FEMCO®

Beyond Today's Possibilities. Towards the Tomorrow of Our Dreams. No Limits.

CNC WHEEL TURNING LATHE

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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.

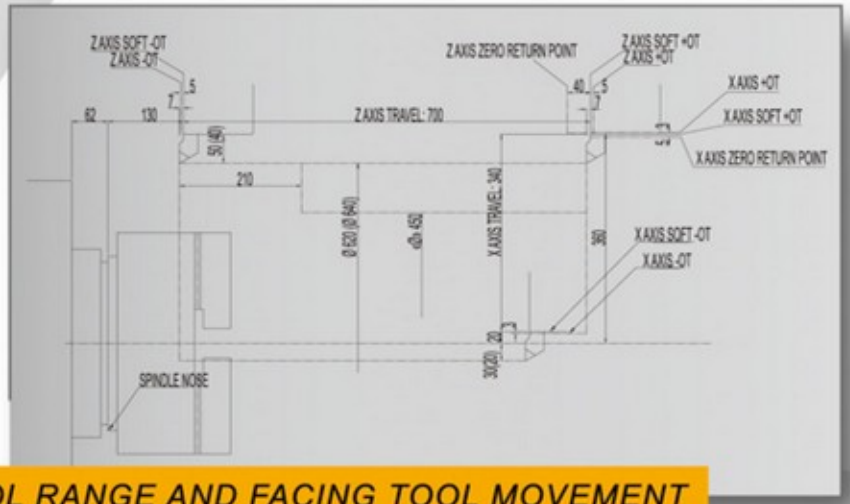
EXTRA WIDE SPINDLE
Main spindle specifically designed for wheels, improved stability unmatched by generic CNC machining spindles.

MODEL SPECIFICALLY DESIGNED FOR WHEEL TURNING

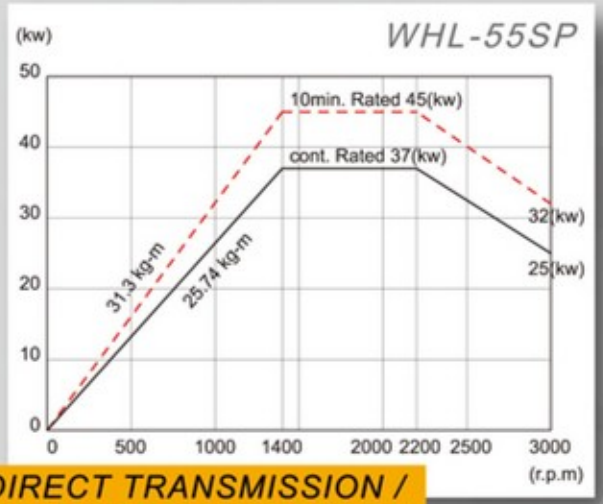
Larger swing over bed specification than generic models for up to 22" wheels.

SPINDLE SPEED/TORQUE OUTPUT & TOOL MOVEMENT & TOOL INTERFERENCE

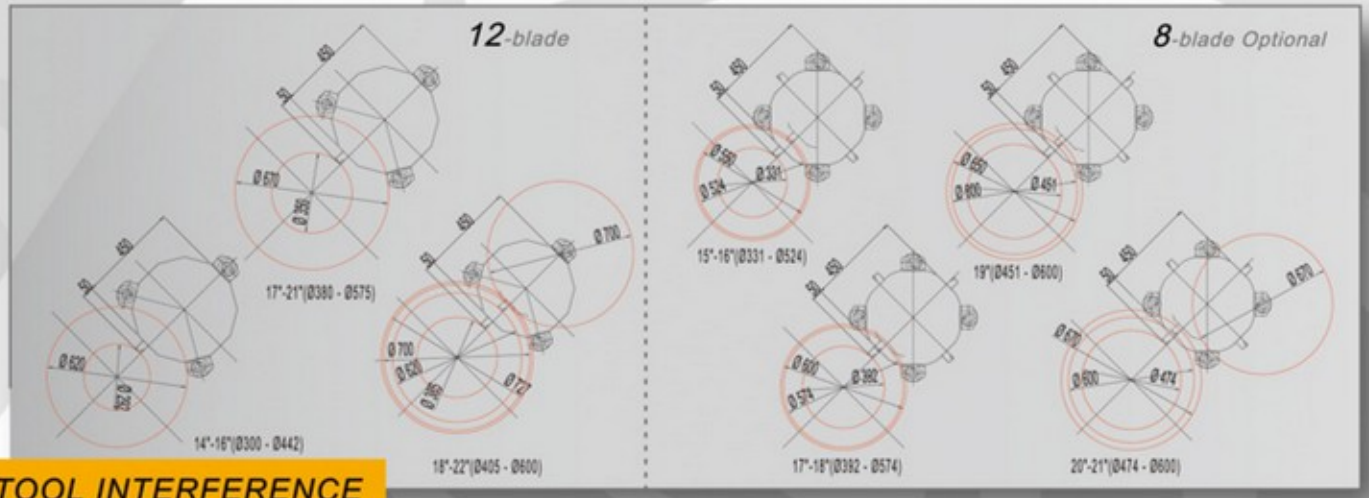
SPINDLE SPEED / OUTPUT CHART



O.D. TOOL RANGE AND FACING TOOL MOVEMENT



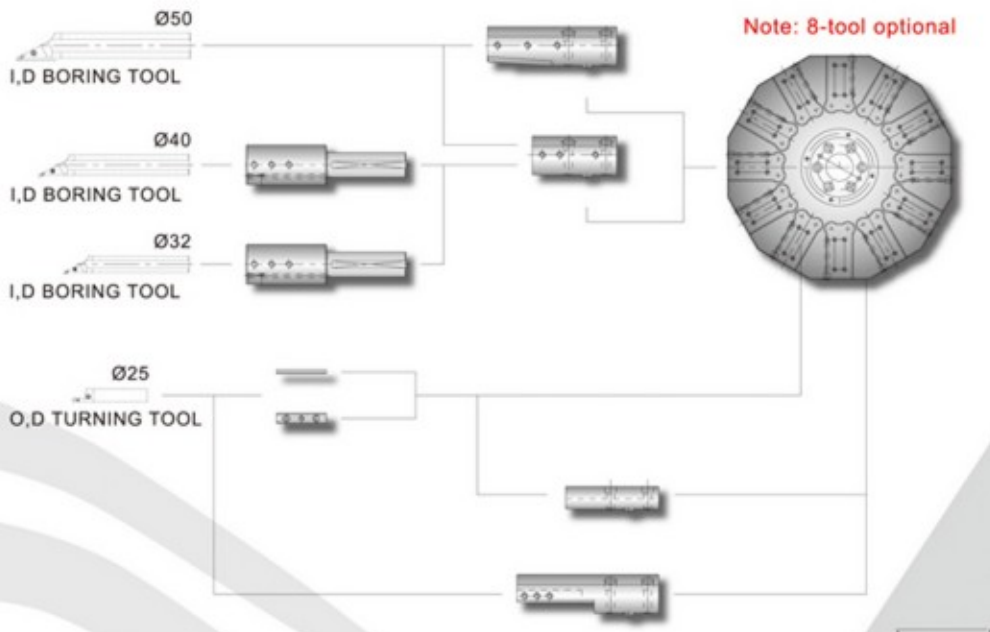
DIRECT TRANSMISSION / TORQUE OUTPUT CHART



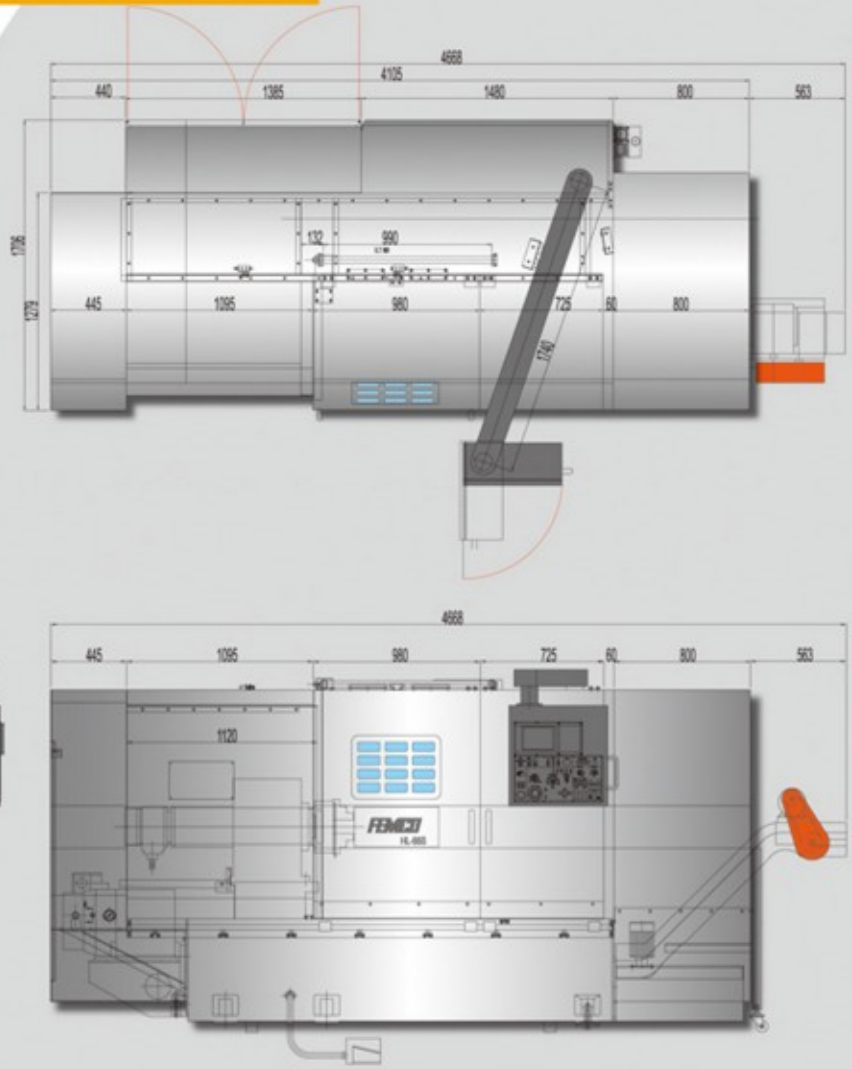
TOOL INTERFERENCE

TOOLING SYSTEM & EXTERNAL DIMENSION

TOOLING SYSTEM



EXTERNAL DIMENSION



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.

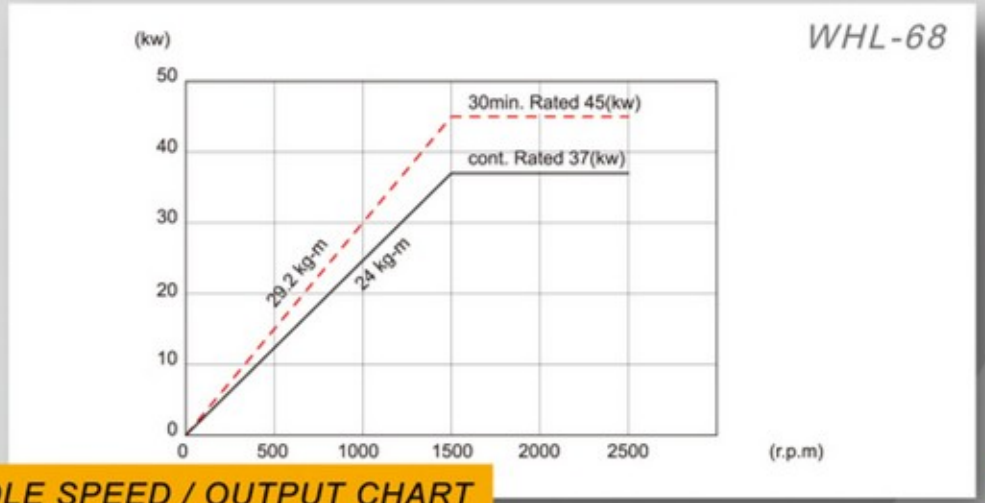
ABSOLUTE COORDINATES CONTROL SYSTEM
The control uses an absolute coordinates system and the CNC system doesn't need return to zero point before next processing command.

