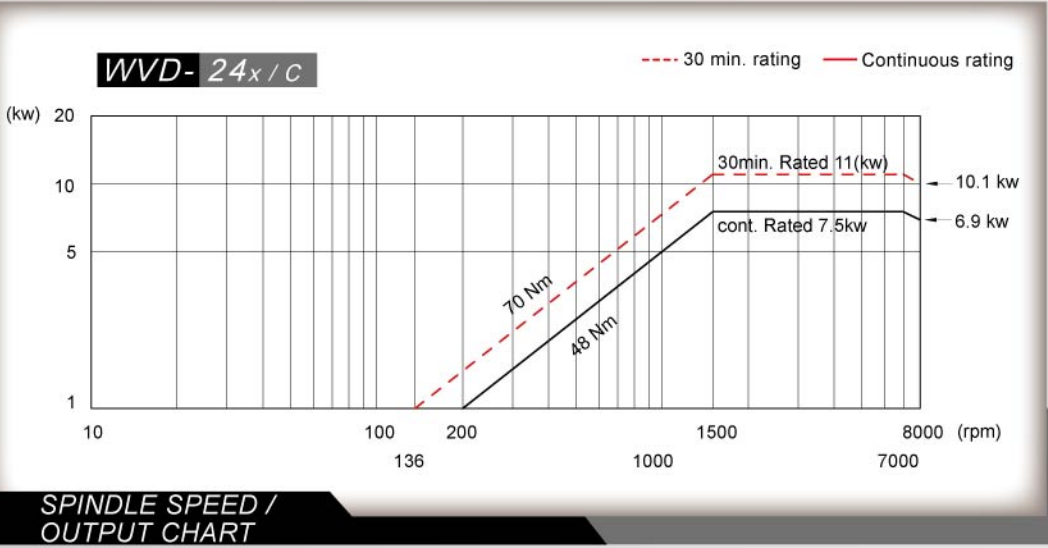


INNER DIAMETER BORING,
INNER TOOL STROKE DISTANCE



WVD-24x/C

SPINDLE SPEED/TORQUE OUTPUT & WORKING DIAGRAM



WVD-24x WORKING DIAGRAM

Drilling

Nozzle drilling

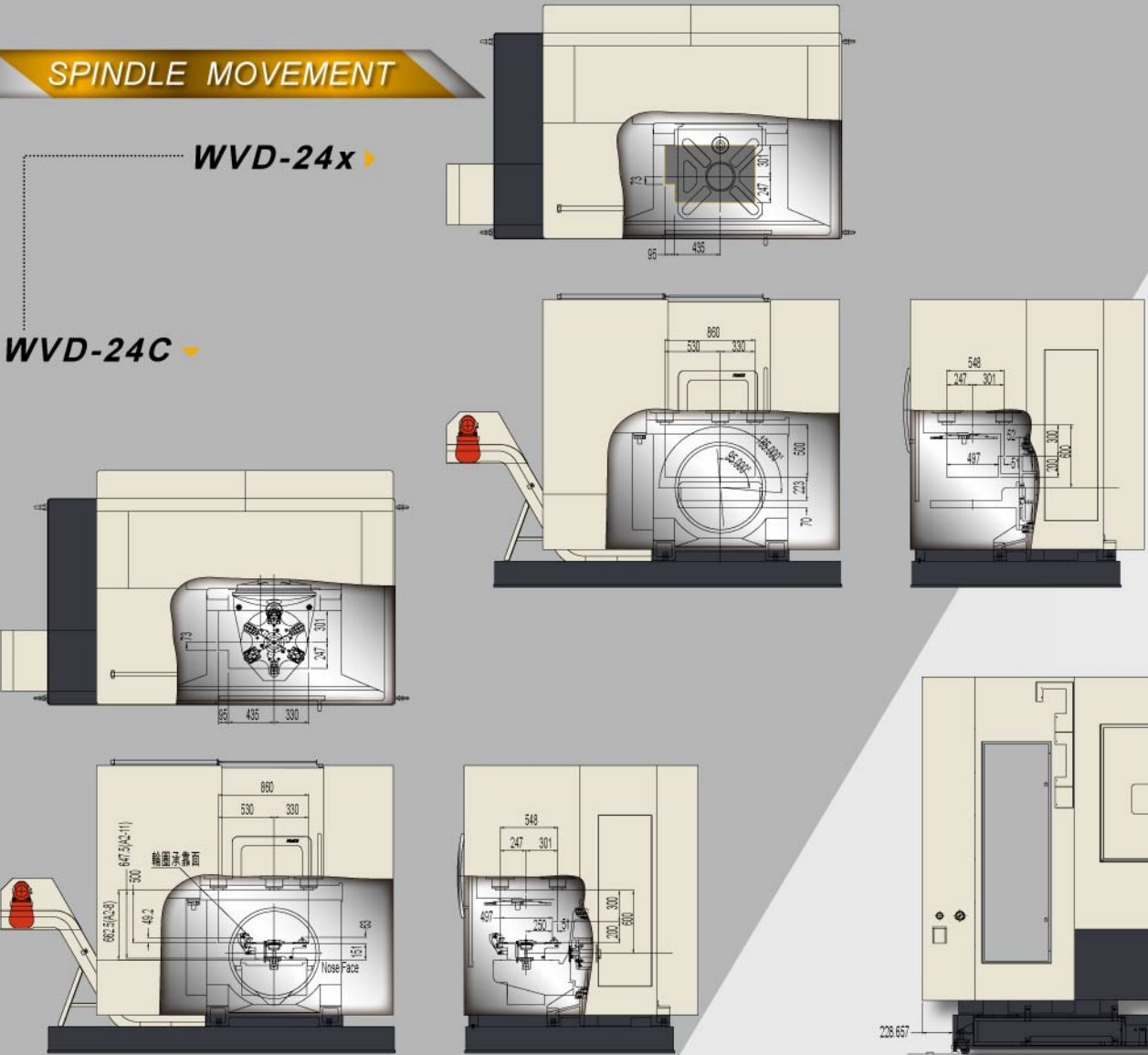
Backside chamfering

Backside boring

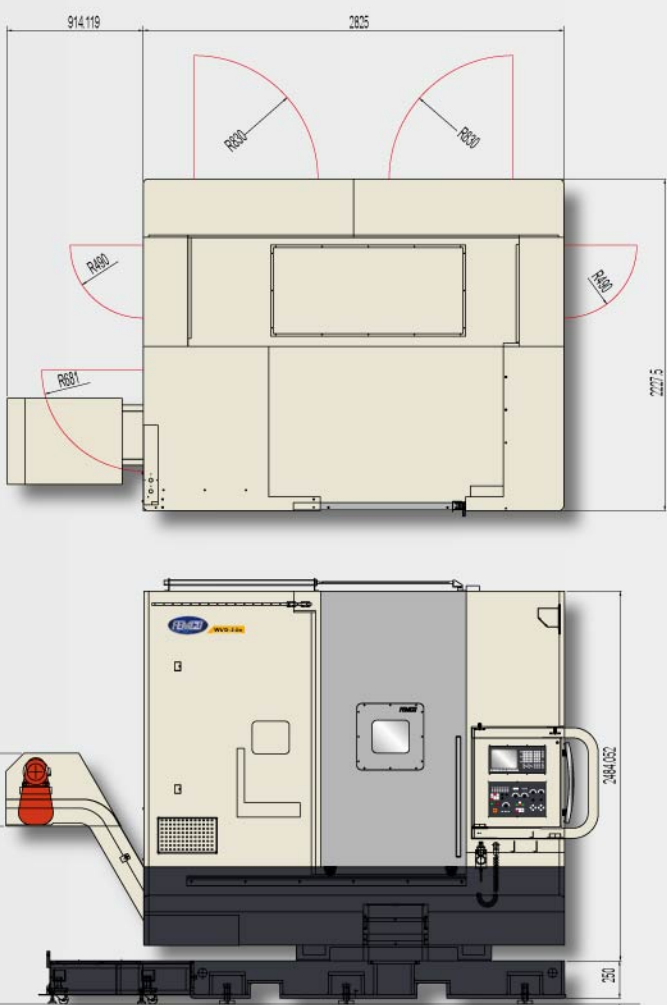
