

GX7



***The Cost-Effective
CNC Grinding Machine***



ANCA[®]

GX7 a cost-effective CNC tool grinder with flexibility and speed

A resharpening machine with light manufacturing capability

The GX7 is an ideal match for companies interested in resharpening or light manufacturing — and who prefer more functionality. The differences when compared to ANCA's entry level machine include two automation choices, an optional wheel changer, more spindle power and more options.

Flexibility and speed

The GX7 is small and compact yet has a large working envelope making it suitable for a wide range of tool types, geometries and shapes. The GX7 has both the flexibility and speed to tackle a wide range of cutting and drilling tools in one set-up. It is as productive on single-tool jobs as it is on batches of tools of different types and geometry.

The industry has high demands with regards to accuracy, machine reliability and efficiency. ANCA's GX7 meets these expectations and sets new standards for a CNC tool grinder.

The GX7 is perfect for tool resharpeners. It provides:

- Quick set-up and job change-over
- Fast cycle times
- Very high tool accuracy
- Superior surface finish
- Versatility to handle a wide variety of applications
- High reliability

ToolRoom software

The ANCA ToolRoom software suite enables quick and easy set-up for tools such as drills, endmills, profile tools and other special tools.

The standard probe system allows the machine to accurately locate the features of the tool to be sharpened. The integration between the probe and software makes accurate and precise tool sharpening possible.

Designed for the operator

The GX7 has been designed with the operator in mind. Access to wheels, coolant pipes and headstock work-holding is easy from the operator access door.

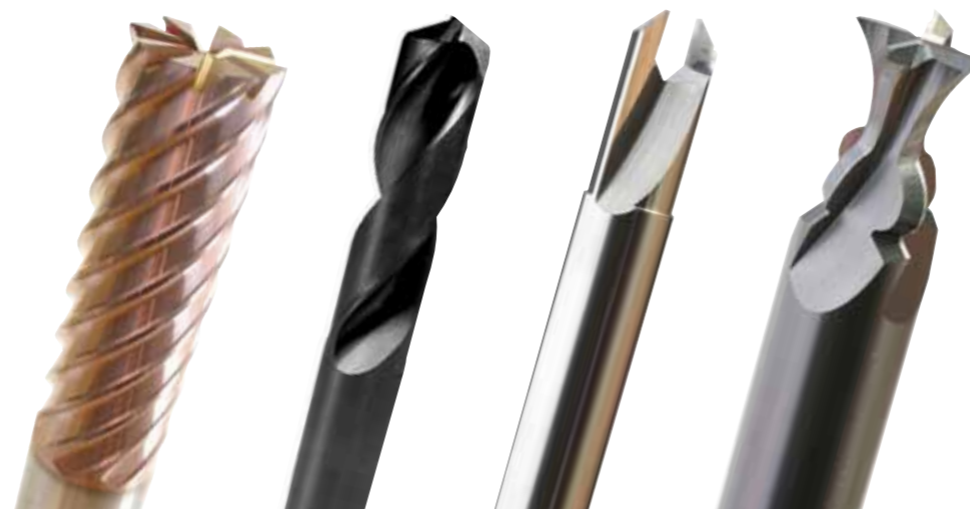
Easy-to-change coolant manifolds, which can be set up off the machine to suit each wheel pack, also reduce preparation time to a minimum.

The single direct-drive bi-directional spindle — with wheel packs at both ends of the spindle — enables up to eight wheels to be used in one set-up. The design of the spindle gives unrestricted access to the work piece.



GX7 at a glance

- Has the flexibility and speed to handle a broad range of different tools in one set-up.
- Seven-pack wheel changer option for increased productivity.
- Robot loader (RoboMate) option designed especially for high volume production.
- Compact loader (FastLoad) option, contained within machine canopy, for low volume production.
- High-level ergonomics for optimal operator access and comfort.
- Wide range of tooling accessories to support automatic tool loading.
- ANCA ToolRoom software flexibility enables GX7 to be used for a large range of applications.
- ANCA industry-proven technology such as polymer concrete base, MPG feed, CNC and direct drive technology.