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.

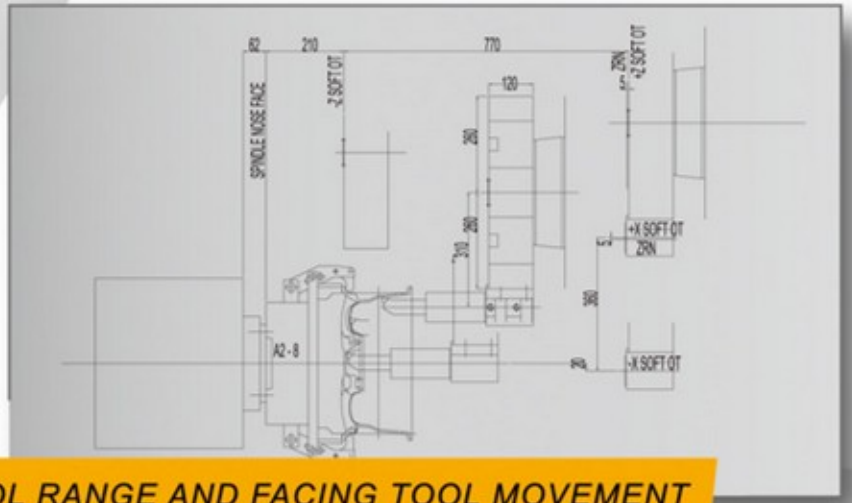
LATHE SPECIFICALLY DESIGNED FOR LARGE WHEELS

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

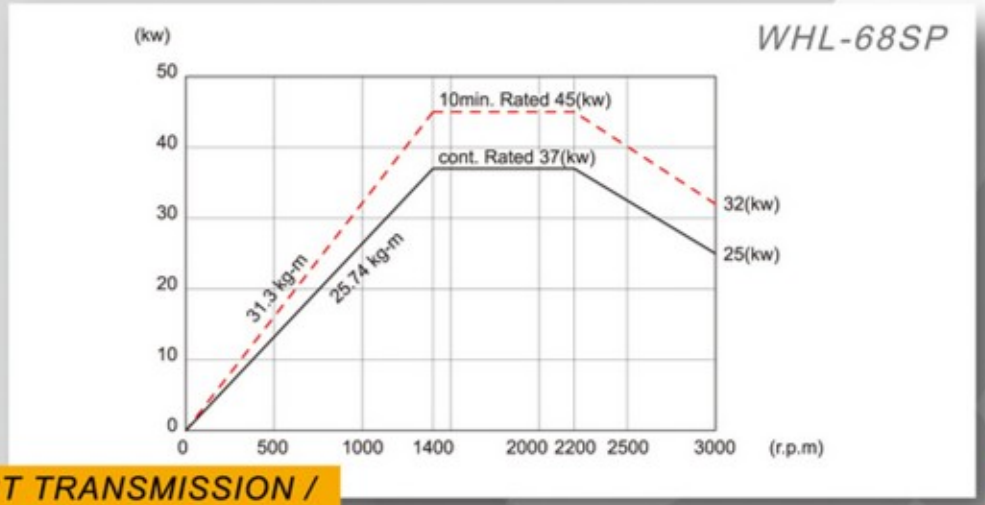
SPINDLE SPEED/TORQUE OUTPUT & TOOL MOVEMENT & TOOL INTERFERENCE



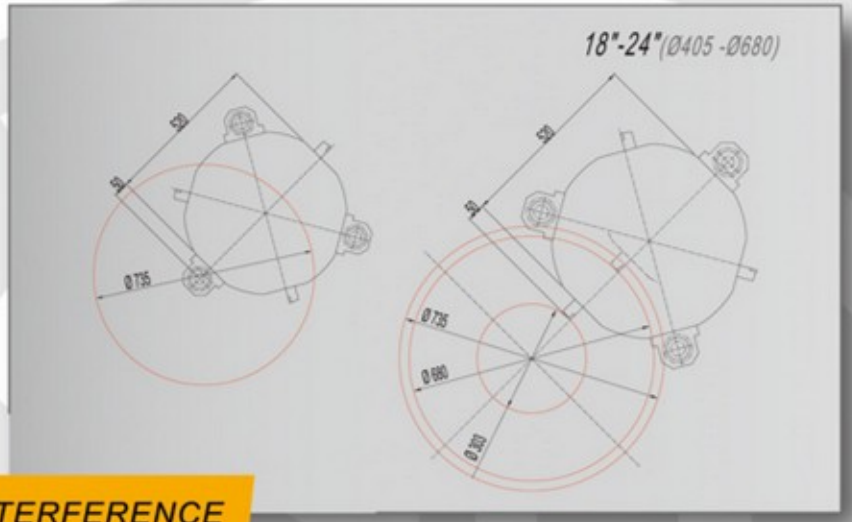
SPINDLE SPEED / OUTPUT CHART



O.D. TOOL RANGE AND FACING TOOL MOVEMENT



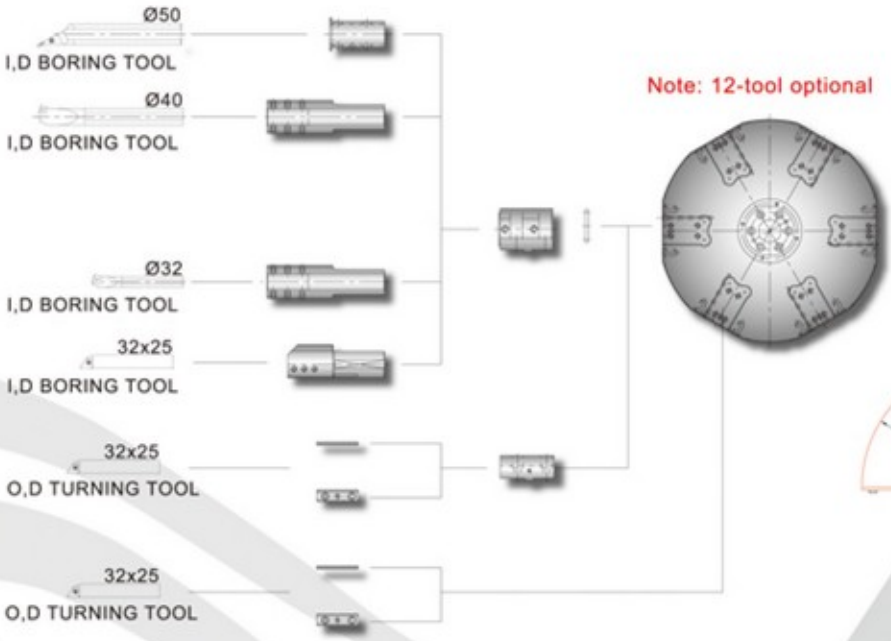
DIRECT TRANSMISSION / TORQUE OUTPUT CHART



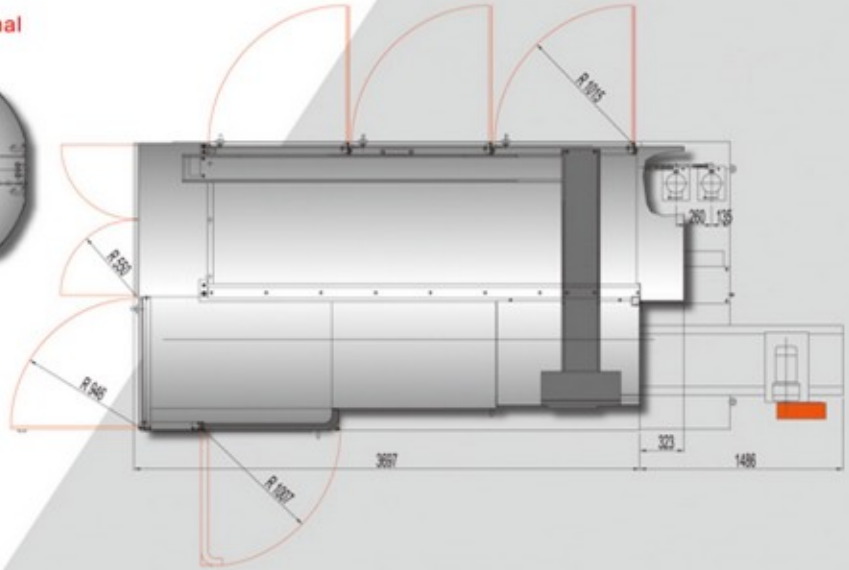
TOOL INTERFERENCE

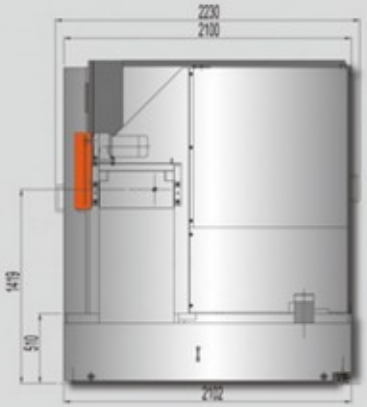
EXTERNAL DIMENSION & TOOLING SYSTEM

TOOLING SYSTEM



EXTERNAL DIMENSION





WHL-55SP/68SP MIRROR LIKE WHEEL TURNING LATHE

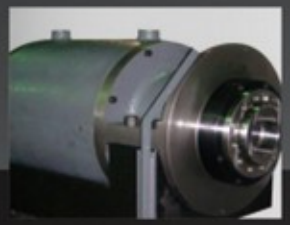
PROFESSIONAL MODEL FOR MIRROR LIKE WHEELS

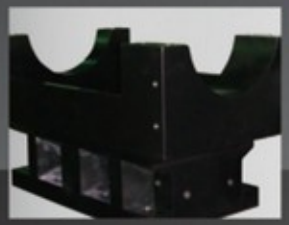
WHL-55SP

WHL-68SP

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/Y-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 Ra0.139 turning performance achieved .

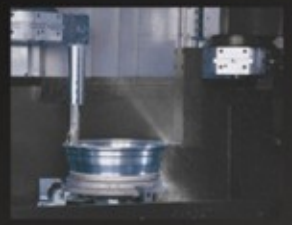
WVL-F24 VERTICAL WHEEL TURNING LATHE

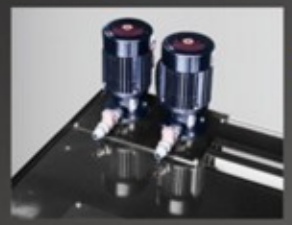
ERGONOMIC EXCELLENCE

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.






ABSOLUTE COORDINATE CONTROL SYSTEM

The control uses an absolute coordinates system and the CNC system will not need to return to zero point before issuing the next processing command. .

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 .

FREE-ACCESS AUTO DOOR

Free-access auto door with safety window made of reinforced anti-fog glass to greatly improve operator safety.

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.

CHIP CONVEYOR

Conveyor can also be configured on the left side or from the rear to work with the production line and facilitate the layout. Separated large capacity coolant tank for simple maintenance.

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.

HIGH HORSEPOWER SPINDLE MOTOR

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

RAPID TRAVERSE RATE FASTEST IN THE INDUSTRY

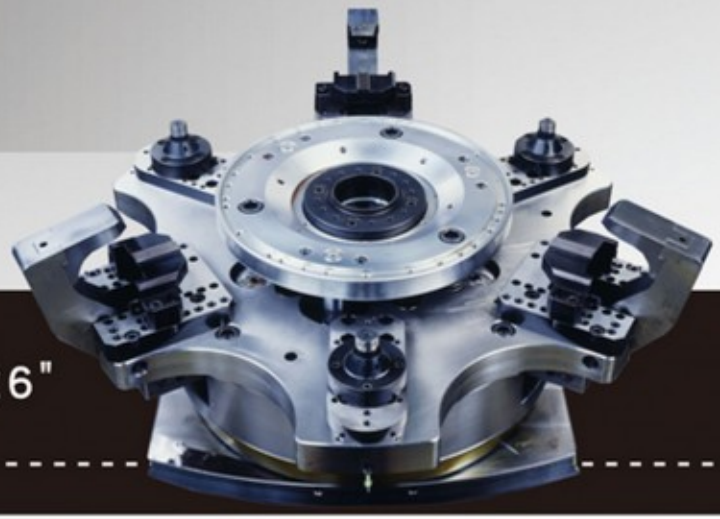
36m/min rapid X/Z-axis traverse is the fastest in the industry; servo driven turret for quick tool switching, down time, and greatly improved processing efficiency.