WVD-24x/C EXTERNAL DIMENSION & TOOLING SYSTEM

SPINDLE MOVEMENT

WVD-24x
WVD-24C



EXTERNAL DIMENSION





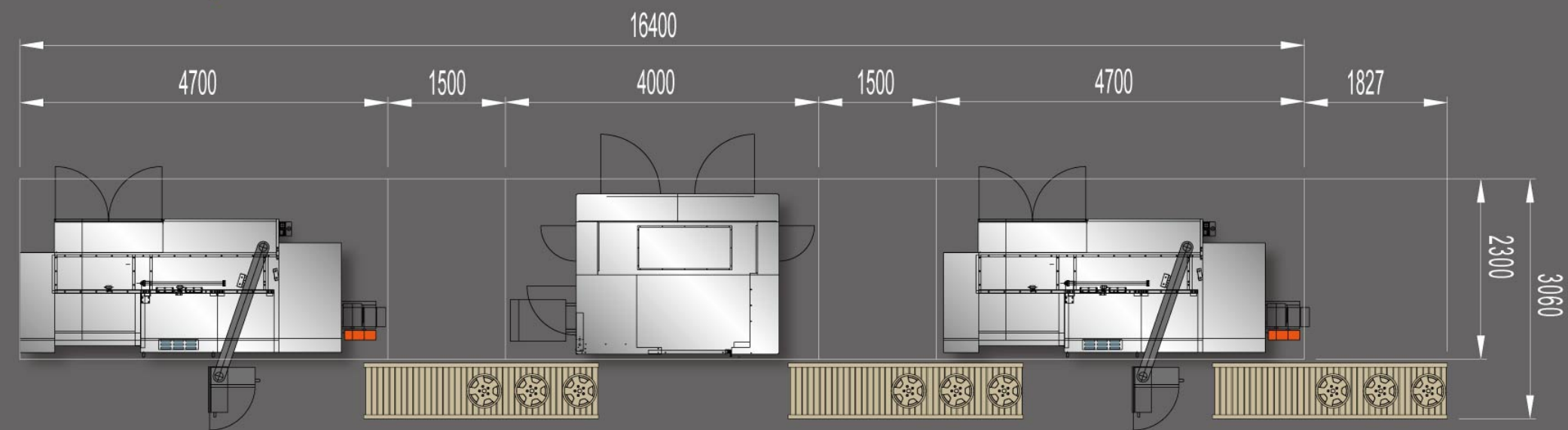
Production Line Example #1

Production line machine model ▶

- Suitable for 13" to 22" wheel production lines.
- First choice for major wheel manufacturers.
- Small floor area and maintenance area. (compared to same class)



