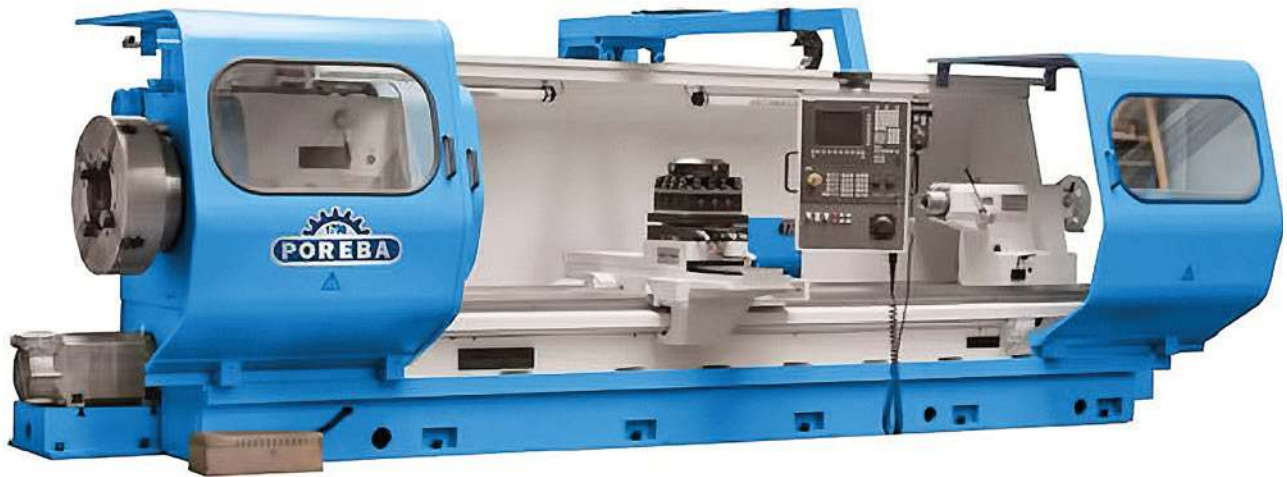


TRP 63 / TRP 72 / TRP 93 / TRP 110

CENTRE LATHES



i BASIC PARAMETERS

Max. torque on spindle:	5,600 Nm
Max. weight of workpiece between centres:	6 tonnes
Turning length:	1,000 to 16,000 mm

In their basic version the **TRP** series (**TRP 63 / 72 / 93 / 110**) horizontal centre lathes – thanks to the innovative mechanical solutions and the advanced control systems – are the multi-purpose lathes that guarantee productive rough and finish machining.

↪ PURPOSE

The TRP series lathes are designed for workpiece machining in the range of turning in accordance with their specifications, especially for machining of large-size shafts. When delivered with special equipment they can operate as horizontal machining centres with turning, drilling and milling capabilities. They can be equipped with an automatic turret, tool attachments, tool and workpiece measuring systems, controlled C axis, workpiece steady rests.

⊞ CONTROL SYSTEM

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

MAIN FEATURES

- Bed made of high-grade cast iron of enhanced mechanical properties, standardized, suitably ribbed, rested on foundation along its entire length
- Longitudinal travel along two V-block guideways that guarantee precise guidance
- Bed and carriage guideways hardened up to minimum 45 HRC
- Longitudinal and crosswise travels on an anti-friction material and assisted by central lubrication system
- Headstock housing made from cast iron of enhanced mechanical properties
- Spindle rested on bearings of increased accuracy class
- All shafts and gears carburized, hardened and ground

STANDARD EXECUTION

- Swing over bed \varnothing 650 mm (TRP 63)
- Turning length 1,000 to 8,000 mm, every 1,000 mm
- Power of main drive motor 12 kW (continuous operation)
- Spindle bore \varnothing 105 mm
- Spindle rotation rates 2 to 2,000 rpm
- Power supply 400 V / 50 Hz
- SIEMENS 840D sl Operate CNC system
- Automatic 8-position turret
- Ball screw and nut transmissions for X- and Z-axis travels for turning length of 1,000 mm to 4,000 mm; backlash-free rack-and-pinion transmission for Z-axis travel for turning length of 5,000 to 8,000 mm
- Automatic change of range of headstock rotation rates
- Central lubrication system controlled by CNC
- Chip conveyor
- Cooling system
- Lighting of working zone
- Tailstock with quill \varnothing 100 mm with Morse no. 5 taper
- Live centre with Morse no. 5 taper – 1 pcs
- Machining zone guards
- Manual clamping of the tailstock with the carriage
- Control panel movable along the entire length of the machine tool
- Adjusting wedges for leveling and foundation bolts
- CE mark
- Operations and maintenance manuals
- CNC operation and programming documentation



