

# AX Series

Turning centre multi-axes  
High precision multitasking machine



# AX Series

## Flexible and rigid, the AX range has been designed to meet the most varied needs of the customers.

The AX turning centre has a C-axis as standard and can be equipped with a Y-axis and a secondary spindle to carry out all types of turning and milling operations.

It is the ideal tool for the mass production of mechanical parts for the automotive, hydraulics and electronics industries, even for large parts.

### Structure and axes

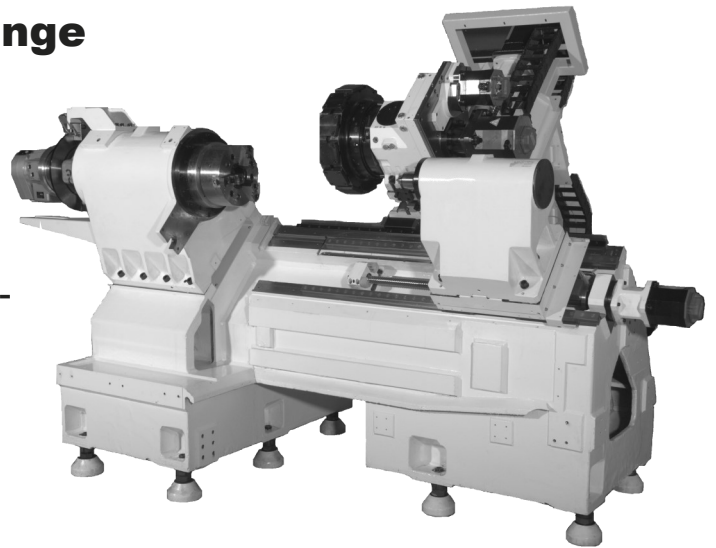
- Architecture with 45° slant bed
- High-quality cast iron structure for maximum stiffness
- Rigid and robust monoblock construction for excellent vibration damping
- Very high quality of surfacing
- Linear guide rails equipped with roller recirculating bearings to increase stiffness with feedrates up to 35 m/min
- Positioning accuracy and high repeatability thanks to the measuring scales on X and Z linear axes
- Machining of complex parts in one setup

### Numerical controller

- Ergonomics design, color screen and complete alfanumerical keyboard
- Accessible and intuitive
- Graphic simulation before machining for an optimal safety
- Conversational programming with ShopTurn

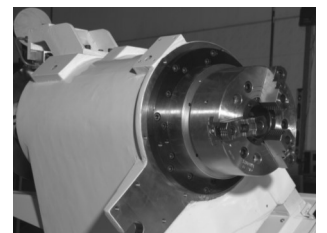
### Ergonomics

- Orientable and easy-to-use control panel for the operator
- Excellent chips removal
- Compact machine, reduced footprint



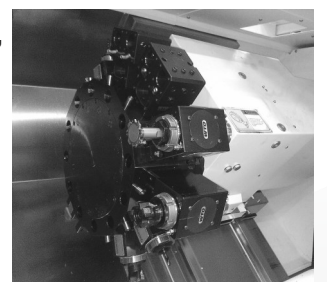
### Turning spindle

- High speed spindle and rigid spindle headstock
- Main turning spindle equipped with C axis allowing drilling and tapping operations
- Hydraulic chuck with 3 jaws



### Revolver turret

- Turret with 12 stations, live tools
- BMT attachment for higher rigidity
- Bidirectional turret for rapid tool changement
- Hydraulic blocking



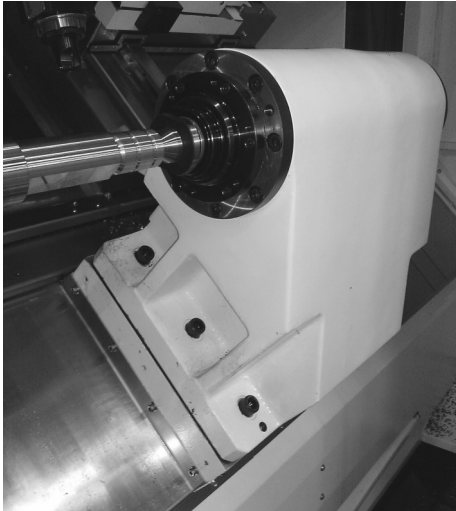
### Productivity

Possibility to add equipments such as various hydraulic chucks with jaws, bar feeder, tool probe, coolant 10 bar through the tool center, batch of tool holders, parts catcher...



