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Technical Data

- Simultaneous interpolation of up to five axes (40 V, max. 3 A)
- Real 5-D processing
- Continuous velocity along the path, in 5-D and real-time with dynamic pre-calculation of path
- Greater smoothness of running, more powerful and more accurate due to microsteps (1/64 step), automatic change-over to full step mode for higher rates of feed
- High processing speed, exponential acceleration ramps
- Easy adaptation of different software packages via command set similar to DIN 66025 (G codes)
- 4 digital outputs (24 V, together max. 2 A) for controlling process flows (e. g. clamping devices for workpiece feed) or extra devices
- 4 digital inputs (24 V) for security appliances (light barriers, safety shut-off mats, etc.) or measuring devices
- Spindle interface
- Connection for manual control unit and control panel
- Connection to PC via RS 232 or Ethernet; the Ethernet connection may also be used for easy equipment condition monitoring or remote control/maintenance
- Halt function with continue or program termination
- Robust and isolated metal housing
- Upgradable hard- and software

Controller CNC 980 for ACTIVE Basic Systems

This model can **control up to five axes simultaneously** which is a decisive feature. So you can additionally use a **tangential cutting head**, a **rotary axis** or a similar positioning device at any time on your CAM system.

This opens up an extensive range of options to you. Your CAM system is no longer limited to just engraving and milling, but can also perform **sophisticated cutting tasks** with a tangential cutting unit. Alternatively, the fifth axis may be used for an **automatic workpiece feed** which accelerates the whole work flow in serial production by eliminating the time for a manual change.

The further connectors for measuring and control purposes as well as the performance characteristics comply with CNC.550. However, there are two more digital in- and outputs **available each**.



Five axes machine controller CNC 980

Connection Sockets

- spindle controller for different spindle types
- tangential cutting head
- manual control unit/control panel
- electronic workpiece levelling unit for an evenly dipping depth
- automatically switched cooling/spraying unit
- automatic z adjustment unit
- automatic tool change
- safety installations

CAM 1010 - CAM 2040

Model	x/y Positioning range (mm)	Mounting Area (mm)	z Axis Lift (mm)	Passage Height (mm)	Machine Table	Controller
CAM 1010 Active	1.050 x 1.050	1.000 x 1.000	70, 160*	100, 200*	Special VT**	CNC 800
CAM 1020 Active	1.050 x 2.050	1.000 x 2.000	70, 160*	100, 200*	Special VT**	CNC 800
CAM 1520 Active	1.550 x 2.050	1.500 x 2.000	70, 160*	100, 200*	Special VT**	CNC 800
CAM 2030 Active	2.050 x 3.050	2.000 x 3.000	70, 160*	100, 200*	Special VT**	CNC 800
CAM 2040 Active	2.050 x 4.050	2.000 x 4.000	70, 160*	100, 200*	Special VT**	CNC 800

* optional equipment

** on request, the special vacuum table can be omitted completely or partly

Basic systems with other dimensions on request

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Router VHF Active Pro

Large, flexible & affordable!!!

VHF professional range of CAD/CAM systems combine **optimum flexibility, large working area** and an **affordable price**. They are completely adjustable to customer's needs and come with a **wide range of tools and peripheral parts** for engraving & milling - **ideal for 3D applications**. All VHF systems feature a **robust construction** and are **fully upgradeable**.

VHF Active - Active Pro

- Large working area (1x1, 2x4m and more)
- Special integrated vacuum table
- Automatically switched cooling/spraying unit while cutting
- Milling & engraving works plus special tasks (cutting, embossing, dispensing, marking, screwing e.t.c)
- Ideal for any sign making application, wood, plastics and metal working (iron, steel)



- Ideal for digital printing applications due to camera driven contour cutting capability

(* **Wide range of tools** for any CAM system available in the market!