OPTIONAL EXECUTION

- Swing over bed Ø 740 mm (TRP 72)
- Swing over bed Ø 930 mm (TRP 93)
- Swing over bed Ø 1,100 mm (TRP 110)
- Power of main drive motor 30 kW (TRP 93, TRP 110)
- FANUC 0i-TD with Manual Guide CNC system
- Tailstock with quill Ø 100 with automatic quill stroke and travel along bed (TRP 63, TRP 72)
- Tailstock with quill Ø 100 with automatic quill stroke, clamping against bed and travel along bed (TRP 63, TRP 72)
- Tailstock with quill Ø 160 mm with tool spindle, automatic quill stroke and travel along bed (TRP 93, TRP 110)
- Tailstock with quill Ø 160 mm with tool spindle, automatic quill stroke, clamping against bed and travel along bed (TRP 93, TRP 110)
- Tailstock with quill Ø 130 mm with Morse no. 6 taper (TRP 93, TRP 110)
- Live centre with Morse no. 6 taper – 1 pcs. (TRP 93, TRP 110)
- Tool holder with 1 quick-change tool
- Tool holder with 4 quick-change tools
- Automatic turret with live tools and controlled C-axis realized by the main drive motor
- Automatic turret with 4 positions in vertical plane
- Spindle bore Ø 140 mm / rotation rates 2 to 1,700 rpm
- Linear measuring scales for X and Z axis
- Chip pan in place of the chip conveyor
- Other according to agreement



ADDITIONAL EQUIPMENT

- Roller steady rest \varnothing 20 to 160 mm (TRP 63, TRP 72)
- Roller steady rest \varnothing 40 to 400 mm (TRP 93, TRP 110)
- Roller steady rest \varnothing 160 to 380 mm (TRP 63, TRP 72)
- Roller steady rest \varnothing 400 to 600 mm (TRP 93, TRP 110)
- Roller follow rest \varnothing 20 to 200 mm (TRP 63, TRP 72)
- 3-jaw self-centering chucks with manual fixing according to customer needs (\varnothing 400 mm, \varnothing 500 mm; \varnothing 630 mm – TRP 63, TRP 72; \varnothing 800 mm - TRP 93, TRP 110)
- 4-jaw independent chuck according to customer needs (\varnothing 500 mm, \varnothing 630 mm – TRP 63, TRP 72, TRP 93, TRP 110; \varnothing 800 mm – TRP 93, TRP 110; \varnothing 1,000 mm - TRP 110)
- Hydraulic chucks according to customer needs (\varnothing 500 mm, \varnothing 630 mm - TRP 63, TRP 72; \varnothing 800 mm - TRP 93, TRP 110)
- Pneumatic chucks according to customer needs (\varnothing 500 mm, \varnothing 630 mm - TRP 63, TRP 72; \varnothing 800 mm - TRP 93, TRP 110)
- Boring clamp \varnothing 110/700 mm (TRP 63, TRP 72)
- Boring clamp \varnothing 130/1,000 mm (TRP 93, TRP 110)
- Boring clamp \varnothing 160/1,250 mm (TRP 93, TRP 110)
- Burnishing attachment
- Spindle reducing sleeve \varnothing 105 mm / Morse no. 5 taper (TRP 63, TRP 72)
- Spindle reducing sleeve \varnothing 95 mm /Morse no. 6 taper (TRP 93, TRP 110)
- Dead centre with Morse no. 5 taper (TRP 63, TRP 72)
- Live centre with Morse no. 5 taper (TRP 63, TRP 72)
- Live centre with Morse no. 6 taper for tailstock \varnothing 130 mm (TRP 93, TRP 110)
- Tool holders according to customer needs
- Bed inspection bridge
- Spindle test shaft



BASIC TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS (TRP SERIES)			
Model		TRP 93*	TRP 110*
Machine tool code			
Swing over bed	∅ mm	930*	1.100*
Swing over carriage	∅ mm	570*	740*
Turning length (every 1,000 mm)	mm	2,000 to 16,000*	
Max. weight of workpiece clamped in:			
• centres	kg	6,000*	
• 1 steady rest	kg	7,600*	
• 2 steady rests	kg	9,800*	
• chuck	kg	1,000*	
Headstock			
Spindle bore diameter	∅ mm	95* / 204* / 300* / 370*	
Spindle nose	size	A1-11* / A1-15* / A1-20* / A2-20*	
Range of continuously variable rotation rates	rpm	4 to 800* / 2 to 550* / 2 to 450* / 2 to 315*	
Number of ranges of rotation rates	quantity	2*	
Power of main drive motor	kW	30* / 28* / 22*	
Max. torque on spindle	Nm	5,600* / 5,900* / 4,700*	
Carriage			
Rapid travel in Z and X axes	mm/min	4,000*	
Longitudinal travel	mm	Distance between centres	
Crosswise travel	mm	580*	
Size of X-axis ball screw	∅ mm	40 x 5*	
Size of X-axis ball screw (for turning length 2,000 to 4,000 mm)	∅ mm	63 x 10*	
Z-axis travel (for turning length 5,000 to 16,000 mm)		Backlash-free rack-and-pinion	
Tool system		Automatic 8-position turret / other*	
Tailstock			
Quill diameter	∅ mm	160*	
Quill stroke	mm	270*	
Internal taper	size	Morse no. 6*	
Machine tool overall dimensions and weight, approx.			
Length	mm	3,270 + turning length*	
Width	mm	2,735*	
Height	mm	2,200*	
Weight (for 1,000 mm of turning length)	kg	9,400*	10,700*
Increase in weight for 1,000 mm of turning length	kg	950*	
Control system		SINUMERIK 840D / FANUC 0i-TD*	
* optional execution		© RAFAMET S.A. – All Rights Reserved	