## Motorized tailstock(M/MY)

- Axis fully controlled by the NC
- Motorised tailstock, driven by ballscrews
- Moves on linear guides, giving it a smooth, high-precision motion



## Secondary spindle (MSY)

- Optional, as an alternative to the motorised tailstock
- Possibility of synchronising the 2 spindles
- The electrospindle is housed in 3 high-precision angular contact ball bearings at the front and 2 at the rear, giving it good rigidity and high precision



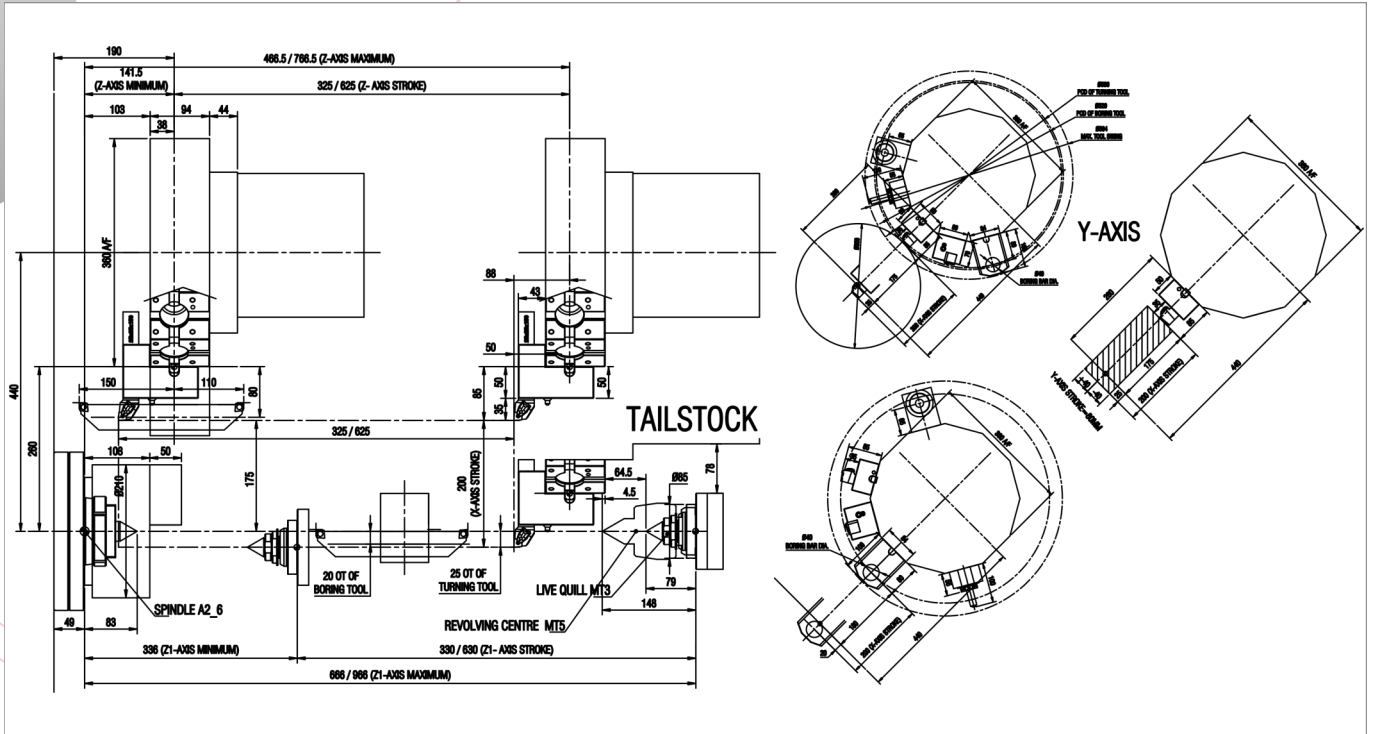
## Y axis (MY/MSY)

- In addition to the C axis and motorised tools
- Completely independent axis, eliminating errors caused by combining 2 axes
- Enables more complex drilling or milling operations to be carried out

