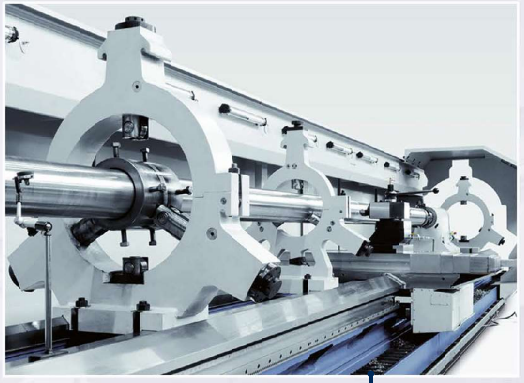
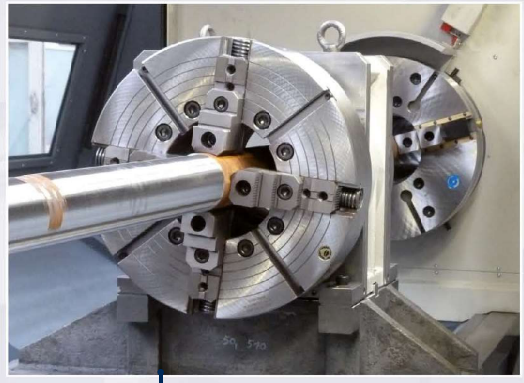
TUR 1150/1350/1550 MN SERIES

TUR MN lathe is designed for machining heavy components up to 1,550 mm in diameter. This series offers manufacturers heavy duty machining with the guarantee of durability, precision and stability.

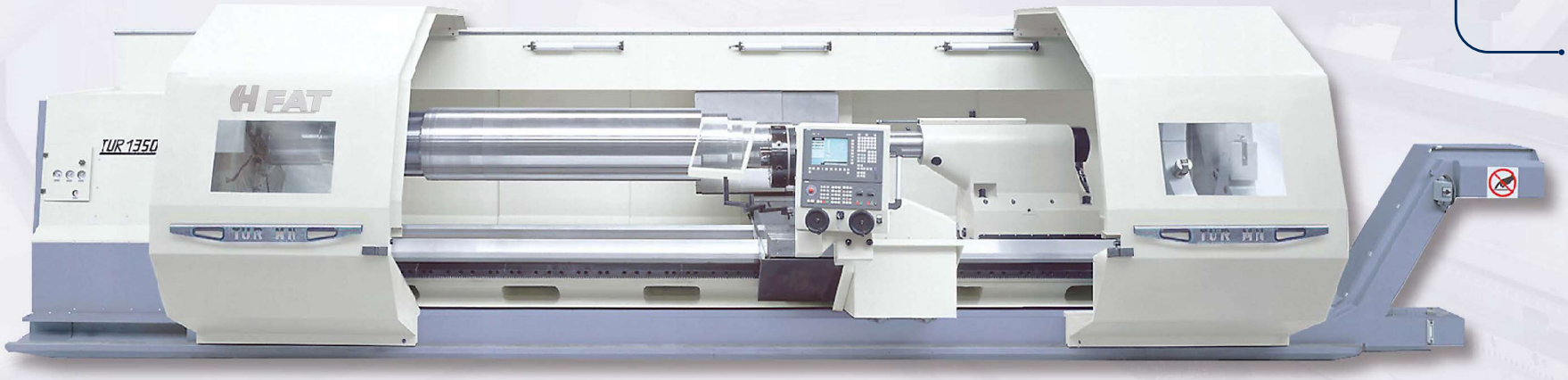


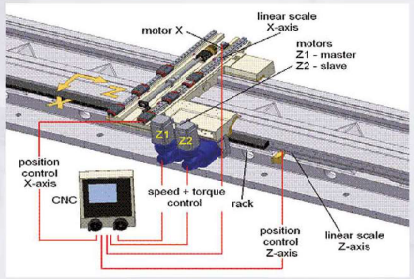


A wide range of rests is available to suit different machining applications, including: manual, hydraulic self-centering, follow rests, C-form, ring type and other.