Illustration of production line ▼



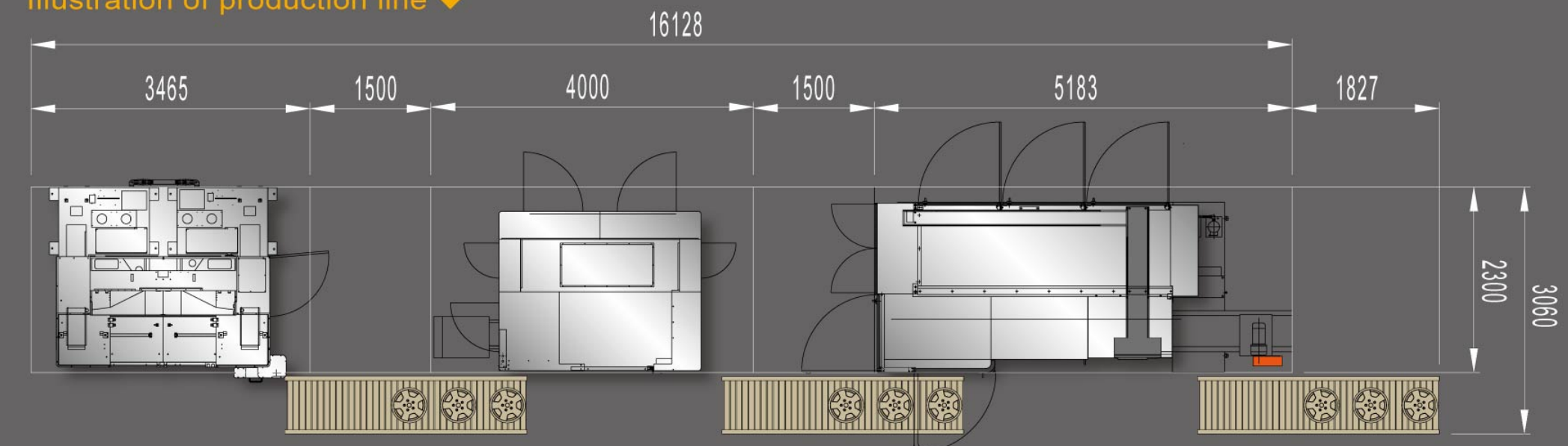
Production Line Example #2

Production line machine model ▶

- Suitable for 13" to 24" wheel production lines.
- Suitable for wheels with less end faces.
- High stability model to guarantee quality requirements on the wheels.



Illustration of production line ▼



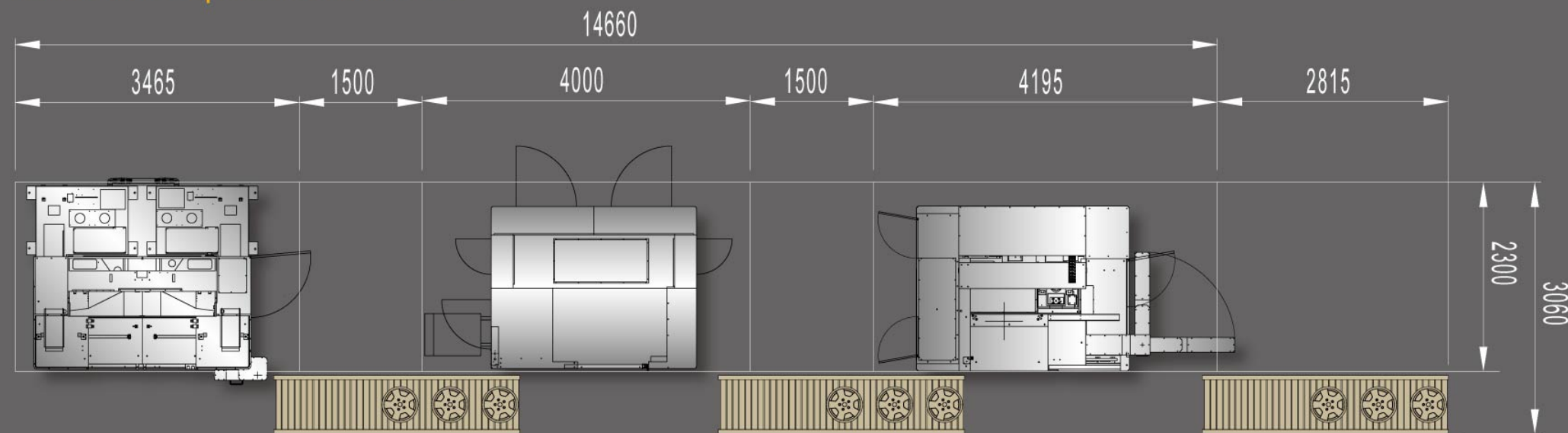
Production Line Example #3

Production line machine model ▶

- Suitable for 13" to 26" wheel production lines.
- High production capacity, high efficiency, high stability dual turret vertical turning Lathe.
- Reduces operator fatigue from loading/unloading large wheels.