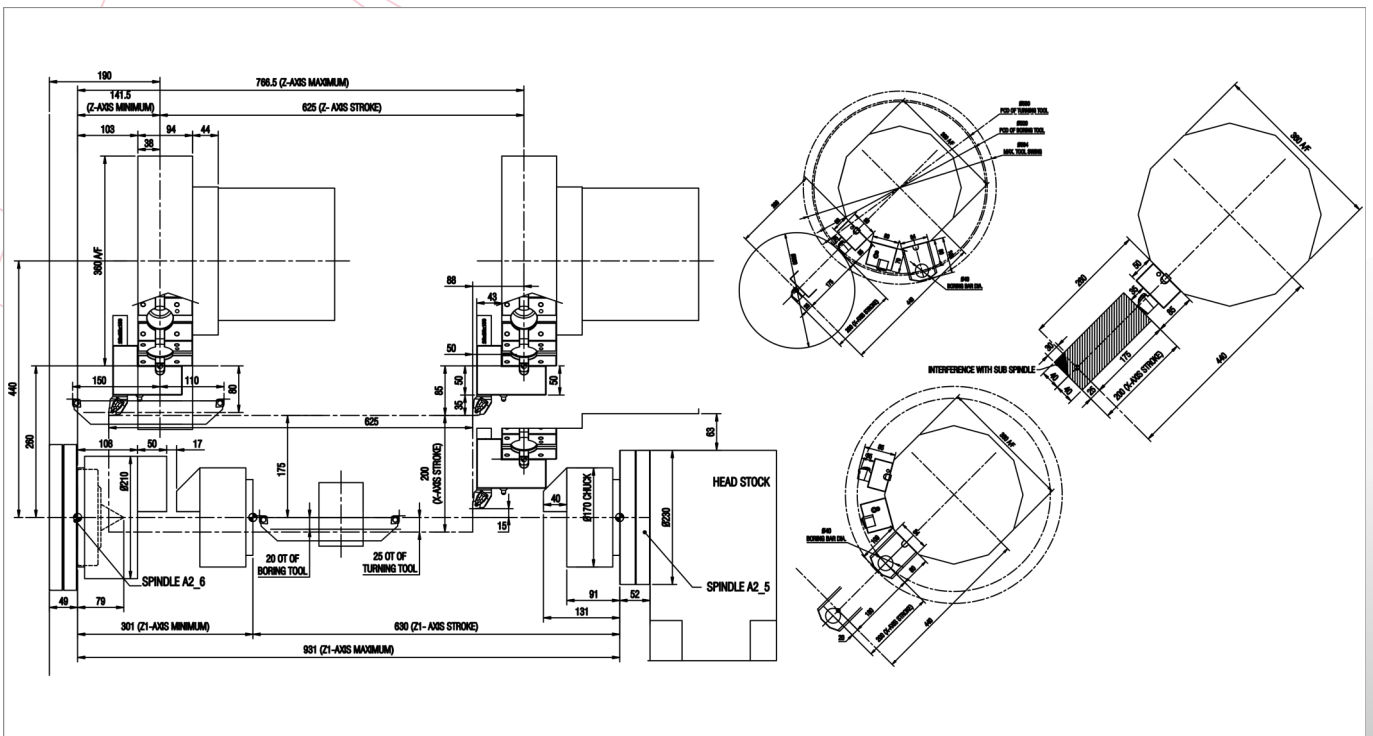


# AX Series

## Interference layout AX 200 M / AX 200 