

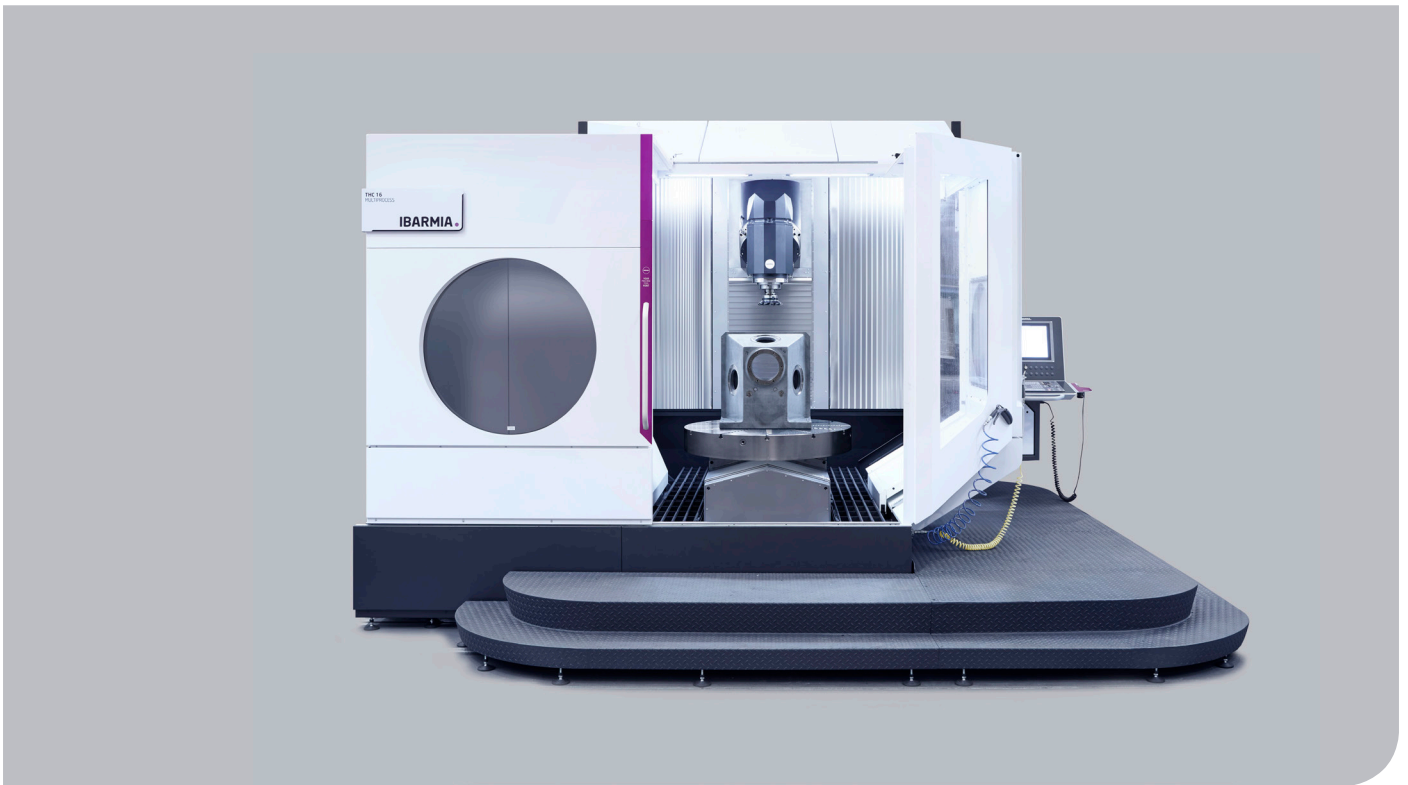
**IBARMIA.**

# T MULTIPROCESS

36 / 30 / 22 / 16 / 12

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## TECHNICAL SPECIFICATIONS



### T MULTIPROCESS

BARMIA can provide two types of spindle heads to adapt the machine to specific jobs.  
A wide range of options allow tailoring solutions to each requirement.