GX7+ Major Options



Direct-drive multi directional spindle

The wheel spindle is based on a direct-drive motor design capable of 10,000 RPM. With the choice of either HSK40F or ISO 30 taper, and peak power of 9.5 kW (12.7 HP), it offers more than enough power for any sharpening task. There are no belts, pulleys or gears, which eliminates the key source of vibration usually attributed to belt-driven spindles. Direct-drive systems significantly contribute to the superior surface finish on the ground tool and guarantees higher machine reliability.

All linear and rotary machine axes on the GX7 also use direct-drive technology giving greater positional accuracy.

Machine-enhancing options

A variety of options further enhance the machine's flexibility. These include a range of pneumatic or hydraulic work piece clamping systems, pop-up steady, iView tool measuring system and software options.

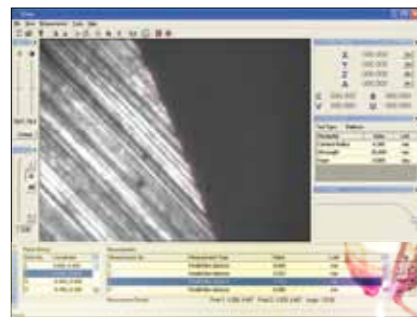
iView

iView is a precise tool measurement system developed by ANCA. It can be quickly 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.

Software

The GX7 standard ToolRoom software suite supports grinding endmills, standard drills and step tools. Other software options create possibilities to grind a wide range of other tools including:

- Profile tools
- Proprietary drill points
- Routers
- Side and face cutters
- Gun drills



Wheel changer

To add even more to the versatility of the GX7, ANCA developed a seven-station automatic wheel changer. This gives the operator increased diversity in applications because there is now a greater number of wheels available.