MY Z = 625 mm

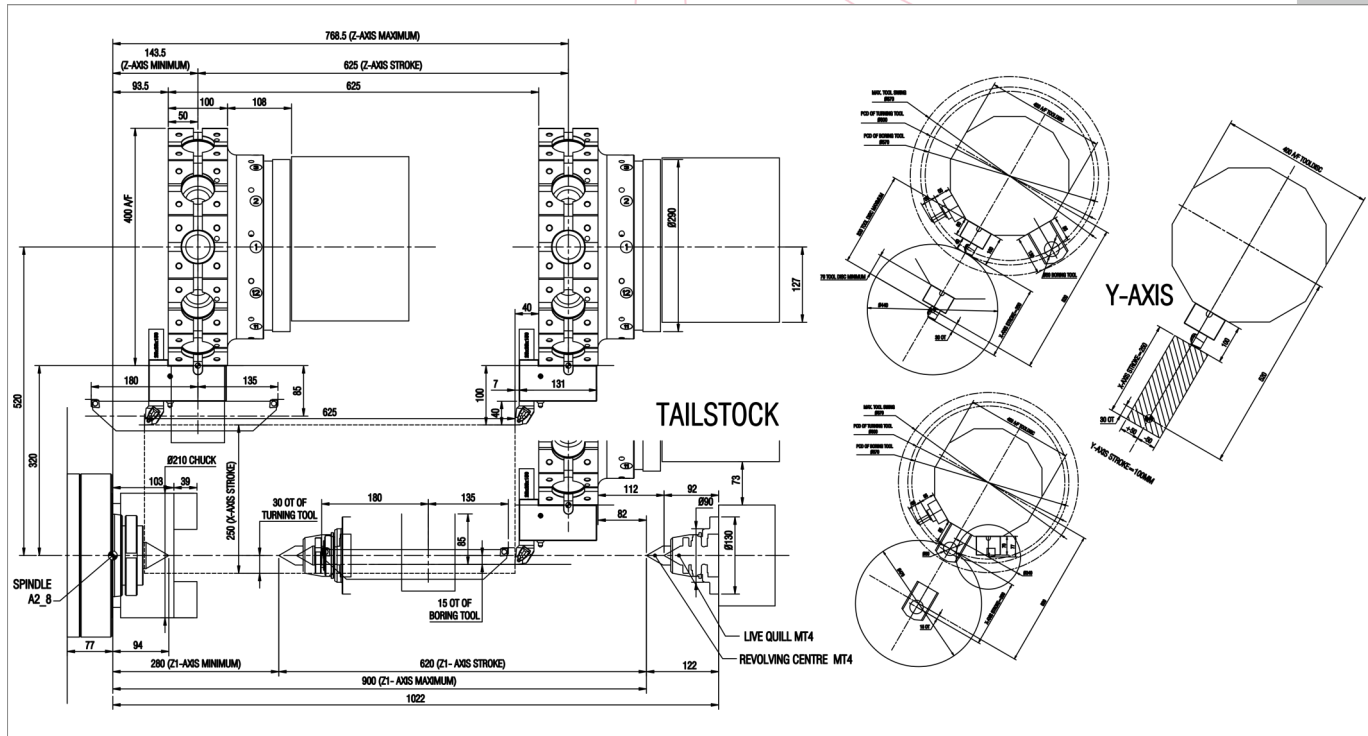


## Interference layout AX 200 MSY Z = 