COMPACT SIZE

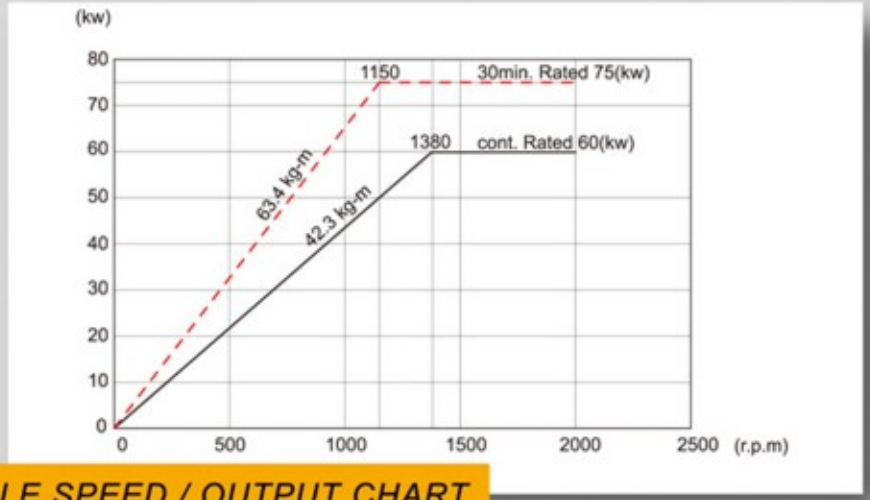
Small floor area and machine can be directly transported after assembly to prevent reassembly errors.

FULL SIZE PROCESSING CAPACITY

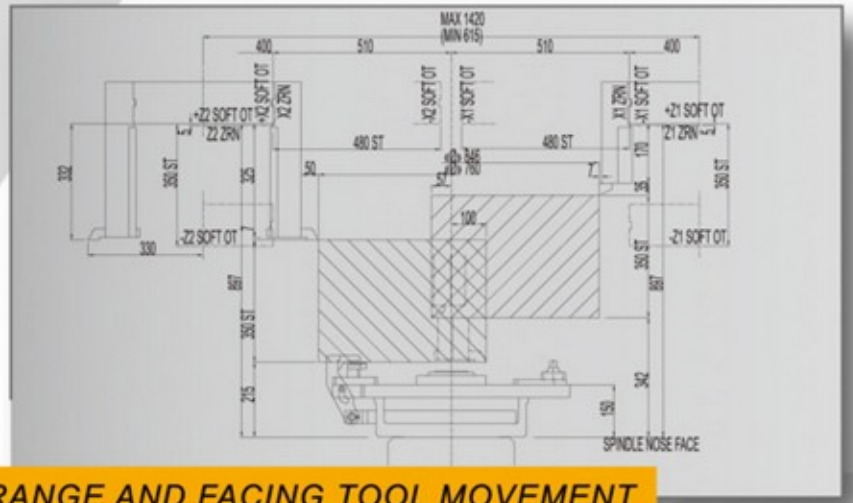
Excellent full size processing capacity with appropriate finger chuck, ranging from 13" to 26" (optional)



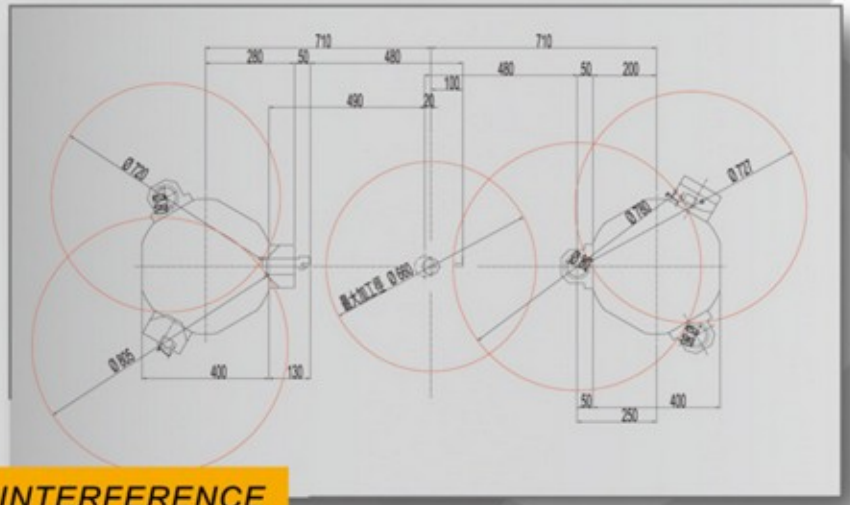
SPINDLE SPEED/TORQUE OUTPUT & TOOL MOVEMENT & TOOL INTERFERENCE



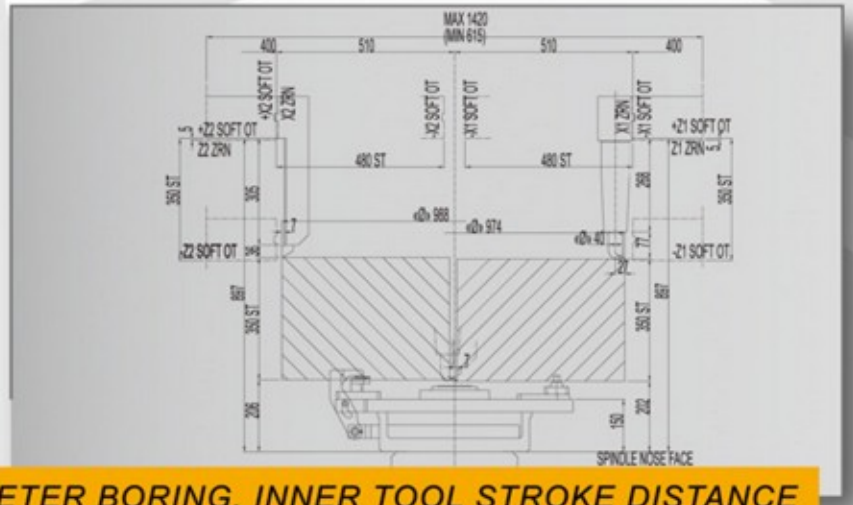
SPINDLE SPEED / OUTPUT CHART



O.D. TOOL RANGE AND FACING TOOL MOVEMENT



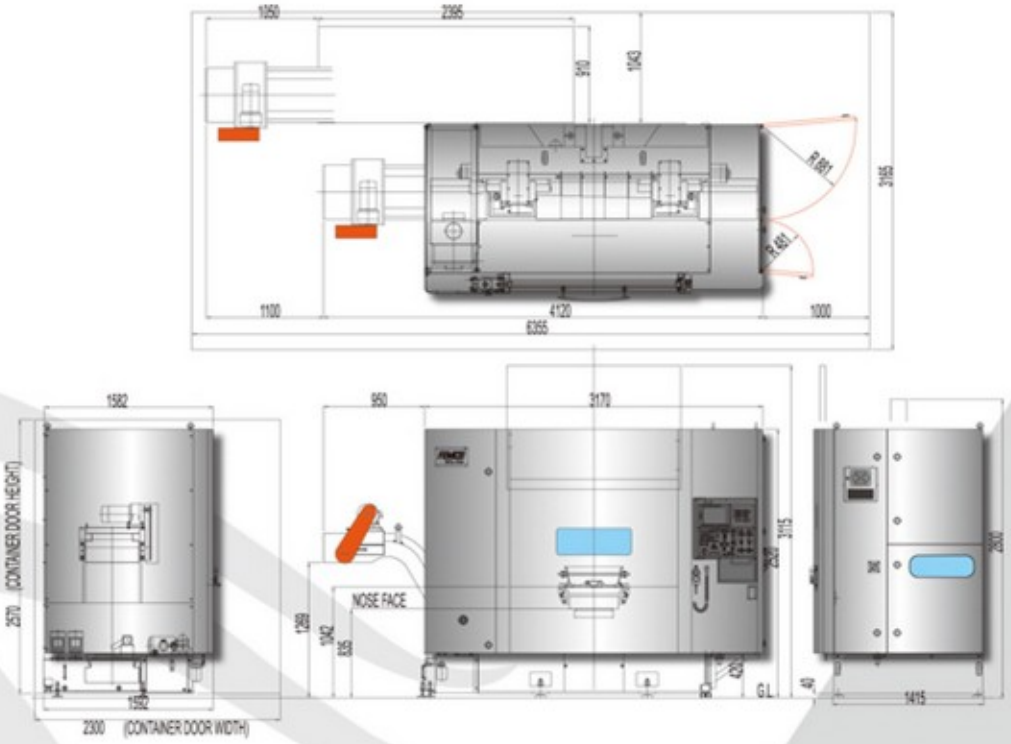
TOOL INTERFERENCE



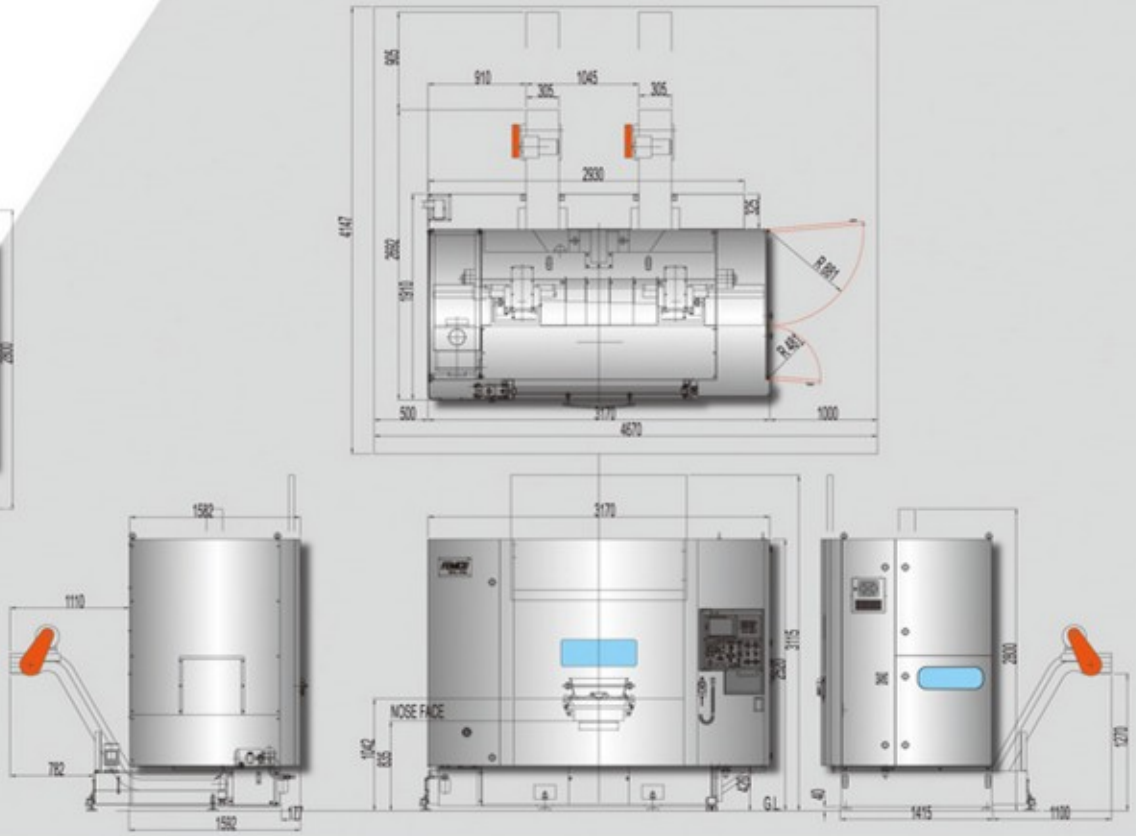
INNER DIAMETER BORING, INNER TOOL STROKE DISTANCE

EXTERNAL DIMENSION

EXTERIOR DIAGRAM (chip conveyor exits from left side)



EXTERIOR DIAGRAM (chip conveyor exits from rear side)



WVL-F24A VERTICAL WHEEL TURNING LATHE

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 6 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 SWITHING TIME
Actual factory tested 6 seconds switching time fastest in the industry; APC switching system works with OP1, OP2, or single processing; mechanical action door that is safe, quick, and secure.

