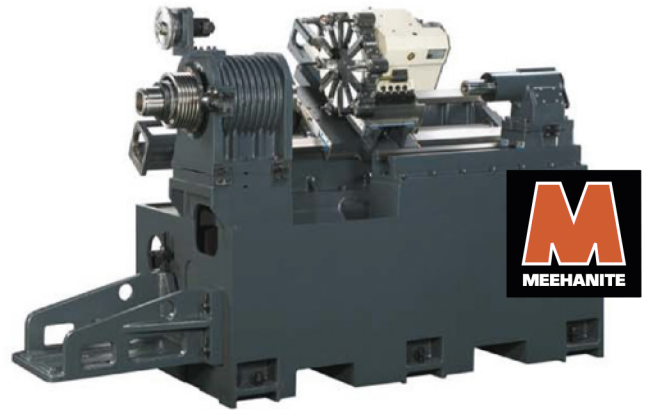


TECHNICAL DATASHEET

Prime Turn 520 / 520 MC

CNC TURNING LATHE





Performance and Better Surface Quality

Rigid, one-piece Meehanite cast-iron-bed. Prime Turn 520/520 MC turning center construction provides the ultimate in machine tool accuracy and reliability.

A 30° slant bed design for our Prime Turn 520/520 MC gives CNC lathe its exceptional cutting stability facilitating optimal chip removal. Cutting reaction forces are minimized resulting in a high degree of precision. Both X and V axes on CNC lathe turning centers are supported by oversized hardened and ground box type ways which facilitates exceptionally fast cutting rates of 20/m/min on the X-Axis and 20 m/min in the Z-Axis.

Standard Configuration

- ✓ Control FANUC Oi
- ✓ Auto Lubrication System
- ✓ Cooling System
- ✓ Coolant Tank Guard
- ✓ Block of Base
- ✓ Chip Conveyor
- ✓ Fluid Bearing Way System
- ✓ Hard Jaw (1-Set)
- ✓ Hydraulic Adjustment System
- ✓ Foot Switch for Spindle clamp/unclamp
- ✓ Heat Exchanger for Electrical Cabinet
- ✓ Lubrication Monitoring System
- ✓ Tool Box with Hard Tool
- ✓ Work Lamp
- ✓ Hydraulic Tailstock & Quill

Optional Configuration:

- Control Siemens 828D or Mitsubishi M70
- Air Chuck
- Automatic gantry loading and unloading system
- High Pressure coolant pump and large capacity tank
- High Pressure Coolant Through Turret 300 psi
- High Pressure Coolant Through Turret 1000 psi
- Bar feeder interface
- Collect chuck
- Heavy Parts Loader
- Parts catcher
- VDI-30 live turret: 12-station turret
- 20 hp spindle motor (for non-live turret)
- Self-centering steady rest SMW autoblock
- Tool presetter
- Torque limiter clutch

Headstock and Spindle

An unrivaled fast, rigid and accurate spindle, the Prime Turn 520/520 MC spindle is housed in a cast iron headstock that is designed to easily handle the spindle drive capacity. The lathe's headstock has thermal deformation prevention design for more accuracy. Relying on the latest technology provided by Fanuc, the Prime Turn 520/520 MC uses Fanuc's brush-less spindle motor with a dual winding to achieve its high and low torque ranges. This spindle design allows for flexibility for different feeds and speeds needed when cutting a variety of materials. The Prime Turn 520/520 MC spindle generates excellent surface finishes and extraordinary metal removal rates. High accuracy P4 grade angular contact thrust spindle bearings ensure precision turning during long-term operations.

*Specifications above are subject to change without notice, no liability for printing errors. The machine can be shown with optional equipment.

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Technical Specifications

Technical specifications	Prime Turn 520	Prime Turn 520 MC
Machine capacity		
Swing over bed	mm	Ø520
Swing over carriage	mm	Ø450
Max. workpiece diameter	mm	Ø430 Ø400
Max. workpiece length	mm	650
Main spindle chuck size	mm	Ø200
Through bar capacity	mm	Ø51
Main spindle		
Spindle speed	min ⁻¹	5000
Power	kW	11 / 15 (opt)
Spindle nose		A2-6
Travels & Feeds		
X-axis travel	mm	225 210
Z-axis travel	mm	750 720
Feed X-axis	m/min	20
Feed Z-axis	m/min	20
Tool changer		
Number of tool positions	pc.	12 static block tool 12 VDI-30 BMT-45 (opt.)
Tool diameter	mm	25

