



THINK PARTS THINK TORNOS



CT 20

Swiss-type lathe

THE CT 20

From simple to mid complex components the CT 20 is designed to fulfill customers needs. Easy to use, productive, powerful, the CT 20 is the best choice for a quick return of investment.

Main advantages:

- Highly rigid and stable cast iron frame.
- Modular tooling zone.
- Powerful spindles and drives.
- Easy and fast setup.
- User-friendly.
- ISO programming.
- Up to 4 modular rotating tools in counter operation.



THE GATEWAY TO THE TORNOS WORLD

Productive

- Different modular attachments.
- Real parallel machining on machine with 5 linear axes.
- 2 completely independent tool systems.
- 4 radial rotating tools, 2 front rotating tools beside the subspindle and up to 4 rotating tools in counter-operation.

Easy to use

- Multiple CNC functions as standard.
- Good tool accessibility for easy adjustments.
- Numerous macros type G900 for programming help such as automatic bar loading, workpiece pick-up, initial cut, etc.
- Multiple CNC functions as standard.
- Machine can be programmed through Tornos TISIS software.

Powerful

- Up to 3.7 kW on the main spindle.
- Up to 10 rotating tools (optional).
- Up to 26 tools.
- High-precision machining.

Economical

- Machine offers a high level of autonomy as a result of its large swarf container. The container can be emptied whilst the machine is running.
- Great value for its price giving a rapid return on investment.



EQUIPMENT AND OPTIONS

Basic machine equipment:

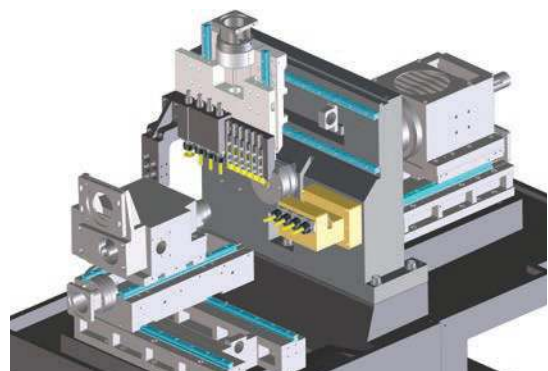
- Motorised rotating guide bush.
- C-axes for the main spindle and subspindle.
- Platen for turning tools.
- Attachment for front and rear end tool.
- 4 spindles for cross milling/drilling.
- Workpiece recovery at the counterspindle and guide bush.
- Pneumatic workpiece ejector.
- Workpiece conveyor belt.
- Bar loader interface.
- Warning light.
- High pressure pump 20 bars.

Options:

- Rear discharge system for long parts.
- Counterspindle brake unit.
- Rotating tools next to counterspindle.
- Rotating tools for counter-operations.