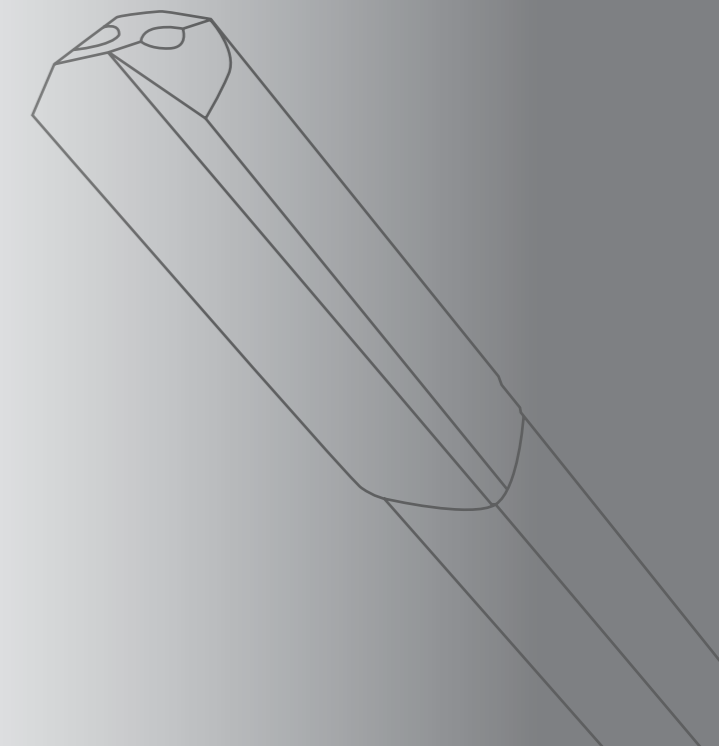
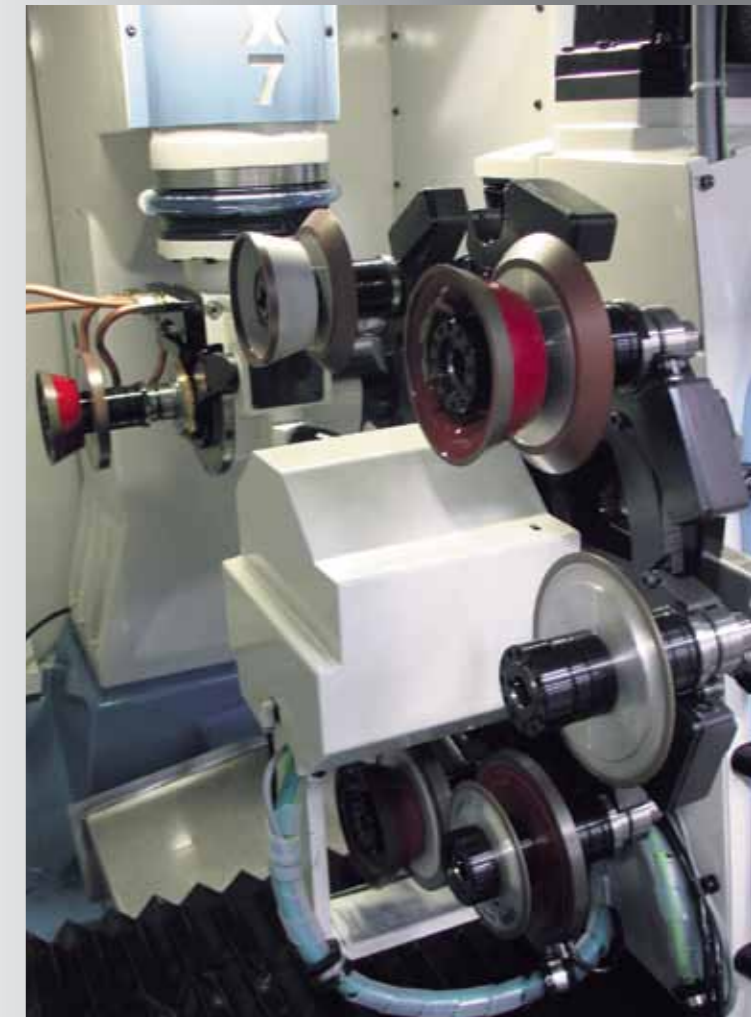
The changer enables the operator to fill all the stations on an auto loader regardless of run size and differing tool types. This means that the GX7+ can run unattended for longer periods, delivering higher levels of productivity and cost savings.

With a wider number of wheels available, the need to change wheel packs between tool types is reduced.

The wheel changer is installed on the side of the Z-axis saddle and is totally contained within the standard GX7+ canopy. This means that the compact footprint is retained.

HSK spindle

The automatic wheel changer uses a HSK40F as the means of coupling the wheel to the machine spindle. This system provides both face and taper contact resulting in accurate relocation of the wheel arbor each time it is loaded onto the wheel spindle. The GX7+ machine with wheel changer has a direct-drive, single-ended 9.7 kW spindle.



GX7 *Technical specifications*



Loader options

Auto loaders increase a CNC machine's productivity by adding the capability of unattended operation. ANCA offers two innovative automation options for the GX7.

FastLoad - Compact Loader

Designed to meet strict space and budget specifications. The economy and efficiency of the FastLoad means that automatic loading is now viable for companies who do low-volume production runs and cannot justify more complex systems. The loader arm is fully contained within the canopy so the machine footprint is not increased. The loader therefore utilises the existing machine axes, saving money and space.



RoboMate - Robot Loader

The ANCA generic robot loader is suitable for the TX7+, MX7, MX5 & GX7. This means common tooling between the robot loaders on your ANCA machines.