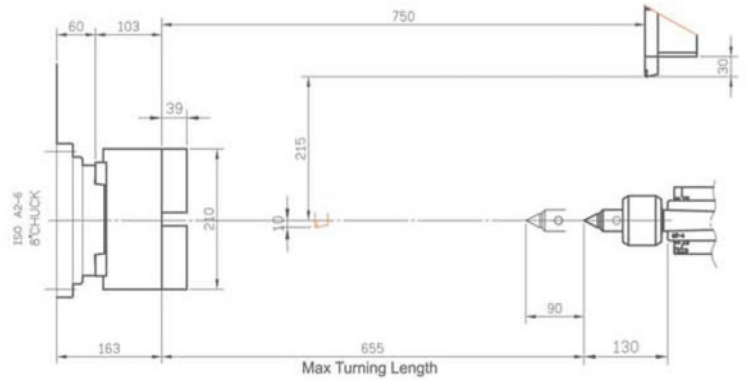
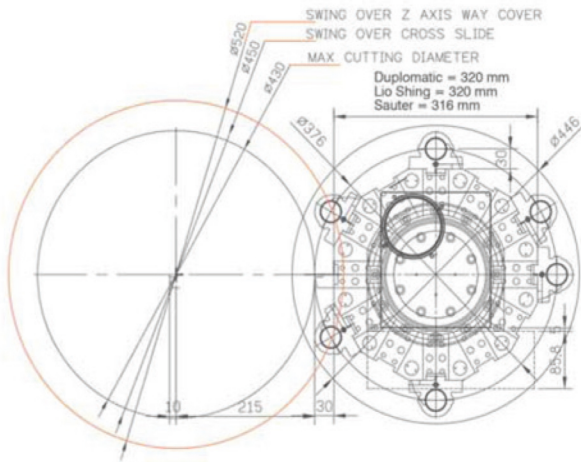
Technical specifications	Prime Turn 520	Prime Turn 520 MC
Shank size	mm	20
Power tool changer	kW	- 3,5
Max. speed for driven tools	min ⁻¹	- 5000
Change time (neighbor tools, modified)	sec.	0,8 Hydraulic driven 0,15 Servo driven
Tailstock		
Quill	mm	Ø60
Tailstock travel	mm	90
Tailstock taper	mm	MT4
Accuracy		
Positioning accuracy	mm	±0.005/500
Repeatability	mm	±0.003
Weight & Dimensions		
Tank capacity	l	250
Dimensions (LxW)	mm	2775x1672x1700
Weight	kg	3800
Item-No.		1630240 1630241

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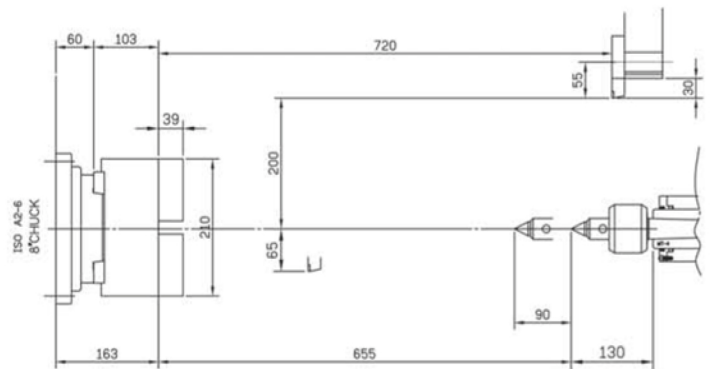
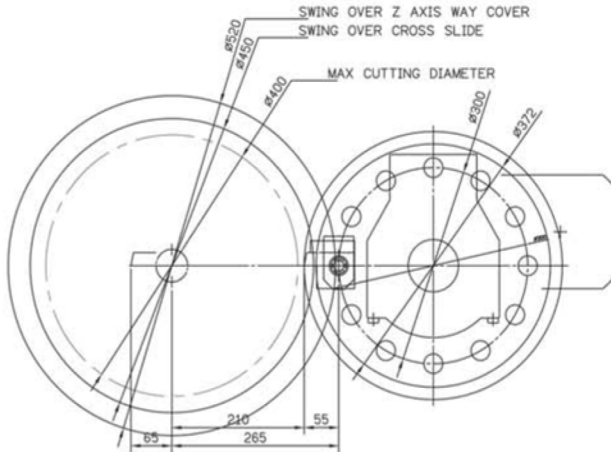
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Turret Interference Drawing