**T SERIES**

**T MULTIPROCESS**

		<b>T 36</b>	<b>T 30</b>	<b>T 22</b>	<b>T 16</b>	<b>T 12</b>
<b>STROKES</b>						
-X axis travel (length)	mm	3600	3000	2200	1600	1200
-Y axis travel (cross)	mm	2300	2000	1600	1600	1300
-Z axis travel (vertical)	mm	1900	1700	1500	1200	1000
-Head tilting range (B - A)	°	B: -15°/+195° - A: -45°/+135°				
-C axis turning range	°	360°				
-Maximum swing diameter	mm	3600	3000	2200	1600	1250
-Piece maximum height	mm	2150	1950	1750	1700	1600
-Distance spindle nose-table. Vertical position (B axis)	mm	100 / 2000	100 / 1800	100 / 1600	100 / 1300	100 / 1100
-Distance spindle nose-table. Horizontal position (B axis)	mm	100 / 2000	100 / 1800	100 / 1600	100 / 1300	100 / 1100
-Distance spindle nose-table. Vertical position (A axis)	mm	-115 / 1785	-115 / 1585	-115 / 1385	-115 / 1085	-115 / 885
-Distance spindle nose-table. Horizontal position (A axis)	mm	260 / 2160	260 / 1960	260 / 1760	260 / 1460	265 / 1265

**TABLE**

-Table dimensions	mm	∅ 2000	∅ 1800	∅ 1600	∅ 1200	∅ 1000
-Maximum table load capacity	Kg	22.500	20.000	10.000	6.000	4.500
-Nominal speed	rpm	90	88	189	258	300
-Maximum speed	rpm	150	200	400	500	500
-Nominal torque	Nm	12.000	10.000	4000	3000	1850
-Positioning accuracy	s	+/-4"				
-"T" slots		Radial				
-Number of "T" slots	mm	12				
-"T" slots size	mm	T22			T18	

**TILTING HEAD**

-Turning torque	Nm	1210				
-Position clamping force	Nm	7000				

**MAIN SPINDLE**

-Spindle taper		Standard: HSK A 100 - Option: Capto C8				
-Maximum speed	rpm	Standard: 12.000 - Option: 7000				
-Maximum power	kW	Standard: 84 - Option: 75				
-Maximum torque	Nm	Standard: 452 - Option: 871				

**FEED**

-Maximum working feed X-Y-Z axes	m/min	30			50	60
-Rapid feed for positioning X-Z axes	m/min	40			50	60
-Rapid feed for positioning Y axis	m/min	30			50	60
-X-Y-Z axes acceleration	m/s <sup>2</sup>	1,5/1,5/2	2,5/2,3/4	2,7/3,2/4,8	4/4/5	4/5/5
-Rapid feed for positioning in B-A axes	rpm	50				

**T MULTIPROCESS****T 36****T 30****T 22****T 16****T 12****ACCURACY VDI / DGQ3441**

-Positioning accuracy Tp X-Y-Z (1000 mm)	μm	12	10	7	6
-Repeatability	μm	7		5	
-Measuring system on B-A axes		Rotary scale			
-Positioning accuracy B-A axes	s	+/- 5			

**CAPACITIES**

-Milling capacity in steel St 60	cm <sup>3</sup> /min	1100			
-Drilling capacity in steel St 60	Ømm	70			
-Tapping de roscado en acero St 60	mm	M 45			

**TOOL MAGAZINE**

-Number of tools		Standard: 60. Option: 120, 240, 360				
-Maximum tool length	mm	600				
-Maximum tool weight	kg	30				
-Maximum tool Ø with full magazine	mm	125				
-Maximum tool Ø with free spaces	mm	250				
-Tool changing time	s	6				
-Chip to chip time	s	16	14	12	8	7