Illustration of production line ▼



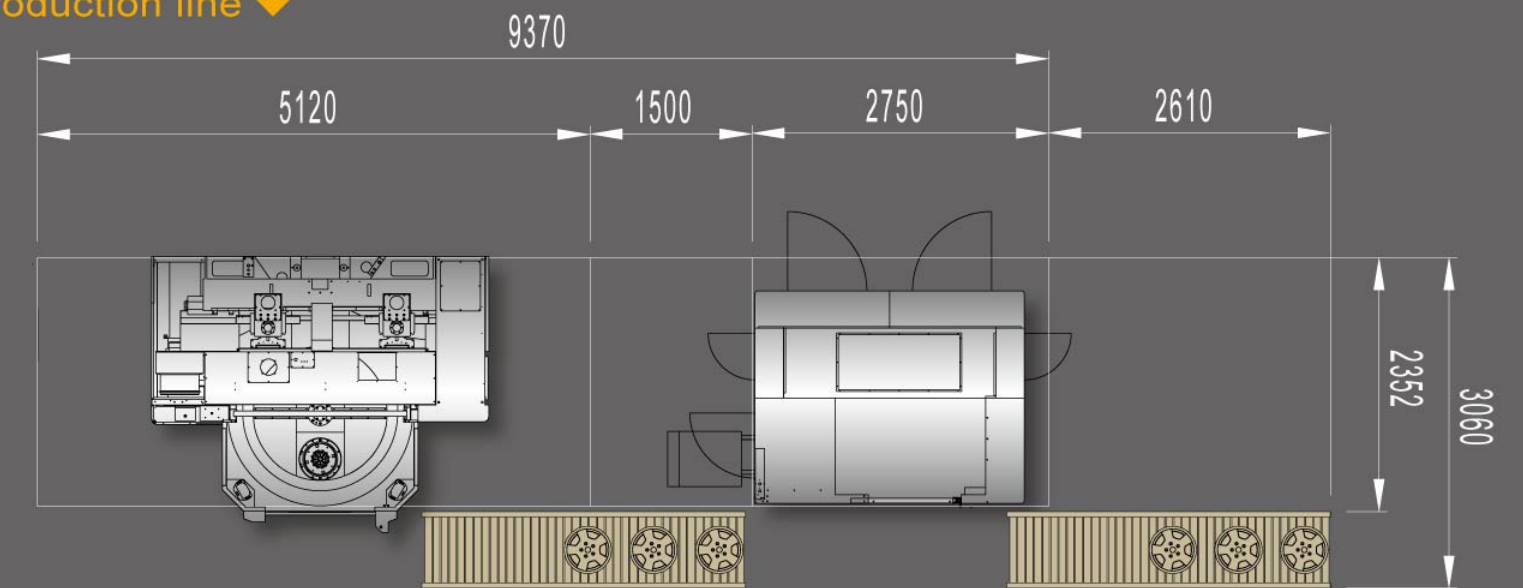
Production Line Example #4

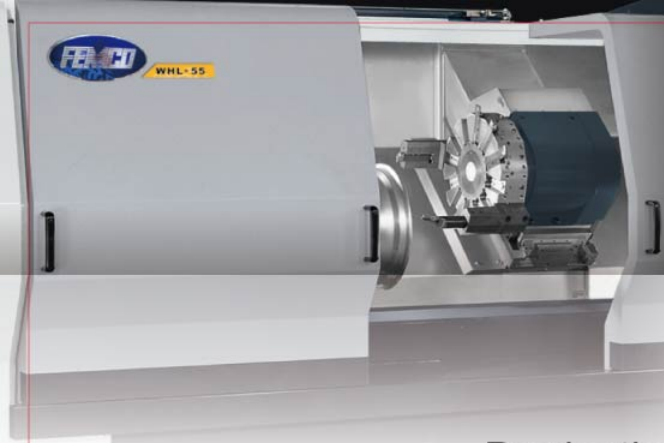
Production line machine model ▶

- All wheel sizes double-turret high efficiency wheel turning Lathe.
- Suitable for 13" to 26" large wheels with appropriate chuck.
- Minimum floor area; suitable for production of high variety and low quantity wheels.



