Heavy Duty CNC Machining Centers

Model CM 3500-CNC, CM 4500-CNC, CM 6500-CNC



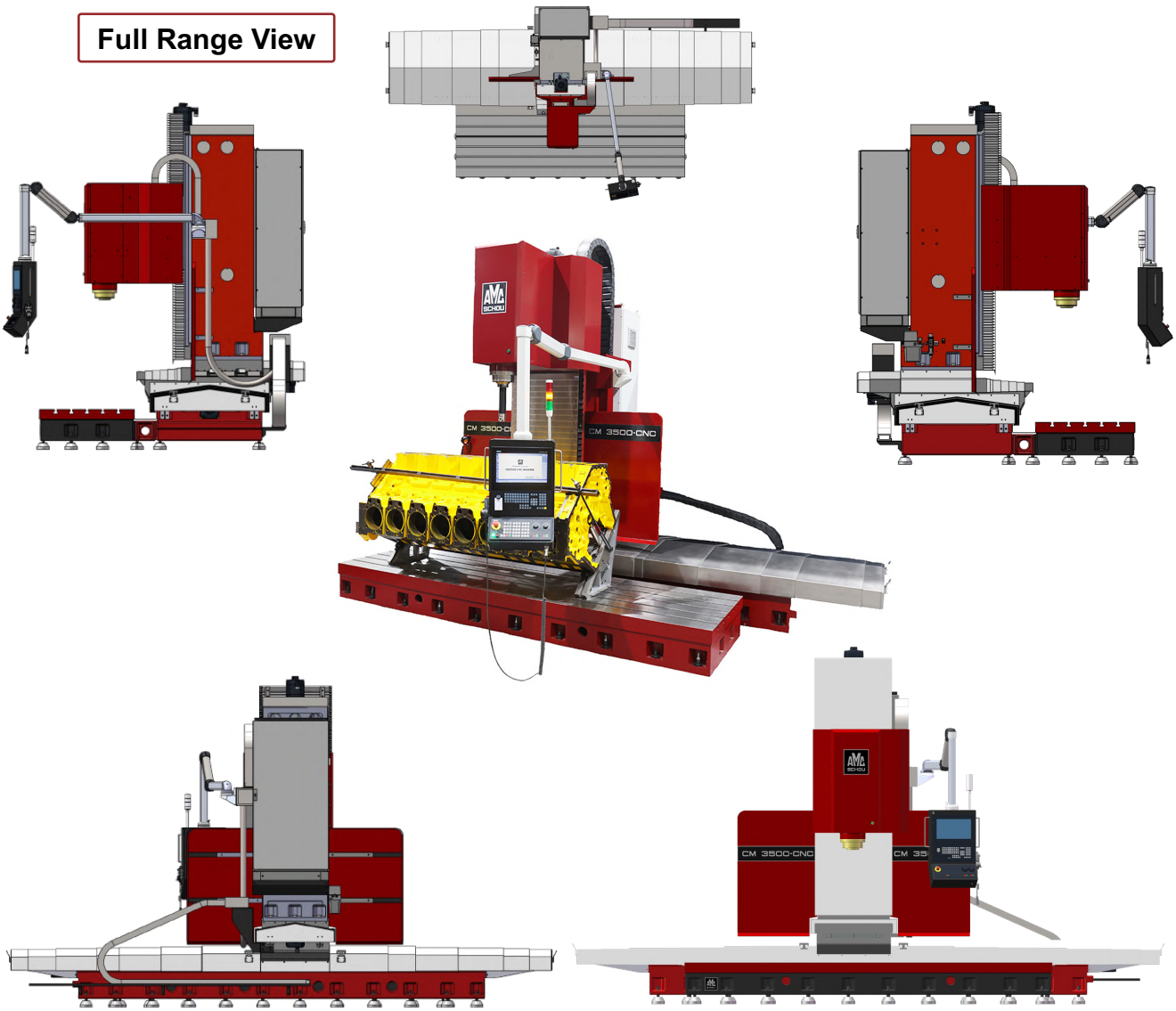
The Benefits of Precision

The new range of AMC-SCHOU Heavy Duty CNC Machining Centers is developed based on more than 70 years of experience in manufacturing robust and high-performance machine tools. The machines are designed with a strong focus on reliability, precision, and user-friendly operation.

This new generation of machines features a rigid construction made from high-quality cast iron, combined with precision components from leading European brands, including linear guides, ball screws, and bearings. The machines are equipped with the SIEMENS 828D control system, ensuring advanced control performance and ease of operation.

