NEW

VSR - The compact one with tilting rotary table

Maximum 5-axis performance with minimum footprint

With the new AXA VSR 2 travelling column machining center, we are breaking new ground in high-precision, ultra-fast 5-axis simultaneous machining. The innovative 2-axis rotary table tilting around the Y-axis opens new possibilities – ideal for smaller workpieces while delivering maximum dynamics and precision.

- ➔ **2-axis tilting rotary table with direct drive and counter bearing**
- ➔ **Extremely compact**
- ➔ **Space-saving tool magazine**
- ➔ **High Z-axis travel of 700 mm**
- ➔ **Optional robot interface for fully automatic assembly**

Compact XTS tool magazine tower with two chains holding 60 tools each, optionally expandable to three chains with 60 tools each – without any increase in the minimal footprint.

The strength of the VSR:

→ Innovative 2-axis tilting rotary table (B/C axis)
Tilting around the Y-axis provides optimal visibility of potential collision contours during the machining process – a clear advantage over conventional X-axis-based solutions.

→ Extremely compact – only approx. 12 m² footprint
Despite large axis travels, the VSR remains exceptionally space-saving. Thanks to the side access door to the guideway area, the machine can be positioned directly against a wall at the rear.

→ Space-saving XTS tool magazine
Up to three chains with 60 tools each, perfectly integrated into the compact machine design. Key benefit: during tool changes, the rotary table remains in position – no swiveling away required.

→ High Z-axis travel of 700 mm
Higher than usual – for maximum flexibility with a wide variety of component geometries

→ Optional: Robot interface for fully automated loading
Ideal for efficient process chains and unmanned shifts.

2-axis rotary table (B/C axes) – optimal visibility of potential collisions

Side access for automated loading – front door ensures uninterrupted visibility and access.

Automation made easy

→ Clear structure – full accessibility

The VSR can be automatically loaded via an optional side loading gate, while the work area doors remain always fully accessible. This means complete visibility, complete control – even in automatic operation.

→ Perfect for automated workpiece handling

The Y-axis-tilting rotary table allows side loading of workpieces without complex lifting or lowering. This saves time, energy, and costs, while reducing wear.

→ Double efficiency

The tool magazine and changer are optionally available in mirrored versions. This allows two machines to be loaded in parallel with a single automation system – an extremely compact and efficient solution, ideal for variant manufacturing and series production.

Examples of Automation Solutions: *

Drawer System

Flexible drawer cabinets serve as storage and supply systems for raw and finished parts. Ideal for changing workpieces and small series production.

Pallet Handling

Workpiece pallets act as central carriers for raw and finished parts. Perfect for standardized processes and high repeatability.

Euro Pallets

Maximum simplicity: the robot picks up raw parts directly from the Euro pallet and places finished parts on a separate pallet.

* In collaboration with partner companies

Technical data VSR

Technical data		VSR 2
Working area		
X-traverse range	[mm]	1100
Y-traverse range	[mm]	600
Z-traverse range	[mm]	700
Distance table – spindle nozzle	[mm]	100 - 800
2-axis tilting rotary table		
Clamping surface, ground, approx.	[mm]	Faceplate 550 x 550
T-slots, reference slot H7	[mm]	14 H9
T-slots indexing	[mm]	80
Number of T-slots		6
Max. table load	[kg]	350 (simultaneous machining) / 500 (axes clamped)
Feed drive		
Max. rapid traverse	[m/min]	40/40/30
Max. feed force	[N]	9000
Main spindle drive		
Standard drive no. [1]		110
Optional drive no. [1]		111, 113
Tool holding fixture		
DIN ISO 7388-1 AD / DIN ISO 7388-3 AD		SK 40
Optional		HSK A63
Tool changer		
Number of tool pockets standard		22
Optional expandable up to		180
Max. tool diameter	[mm]	85
With free adjacent pockets	[mm]	135
Max. tool length	[mm]	400
Accuracy		
Positioning accuracy[2]	[mm]	+/- 0,0075
Repeating accuracy	[mm]	+/- 0,005

[1]Main spindle drives		110	111	113
Speed range	[rpm]	6000	6000	6000
Optional up to	[rpm]	14000	14000	10000
Max. torque (40% DC)	[Nm]	143	191	255
Max. power (40% DC)	[kW]	30	40	40

[2] per 1000 mm per axis X/Y/Z