Illustration of production line ▼



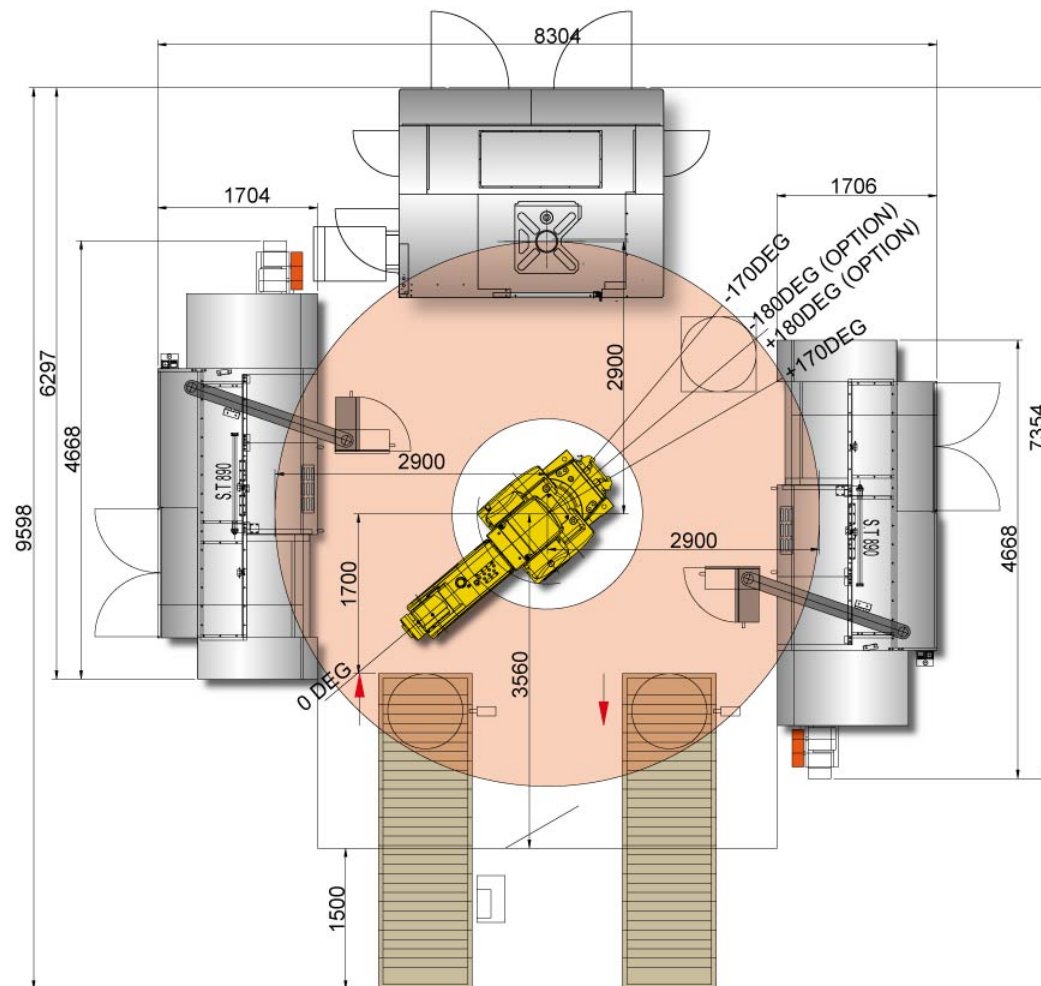


Automation Production Line Example #1

Production line machine model ▶

- Suitable for 13" to 22" wheel production lines.
- First choice for major wheel manufacturers.
- Small floor area and maintenance area. (compared to same class)
- Fully automated wheel production line.
- High capacity, high quality, high efficiency performance.

Illustration of production line ▼

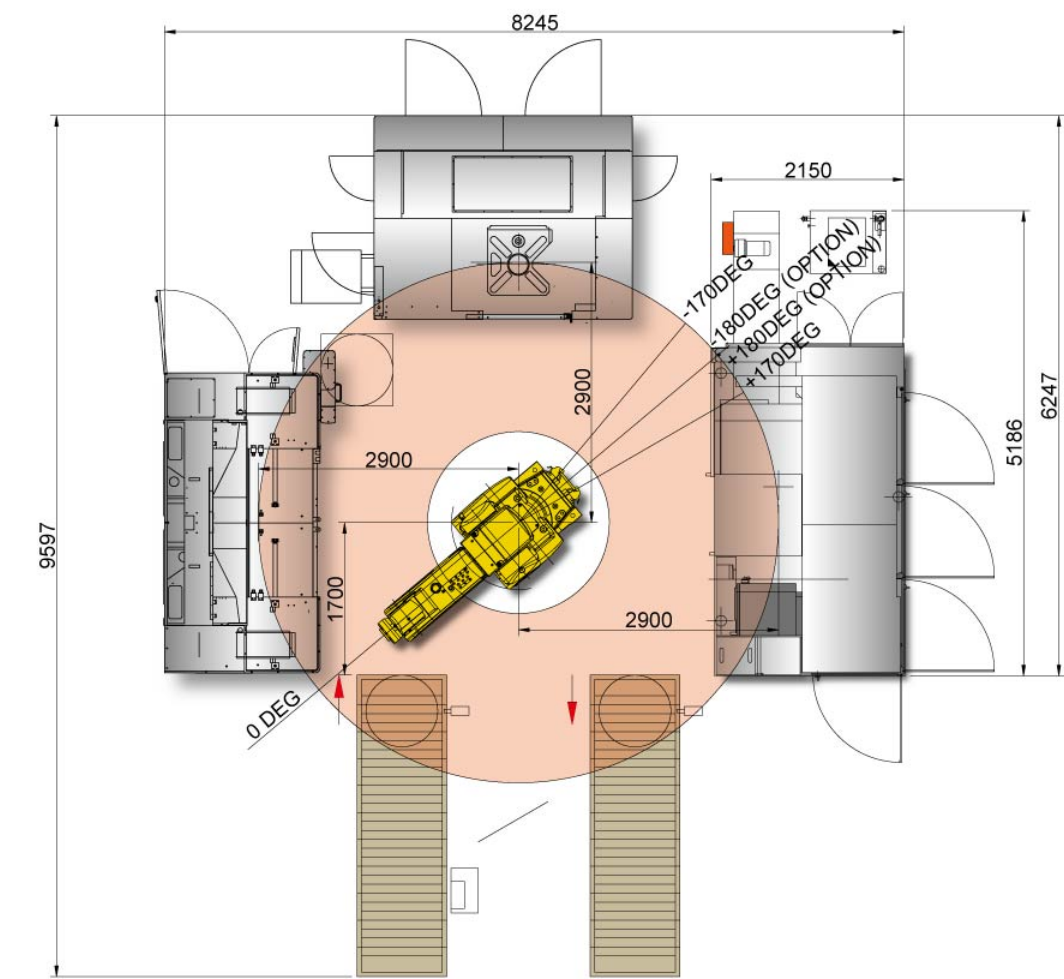


Automation Production Line Example #2

Production line machine model ▶

- Suitable for 13" to 24" wheel production lines.
- Suitable for wheels with less end faces.
- High stability model to guarantee quality requirements on the wheels.
- Fully automated wheel production line.
- High capacity, high quality, high efficiency performance.