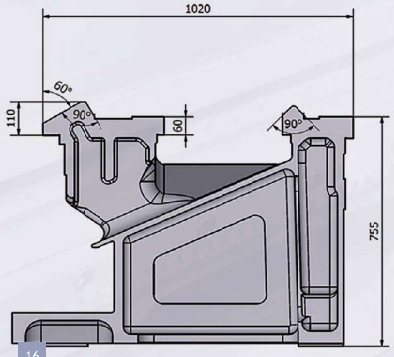
CARRIAGE

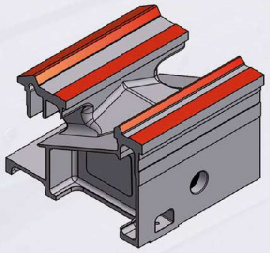
A „Master-Slave" drive system is used on lathes with machininglengths longer than 4M, using an automated backlash reduction system and linear scales to achieve very high accuracy. The carriage is driven by two synchronized motors, a gearbox and a rack. Lathes which have shorter machining length are equipped with a precise ball screw.





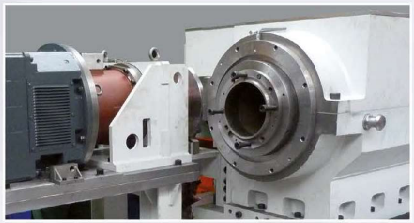
Advantages of "Master – Slave" solution: - automatic backlash elimination - high stiffness - maintenance free and no readjustment needed.





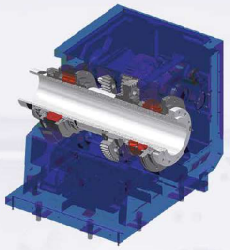
Special, mono-block type bed made of cast iron is a rigid structure which perfectly absorbs vibrations. Extra wide, deeply hardened and ground guide ways ensure precise machining of huge work pieces and excellent surface quality. All of the above guarantee long-life accurate operation of the lathe.

The body of the headstock, made of a single, ribbed, cast iron, was designed using the finite element method (FEM). This ensures the elimination of the weakest points of the structure and provides increased strength and rigidity of the structure. The headstock is subjected to a series of tests, both at the stage of making the casting, as well as in the subsequent stages of processing and final assembly.

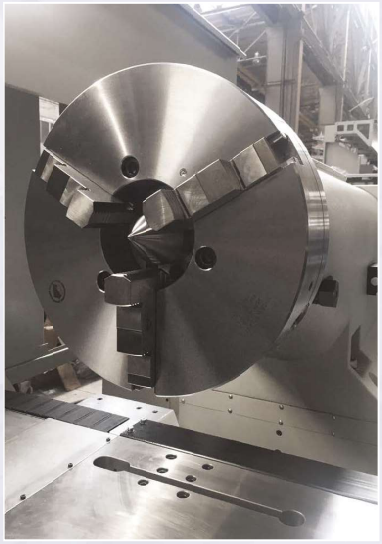


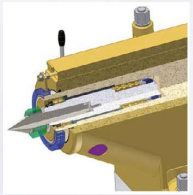
Special headstock with high powerful motor and additional planetary gearbox. With this solution it is possible to obtain a torque of up to 32 000 Nm

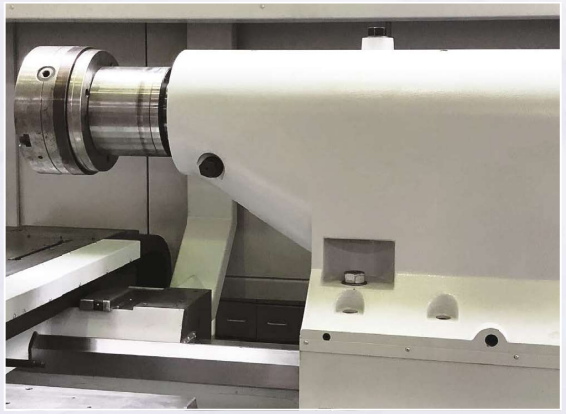
Dual nose spindle with a 450 mm diameter bore



A robust tailstock with an extended stroke allows the full working range (between tailstock housing and carriage) to be used. Due to this solution, heavy duty machining of any work piece held in the tailstock center is possible. The hydraulically operated quill with a diameter 220 mm (8,7") is hardened and ground. The Quill has a built-in bearing sleeve with taper socket MT6 for dead center. Quick coupling between the tailstock and cross slide makes positioning time short. Optionally, the tailstock can be equipped with an independent drive.