625 mm

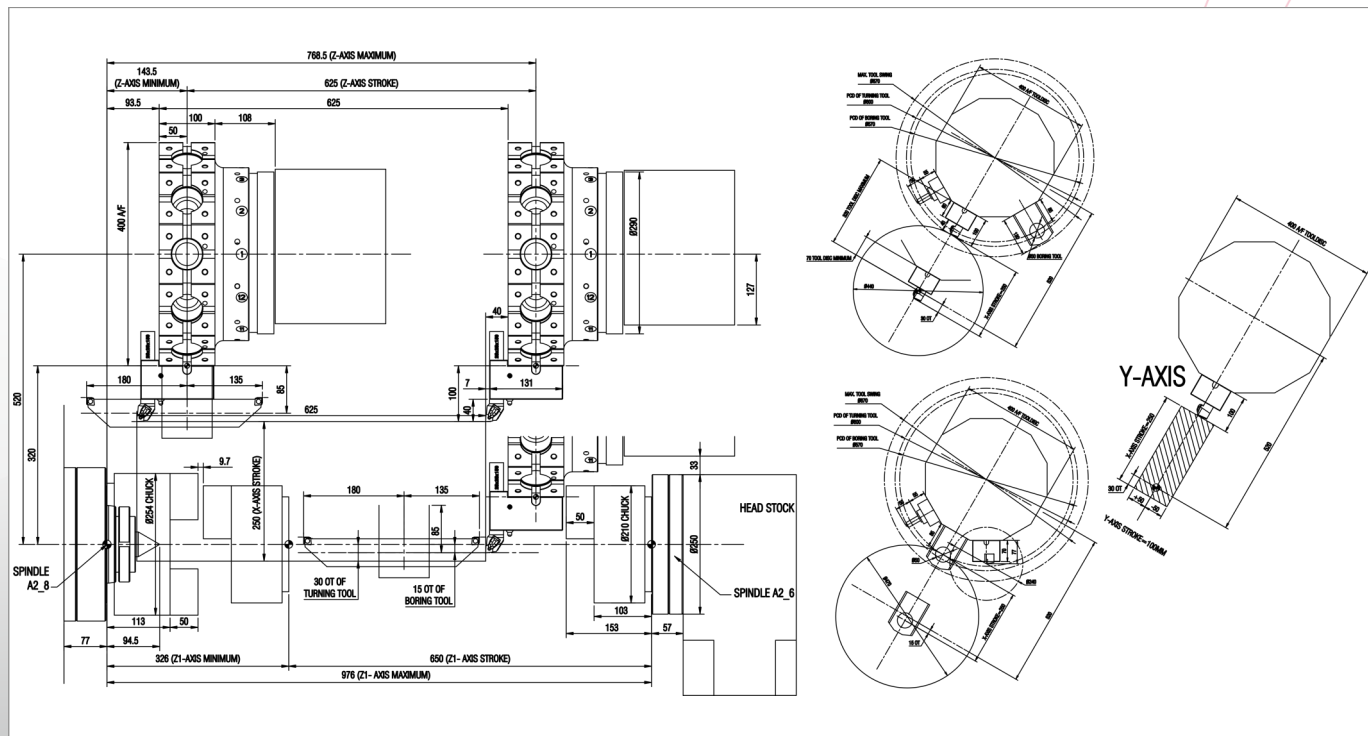




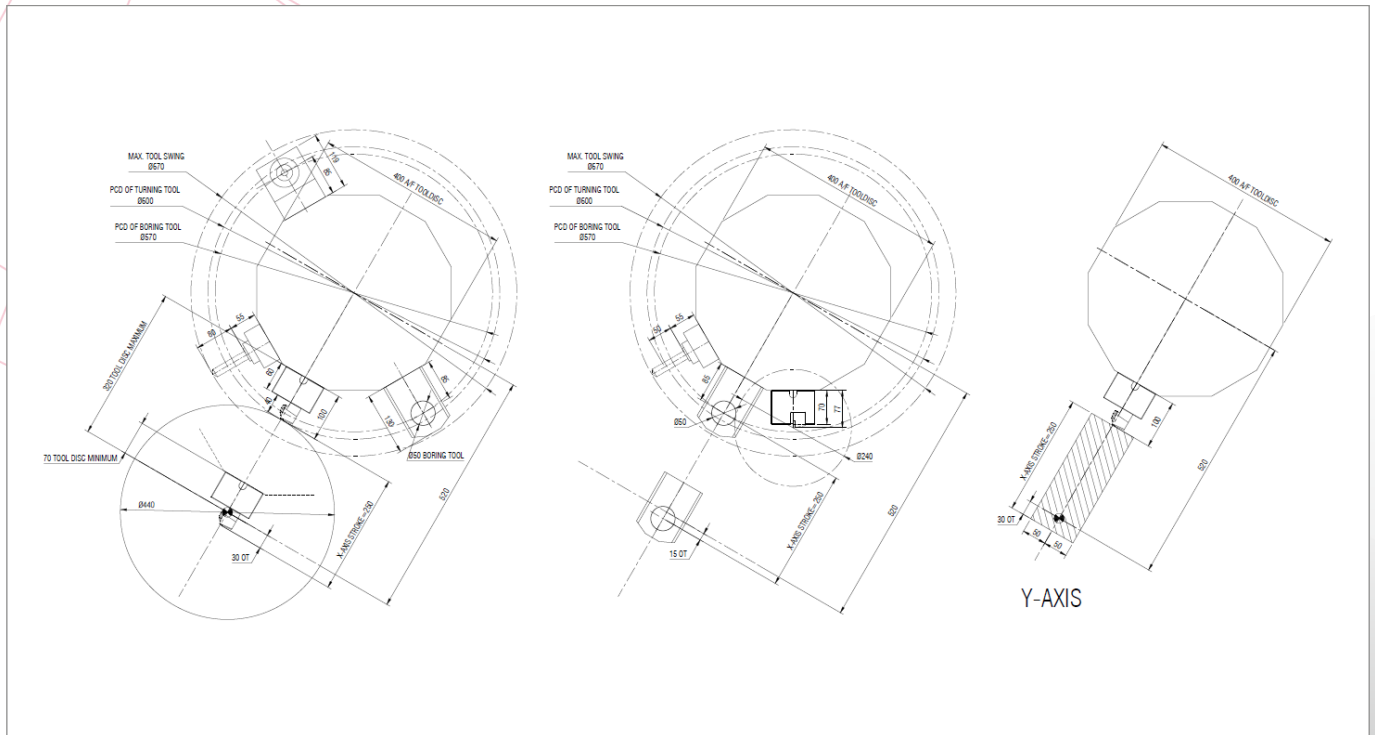