HYDRAULIC TURRET
12T



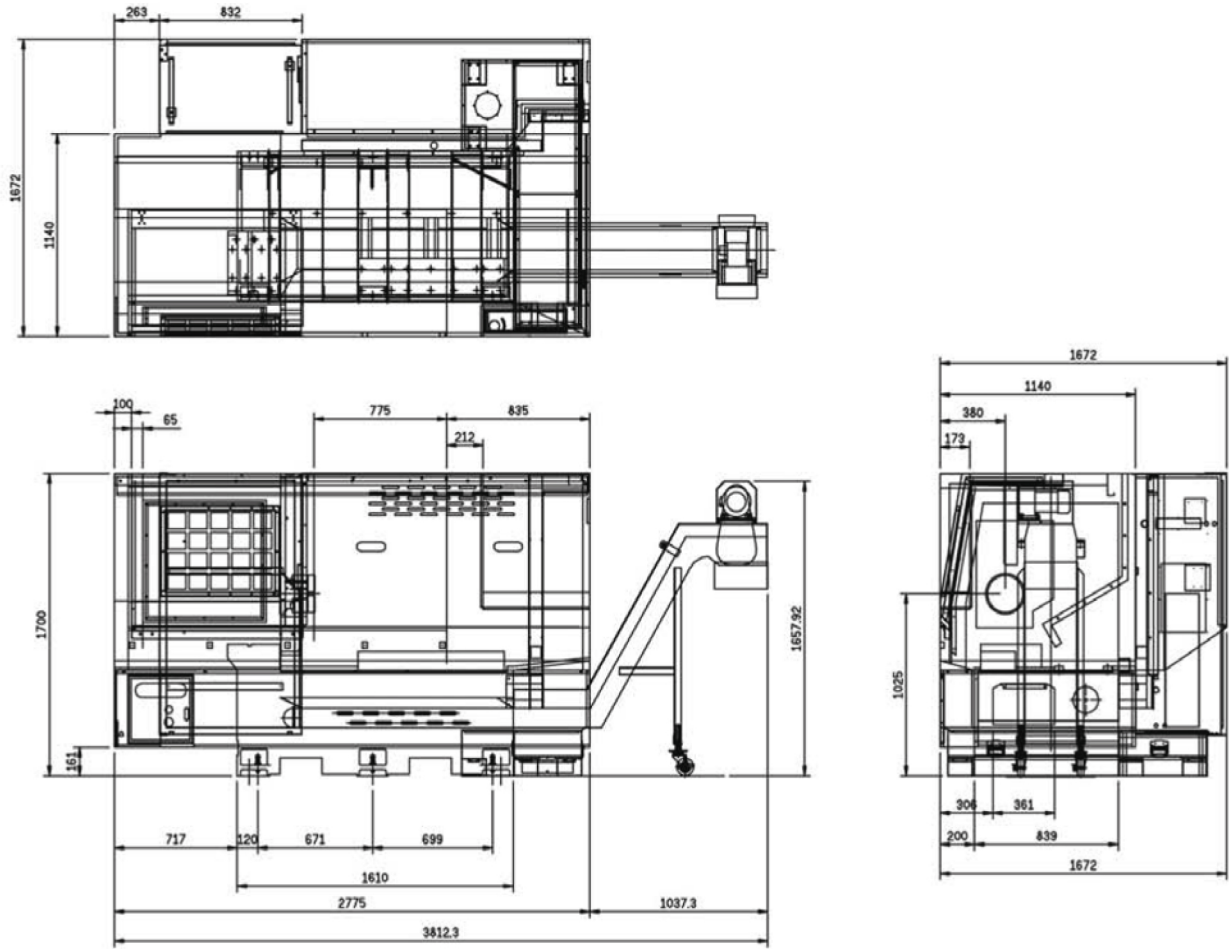
LIVE TURRET AXIAL
VDI30 PCD=300



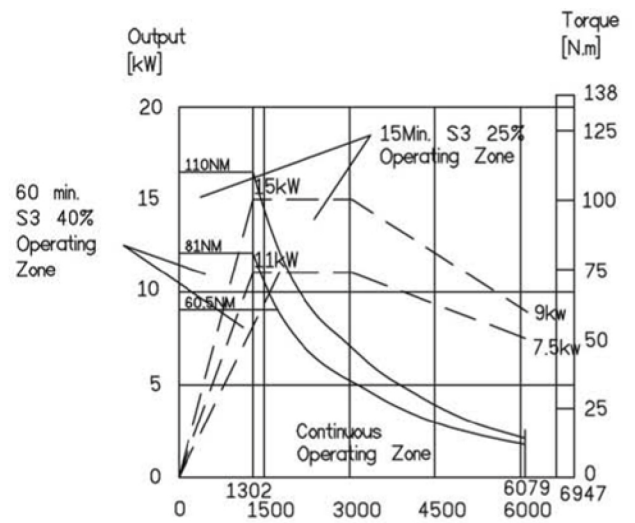
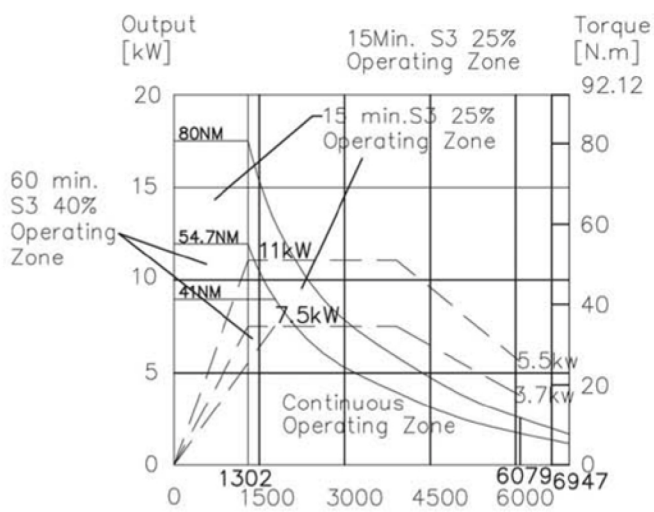
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Machine Dimensions



