

MX7

The Next Generation in Precision Grinding



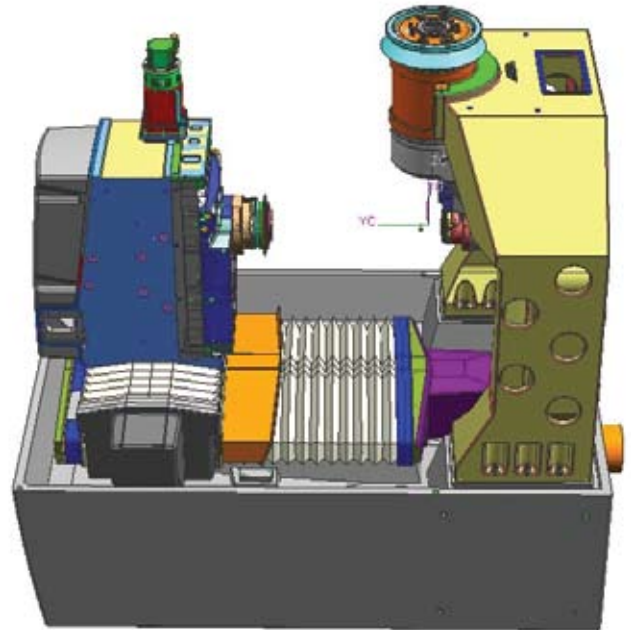
ANCA[®]
TOTAL PRECISION

MX7

Fast, Flexible, High Performance

MX7 is a new generation of high-precision CNC grinding systems. It's built to answer today's economic realities, and the demands of high output, high-precision manufacturing. MX7 is hard-working, high-productivity system whose unique features make it capable of handling varied batch sizes with minimum setup time. Speed, flexibility, ANCA reliability and optimum precision – **they're all in the MX7.**

Tool manufacturers worldwide are demanding precision grinding at lower cost, and MX7 delivers it. MX7 is optimized to grind tools up to 16 mm diameter – focusing on the area of your greatest demand. That means highest levels of accuracy and productivity where it counts the most.



World-class ANCA design and engineering gives the MX7 the features and rigidity of a TX7, with the economics of an RX7 – plus all the great features found in all ANCA machines.

PRECISION

FLEXIBILITY

PRODUCTIVITY

RELIABILITY



MX7 at a glance

- 10 sec tool change
- 10 sec wheel change
- Production ready
- 6 HSK 50 wheel packs for flexibility of set-up
- MLX loader for unmanned operations
- Permanent magnet spindle delivers high torque
- Off-line tool design and development using CIM 3D

Proven design fundamentals

TX7-style axis layout with double bridge column design

- Outstanding rigidity
- Minimizes axis travel reducing cycle time
- Minimizes machine footprint
- Tool grinding on machine centerline delivers optimal tool accuracy



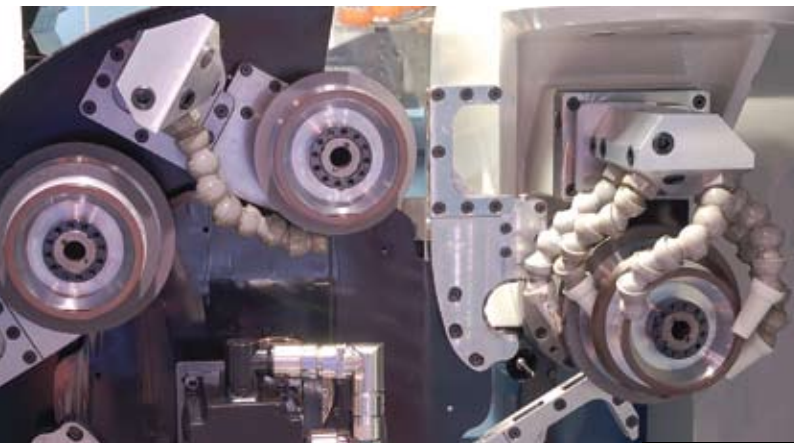
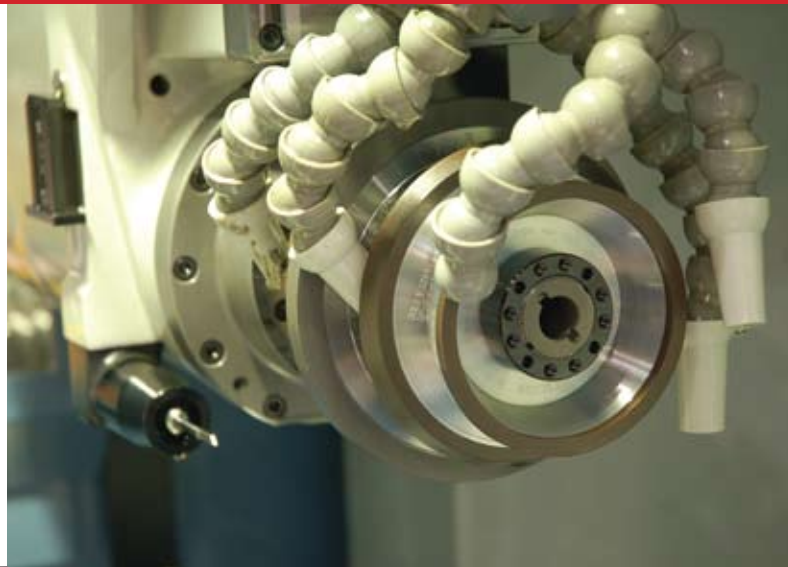
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Revolutionary permanent magnet spindle