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.

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.

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.

AWARD OF EXCELLENCE
2007 Taipei International Machine Tool Show "Award of excellence for innovative machine tool research and development".

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

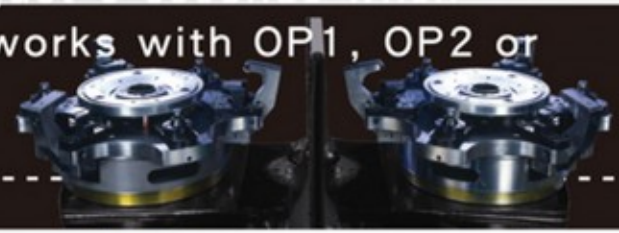
SMART LOADING/UNLOADING CONTROL INTERFACE
Integrated buttons with the smart control interface for easier loading/ unloading by the operator and improved work efficiency.

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.

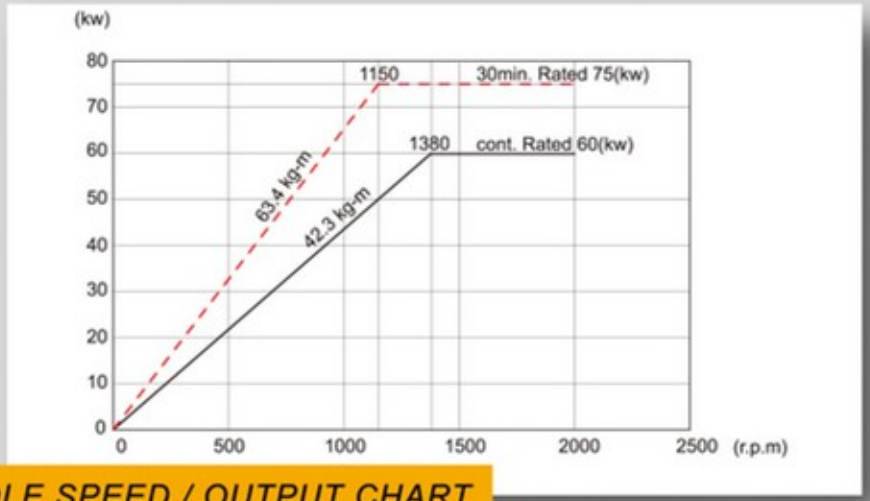
ELECTRICAL WHEEL CLAMP SYSTEM
Patented wheel chuck with electrical controlled mechanism, safety detection system and mechanical clamping system featured to eliminate possible hazardous situations during power loss, e.g. chuck coming loose from pressure loss.

INNOVATIVE APC SWIVEL SYSTEM:

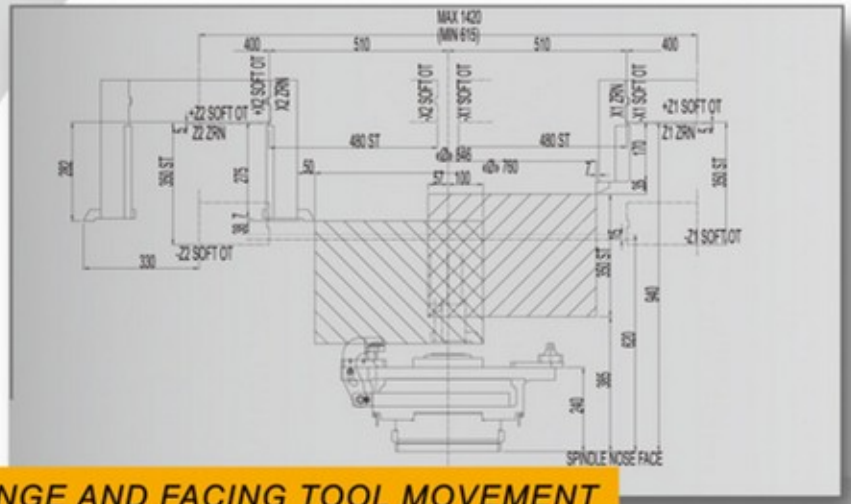
Wheel can be loaded on the outside while spindle is in operation for balance testing (patented), thereby saves the need for testing inside the machine; the quick chuck clamp system (patented) and door panel design (patented) can shorten door access time to just 6 seconds when switching pieces (fastest among world class models); this system works with OP1, OP2 or single processing works for significantly improved efficiency.



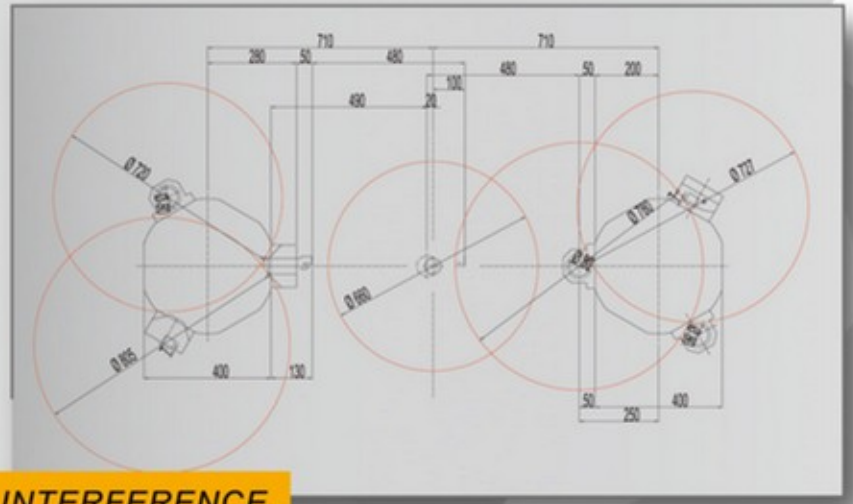
SPINDLE SPEED/TORQUE OUTPUT & TOOL MOVEMENT & TOOL INTERFERENCE



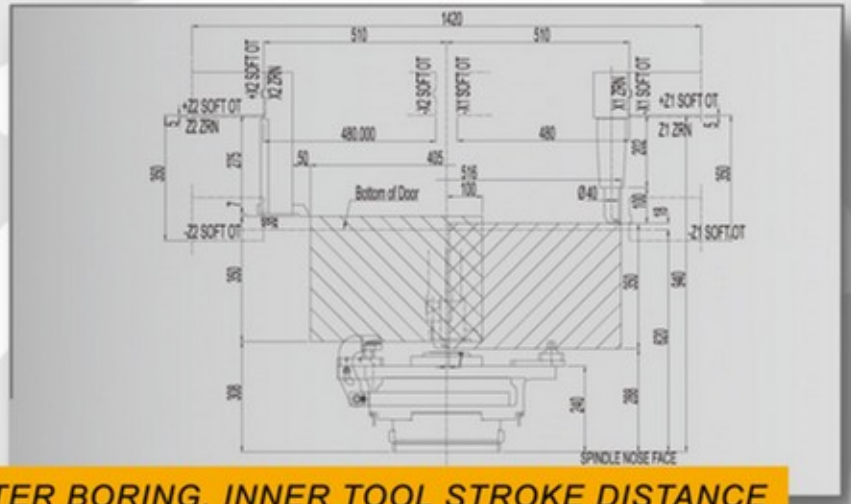
SPINDLE SPEED / OUTPUT CHART



O.D. TOOL RANGE AND FACING TOOL MOVEMENT



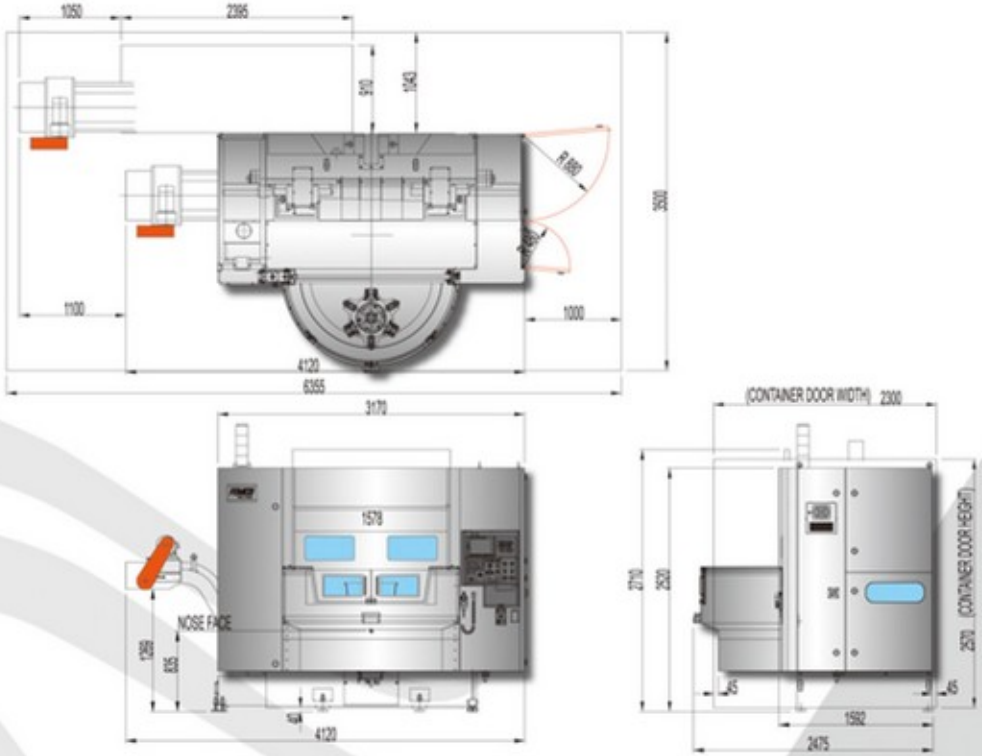
TOOL INTERFERENCE



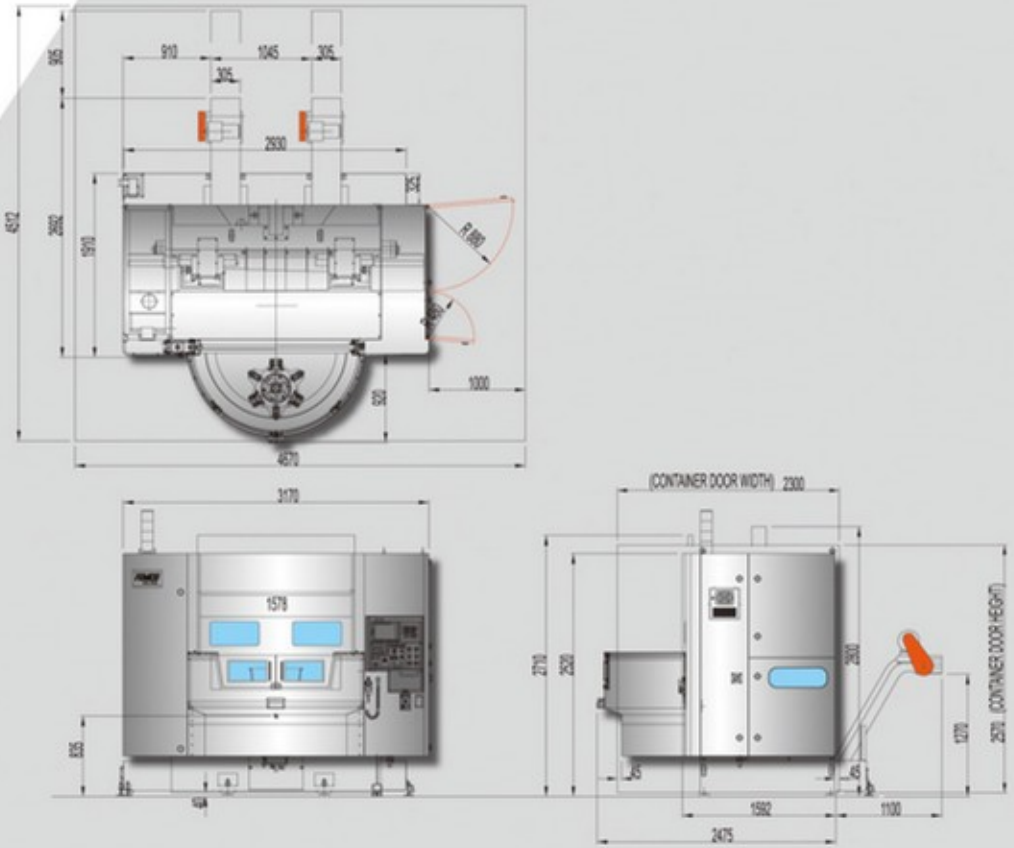
INNER DIAMETER BORING, INNER TOOL STROKE DISTANCE