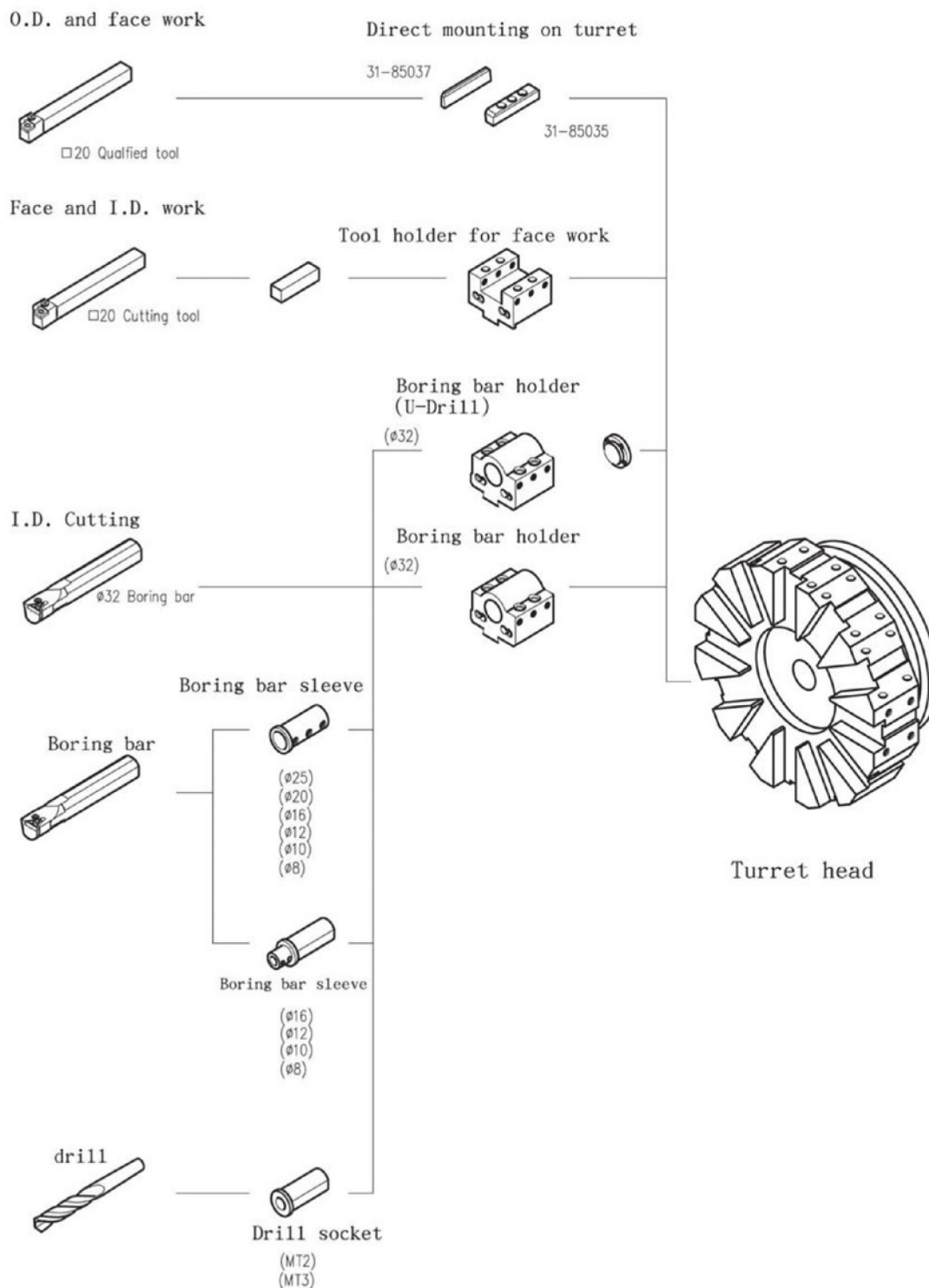
Torque Charts



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Turret Tooling



Static Block Tool

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