The machines are particularly well-suited for the reconditioning of cylinder blocks. With the standard SIEMENS 828D control system, programming is straightforward and flexible, enabling efficient machining not only of cylinder blocks but also a wide range of other components.

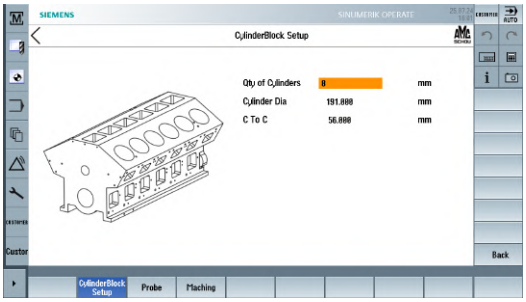
Full Range View



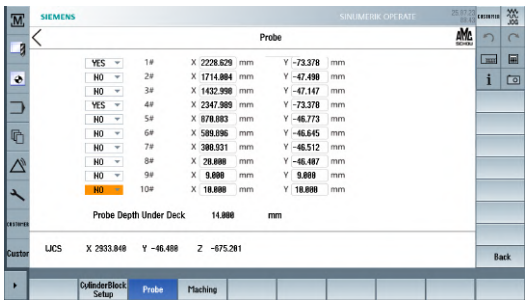
AMC Smart-Block-Reman Software
User-friendly software for cylinder block reconditioning. Machining cycles are easily defined by setting key parameters.