Permanent-magnet spindle

Outstanding spindle performance across entire spindle working range

- Higher torque at lower RPM particularly suited for carbide grinding
- Position Controlled axis (Q-axis)
- 10,000 RPM maximum
- Spindle power rating of 20 kW (S1)
- Lower current draw therefore less heat and less expansion



Automatic Wheel Changer in cycle

Standard wheel-pack changer

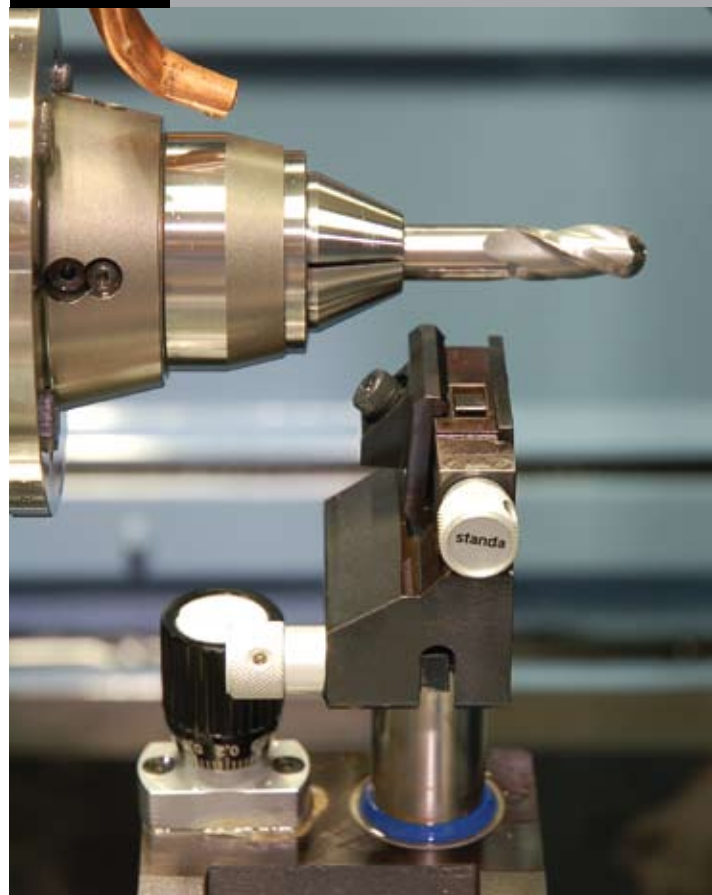
Increases machine productivity and flexibility

- 10-second wheel change time
- Six HSK wheel packs for accurate, rigid spindle mounting
- Coolant manifolds also changed
- Spindle returns to same index position ensuring superior repeatability

Pop-up steady

Excellent accuracy with setting control

- Ground on machine for optimum accuracy
- Fine adjustment screws helping reduce set-up time
- Adjustable vertically, axially and also yaw



Precision tool support

PERFORMANCE

Integrated loader

Designed for maximum productivity and minimal setup time

- 10-second tool change time
- High capacity: 3 mm – 840 tools, 16 mm – 154 tools
- Elegant design uses only one gripper set for loading, reducing setup time
- Integration into machine base ensures repeatable loading



MLX Loader with variety of tools

Better Performance, Better Profit

MX7 is a powerful, versatile next-generation system that is helping ANCA change the grinding industry worldwide.