Illustration of production line ▼

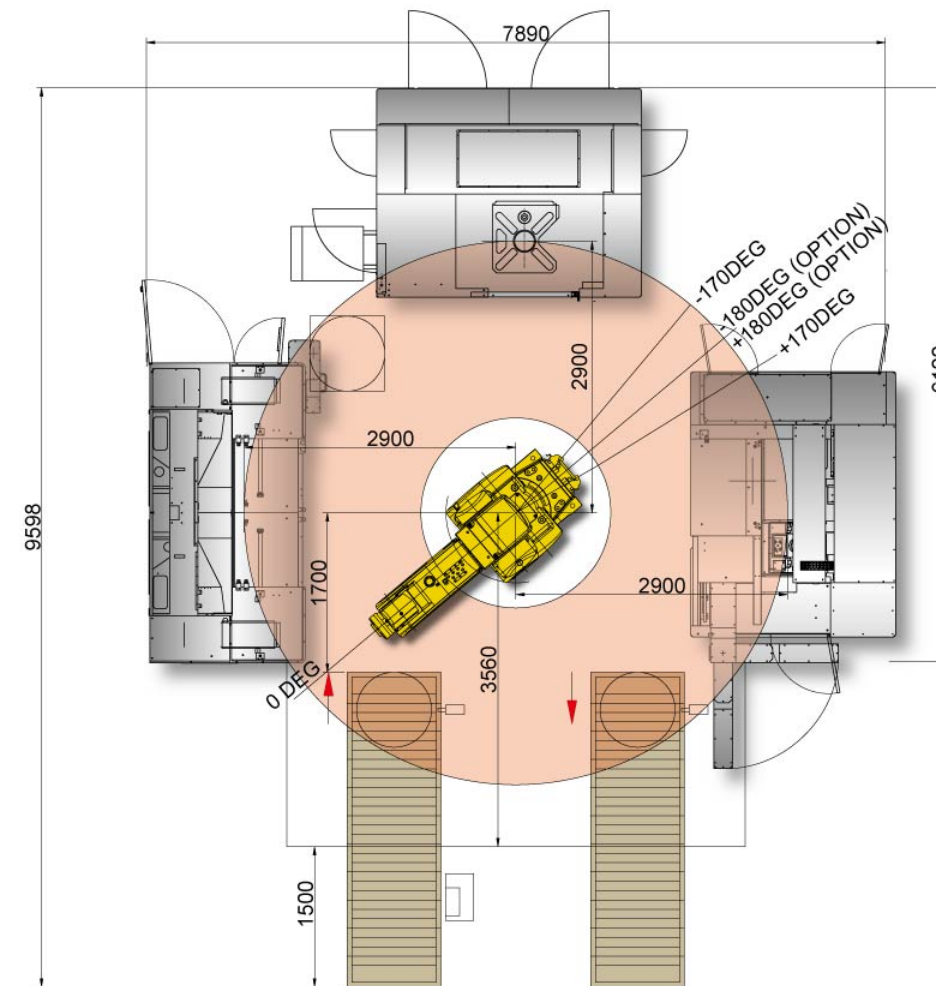


Automation Production Line Example #3

Production line machine model ▶

- Suitable for 13" to 26" wheel production lines.
- High production capacity, high efficiency, high stability dual turret vertical turning lathe.
- Reduces operator fatigue from loading/unloading large wheels.
- Fully automated wheel production line.
- High capacity, high quality, high efficiency performance.

Illustration of production line ▼



Automation Production Line Example #4

Production line machine model ▶

- All wheel sizes double-stuff high efficiency wheel turning lathe.
- Suitable for 13" to 26" large wheels with appropriate headstock.
- Minimum floor area; suitable for production of high variety and low quantity wheels.
- Fully automated wheel production line.
- High capacity, high quality, high efficiency performance.

