

MT-412/415 Series

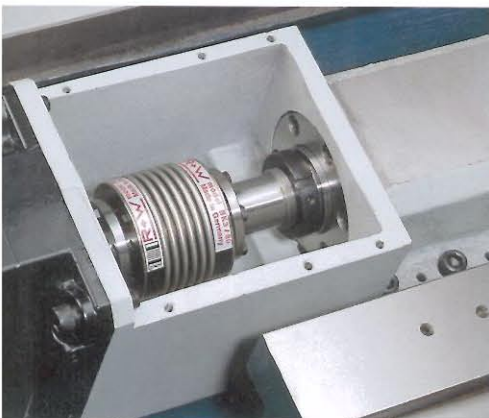
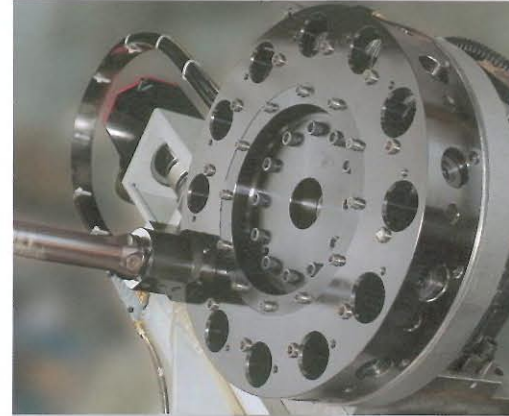


ECOCA MT-412/415 Series

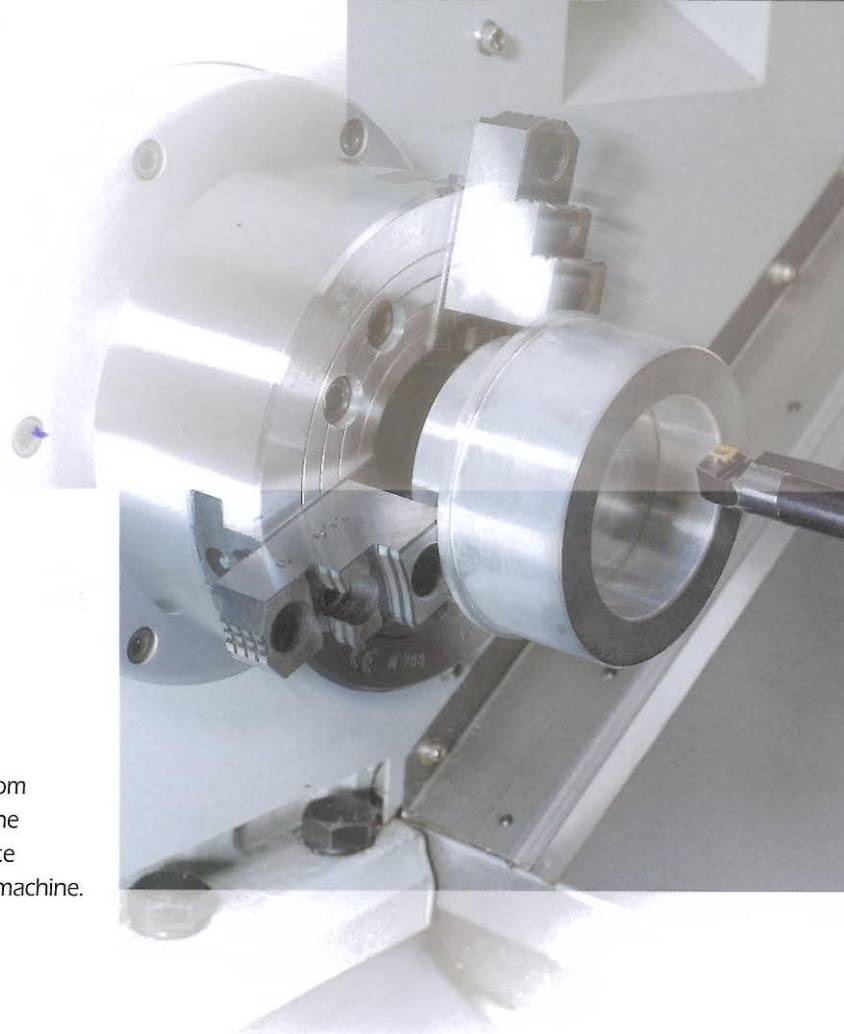
Offering the most solid base to process up to 2000mm turning length, bar capacity up to 117.5mm, and swing up to 720mm over bed, the EcoCA MT 4 series provide the best possible results for CNC lathe operation. The sturdy 30 degree slant bed provides a vibration free operation to the machine. The ergonomically placed spindle, tailstock, and turret provide the operation with the optimal working condition.