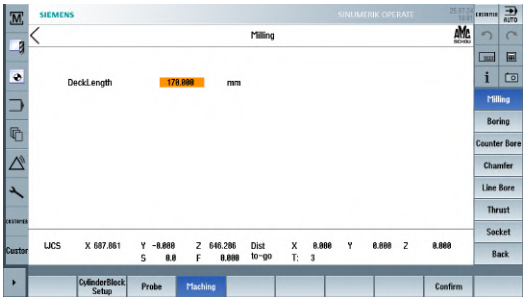
AMC-SCHOU Smart Blocking Software



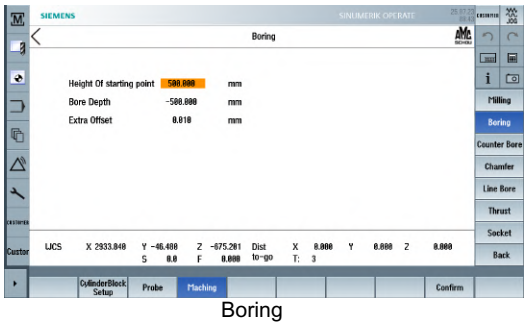
Cylinder Block Setup



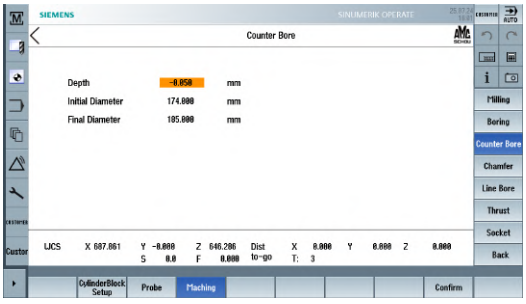
Probe



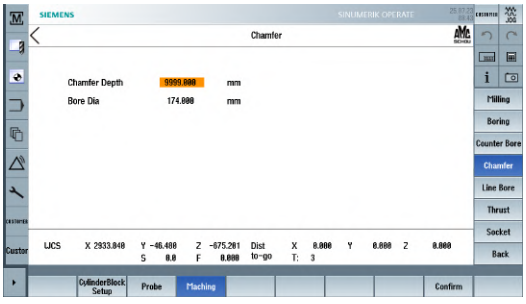
Milling



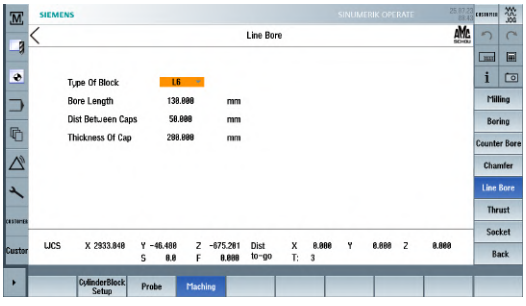
Boring



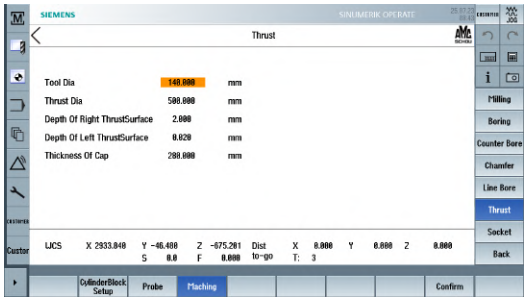
Counter Bore



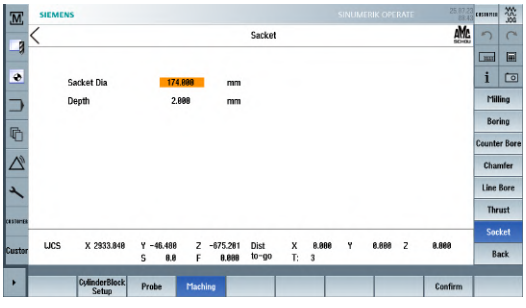
Chamfer



Line Bore



Thrust Facing



Sacket

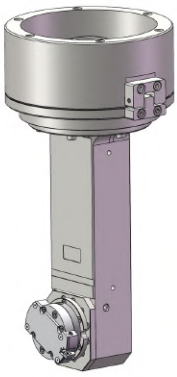
Control System:
Standard SIEMENS 828D control system for milling applications.







Measuring System:
Equipped with Renishaw wireless measuring probe.



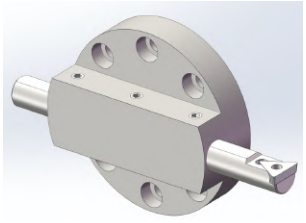


Line Boring / Milling

Two sizes of angle heads available:

- Main bearing boring, capacity Ø50–Ø220, for small and medium-sized cylinder blocks
- Main bearing boring, capacity Ø50–Ø300, for medium and large cylinder blocks

Cutting head for machining thrust faces on both sides using circular interpolation.



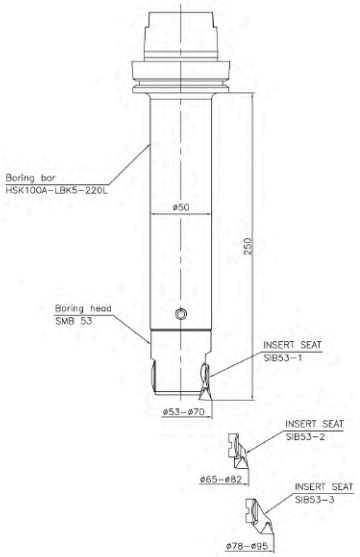




HSK100 ER32 Collet Chuck

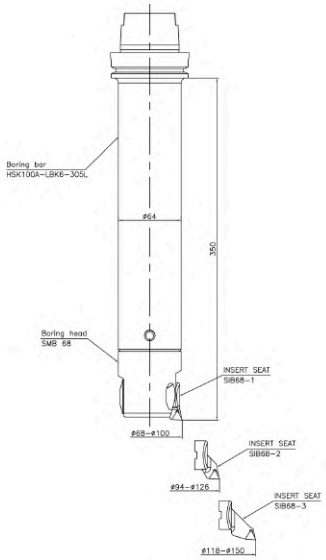
Suitable for clamping chamfering tools, end mills, and other tooling. Machining is performed using circular interpolation.