Illustration of production line ▼

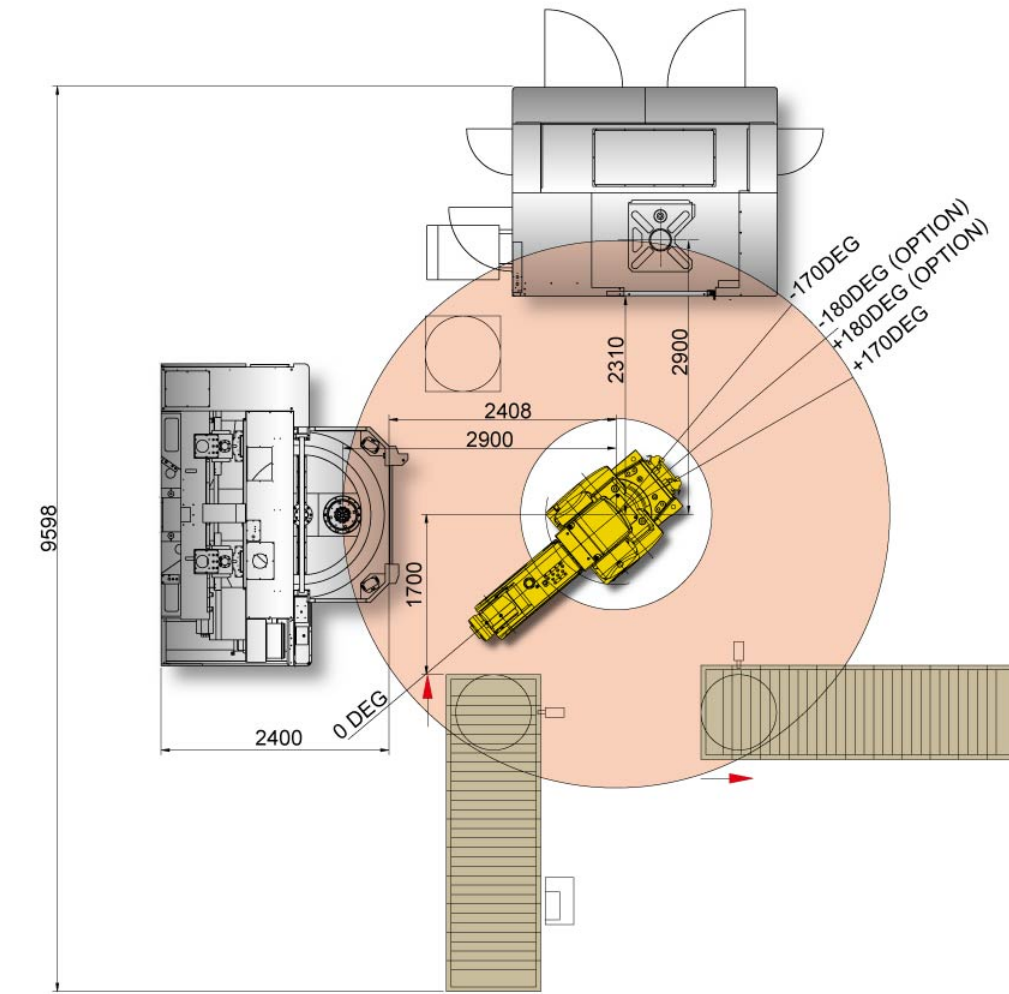


Illustration Of Gantry Type Automation Production Line

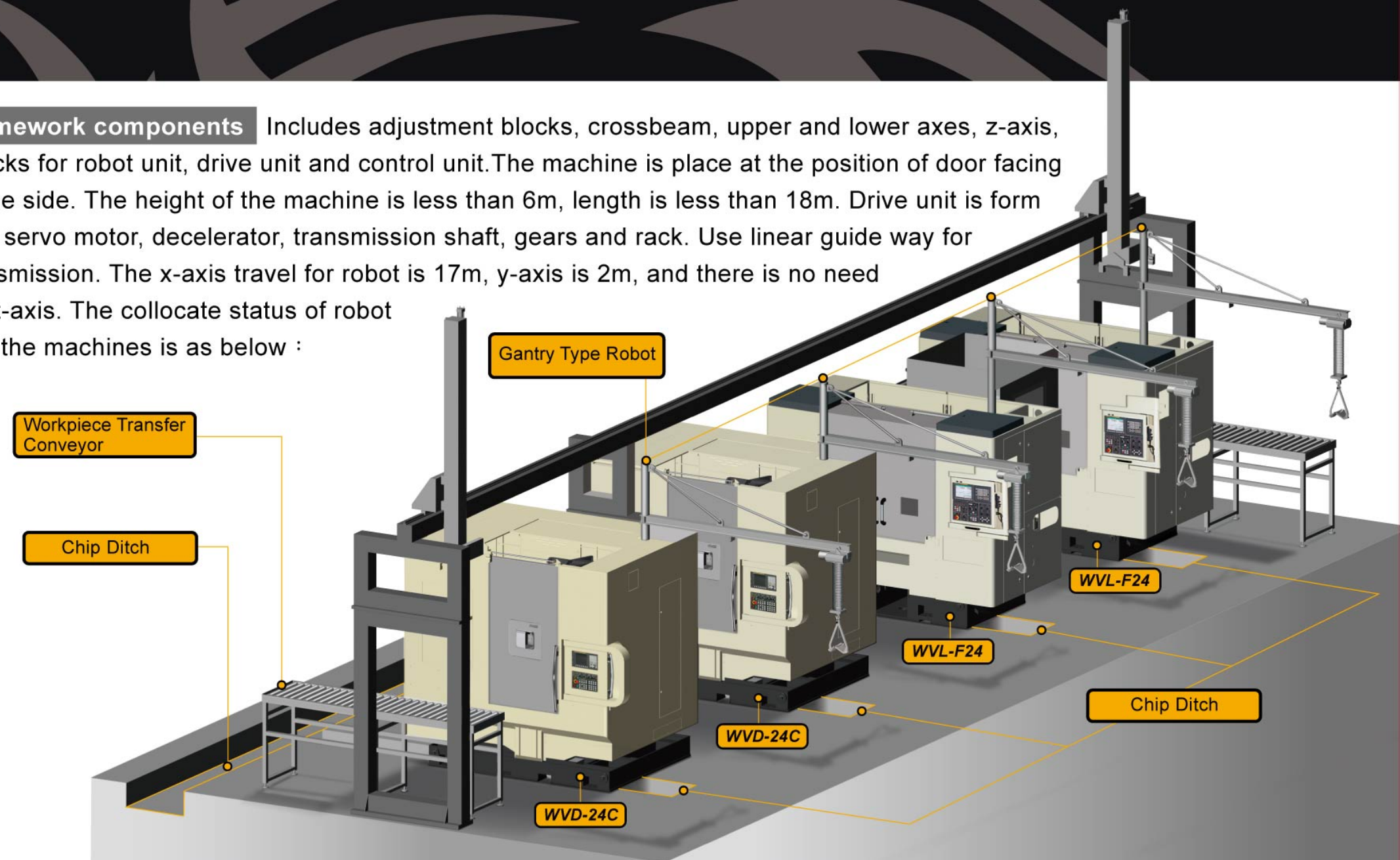
Flexible Design for Best Production Line Plan

