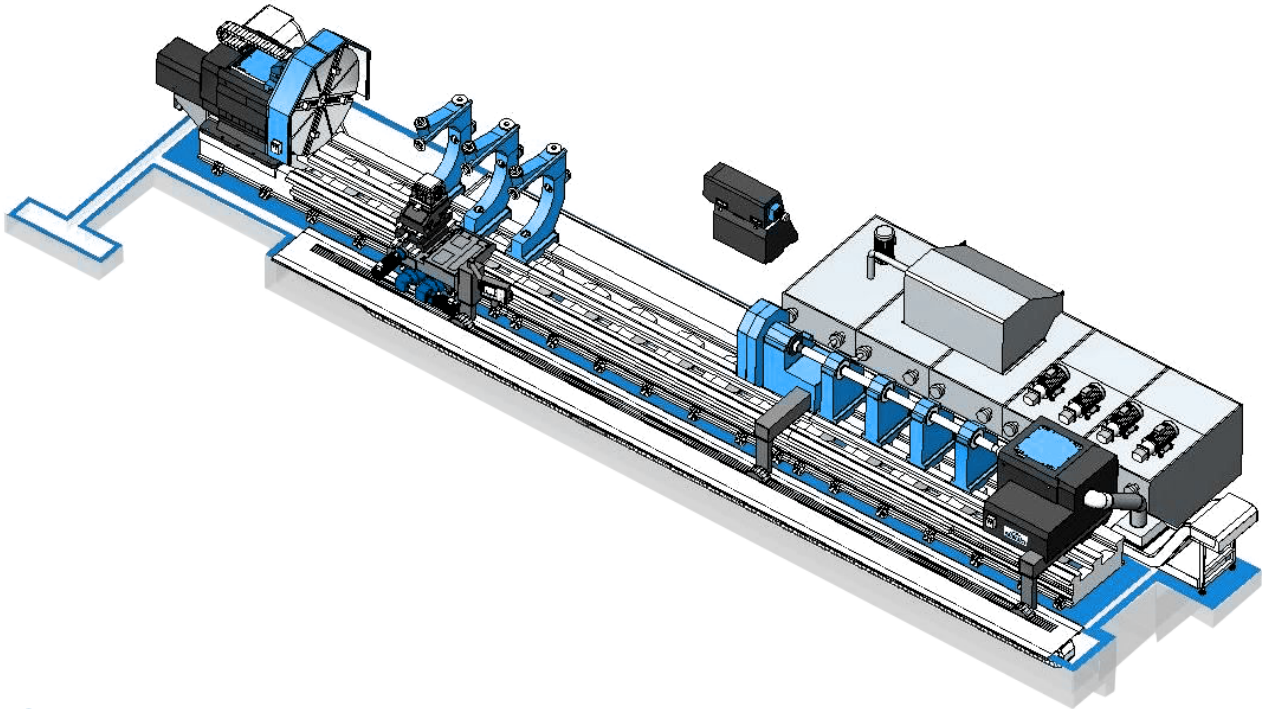


WT2 160 / WT2 200

HORIZONTAL DEEP DRILLING LATHES



BASIC PARAMETERS

Max. torque on spindle	40,000 Nm
Max. weight of workpiece clamped in rests	40 tonnes
Max. length of drilled holes	8,000 mm
Max. diameter of drilled holes	800 mm

The WT2 series (**WT2 160 / WT2 200**) horizontal deep drilling lathes are the machine tools based on the TCF series horizontal lathes equipped with devices that facilitate drilling and machining of deep holes with the use of highly-efficient, specialized tools.

PURPOSE

The WT2 series horizontal deep drilling lathes are designed for deep hole drilling, external and internal turning, reaming and contour thread cutting.

CONTROL SYSTEM

The application of the state-of-the-art CNC system allows for automatic, precise and efficient workpiece machining according to a program.

MAIN FEATURES

- 3-guideway bed made of high-grade cast iron of enhanced mechanical properties, standardized, suitably ribbed, rested on foundation along its entire length
- Carriage travels along two guideways that guarantee precise guidance
- Bed and carriage guideways hardened to 45 HRC
- Longitudinal and crosswise travel are realized along guideways lined with an anti-friction material and are assisted by central lubrication system
- Headstock body made of high-grade cast iron of enhanced mechanical properties
- Spindle rested on bearings of increased accuracy class
- All shafts and gears carburized, hardened and ground
- Drilling tool coolant supply head installed on an independent floor
- Drilling carriage with tool bar clamp with sleeves for different diameters
- Dampening rests for the for tool bars to compensate for vibrations during drilling
- Tool liquid cooling system for drilling with a 10,000 l tank