Boring Bar



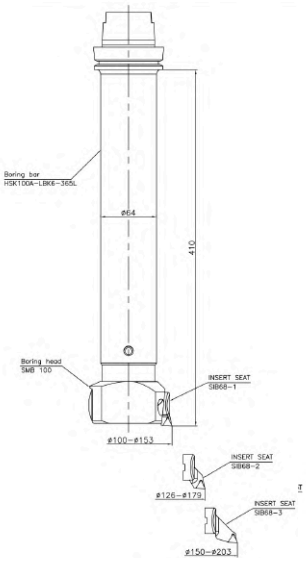


Ø53–Ø95 × 150 mm
Ø53–Ø95 × 240 mm





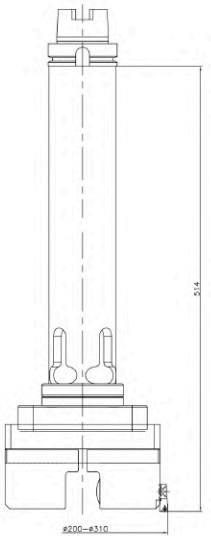
Ø68–Ø150 × 200 mm
Ø68–Ø150 × 300 mm





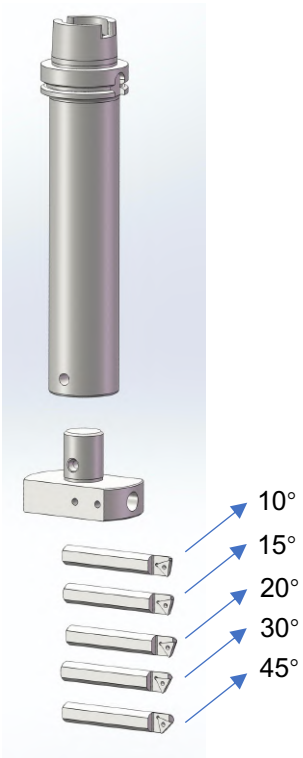
Ø100–Ø203 × 200 mm
Ø100–Ø203 × 300 mm
Ø100–Ø203 × 400 mm

Boring Bar

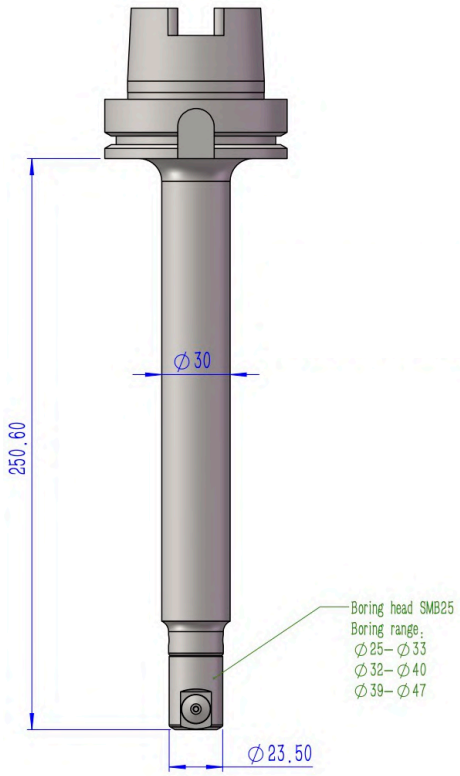




Ø200–Ø310 × 200 mm
Ø200–Ø310 × 300 mm
Ø200–Ø310 × 400 mm



Boring bar for lower chamfering
Angles: 10°, 15°, 20°, 30°, 45°



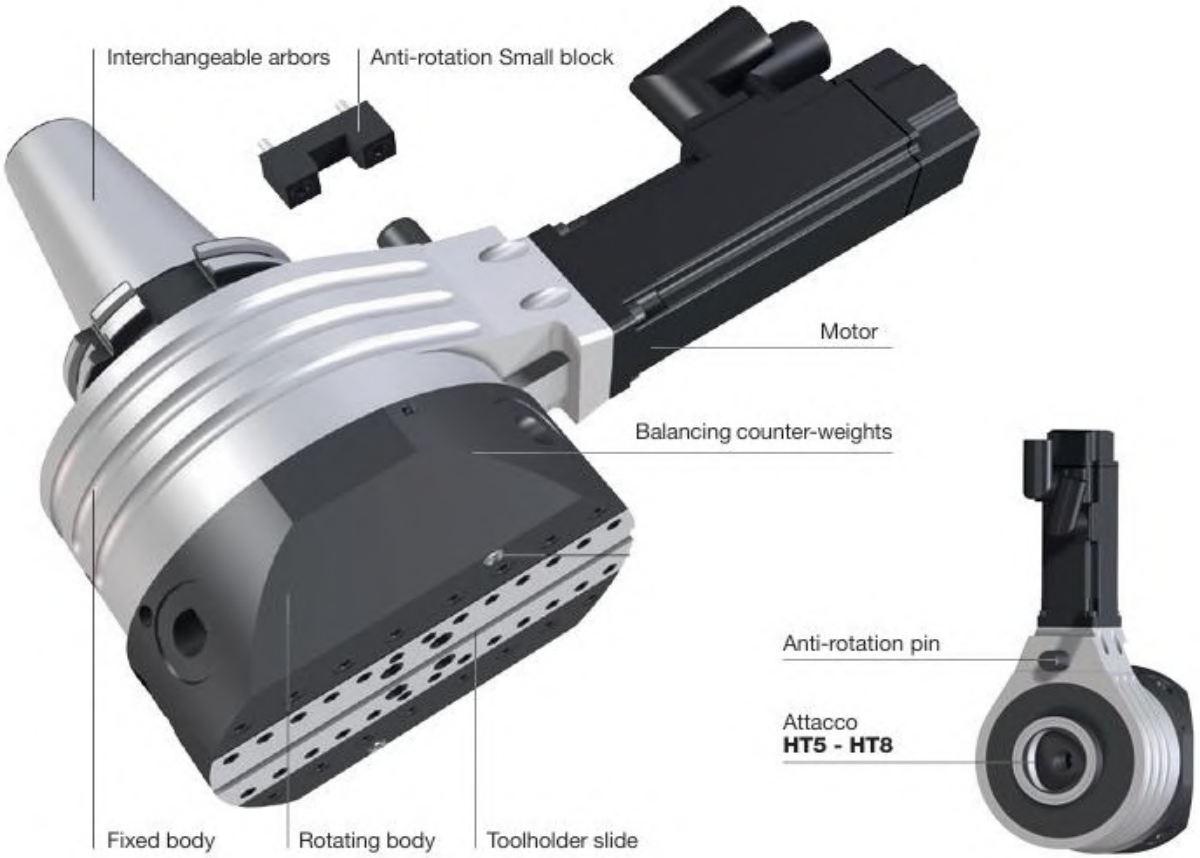
Boring bar: Ø25–Ø47 × 250 mm
Suitable for water holes