EXTERNAL DIMENSION

EXTERIOR DIAGRAM (chip conveyor exits from left side)



EXTERIOR DIAGRAM (chip conveyor exits from rear side)



WVD-24 VERTICAL WHEEL DRILLING LATHE

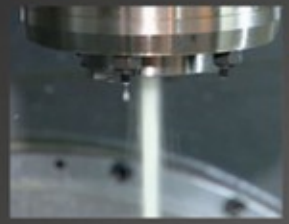
DESIGN OF EXCELLENCE IN THE INDUSTRY

WVD-24 SPECIFICATION and FEATURES

- Max wheel size : 26".
- Rapid X/Y/Z-axis traverse: 48m/min.
- All size wheel chuck without the need for additional accessories.
- Pneumatic turntable for manual configuration of the angle of air holes between 0 and 60 degrees.
- Installation of the fourth axis for tire pressure inspection and backside processing. (optional)
- Pneumatic system for environmental friendly and energy conservation operation.
- Coolant Through Spindle supply powerful washing capability during turning, lubricating and cooling to the tools for reduced wear. (optional)
- Lower working table for easy loading/unloading; can also be used with robot for automatic loading/ unloading.
- Spindle built-in pneumatic tool mechanism for high precision, long lifespan, and less stress to the bearing.
- Turret features a set arrangement for fast tool switching and simple maintenance.






ALL-SIZE PROCESSING CAPACITY
This machine works with all wheel sizes between 12" to 26".

EASY LOADING/UNLOADING
Uses lower working table for easy loading/unloading by the operator or automatic operation with robot.

FAST TOOL SWITCHING TOOL CHANGER
Turret features a set arrangement for fast tool switching and simple maintenance.

SWIVEL TABLE
Pneumatic turntable for manual configuration of the angle of air holes between 0 and 60 degrees; Installation of the fourth axis for tire pressure inspection and backside processing. (optional)

SEPARATE CHIP-CONVEYOR
Two options of left or right output from chip conveyor to facilitate production line setup; separate design for coolant tank and chip conveyor for easy cleaning and maintenance.

COOLANT THROUGH SPINDLE FUNCTION
Coolant from spindle to supply powerful washing capability during turning, lubricating and cooling to the tools for reduced wear. (optional)

PNEUMATIC SYSTEM
Pneumatic system is used instead of hydraulics for an environmentally friendly and energy conservation operation.

HIGH-PRECISION SPINDLE MOTOR
8,000RPM spindle, with 12,000RPM or 15,000RPM optional, suitable for various processing requirements; spindle built-in pneumatic tool mechanism for high precision, long lifespan, and less stress to the bearing.

MINIMUM FLOOR AREA
Small floor area and machine can be directly transported after assembly to prevent reassembly errors.

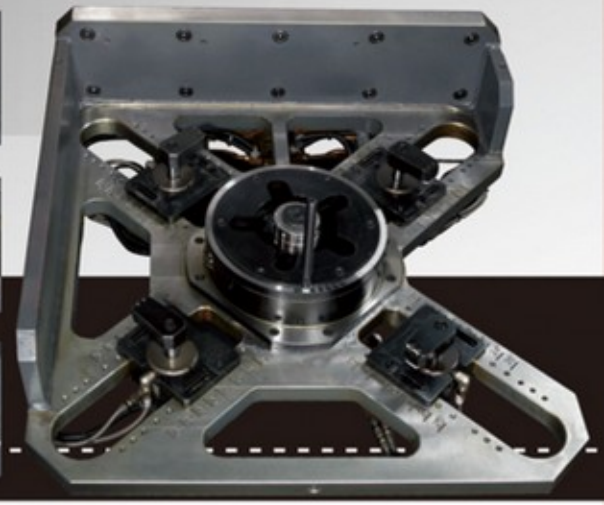
SWIVEL TABLE DESIGNED FOR WHEEL PROCESSING

Including『Swivel table』, 『Pneumatic chuck』, and 『Wheel size scale』designs.

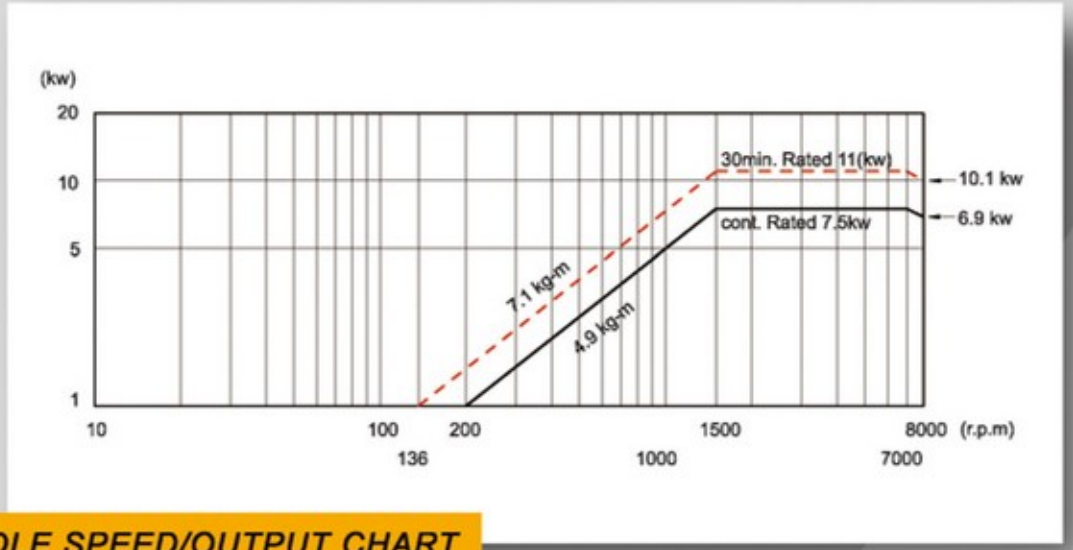

Swivel table


Pneumatic chuck

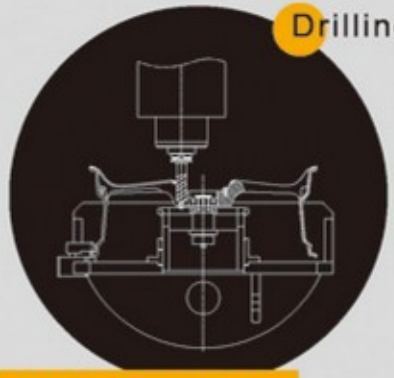

Wheel size scale

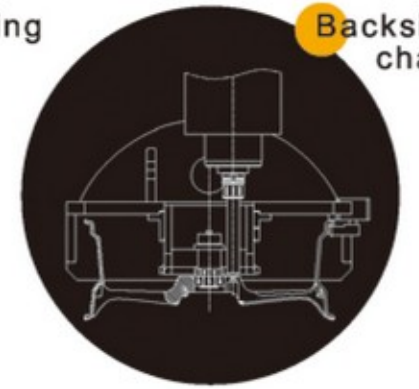


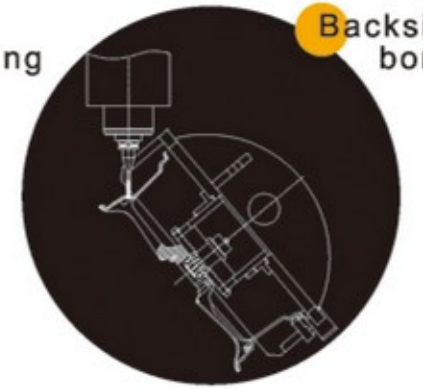
SPINDLE SPEED/TORQUE OUTPUT & WORKING DIAGRAM