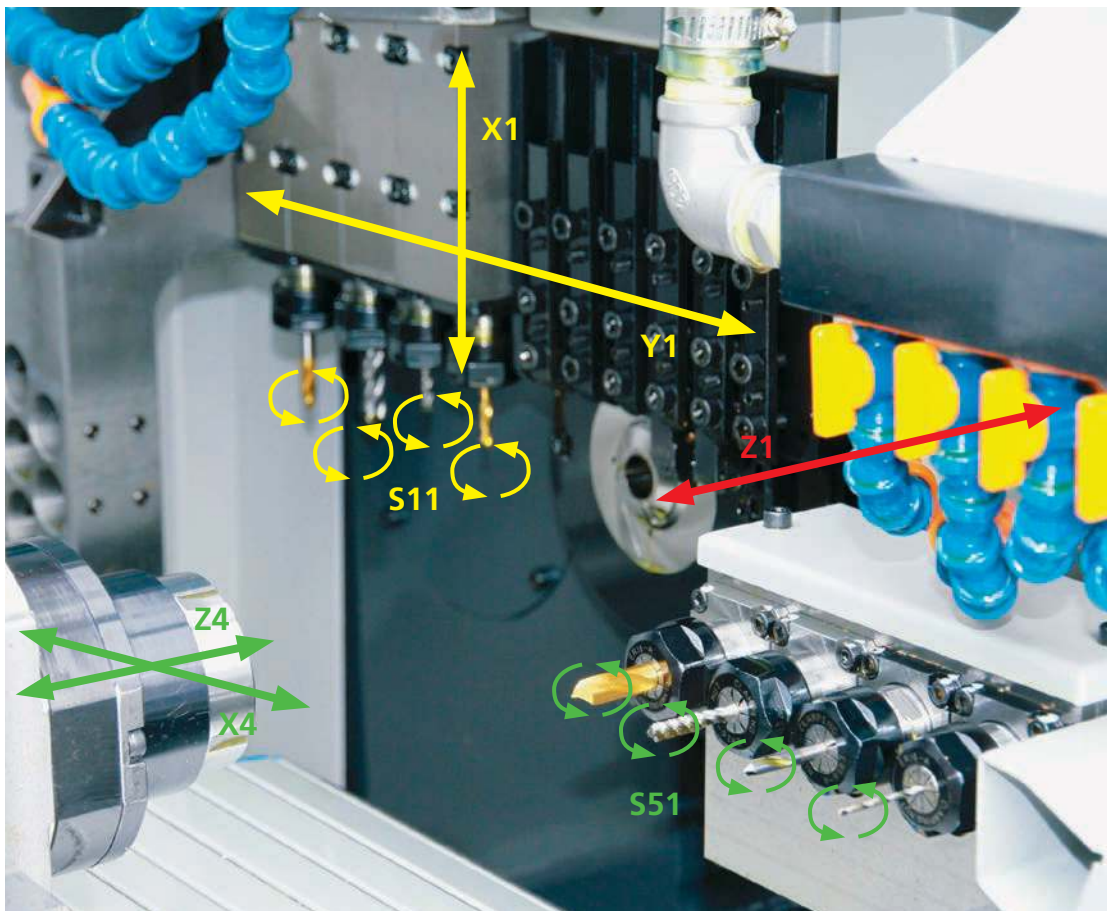


Rotating tools next to counterspindle (option)



5-axis machine

- 5 linear axes.
- 2 independent tool systems.
- Up to 26 tools.
- Up to 10 rotating tools.



Tool layout

Z1	C1	S1	
Sliding headstock	Sliding headstock C-axis	Main spindle	
X1/Y1		S11	
Platen 1		Rotating spindle on guide bush	
X4 / Z4	C4	S4	S51
Counterspindle	Counterspindle C-axis	Counterspindle	Rotating spindle on counter operation 4 modular rotating tools

CT 20

TECHNICAL SPECIFICATIONS		CT 20/5
		5 linear axes
		2 independent tool systems
		2 CNC channel
Main spindle		
Max bar diameter	mm	20
Spindle speed	rpm	8 000
Spindle drive power	kW	2,2 (3,7)
C axis		yes
Headstock stroke with rotating guide bush	mm	210
Main operation (base equipment)		
Max number of turning tools		6
Turning tool section		12 x 12
Max drilling diameter (front / rear cutting tool)		Ø 10mm (ER 16)
Max tapping diameter (front / rear cutting tool)		M8 (ER16)
Max radial drilling diameter		Ø 7
Max. number of front tools (op / cop)		5 / (5)
Cross-rotating tools		4 max. (in base)
Cross-rotating tool speed	rpm	8 000
Cross drive power	kW	1
Counterspindle		
Max bar diameter	mm	20
Max parts length (without rear discharge)	mm	80
Ejector stroke	mm	80
Spindle speed	rpm	8 000
Spindle drive power	kW	1,5 (2,2)
C-axis		yes
Counter operation		
Max number of tools		4
Rotating tools		4 (option)
Rotating tool speed	rpm	4 000
Drive power	kW	0,75
Machining for main operation with back slide		
Rotating tools (next to counterspindle)		Max 2 (option)
Rotating tool speed	rpm	8 000
Drive power		counterspindle motor
Max number of tools to be mounted		26
Tooling breakdown in operation / counter operation (with options)		17 / 9

GENERAL SPECIFICATIONS		CT 20/5
Max. length	mm	2 050
Max. width	mm	1 270
Height	mm	1 670
Weight	kg	2 400
Electrical mains		3 x 400V
Power supply	kVA	15
Coolant tank capacity	L	210
Standard coolant pump power	W	250
Colours : RAL 9006 grey, RAL 9011 black		

CNC AND SOFTWARE MAIN SPECIFICATIONS		CT 20/5
Fanuc 0i-TD, 2 channels		Yes
10.4" colour screen		Yes
Manual pulse generator (handwheel)		Yes
PCMCIA card reader and USB port		Yes
Interface via an Ethernet plug		Yes
4 input / output for specific functions		Yes
1MB memory for part programs		Yes
Metric / Inch programming		Yes
Programming in ISO code C		Yes
Direct Drawing Dimension programming		Yes
Various threading and tapping cycles		Yes
Linear, circular and cylindrical interpolations		Yes
Polar interpolation main spindle, counterspindle		Yes
Rigid tapping : main spindle, driven tools, counterspindle		Yes and back live tools
Polygon function programming		Yes
Macro variables for customer		Yes
Forward running of part program with MPG (by override)		Yes

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