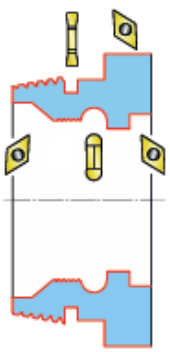
U-Axis

U-axis boring and facing head designed for machining centers.
The integrated servo motor, connected to the SIEMENS 828D control system, controls the toolholder slide movement.

The stationary body is fixed by a flange or, for light-duty operations, by an anti-rotation pin.

Machining capacity up to Ø300 mm
Arbor: HSK100



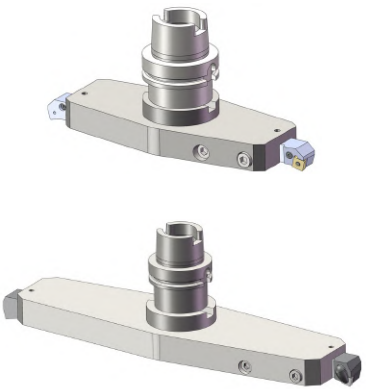


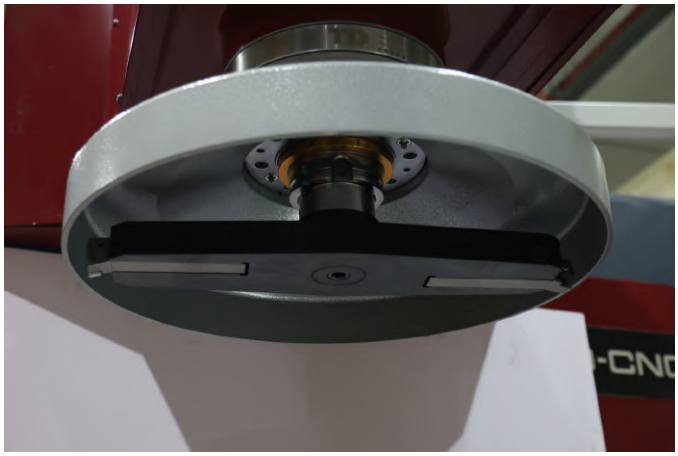
Examples of machining operations achievable with the U-axis, depending on the cutting tool used.



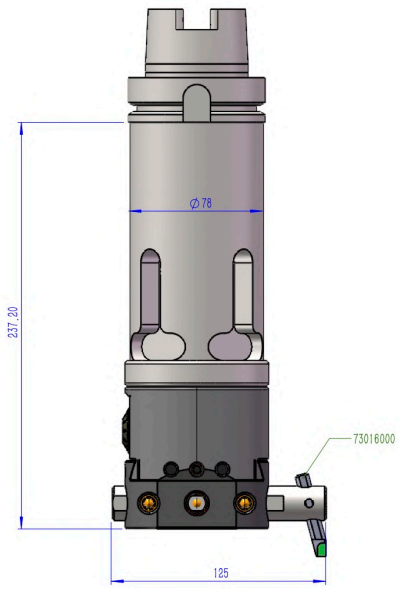
Also suitable for undercut machining.