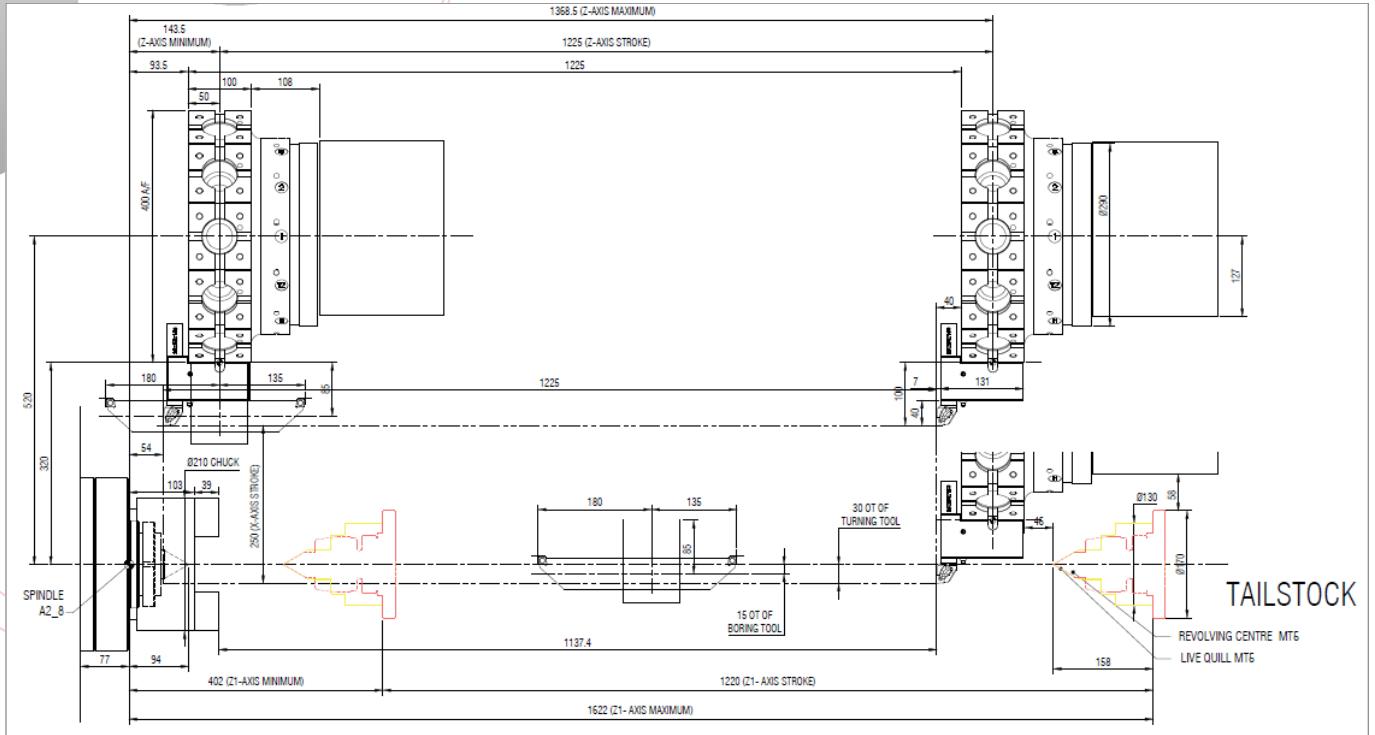
## Interference layout AX 300 M / AX 300 MY Z = 625 mm