STANDARD EXECUTION

- Swing over bed \varnothing 1,600 mm (WT2 160)
- Turning length 3,000 to 20,000 mm, every 1,000 mm
- Carriage rested on two guideways
- Power of main drive motor 71 kW
- Range of spindle rotation rates 0.5 to 250 rpm
- Power supply 3 \times 400 V / 50 Hz
- SIEMENS SINUMERIK 840D sl CNC system
- Automatic 4-position tool head
- Z-axis travel drive by backlash-free rack-and-pinion transmission
- Crosswise travel (X axis) by ball screw and nut transmission
- Automatic change of range of headstock rotation rates
- Central lubrication system controlled by CNC
- Drilling tailstock with fixed tool
- Tool coolant head carriage with housing
- Tailstock with quill \varnothing 280 mm with spindle, clamping force indicator, workpiece elongation compensation, with automatic quill stroke, travel along bed, automatic clamping against bed
- Dead centre - 2 pcs
- Adjusting wedges for leveling and foundation bolts
- CE mark
- Operations and maintenance manuals
- CNC operation and programming documentation

OPTIONAL EXCUTION

- Swing over bed \varnothing 2,000 mm (WT30-200)
- Spindle with nose A1-20
- Range of spindle rotation rates 0.6 to 315 rpm
- CNC system GE FANUC 0i-TD with Manual Guide with basic turning functions and power of main drive motor of 71 kW
- Automatic turret with live tools (CNC drive) and controlled C axis realized by main drive motor
- Automatic turret with live tools (CNC drive), Y axis (CNC drive) and controlled C axis realized by main drive motor
- Double lamellar cross-slide
- Linear measuring scales for Z and X axes
- Tool and workpiece measuring system
- Air conditioning for electrical cabinet
- Steel guideways of bed hardenend to 56 HRC and ground
- Other according to agreement

ADDITIONAL EQUIPMENT

- Steady rest \varnothing 100 to 400 mm
- Steady rest \varnothing 250 to 600 mm
- C-type steady rest \varnothing 150 to 700 mm
- C-type steady rest \varnothing 400 to 800 mm
- C-type steady rest \varnothing 700 to 1,000 mm
- Open-type steady rest \varnothing 1,100 to 1,600 mm (does not pass the carriage)
- 4-jaw chuck \varnothing 1,600 mm
- 5.5-kW grinding attachment for automatic 4-position turret
- 10-kW milling head for automatic 4-position turret and controlled C axis by main drive motor
- 10-kW milling head with Y axis for automatic 4-position turret and controlled C axis by main drive motor



BASIC TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS (WT2 SERIES)			
Model		WT2 160	WT2 200
Machine tool code			
Range of diameter of drilled holes	Ø mm	120 to 800	
Max. length of drilled holes	mm	8,000	
Swing over bed	Ø mm	1,600	2,000*
Swing over carriage	Ø mm	1,300	1,600*
Distance between centres (every 1,000 mm)	mm	3,000 to 25,000	
Max. weight of workpiece clamped:			
• in centres	kg	30,000	
• in 1 rest	kg	35,000	
• in 2 rests	kg	40,000	
• in chuck	kg	4,000	
Headstock			
Spindle nose	size	A1-20	
Range of continuously variable rotation rates	rpm	0.5 to 250 / 0.6 to 315*	
Number of ranges of rotation rates	quantity	3	
Power of main drive motor	kW	75 / 100*	
Max. torque on spindle	Nm	40,000 / 50,000*	
Chuck diameter	Ø mm	1,250 / 1,600*	
Carriage			
Rapid travel in Z axis	mm/min	6,000	
Rapid travel in X axis	mm/min	4,000	
Longitudinal travel	mm	Turning length	
Crosswise travel	mm	700	
Size of X-axis travel drive ball screw	mm	80 x 10	
Z-axis drive		Rack-and-pinion; backlash-free	
Tool system		Automatic 4-pos. turret	
Tailstock			
Quill diameter	Ø mm	280	
Quill stroke	mm	200	
Drilling tailstock with fixed tool			
Longitudinal travel	mm	Drilling length	
Z-axis travel drive		Rack-and-pinion	
Max. axial force	N	100,000	
Max. hole diameter for drilling bar	mm	540	
Rapid feed rate	mm/min	4,000	
Range of feed rates	mm/min	3 to 1,000	
Drilling tailstock with live tools*			
Spindle nose		A1-20	
Range of continuously variable rotation rates	rpm	1 to 300	
Number of ranges of rotation rates	quantity	2	
Power of main drive motor	kW	75	
Max. torque on spindle	Nm	40,000	
Longitudinal travel	mm	Drilling length	
Max. hole diameter for drilling bar	mm	304.8	
Rapid feed rate	mm/min	4,000	
Range of feed rates	mm/min	3 to 1,000	
Machine tool overall dimensions and weight, approximately			
Length	mm	350+turning length	
Width (including hydraulic equipment)	mm	5,800	
Height	mm	2,300	
Weight for 3,000-mm turning length	kg	33,000	34,000
* optional execution		© RAFAMET S.A. – All Rights Reserved	