Better productivity, flexibility and an innovative system design means higher profits, greater competitiveness, and leaner manufacturing for ANCA customers.

MX7 will take you there.



See-through access door



INNOVATION

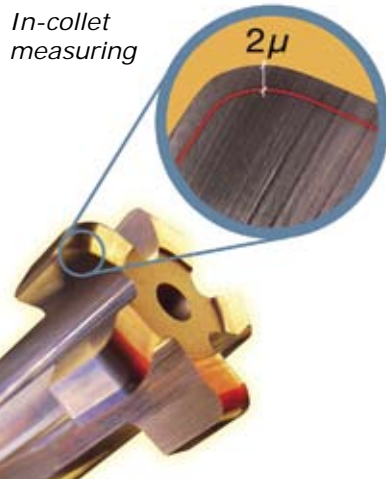
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In-process dressing

Wheel dressing

Mounting a dresser roll onto the high-speed headstock allows in-cycle dressing of grinding wheels, which is a must for any unmanned and high performance operation.

Customized wheel shapes can be imported in the form of a DXF file and automatically dressed and used in any grinding cycle.



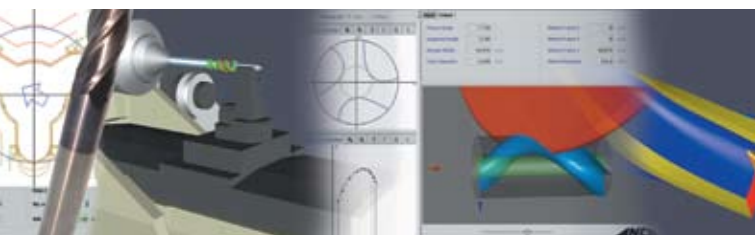
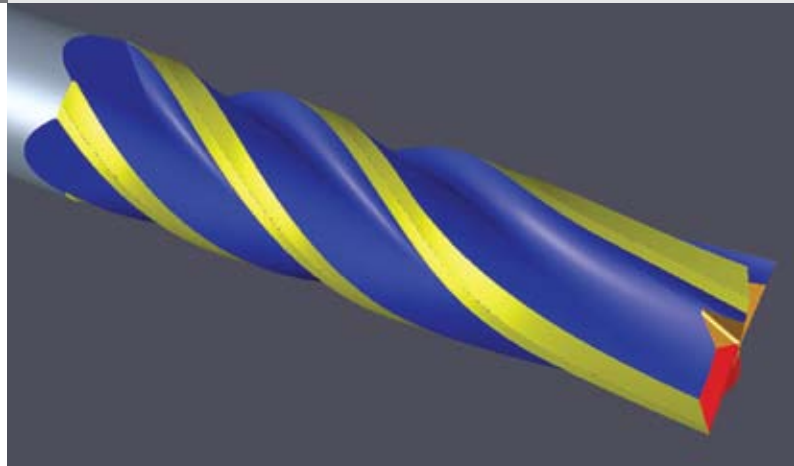
iView

iView, a precise tool measurement system developed by ANCA, can quickly be set up inside the machine to provide measurement data without the need to remove the tool from the work piece clamping. This data can be fed into the grinding program for automatic exact compensation, resulting in a precisely ground tool.

Real time simulation

CIMulator3D

CIMulator3D simulates the programmed tool path exactly as it would be ground on the machine. New Tool programs can be verified for size, shape, machine clearance and even cycle time estimates. CIMulator3D maintains continuous work flow through the machine by reducing development time and trial grinding.