## Interference layout AX 300 MSY Z = 625 mm

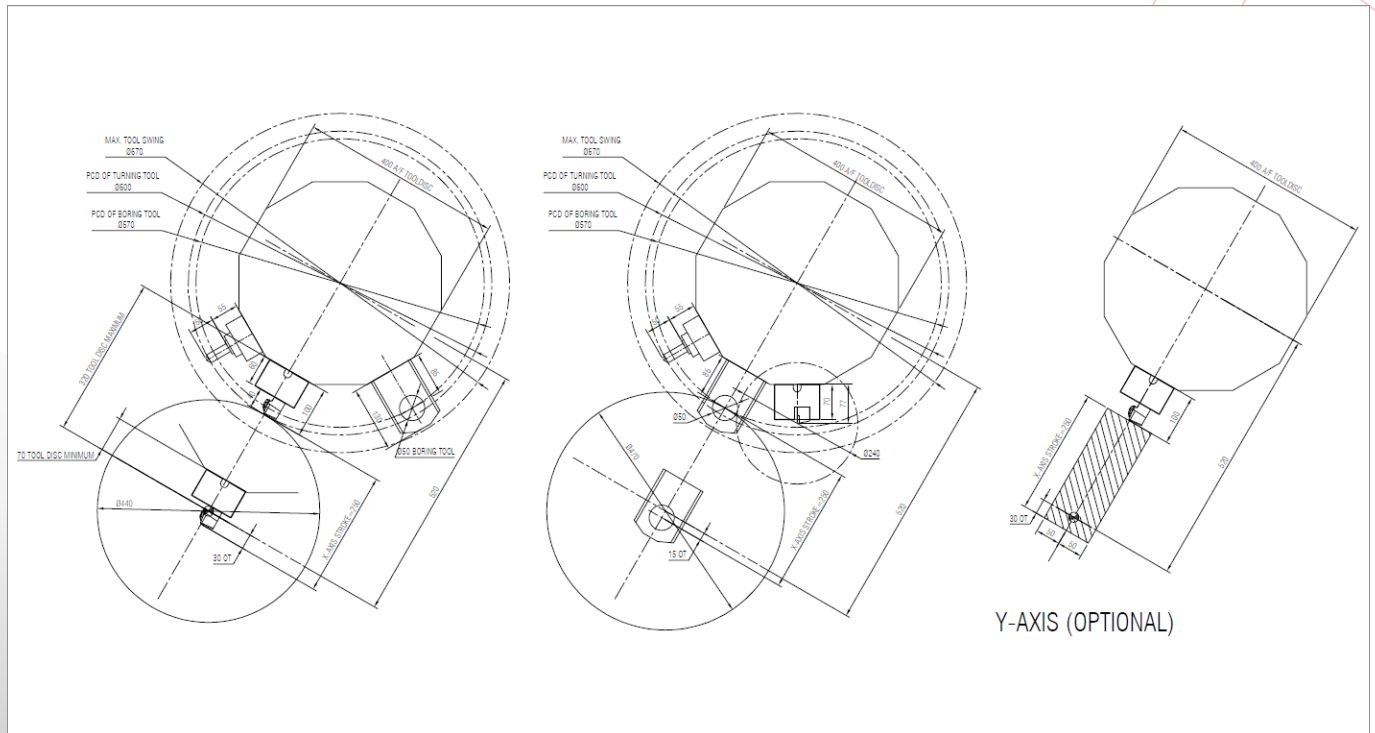
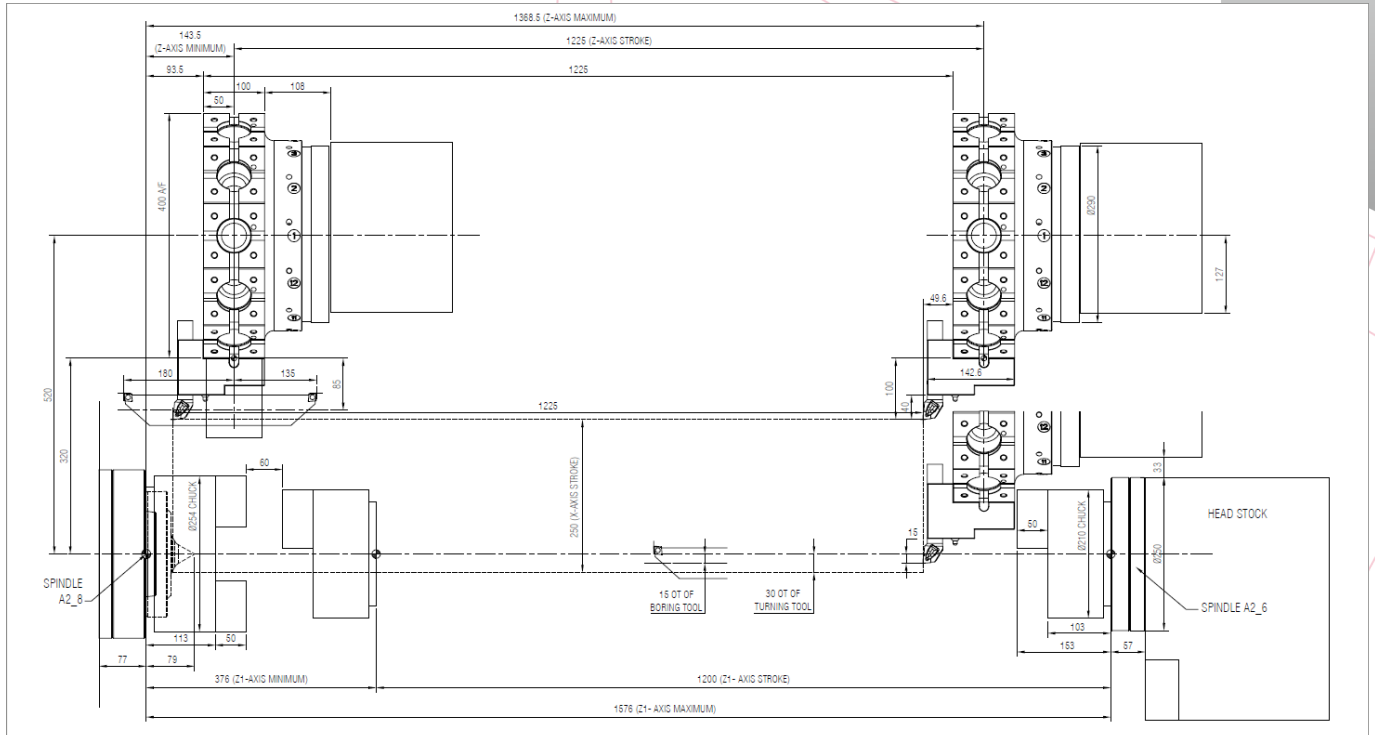