Fast and accurate servo-driven turrets. (Optional VDI turret)

The rigid mechanical configurations yield a very high level of reliability and easy access to the machine operation and maintenance. The EcoCA MT 4 series is a very fine integration of high quality and affordable prices.



Flexible coupling from Germany ensures the smooth and accurate movements of the machine.



1 Machine bed

- 30 degree slant bed design for easy operation and easy chip removal.
- Cast iron bed with optimally designed ribs with integral stiffness provides an very strong rigidity.

2 Spindle headstock

- Big diameter bearing (up to 160mm) provides high rigidity.
- High-resolution encoder mounted on spindle to provide accurate C axis positioning.
- C axis with continuous indexing.
- Up to 117.5mm bar capacity (MT-415).

3 Guide ways

- Square hard rails provide the massive rigidity required for heavy cutting and maintained smooth cutting surface results.
- Double supported ballscrews
- Direct-driven servo motors are used for axial movements.

4 Turret

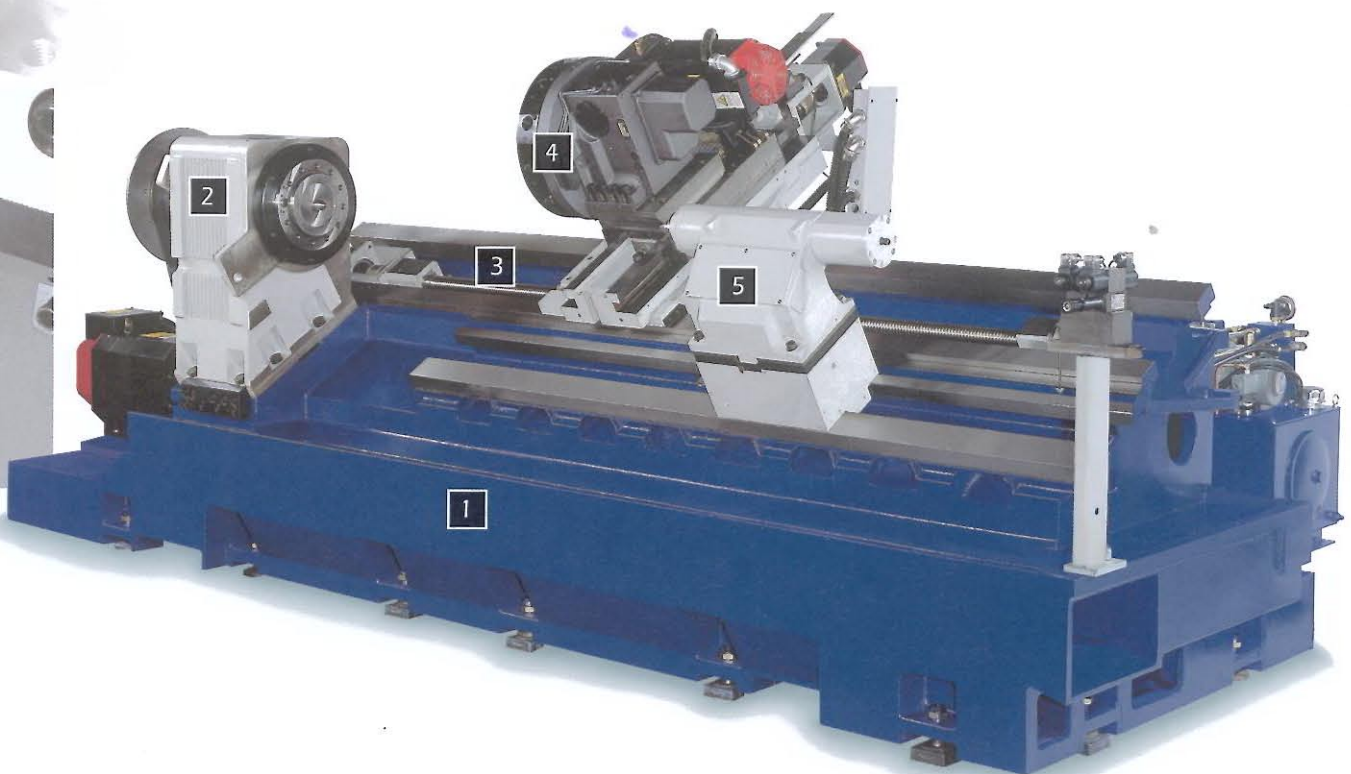
- 12-station turret
- Servo turret (2li TB control) or hydraulic turret (0i TC) is offered for users as an alternative choice.
- Large disc is equipped for easy tool set up.