- RoboMate is based around the reliable Fanuc 200iC robot and is a versatile automation solution.
- The loader comes in a 2 pallet configuration as standard, with 4 as an option. The 4 pallet configuration can hold:
 - 1560 x 6 mm (1/4") tools or
 - 462 x 16 mm (3/8") tools or
 - 189 x 25 mm (1") tools
- The RoboMate can load tool diameters from Ø3 mm (1/8") to Ø32 mm (1-1/4") on the GX7.
- The size of the loader is:
 - L 2379 mm x W 722 mm x H 1865 mm
 - L 94" x W 28" x H 73"

CNC-Data

ANCA 5DX, Core 2 Duo, min. 3GB RAM, 15" Touch Screen, DVD RW, UPS

Mechanical axes

Position feedback resolution

X-axis	0.0001 mm (0.0000039")
Y-axis	0.0001 mm (0.0000039")
Z-axis	0.0001 mm (0.0000039")
C-axis	0.0001 deg
A-axis	0.0001 deg

Programming resolution

X-axis	0.001 mm (0.000039")
Y-axis	0.001 mm (0.000039")
Z-axis	0.001 mm (0.000039")
C-axis	0.001 deg
A-axis	0.001 deg

Software axes (patented)

B, V, U, W

Work piece

Maximum tool diam. Ø220 mm (8.66")
Maximum tool weight 20 kg (44 lbs)

Drive system

ANCA Digital (SERCOS standard) / Linear axes direct-drive ballscrew / Rotary axes direct drive

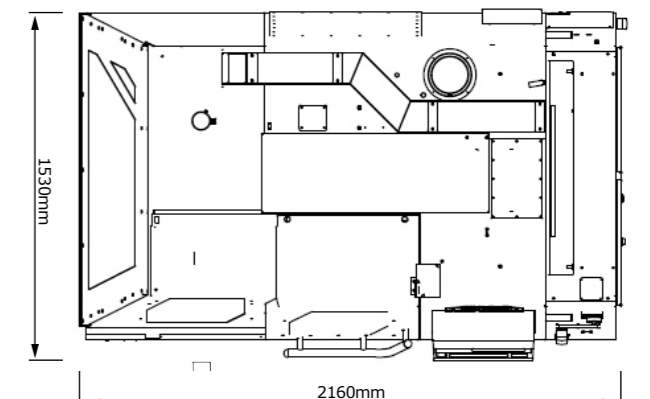
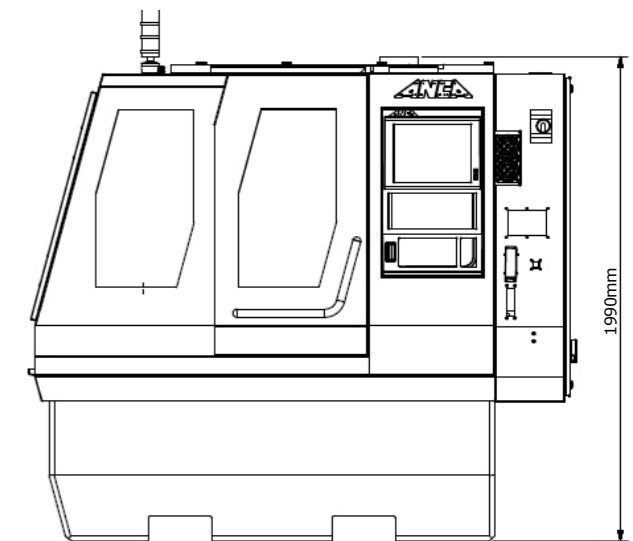
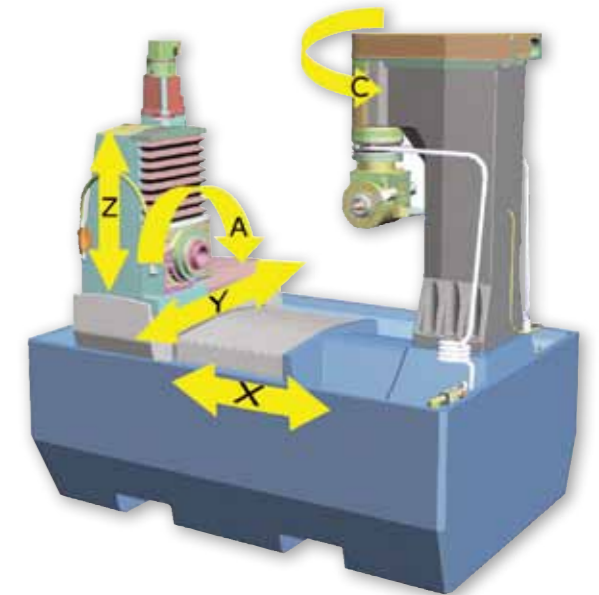
Machine data