SPINDLE SPEED/OUTPUT CHART



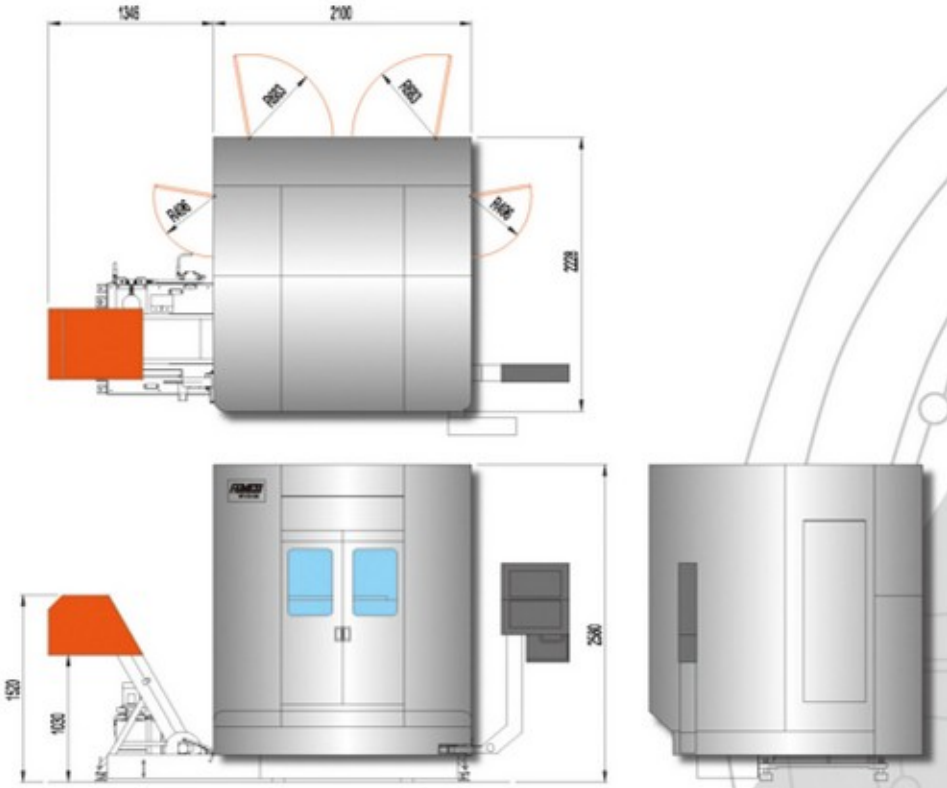




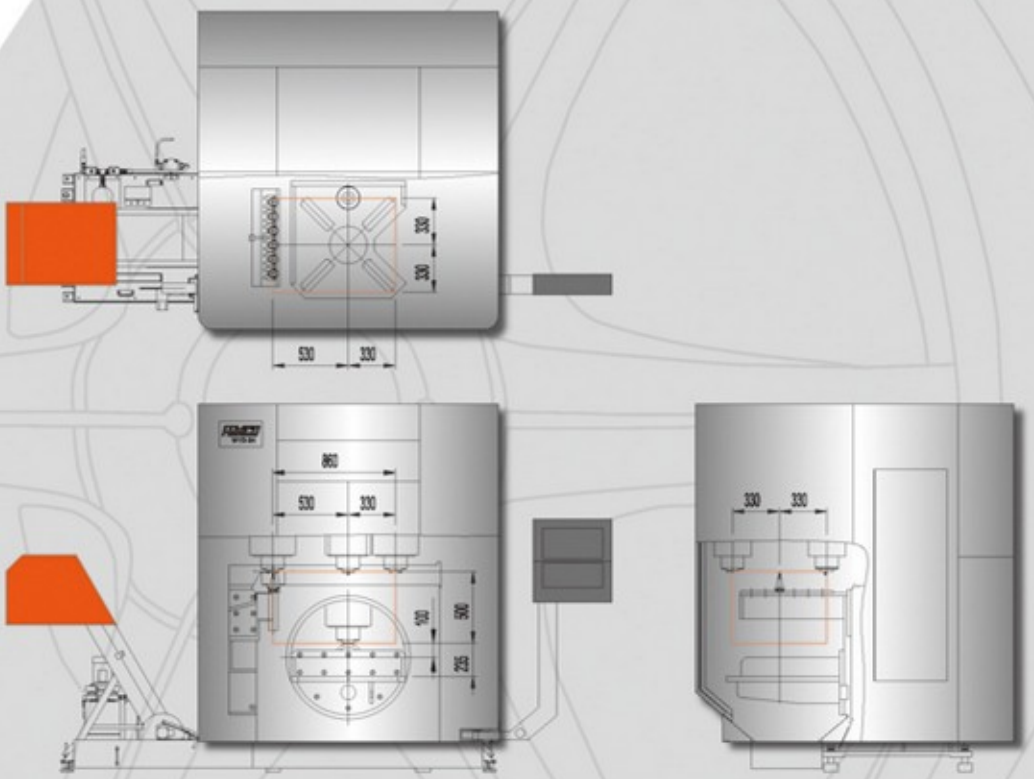
WORKING DIAGRAM

EXTERNAL DIMENSION & TOOL INTERFERENCE

EXTERNAL DIAGRAM



TOOL INTERFERENCE



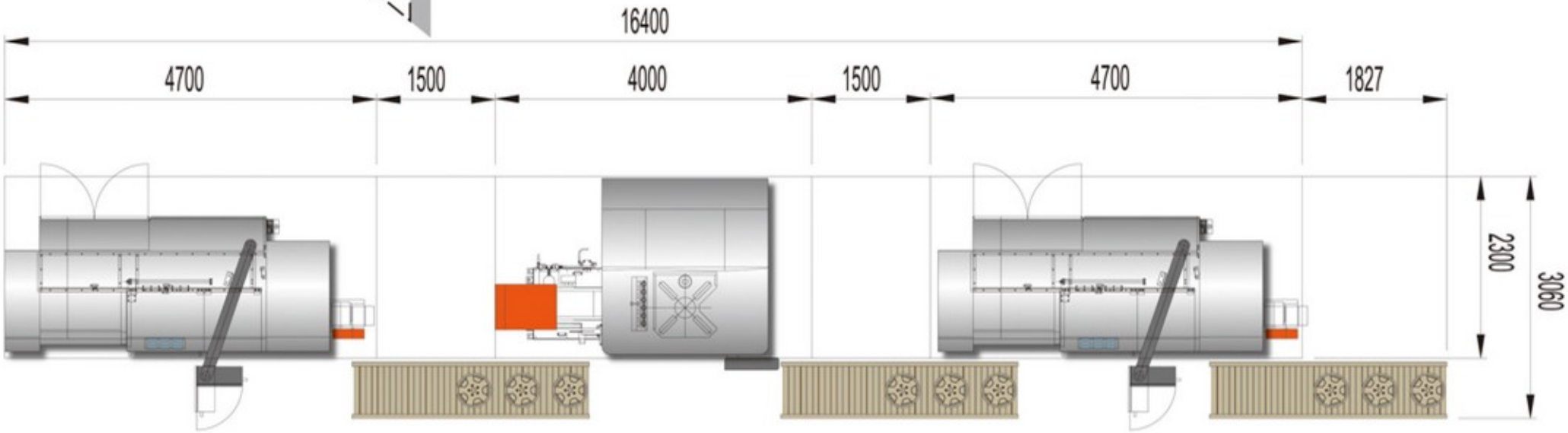
Production Line Example #1

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

WHL-55 +

WHL-55 +

WVD-24



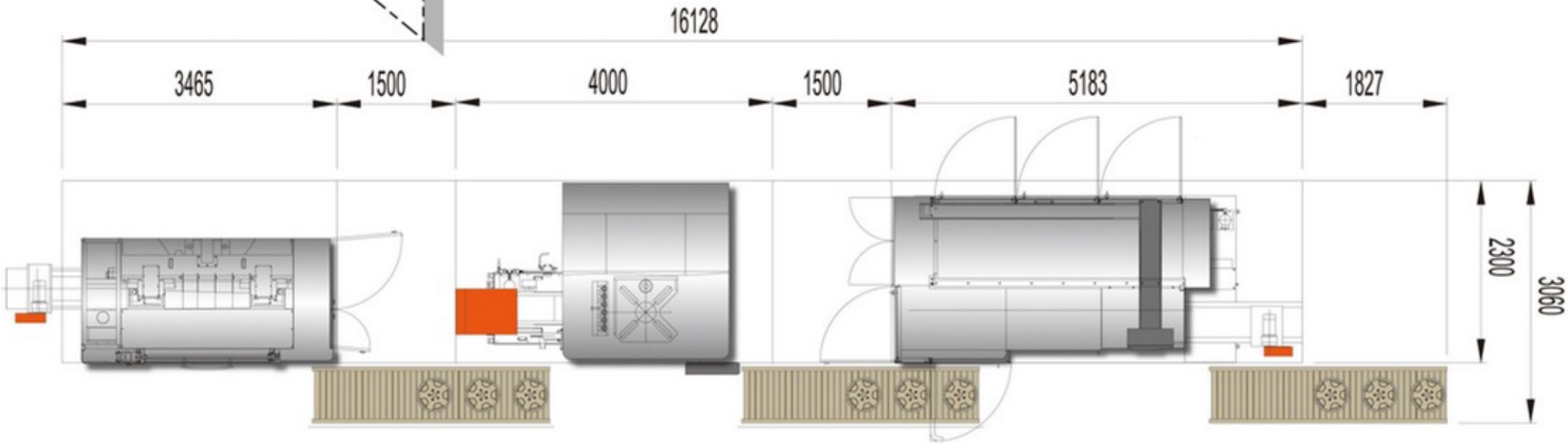
Production Line Example #2

- 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.

WVL-F24 +

WHL-68 +

WVD-24



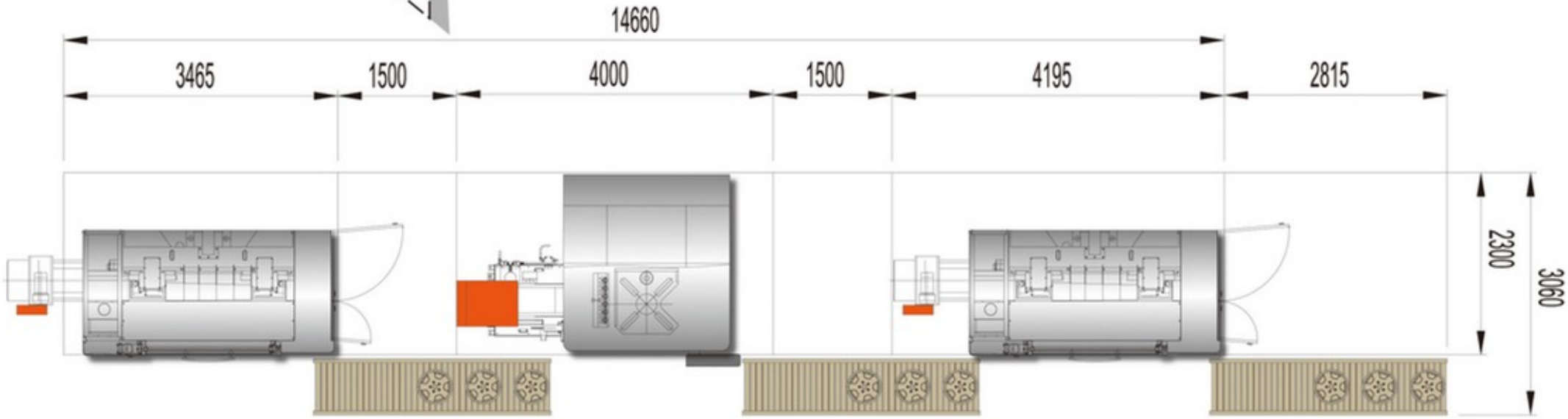
Production Line Example #3

- 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.