## Interference layout AX 300 M / MY Z = 1.225 mm (option)





# Interference layout AX 300 MSY Z = 1.225 mm (option)



# Technical characteristics

(\* option Z = 1.225 mm)

Capacities		AX M		AX MY		AX MSY	
		Live tools		Live tools + Y axis		Live tools + Y axis + secondary spindle	
		200	300	200	300	200	300
Max. Ø swing over bed	mm	550	650	550	650	550	650
Max. turning Ø	mm	330	420	330	420	330	420
Max. turning length	mm	625	600 / 1.200*	625	600 / 1.200*	625	600 / 1.200*
Ø of chuck	mm	200	254	200	254	200	254
<b>Travels</b>							
X	mm	200	250	200	250	200	250
Y	mm	-	-	± 40	± 40	± 50	± 50
Z	mm	625	625 / 1.225*	625	625 / 1.225*	625	625 / 1.225*
Rapid feedrate	m/min	24 / - / 35	24 / 24 / 30	24 / 24 / 35	24 / 24 / 30	24 / 24 / 35	24 / 24 / 30
<b>Main spindle</b>		<b>Main spindle Model 200</b>			<b>Main spindle Modèle 300</b>		
Rotating speed	rpm	4.500			4.000		
Spindle nose		A <sub>26</sub>			A <sub>28</sub>		
Max. Power / Torque	kW / Nm	9,2 / 175			26,5 / 253		
Spindle bore	mm	65			75		
Max. bar capacity	mm	52			65		
<b>Secondary spindle (option)</b>					<b>AX 200 MSY</b>	<b>AX 300 MSY</b>	
Rotating speed	rpm				5.000	4.500	
Spindle nose					A <sub>25</sub>	A <sub>26</sub>	
Power / Torque	kW / Nm	-----			7 / 95	9,2 / 175	
Max. bar capacity	mm				65	65	
Travel of the spindle	mm				630	630	
Ø of chuck	mm				170	210	
<b>Tailstock</b>		<b>AX 200 M / MY</b>		<b>AX 300 M / MY</b>		<b>AX 200 / 300 MSY</b>	
Taper		MT 5		MT 5		-----	
Quill Ø	mm	85		130		-----	
Travel	mm	630		620 / 1.220*		-----	
Thrust	daN	500		500		-----	
<b>Revolver Turret</b>		<b>AX 200 M / MY / MSY</b>			<b>AX 300 M / MY / MSY</b>		
Type of turret		Live tools - 12 stations					
Tool holder		BMT 45			BMT 55		
Max. tool speed	rpm	Siemens / Fanuc = 4.500			Siemens = 4.500 / Fanuc = 3.000		
<b>Accuracy X / Z (VDI DGQ 3441)</b>							
<b>Measuring scales included</b>							
Positioning (P)	mm	0,005					
Repeatability (Ps medium)	mm	0,003					
<b>Over-all measurements</b> (Doors opened + conveyor)		<b>AX 200 M</b>	<b>AX 300 M</b>	<b>AX 200 MY</b>	<b>AX 300 MY</b>	<b>AX 200 MSY</b>	<b>AX 300 MSY</b>
Width with Z = 625 mm	mm	4.280	5.050	4.280	5.050	4.280	5.050
Width with Z = 1.225 mm*	mm	-	5.650*	-	5.650*	-	5.650*
Depth	mm	2.450	2.650	2.450	2.650	2.450	2.650
Height	mm	1.990	2.210	1.990	2.210	1.990	2.210
Weight of the machine	kg	4.800	6.500	4.800	6.500	4.800	6.500
<b>Numerical controllers</b>		<b>Siemens - Fanuc</b>					

All descriptions, data and photos are supplied for information only. Huron Graffenstaden reserves the right to make changes to the models described for technical or commercial reasons at any time. The standard description, accessories and technical data conforms to our pricelist, and not to the photo of machines shown in the catalogue.



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