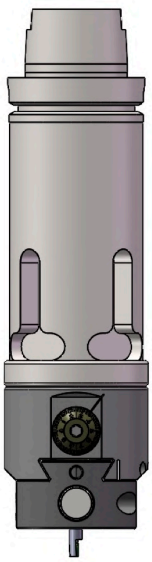
Milling head





Ø300 mm, incl. spindle and 2 round CBN inserts
Ø400 mm, incl. spindle and 2 round CBN inserts
Ø500 mm, incl. spindle and 2 round CBN inserts

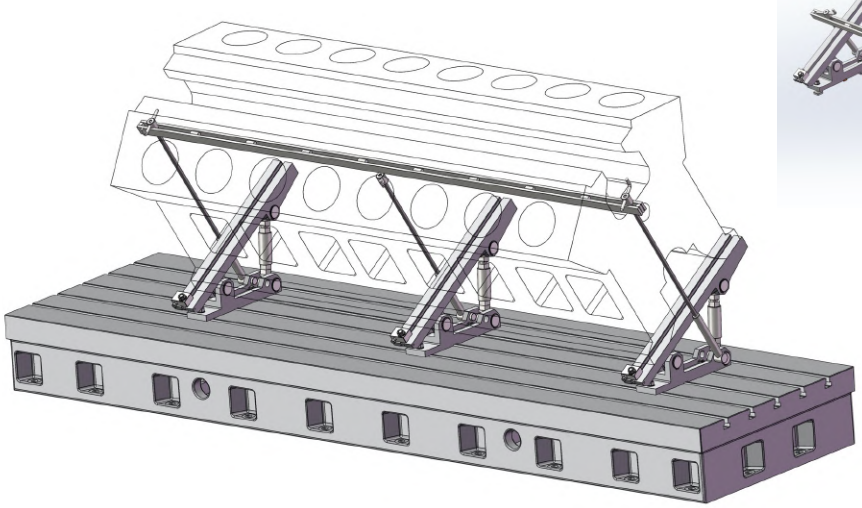


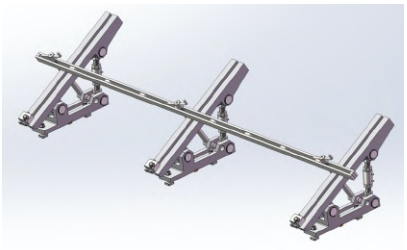




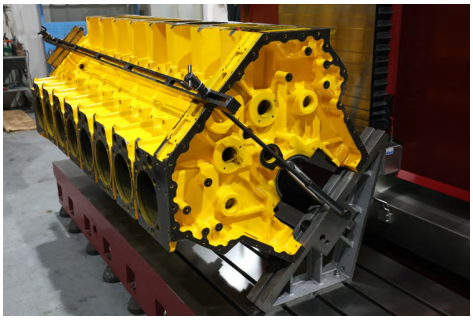
Milling head for machining cap saddle surfaces
Carbide-tipped milling tool: Ø8 × 50 mm

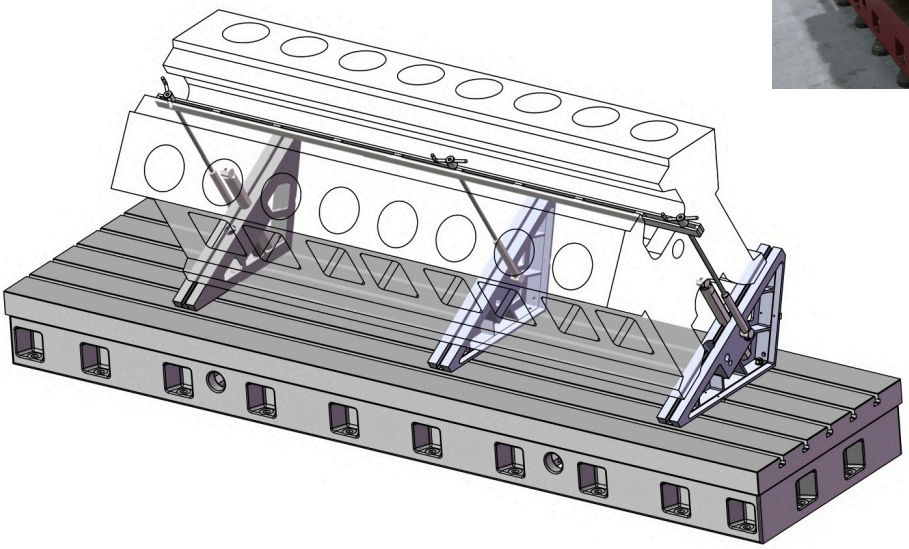
Fixture





Set of adjustable angles 30°–45° for V-block 60°–90° setup (3 pcs)
Set of adjustable angles 20°–30° for V-block 40°–60° setup (3 pcs)