WVL-F24 +

WVL-F24 +

WVD-24

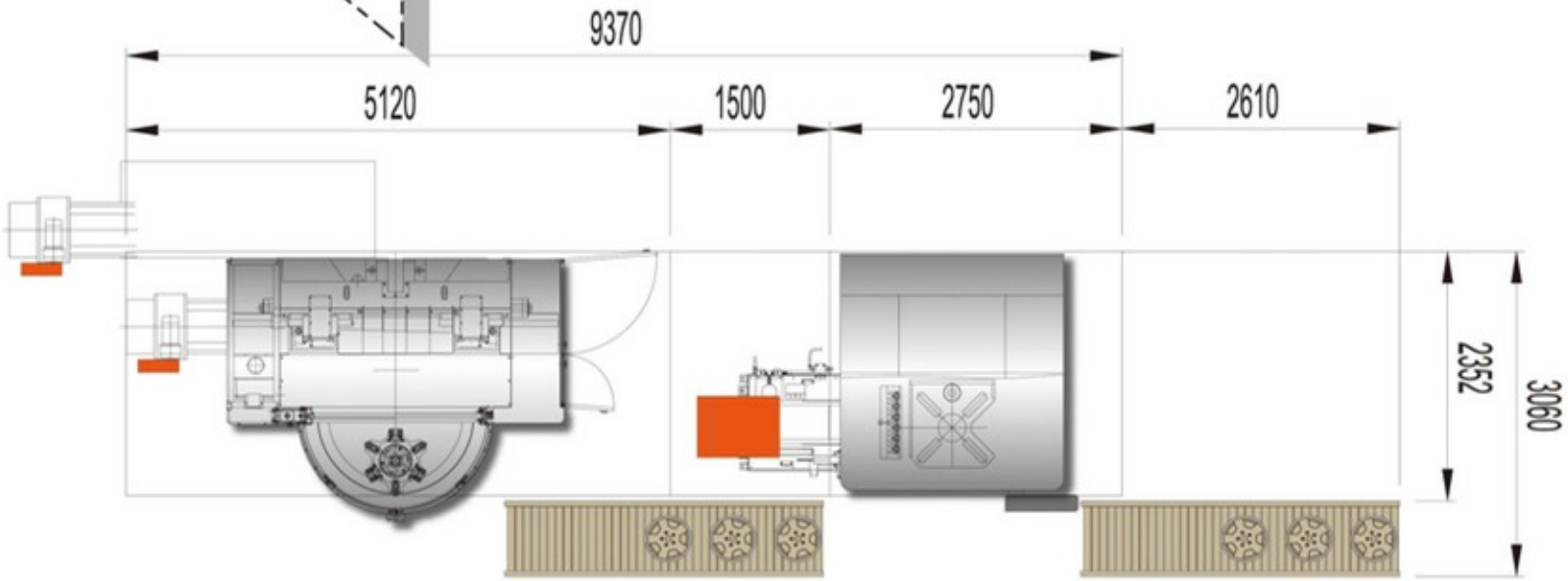


Production Line Example #4

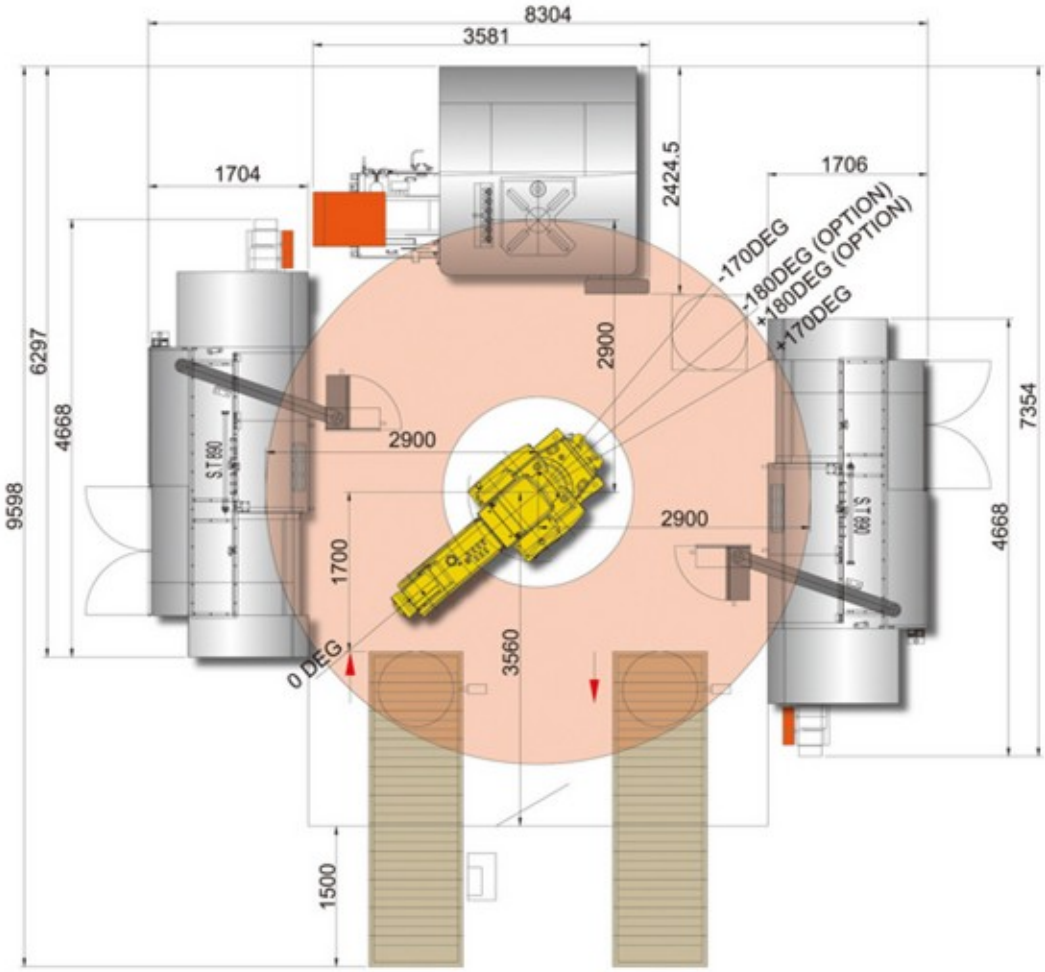
- All wheel sizes double-turret high efficiency wheel turning Lathe.
- Suitable for 13" to 26" large wheels with appropriate chuck.
- Minimum floor area; suitable for production of high variety and low quantity wheels.

WVL-F24A

WVD-24

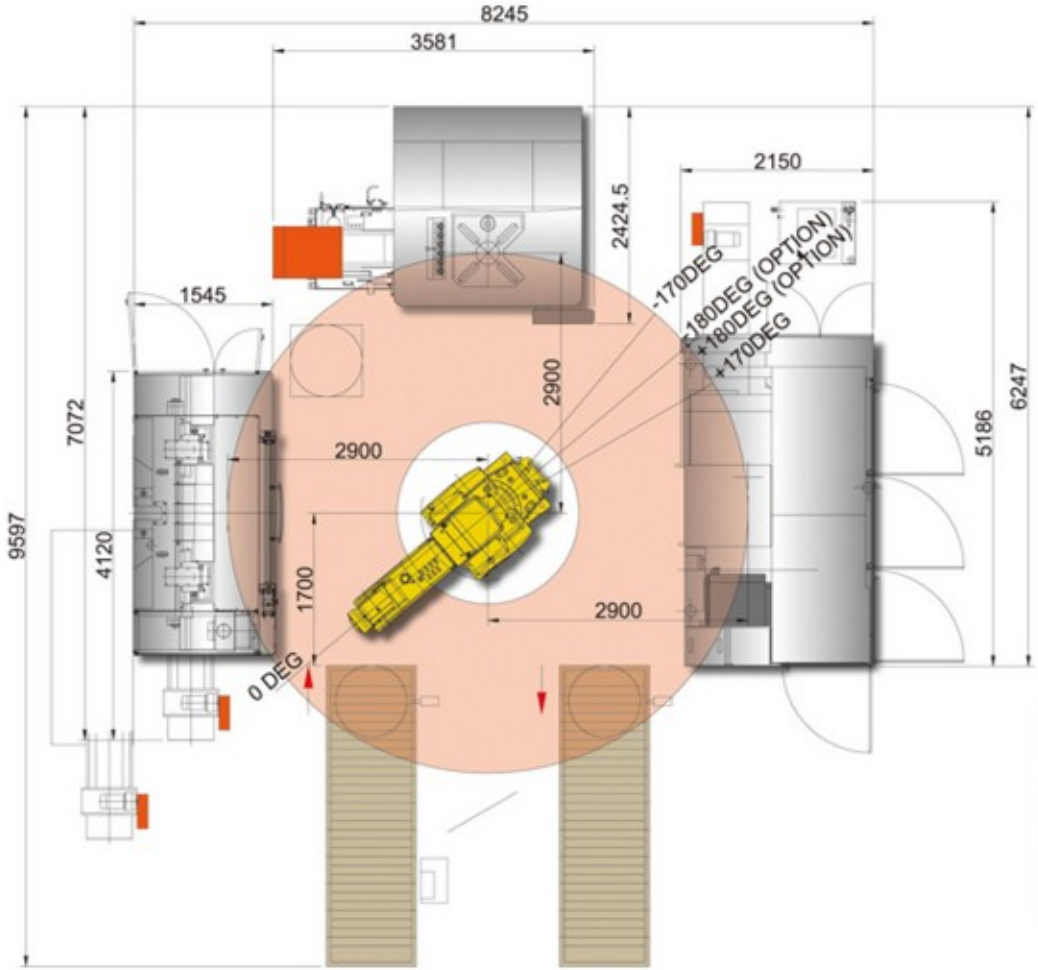


Automation Production Line Example #1



- 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.

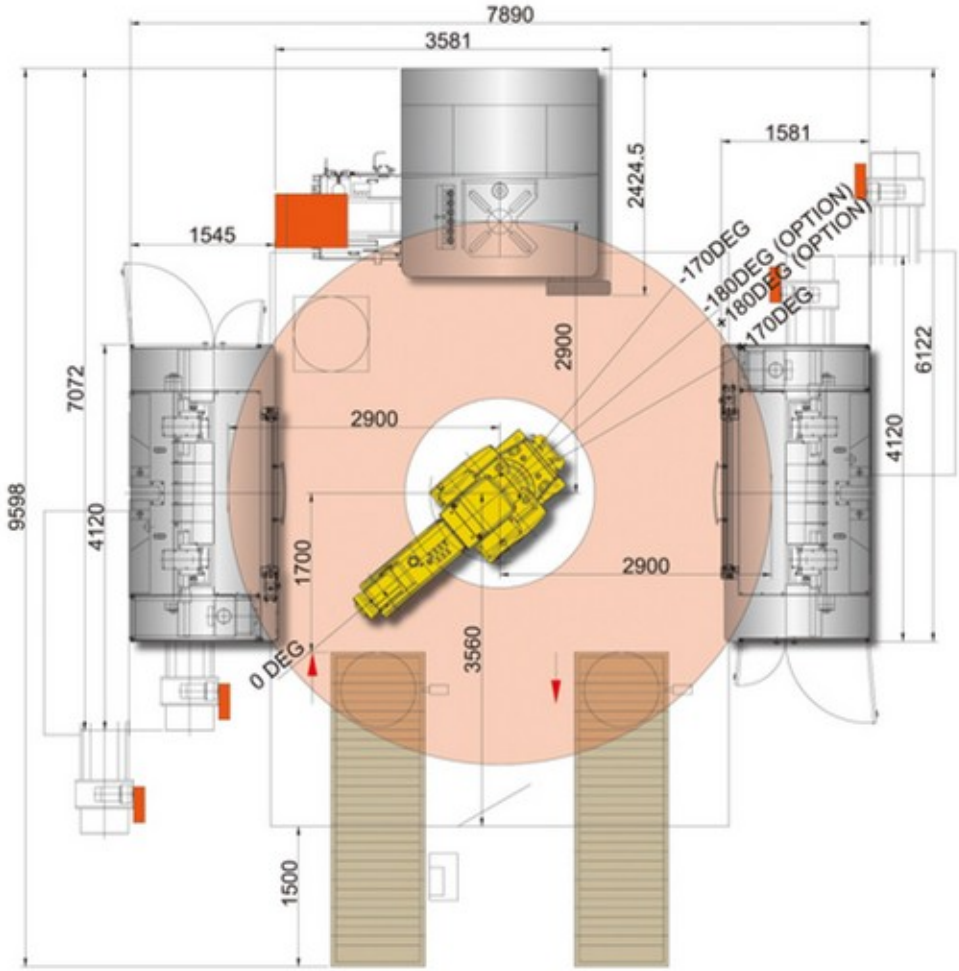
Automation Production Line Example #2



- 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.

WVL-F24 +  WHL-68 +  WVD-24

Automation Production Line Example #3



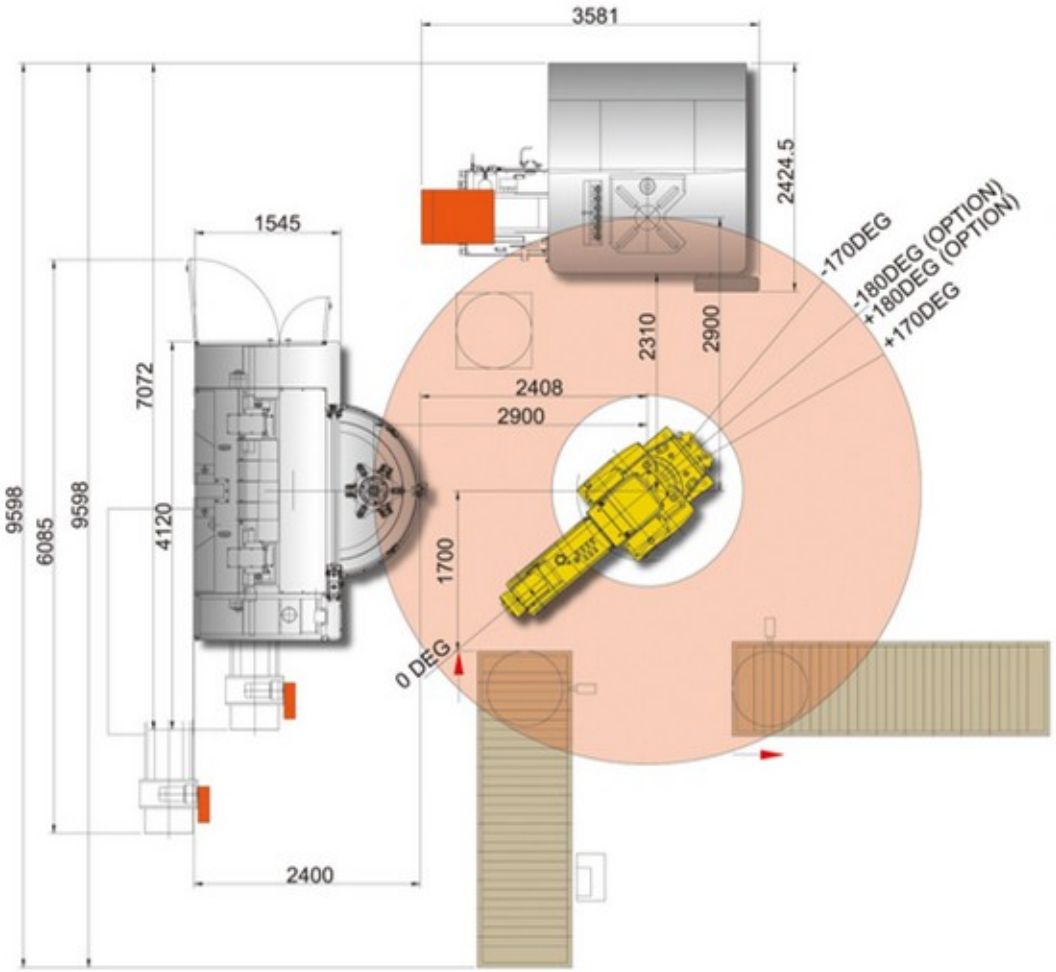
- Suitable for 13" to 26" wheel production lines.
- High production capacity, high efficiency, high stability dual turret vertical turning lathe.
- Reduces operator fatigue from loading/ unloading large wheels.
- Fully automated wheel production line.
- High capacity, high quality, high efficiency performance.