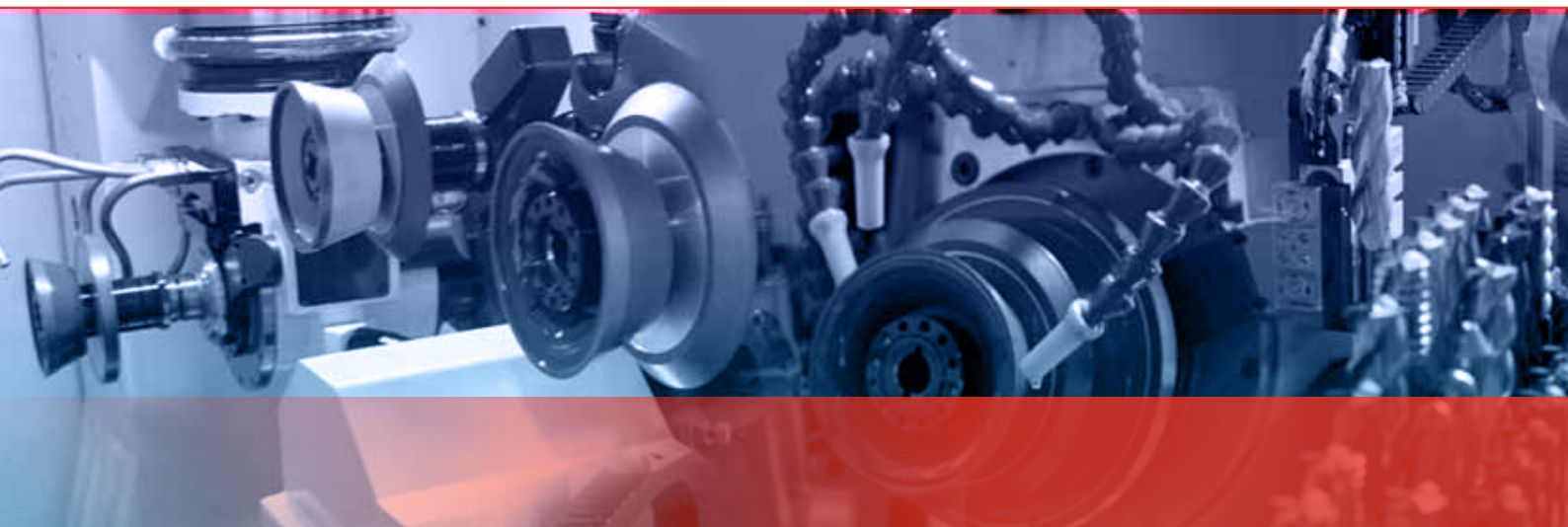
Grinding spindle	Bi-directional direct drive 4.2 kW/5.6 HP (constant power-S1) 9.5 kW/12.7 HP (peak power) 10,000 RPM
Spindle taper	HSK40F or ISO 30
Grinding wheel	Max. Ø203 mm (8")
Wheel bore	Ø31.75 mm (1¼"), Ø32 mm (1.3"), Ø20 mm (0.8")
Two wheel packs	Max. 4 wheels each

Other data

Electrical power	13.2 KVA (18.2 KVA with entry level coolant system)
Probe system	Renishaw
Coolant system	External
Machine base	ANCAcrete (Polymer concrete)
Colour	RAL 7035 / RAL 5014
Weight	Approximately 4500 kg (9920 lbs)
Floor plan	Width: 2160 mm (85") Depth: 1530 mm (60") Height: 1990 mm (78")

ANCA reserves the right to alter or amend specifications without prior notice



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