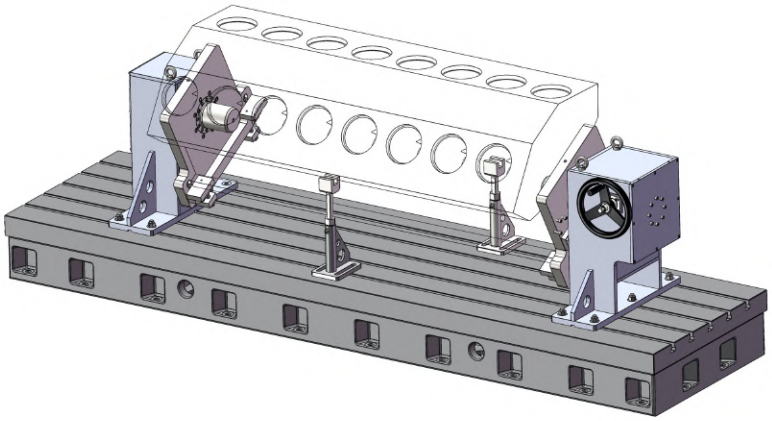




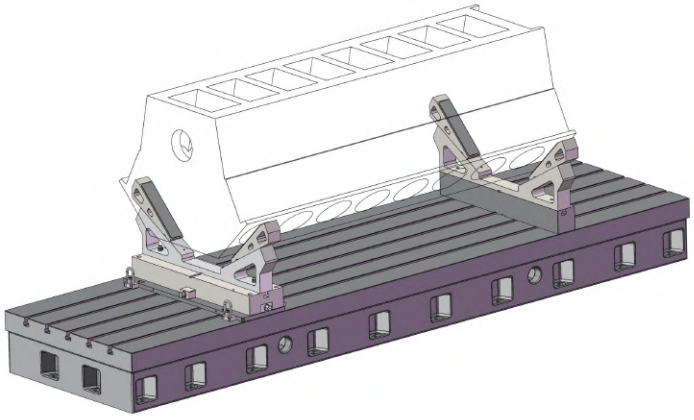


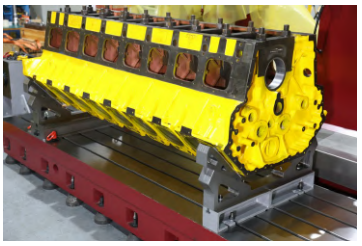
Universal boring stand for 60° and 90° V-blocks (3 pcs)

Fixture



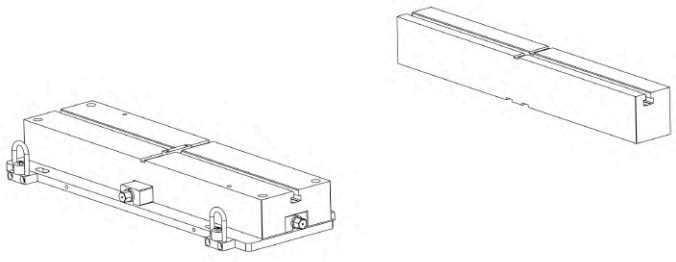
Manual adjustable roll-over fixtures for boring and milling







V-block fixtures for main boring, 60° and 90° (small blocks)
V-block fixtures for main boring, 60° and 90° (large blocks)
Available for other angles upon request

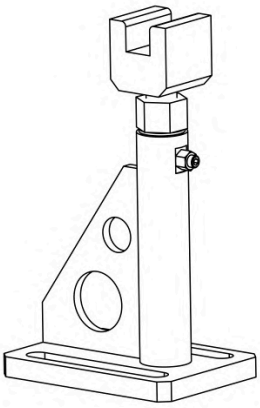


Set of base supports, adjustable in two directions (2 pcs)
Set of base supports, adjustable in two directions (3 pcs)