WVL-F24 +

WVL-F24 +

WVD-24

Automation Production Line Example #4



- 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.

WVL-F24A

+

WVD-24

SPECIFICATIONS

ITEM			WHL-55	WHL-55SP	WHL-68	WHL-68SP
PROCESSING CAPACITY	Max turning diameter	mm	Ø620	Ø620	Ø680	Ø680
	Max turning height	mm	—	—	—	—
	Max swing over bed	mm	Ø727	Ø727	Ø800	Ø800
	Standard wheel turning	inch	22	22	24	24
	Max wheel turning (optional)	inch	—	—	—	—
	Max wheel width	inch	12	12	12	12
	Workstation size	mm	—	—	—	—
	Max load	kg	—	—	—	—
STROKE	X-axis	mm	340	340	360	360
	Y-axis	mm	—	—	—	—
	Z-axis	mm	700	700	770	770
	Distance from spindle nose to workstation		—	—	—	—
SPINDLE	RPM	rpm	2500	2500	2500	2500
	Nose type		A2-8	A2-8	A2-8	A2-8
	Front end ID/OD	mm	Ø130/Ø200	Ø130/Ø200	Ø130/Ø200	Ø130/Ø200
	Rear end ID/OD	mm	Ø120/Ø180	Ø120/Ø180	Ø120/Ø180	Ø120/Ø180
	Motor type	FANUC	α30/6000i	B200M/3000i	α40/6000i	B200M/3000i
	Motor power (continuous/30min)	kW	30/37	37/45	37/45	37/45
	Max torque	Nm	303	306	286	306
TURRET	Tool number	POS	12/*option 8	12/*option 8	6/*option 12	6/*option 12
	OD turning tool size	mm	□25	□25	25x32	25x32
	ID boring tool size	mm	Ø50	Ø50	Ø63	Ø63
	Tool angle		—	—	—	—
	Tighten screw		—	—	—	—
	Max length	mm	—	—	—	—
	Max size	mm	—	—	—	—
	Max load	kg	—	—	—	—
	Tool switching time	sec	0.09	0.09	0.15/0.09	0.15/0.09
SERVO MOTOR	X-axis	kW	4	4	4	4
	Y-axis	kW	—	—	—	—
	Z-axis	kW	4	4	4	4
RAPID TRAVERSES	X-axis	mm/min	16000	16000	16000	16000
	Y-axis	mm/min	—	—	—	—
	Z-axis	mm/min	20000	20000	20000	20000
BALLSCREW OD AND THREAD	X-axis	mm	Ø36xP8	Ø36xP8	Ø36xP8	Ø36xP8
	Y-axis	mm	—	—	—	—
	Z-axis	mm	Ø50xP10	Ø50xP10	Ø50xP10	Ø50xP10
TRAVERSE RATE	Max turning traverse rate (X/Y/Z)	m/min	—	—	—	—
TURNING FLUID UNIT	Pump (submersion type) — Tool cooling	kW	1.1	1.1	1.27	1.27
	Pump (submersion type) — Turning washing	kW	0.55	0.55	1.1	1.1
	Water tank volume	Liters	315	315	800	800
HYDRAULIC UNIT	Pump	kW	1.5	1.5	2.2	2.2
	Oil tank volume	Liters	44	44	44	44
LUBRICATION UNIT	Pump	W	25	25	25	25
	Oil tank volume	Liters	2	2	4	4
MACHINE EXTERIOR (EXCLUDING CHIP CONVEYOR)	Width	mm	4105	4105	3697	3697
	Depth	mm	2150	2150	2230	2230
	Height	mm	2130	2130	2360	2360
MACHINE WEIGHT	Weight	kg	8500	8500	10000	10000
POWER CAPACITY		kVA	55	55	70	70
CONTROL SYSTEM			FANUC 0i-TC	FANUC 0i-TC	FANUC 0i-TC	FANUC 0i-TC

SPECIFICATIONS

ITEM			WVL-F24	WVL-F24A	WVD-24
PROCESSING CAPACITY	Max turning diameter	mm	Ø660	Ø660	—
	Max turning height	mm	335	300	—
	Max swing over bed	mm	Ø850	Ø830	—
	Standard wheel turning	inch	24	24	24
	Max wheel turning (optional)	inch	26	26	26
	Max wheel width	inch	12	10	12
	Workstation size	mm	—	—	712
	Max load	kg	—	—	300
STROKE	X-axis	mm	480(X1/X2)	480(X1/X2)	860
	Y-axis	mm	—	—	660
	Z-axis	mm	350(Z1/Z2)	350(Z1/Z2)	500
	Distance from spindle nose to workstation		—	—	235~735
SPINDLE	RPM	rpm	2000	2000	8000
	Nose type		A2-11	A2-11	ISO.40
	Front end ID/OD	mm	Ø160/Ø240	Ø160/Ø240	Ø70/Ø110
	Rear end ID/OD	mm	Ø140/Ø210	Ø140/Ø210	Ø70/Ø110
	Motor type	FANUC	α60/4500HVi	α60/4500HVi	αT8/12000iT
	Motor power (continuous/30min)	kW	60/75	60/75	7.5/11
	Max torque	Nm	622	622	70
TURRET	Tool number	POS	6+6	6+6	6
	OD turning tool size	mm	32x25*option □25	32x25*option □25	—
	ID boring tool size	mm	Ø63	Ø63	—
	Tool angle		—	—	ISO.40
	Tighten screw		—	—	7388/2-B
	Max length	mm	—	—	350
	Max size	mm	—	—	72
	Max load	kg	—	—	8
	Tool switching time	sec	—	—	—
SERVO MOTOR	X-axis	kW	4	4	3
	Y-axis	kW	4	4	3
	Z-axis	kW	4	4	4
RAPID TRAVERSES	X-axis	mm/min	36000	36000	48000
	Y-axis	mm/min	—	—	48000
	Z-axis	mm/min	36000	36000	48000
BALLSCREW OD AND THREAD	X-axis	mm	Ø36xP12	Ø36xP12	Ø36*P16
	Y-axis	mm	—	—	Ø36*P16
	Z-axis	mm	Ø36xP12	Ø36xP12	Ø36*P16
TRAVERSE RATE	Max turning traverse rate (X/Y/Z)	mm/min	10000	10000	10000
TURNING FLUID UNIT	Pump (submersion type)	Tool cooling kW	0.82	0.82	1.42
		Turning washing kW	0.82	0.82	—
	Water tank volume	Liters	450	450	200
HYDRAULIC UNIT	Pump	kW	1.5	—	—
	Oil tank volume	Liters	39	—	—
LUBRICATION UNIT	Pump	W	12	12	12
	Oil tank volume	Liters	4	4	4
MACHINE EXTERIOR (EXCLUDING CHIP CONVEYOR)	Width	mm	3200	3200	2100
	Depth	mm	1670	2480	2500
	Height	mm	3115	3000	2580
MACHINE WEIGHT	Weight	kg	9000	10000	6000
POWER CAPACITY		kVA	120	120	25
CONTROL SYSTEM			FANUC 0i-TTC	FANUC 0i-TTC	FANUC 0i-MD

Design and specifications are subject to change without prior notice.

選購附件

專業生產線規劃

可依各輪圈廠之不同產量需求、成本考量與生產條件等，提供生產線專業諮詢與規劃。

花崗岩頭座

採用花崗岩材質，能有效吸收主軸本身運轉中所產生的振動，使機器運作穩定度大幅提昇。

電動夾頭(WVL-F24A)

自行研發輪圈加工專用電動夾頭。

電氣箱空調

高性能冷卻系統，提供電控箱內部之恆溫運作。(依廠牌不同，價格有所變動)

變壓器

220V/380V/415V/440V

機械手臂

機械手臂與機台連線，建立自動化系統。

CE 安全護欄

選配附件

電動夾頭(WVL-F24A)	安全自動門
指爪夾頭(WHL)	電氣箱空調
工件計數器(外部)	三色警示燈
油水分離裝置	冷卻系統
加裝第4軸	機械手臂
變壓器	CE安全護欄

標準附件 & 選配附件

● 標準附件　● 選配附件

	ITEM	WHL-55	WHL-55SP	WHL68	WHL68SP	WVL-F24	WVL-F24A	WVD-24
1	6刀(刀塔)			●	●	● X2	● X2	●
2	8刀(刀塔)	●	●					
3	12刀(刀塔)	●	●	●	●			
4	油壓動力單元	●	●	●	●	●	●	
5	自動潤滑系統	●	●	●	●	●	●	●
6	搪刀刀座及襯套	●	●	●	●	●	●	
7	外徑刀座	●	●	●	●	●	●	
8	工作燈	●	●	●	●	●	●	●
9	水平調整螺栓及墊片	●	●	●	●	●	●	●
10	操作/保養/電控/零件手冊	●	●	●	●	●	●	●
11	夾頭吹清裝置						●	
12	工件計數器(內建)	●	●	●	●	●	●	●
13	冷熱交換機	●	●	●	●	●	●	●
14	切屑輸送機及集屑車	●	●	●	●	●	●	●
15	FANUC操作說明書	●	●	●	●	●	●	●
16	安全自動門	●	●	●	●	●	●	●
17	內藏式主軸馬達		●		●			
18	機外試轉裝置						●	
19	自動交換工作台(APC)						●	
20	C1級球導桿	●	●	●	●	●	●	
21	冷卻系統	●	●	●	●	●	●	●
22	變壓器	●	●	●	●	●	●	●
23	指爪夾頭(WHL)	●	●	●	●			
24	花崗岩頭座		●		●			
25	水平調整治具	●	●	●	●	●	●	●
26	油水分離裝置	●	●	●	●	●	●	●
27	工件計數器(外部)	●	●	●	●	●	●	●
28	三色警示燈	●	●	●	●	●	●	●
29	電動夾頭(WVL-F24A)						●	
30	電氣箱空調	●	●	●	●	●	●	●
31	加裝第4軸(加工氣孔或加工胎壓檢測安裝孔及背面加工作業)							●
32	無人化自動機械手臂	●	●	●	●	●	●	●
33	CE安全護欄	●	●	●	●	●	●	●
34	專業生產線規劃	●	●	●	●	●	●	●

規格若有變更，恕不另外通知。

Quality & Productivity Specialist

QUALITY ASSURANCE

Far East Machinery has standardized the processing and testing procedures for each specif c 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.

Toll Free Service Line：

0800-233166

ISO 9001 BSMI REGISTERED

CE TÜV certified

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FATEK

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06.09.10' V1.0