Flexible and versatile

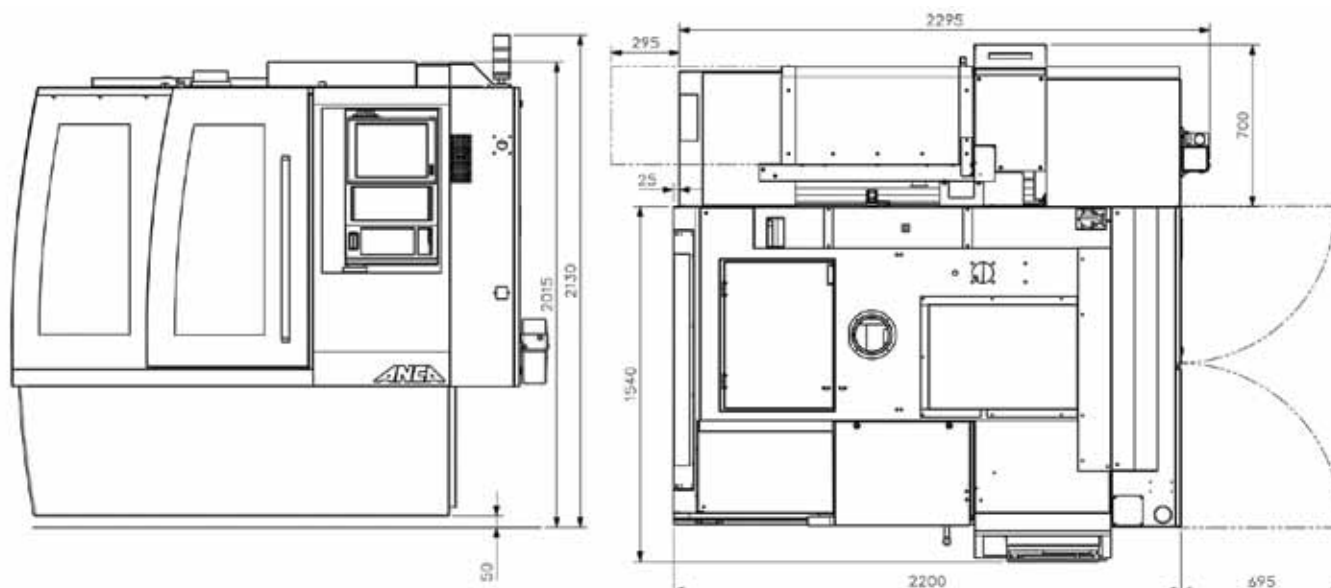
Software

A wide range of applications based on the renowned ANCA iGrind platform are available within the ANCA ToolRoom® software suite. The iGrind interface is user friendly, offering a high degree of flexibility and operational efficiency. The ToolRoom® suite of software supports the grinding of drills, end mills, profile tools, burrs, routers and many other special applications.



Technical Specifications

CNC Data						
ANCA 5DX, Intel Core 2 Duo, min. 1GByte, 15" Touch Screen, Ethernet port, 56kbps modem, Two USB ports, UPS						
Mechanical Axes						
	X-axis	Y-axis	Z-axis	C-axis	A-axis	Q-axis
Position Feedback Resolution	0.0001 mm 0.0000039"	0.0001 mm 0.0000039"	0.0001 mm 0.0000039"	0.0001 deg.	0.0001 deg.	0.03 deg.
Programming Resolution	0.001 mm 0.000039"	0.001 mm 0.000039"	0.001 mm 0.000039"	0.001 deg.	0.001 deg.	0.3 deg.
Software Axes (patented): B, V, U, W						
Work Piece	Maximum tool diameter / Maximum tool grind length: 100 mm (4") / 220 mm (8 1/2")					
Drive System	ANCA Digital (SERCOS) / Linear axes direct-drive ballscrew / Rotary axes direct drive					
Machine Data						
Grinding Spindle	ANCA Bi-directional 20 kW (S1) 29 Nm / 10,000 RPM / Permanent magnet / Position controlled axis (Q-axis) / Integral direct drive / HSK-F					
Grinding Wheels	Max. diameter 150mm (6") / Wheel bore: 31.75 mm (1.250") / Six wheel packs with max. four wheels each.					
Electrical Power	25 kVA					
Probe System	Renishaw					
Coolant System	External					
Machine Base	ANCAcrete (polymer concrete)					
Colour	RAL 7035 / RAL 5014					
Weight	Approximately 5500 kg (12,125 lbs)					
Floor Plan Including Loader	Width 2325 mm 92"	Depth 2240 mm 88"	Height 2015 mm 80"			
ANCA reserves the right to alter or amend specifications without prior notice.						





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