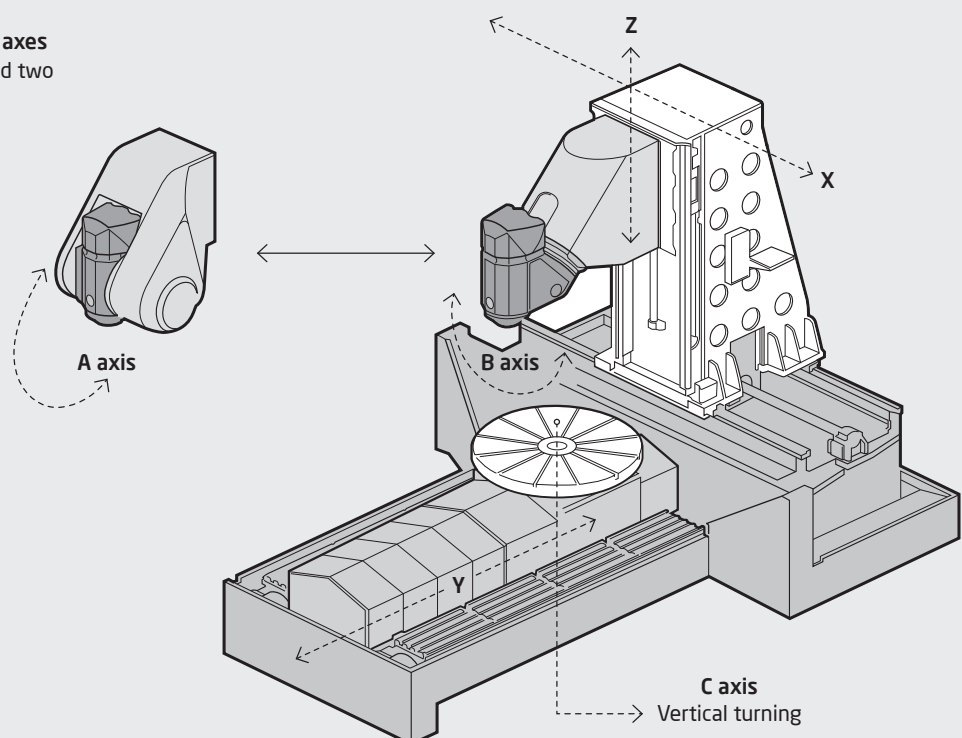
**CONTROLS**

-Available digital controls		Fanuc / Heidenhain / Siemens			
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**Machining up to 5 simultaneous axes**  
combining the table rotary axis and two  
available rotary headstocks:

**THR\_**  
A axis headstock  
(-45°/+135°)

**THC\_**  
B axis headstock  
(-15°/+195°)



**T MULTIPROCESS****T 36****T 30****T 22****T 16****T 12****GENERAL**

-Machine painted in 3 colours	RAL	White 9010, Light Grey 9006, Dark Grey 7021				
-Total power installed	kW	120	100	100	95	95
-Power connection voltage	V	400 V / 50 Hz				
-Required compressed air pressure	bar	6				
-Approximate net weight	kg	87.000	50.000	39.000	32.000	25.000

**INCLUDED ITEMS IN STANDARD CONFIGURATION**

- Direct measuring on linear axes X / Y / Z.
- Measuring by rotary scale on rotary axes B / C / A.
- Travelling on lineal guides and ball screws.
- Servomotors with braking system for the axes.
- Hydraulic counter weight for the head.
- Electrospindle thermal compensation.
- 60 tool ATC magazine.
- Air blast for tool cleaning.
- Totally encapsulated working area.
- Vertical covers on X axis (steel bellows).
- Safety windows.
- Illumination of working area.
- Longitudinal endless screws for chip evacuation. (double screw in T36-T30 models).
- Rotary control panel.
- Touch screen 19".
- Chip Conveyor with integrated coolant tank.
- External coolant system around the spindle.
- Programmable central lubrication system.
- Climatized electrical cabinet.
- Stairs to machine access.
- Machine levelling elements.
- Informative cartel in black methacrylate.
- SMART POINT machine data monitoring system.

**OPTIONAL ITEMS**

- Coolant through spindle.
- ATC magazines up to 240 tools.
- Special tool magazines up to 400 positions managed by arm robot.
- Automatic pallet changer APC (rotopallet, pallet-pool).
- Tool measuring and touch systems.
- Steam and mist aspiration system.
- Spray and air guns.
- "Illumination" pack: LED lights with acoustic signal integrated into the machine.
- 3 light tower with acoustic signal.
- Camera settings and display mode.
- CNC control with touch screen up to 24".
- Advanced HMI.
- Portable electronic hand-wheel with support in the control panel.