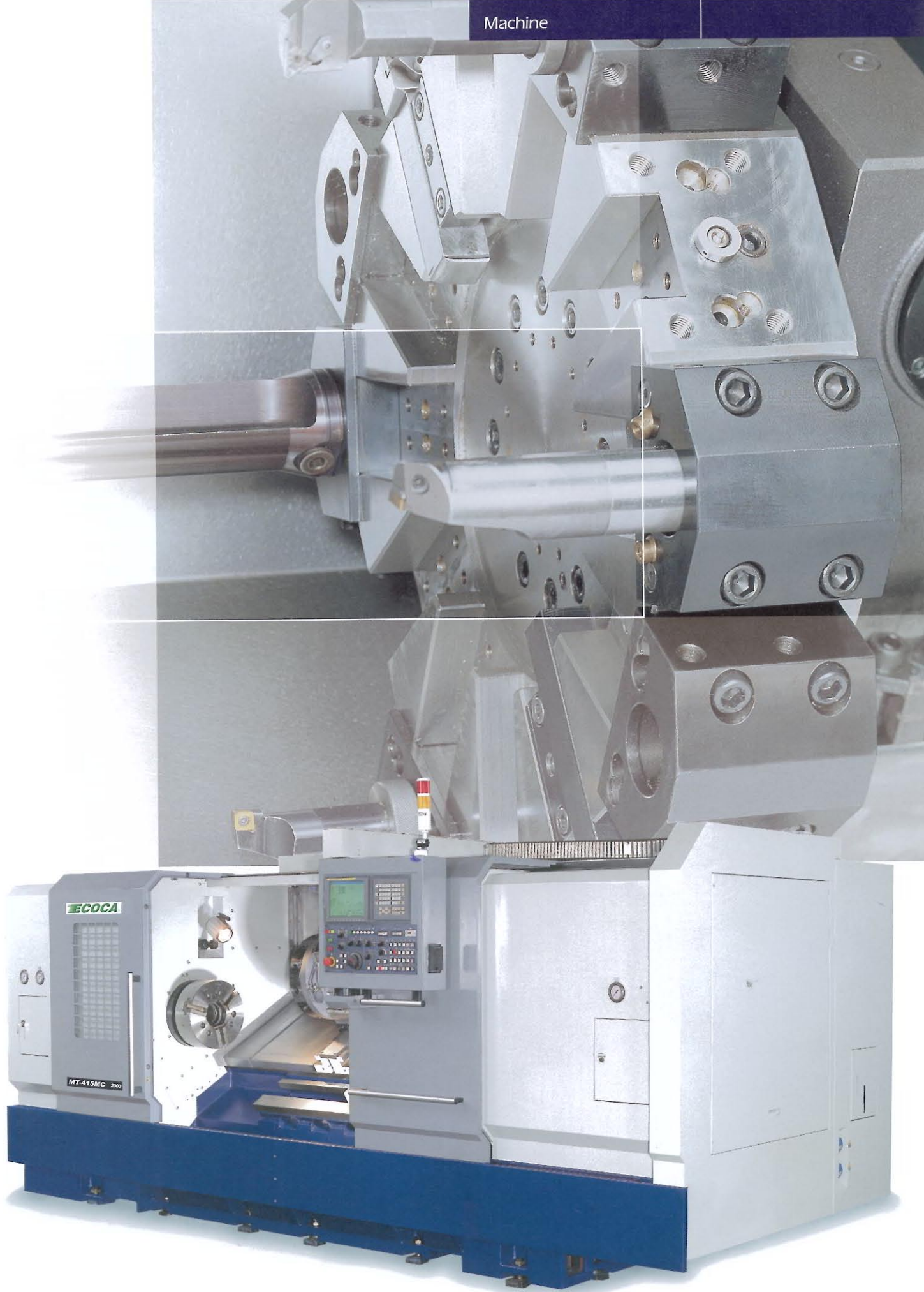
5 Tailstock/sub spindle

- One-piece structure on the machine structure to provide massive rigidity.
- Programmable tailstock available as an option.
- When equipped with sub spindle, the main and sub spindles can be synchronized for work piece handover from main to sub spindle.

Coolant and hydraulic system

- Large coolant tank
- Internal coolant supply through turret disc.
- Coolant pumps from GRUNDFOS.
- PLC controlled chip conveyor.
- DUPLOMATIC hydraulic valves.