Simple path of motion and easy operation, that is very suitable for the simple machining unit.

Every axis is servo controlled. The positioning accuracy, speed and stability are better than the hydraulic type. Multipoint moves and actions of load/ unload can be done through guidance. With advantage of flexible in workpiece variation and easy to operate. Due to Gantry type robot is located directly above of the machine, fast load/unload time is possible by this short path. Load and unload can be done immediately if there is no precise positioning needed. The occupied floor area is small, there will be no interfere to the operator while working on one of the machine.



Framework components Includes adjustment blocks, crossbeam, upper and lower axes, z-axis, chucks for robot unit, drive unit and control unit. The machine is place at the position of door facing at the side. The height of the machine is less than 6m, length is less than 18m. Drive unit is form with servo motor, decelerator, transmission shaft, gears and rack. Use linear guide way for transmission. The x-axis travel for robot is 17m, y-axis is 2m, and there is no need for z-axis. The collocate status of robot and the machines is as below :



OPTIONAL ACCESSORIES



Production Line Planning Service

Guidance and planning based on different production requirements, cost considerations, and manufacturing conditions.



Transformer

220V / 380V / 415V / 440V



Granite Headstock

Granite headstock is optional to better absorb vibrations from the spindle and improve stability.



Robot

Robot can be connected to the machine for a automated system.



Electrical Chuck (WVL-F24A)

Electrical wheel chuck specifically designed for wheel turning.



CE Safety Wall



Air Conditioning For Electrical Panel

High performance cooling system for maintaining constant internal temperature of the electrical panel. (prices vary for different brands and models).

STANDARD & OPTIONAL ACCESSORIES

○ STANDARD ● OPTIONAL

ITEM	WHL-55	WHL-55SP	WHL68	WHL68SP	WVL-T24	WVL-F24	WVL-F24A	WVD-24x	WVD-24C
1 6-tool (turret)						● X2	● X2		
2 8-tool (turret)	●	●	●	●					
3 12-tool (turret)	●	●	●	●	●				
4 Hydraulics unit	●	●	●	●	●	●	●		●
5 Automatic lubrication system	●	●	●	●	●	●	●	●	●
6 ID boring tool holder and sleeve	●	●	●	●	●	●	●		
7 OD turning tool holder	●	●	●	●	●	●	●		
8 Work lamp	●	●	●	●	●	●	●	●	●
9 Levelling bolts and washers	●	●	●	●	●	●	●	●	●
10 Operation/maintenance/electrical air-blow device	●	●	●	●	●	●	●	●	●
11 Automatic chips spray device					●	●	●	●	●
12 Counter (built-in)	●	●	●	●	●	●	●	●	●
13 Heat exchanger	●	●	●	●	●	●	●	●	●
14 Chip conveyor and bucket	●	●	●	●	●	●	●	●	●
15 FANUC operator manual	●	●	●	●	●	●	●	●	●
16 Safety automatic door	●	●	●	●	●	●	●	●	●
17 Built-in spindle motor		●		●					
18 External testing device							●		
19 Automatic pallet changer (APC)							●		
20 C1 class ball screw		●		●					
21 Cooling system	●	●	●	●	●	●	●	●	●
22 Transformer	●	●	●	●	●	●	●	●	●
23 Finger chuck (WHL)	●	●	●	●	●	●	●		●
24 Granite headstock		●		●					
25 Horizontal level adjuster	●	●	●	●	●	●	●	●	●
26 Oil skimmer	●	●	●	●	●	●	●	●	●
27 Counter (external)	●	●	●	●	●	●	●	●	●
28 Three color indicator	●	●	●	●	●	●	●	●	●
29 Electrical chuck (WVL-24A)							●		
30 Electrical air conditioner	●	●	●	●	●	●	●	●	●
31 Robot arm	●	●	●	●	●	●	●	●	●
32 CE safety wall	●	●	●	●	●	●	●	●	●
33 Production line planning service	●	●	●	●	●	●	●	●	●
34 B-axis support base								●	●
35 Wheels drilling clamping jig								●	●
36 ATC magazine (24 tools)								●	●
37 Spindle speed (8000)								●	●
38 Spindle speed (10000/12000/15000)								●	●
39 Machine automatic measurement system								●	●
40 Automation human-computer interface								●	●
41 Wheels loading and unloading handle device					●	●	●	●	●
42 Automative gantry robot					●	●	●	●	●

Design and specifications are subject to change without prior notice.