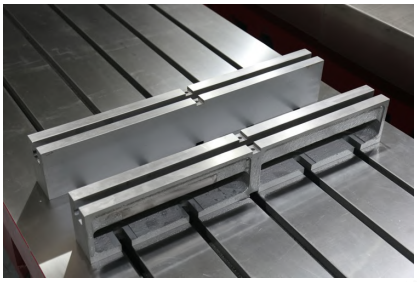
Fixture

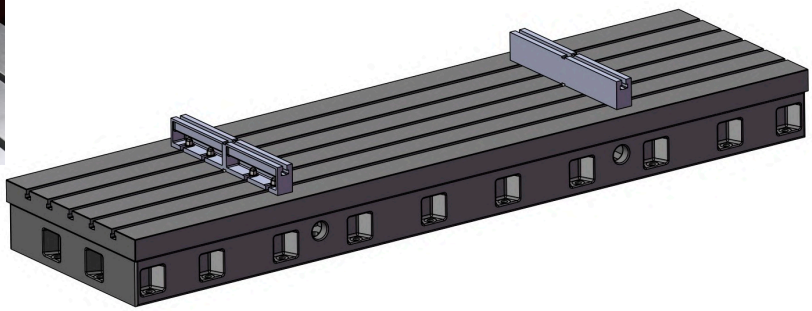


Set of quick-acting clamps (2 pcs)

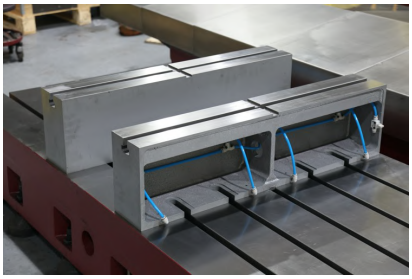


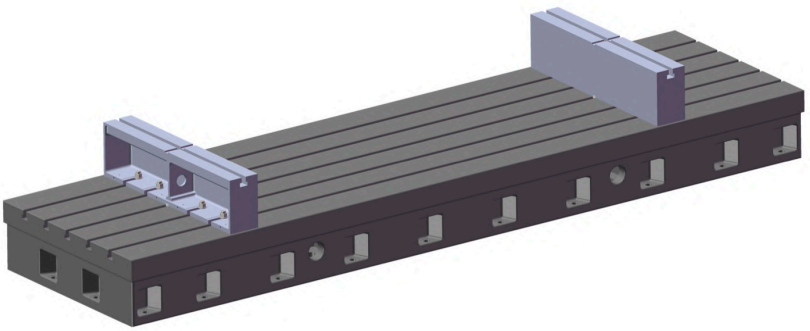
Set of jacks (4 pcs)





Set of setting-up blocks: Height 130 mm, length 800 mm, width 80 mm





Set of setting-up blocks:
Height 250 mm, length 1000 mm, width 150 mm, with air flow

Measuring Tools



7201001

Cylinder Measuring Gauge 50-150mm 0.01mm



7201002

Cylinder Measuring Gauge 100-160mm 0.01mm



7201003

Cylinder Measuring Gauge 160-250mm 0.01mm



7201004

Cylinder Measuring Gauge 250-400mm 0.01mm

Cylinder measuring gauges:

- 7201001: range 50–150 mm, resolution 0.01 mm
- 7201002: range 100–160 mm, resolution 0.01 mm
- 7201003: range 160–250 mm, resolution 0.01 mm
- 7201004: range 250–400 mm, resolution 0.01 mm

AMC-SCHOU HEAVY DUTY CNC MACHINE CENTERS
CURRENT STANDARD MODELS

TECHNICAL SPECIFICATIONS			CM 3500-CNC	CM 4500-CNC	CM6500-CNC
Boring diameter range		mm	20 – 500		
Line boring diameter range			50 – 300		
Travel	X left to right	mm	3,500	4,500	6,500
	Y in/out		450	600	600
	Z vertical		1,300		
Feed rate	X	mm/min	0 – 4,000		
	Y		0 – 3,000		
	Z		0 – 3,000		
Table size		mm	3,600x950	4,600x1,200	6,100x1,200
Spindle center to column		mm	700	900	900
Spindle nose to table		mm	500 – 1,800	700 – 2,000	700 – 2,000
Max. load on table		kg	15,000	25,000	25,000
Spindle rotation		rpm	0 – 2,000		
Spindle type		-	HSK 100		
Ballscrew diameter	X	mm	63		
	Y		50		
	Z		50		
Positioning accuracy	X/Y/Z	mm	0.012		
Positioning repeatability	X/Y/Z	mm	0.010		
Air		kg/cm²	≥6		
Motors	Spindle	kw	12		
	X		5		
	Y		5		
	Z		5		
Dimensions	Length	mm	5,900	7,000	9,000
	Width		3,300	3,300	3,300
	Height		3,600	3,900	3,900

Specifications, descriptions, dimensions and illustrations are subject to change without prior notice.

The Benefits of Precision

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