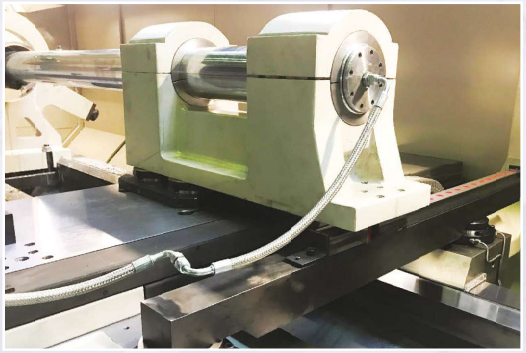


Tailstock quill with possibility mounting the chuck

STANDARD EQUIPMENT:

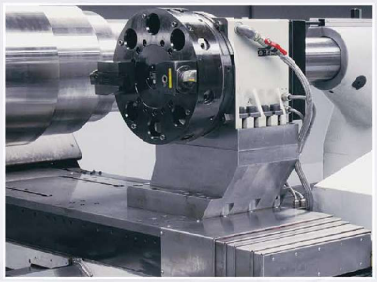
- Siemens Sinumerik One
- Third MPG portable handwheel
- Automatic programmable gearbox
- Tool post MULTIFIX D2 (without tool holders)
- Complete installation of coolant supply
- One movable front door (connected to cross slide)
- Sliding rear guard
- Hydraulic tailstock quill with built-in bearings system for dead center MT6
- Hydraulic aggregate
- Central lubrication system
- Front chip conveyor
- Direct linear scale for „Z" axis for machines with a turning length over 5,000 mm
- Absolute encoders of axial motors
- USB port
- Annual Siemens service contract

Zero Point Clamping Modules - system for quick change of different tooling solutions



Special execution:
turning diameter increased to 1.400 mm (55") above the carriage. Workpiece weight up to 20 000 kg (44 000 lbs).
A heavy tailstock with 280 mm (11") quill diameter.
Milling unit with automatic Y axis, mounted on the turret

OPTIONAL EQUIPMENT:



8-position tool turret

Milling units with automatic Y axis and double spindle, mounted on 4-position head turret

Disc turret for powered VDI60 tools

Standard Multifix D2 toolpost

Parat toolpost with optional Capo seat

C axis with driven tools:
- driven by main motor in combination with hydraulic brake and spindle encoder
- full contouring C-axis driven directly by separate servo motor

Disc turret with integrated Y-axis

Grinding unit

Double scrappers with compressed air for special guide ways security against grinding powder

TECHNICAL PARAMETERS: TUR MN 1150/1350/1550					
		TUR 1150 MN	TUR 1350 MN	TUR 1550 MN	
CAPACITY					
Distance between centres	mm	2.000 – 4.000 – 6.000... – 16.000			
Swing over bed	mm	1150	1350	1550	
Swing over saddle	mm	700	900	1.100/1.300	
Max. weight between between chuck and tailstock (without steadies)	kg	12.000 (20.000 option)			
Max. weight of workpiece in chuck only	kg	3.000			
HEADSTOCK					
Number of spindle ranges		2			
Spindle speed ranges (standard machine with 140 mm spindle bore)	rpm	I: 2–225, II: 180-1.000			
Main drive motor power (100%)	kW	41			
Max. Turning torque	Nm	8.250; (optional to 28.000)			
Standard spindle bore	mm	140			
Spindle nose	DIN55026	A2-15			
Spindle bore	mm	140			
Front bearings	mm	250			
Special execution of headstock:	mm	220	320	360	450
Spindle nose	DIN 55026	A2-15	A2-20	A2-20	A2-28
Max. speed	rpm	1000	500/700	500	350
SUPORT					
Cross slide travel X-axis	mm	650	750	775	
Rapid travel Z-axis	m/min	8			
Rapid travel X-axis	m/min	10			
Feed force transverse	kN	25			
Feed force longitudinal	kN	55			
Ball screw Z-axis (2m, 4m and 5m between centers)	mm	80			
Z-axis drive on machines with turning lengths over 5 m	-	Gear rack with two motors in system „master &slave"			
Ball screw X-axis	mm	40			
Manual Tool post Type Multifix	Size	D2			
TAILSTOCK					
Quill diameter	mm	220 (280 option)			
Quill taper	MT	6			
Quill stroke	mm	300			
GENERAL					
Width of bed	mm	1.020			
Width of machine	mm	755			
Total length of machine					
2.000 mm	mm	5.200			
4.000 mm	mm	7.200			
6.000 mm	mm	9.200			
16.000 mm	mm	19.200			
Width of machine	mm	3.300			
Width of machine for transport	mm	2.350			
Height of machine	mm	2.550	2.550	2.750	
Weight of machine					
2.000 mm	kg	16.500	17.300	18.100	
4.000 mm	kg	19.000	19.800	20.600	
6.000 mm	kg	21.500	22.300	23.100	
16.000 mm	kg	34.000	34.800	35.600	

* The data in the table refer to the basic version of the lathe. They may differ depending on the version of the machine and equipment additional. In particular, the tool system, special covers and doors, type of tailstock, handle, steady rests and other options.