A successful machine with an advanced control system: FANUC i series

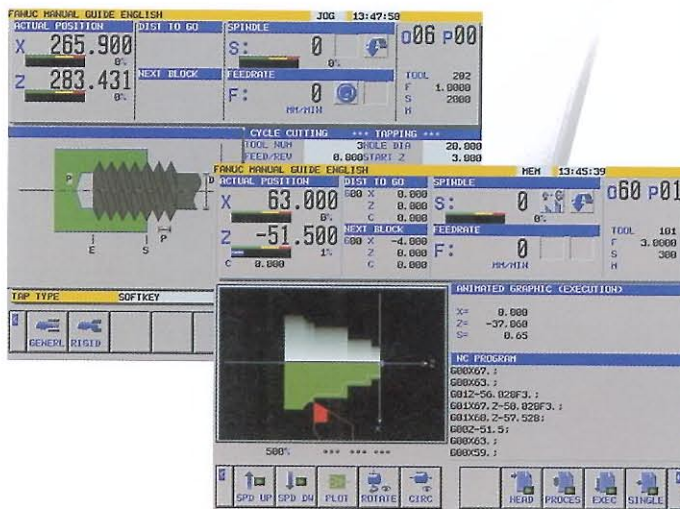
Fanuc 21i Model B

The newest control unit generation from Fanuc certainly has a lot to offer. A large number of machining cycles together with the simplified creation of

geometries "Direct Drawing Dimension", make it very user friendly. The 10.4" TFT colour monitor, ASCII keyboard and handwheel are the basis for efficient and fast working. Optional PCMCIA and Ethernet

interfaces make the Fanuc an open control system with network capability. Motors and drive are naturally also from Fanuc.

Program for lathe (MANUAL GUIDE)

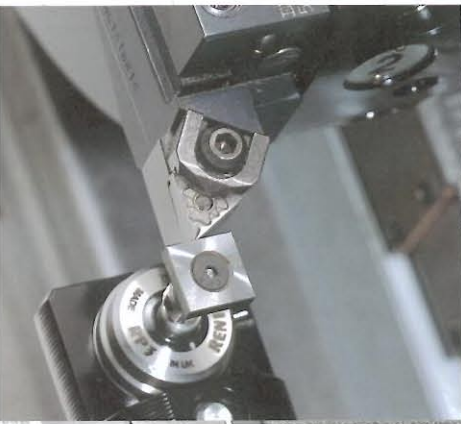


Solid model animation for lathe

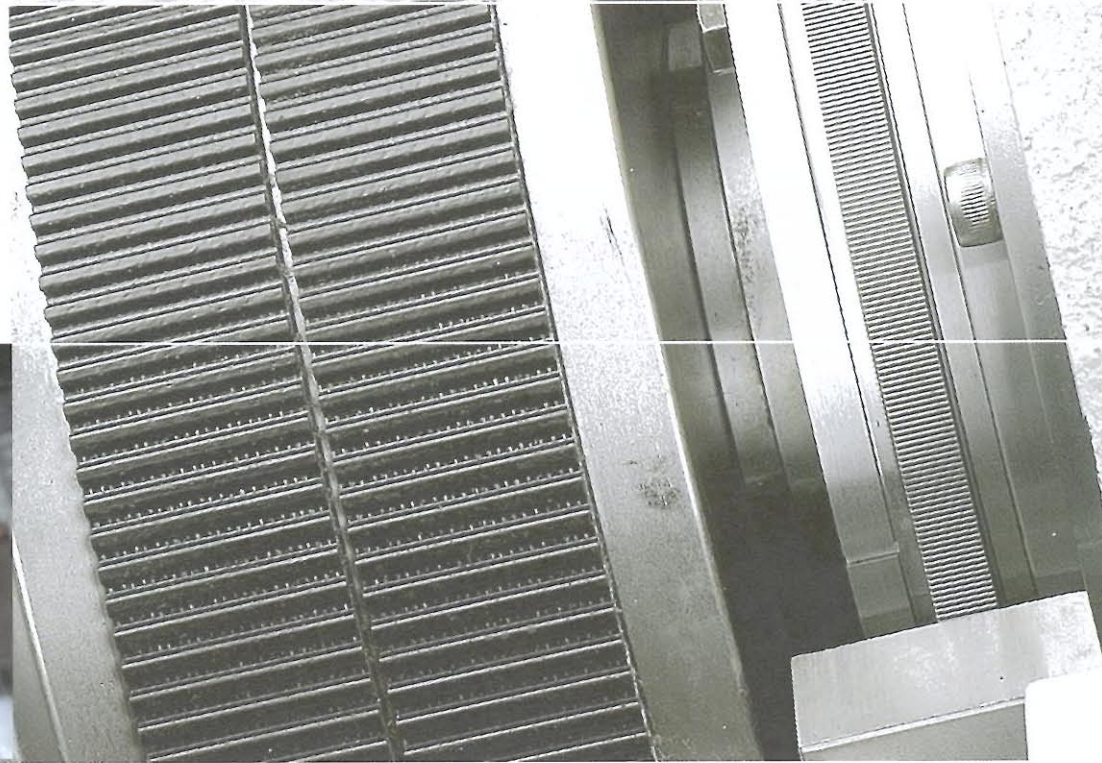
Manual Guide 0i/i conversational programming function as standard for Fanuc 0i-TC/21i-TB control.