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CAM 1010 - CAM 2040 ACTIVE

Professional CAM systems for all sign applications

Delivery Extent

- engraving and milling system
- controller CNC 980
- special vacuum table with suction units and vacuum fleece
- separate emergency stop button
- complete cable set

Peripheral Equipment

On request, we can equip these CAM systems with a number of individual extras which are not listed, such as:

- rotary axis for working on cylindrical objects
- plasma-cut fixtures for cutting easily through (thicker) metal plates even at high rates of feed and little strain for the CAM system during the working process



The new **Active series** is the measure of all things for applications which demand a large working area. **Positioning ranges of up to 2 x 4 meters** are already part of the standard program. So it becomes possible to process all common plate formats. On request, we can produce even larger systems for special applications. An example would be a system with a size of 3 x 14 meters which we have manufactured for the production of side plates of refrigerated trucks.

The low-weight aluminium construction enables very **high acceleration rates**; thanks to powerful hybrid motor drive units, it is possible to **mill materials of nearly all hardness grades**. A substructure made of panel profiles that are bolted against each other horizontally ensures high stability.

Its rack-and-pinion drive achieves a remarkable repetition accuracy of 5/100 mm. Thus such a vhf CAM system does not only produce **excellent milling results** for its size, it can even be used well for **engraving works**. The z axis is driven by ball screw spindles and complies with highest demands concerning precision.

A real highlight of this machine series is the **special vacuum table** which is **integrated into the machine table** and included in the system price. As it has been trimmed by surface milling, you will achieve an **optimum plane parallelism**. Your workpieces can be exchanged within just a few seconds and will be fixed with high adhesive force. During the milling process, the vacuum table itself is protected by a fleece so that the tool cannot damage its surface.

On request, the serial vacuum table can be omitted completely or partly. If the system is constructed partly without a vacuum table, you can fix **very high workpieces** in these open areas for working on their front sides. If the system has no vacuum table at all, you can integrate a **water container for plasma cutting** or a **T-slot table** instead.

Please ask for an appropriate offer. Except for the distinctions of the fixing devices and except for the housings, all other modules available can be used with the Active series.



Large format system CAM 2040 Active (positioning range: 2,050 x 4,050 x 70 mm), with integrated special vacuum table

All systems of this model range are also available in a **more stable "Pro" version** (see also box below). This is a useful alternative especially for **industrial applications**. It combines large positioning ranges with high stability and power. In detail, the drive units have not only become **more powerful**, but also **more precise**. Thus you can **produce even quicker** with an **improved quality of the edges of cut** at the same time.

Active Pro

The performance package Active Pro contains:

- 3 high-revving motor drive units with gearing for finer resolutions and a more powerful machining at the same time
- 3 two sliding carriages in x and y direction as well as additionally doubled linear guide in x direction for an altogether increased rigidity of the whole system
- 3 considerably strengthened bridge construction due to a greater overall depth and double bridge angles

The serial five axes controller CNC 980 makes the Active systems **real all-rounders**: **milling spindles** and **tangential cutting devices** can be used both. They can be **exchanged easily** - depending on the current application.

This model range is ideal for working on metal when your machine is equipped with a **plasma-cut fixture**. So you can cut steel plates with a thickness of a few centimeters at high rates of feed without mechanical strain on the CAM system. A water container protects the substructure of the system.

Please contact us when you need a **special design with specific dimensions**. The construction of these CAM systems using panel profiles and rack-and-pinion drives for the x and y axis which can be extended to nearly any size grants as much freedom as possible.

Detail view of the bridge with z axis of a CAM 2030 Active where a rotary current spindle SPC 1000 is mounted. The special vacuum table is covered with a vacuum fleece. At the bottom of the picture: drive unit with rack-and-pinion and linear guides.



Further Advantages

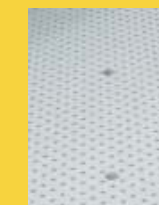
- Five axes are standard: the controller CNC 980 leaves one axis output as reserve for controlling a tangential cutting head or a rotary axis - this opens up a wide range of possibilities



- the Active systems are also available with a greater passage height - e. g. when you work on higher workpieces (here: 200 mm passage height and 160 mm lift)



- all Active basic systems are equipped with an integrated vacuum table, even the suction units will be integrated with a minimum use of space into the substructure



- the water container for plasma cutting is an alternative fixing system for the Active series - it has a metal grid on which you simply lay the workpieces you want to process