We have consider all the turning applications you might use:
Wide range of options available for your choice



Tool setter from Renishaw provides quick and easy tooling set up.



Cs axis high resolution encoder from FANUC

We offer a wide range of options to suit different turning applications. The tool setter from Renishaw provides easy set up process and ensures utmost accuracy. For short working cycle applications we also offer automatic door for production efficiency.

Steady rest and other work piece holding/loading devices are available upon request.

All these options are provided to make the MT 4 series to be the machines of the new millennium, which will make your production faster, more accurate, and more efficient!

STANDARD ACCESSORIES

- 3-jaw hydraulic chuck
- Hydraulic system
- Hydraulic tailstock
- Live center
- Coolant system
- Morse Taper Sleeve
- Auto lubrication system
- Work light equipment
- Heat exchanger
- Soft jaws
- Foot switch for chuck clamp
- MPG hand wheel
- Operation & maintenance manuals
- Hand tool box
- Levelling pads
- OD tool holder
- Facing tool holder
- Boring bar holder & sleeves
- Drill sleeves

OPTIONAL ACCESSORIES

- Bar feeder
- Tool setter
- Cs-axis
- VDI turret (without tool holders)
- VDI tool holders
- Auto door
- Chip conveyor
- Chip bucket
- Transformer
- CE mark
- Programmable tailstock
- Safety torque limit clutch
- Hoisting hook package
- Levelling kit
- Bar feeder interface (LNS system)
- Additional tool holders and sleeves

Machine Specifications

ITEM		MT-412	MT-412MC	MT-415	MT-415MC
SWING OVER BED	mm	700		700	
OVER CROSS SLIDE	mm	500		500	
MAX. TURNING DIA	mm	510	440	510	440
MAX. WORK LENGTH	mm	750/1000/1500/2000	730/980/1480/1980	720/970/1470/1970	700/950/1450/1950
DRAW TUBE BORE	mm	91		117.5	
CHUCK SIZE	inch	12"		15"	
SPINDLE DRIVE MOTOR (cont/30min)		18.5/22KW		18.5/22KW	
SPINDLE SPEED RANGE	rpm	3300		2500	
SPINDLE NOSE	ASA	A2-8		A2-11	
THROUGH SPINDLE HOLE DIA	mm	102		131	
FRONT BEARING DIA	mm	140		170	
SPINDLE TAPER		1/20		1/20	
X AXIS TRAVEL	mm	265		265	
Z AXIS TRAVEL	mm	770/1020/1520/2020		740/990/1490/1990	
X AXIS MOTOR		4.0KW/5.3HP		4.0KW/5.3HP	
Z AXIS MOTOR		4.0KW/5.3HP		4.0KW/5.3HP	
X AXIS RAPID TRAVERSE	m/min	20		20	
Z AXIS RAPID TRAVERSE	m/min	20 (16m/min for Z axis travel ≥ 1500 mm)		20 (16m/min for Z axis travel ≥ 1500 mm)	
GUIDEWAYS		HARD RAIL		HARD RAIL	
NO. OF TOOL STATIONS		12		12	
SIZE OF EXTERNAL TURNING TOOL	mm	25		25	
BORING BAR DIA	mm	40		40	
QUILL DIA	mm	90		90	
QUILL TRAVEL	mm	120		120	
TAILSTOCK TRAVEL	mm	600/850/1350/1850		600/850/1350/1850	
QUILL TAPER		MT #5		MT #5	
ELECTRICAL POWER SUPPLY	KVA	40		40	
COOLANT TANK CAPACITY	Liter	150		150	
COOLANT FLOW	L/min	20		20	
TOTAL HEIGHT	mm	2000		2000	
FLOOR SPACE	LENGTH	4300/4900/5400/5900		4300/4900/5400/5900	
	WIDTH	2248		2248	
NET WEIGHT	kg	6400/7300/8500/9600		6400/7300/8500/9600	

All specifications, designs and characteristics shown in this catalogue are subject to change without prior notice.
Motor specifications are based on machines with FANUC 2iiT.



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