

CNC-machining centre

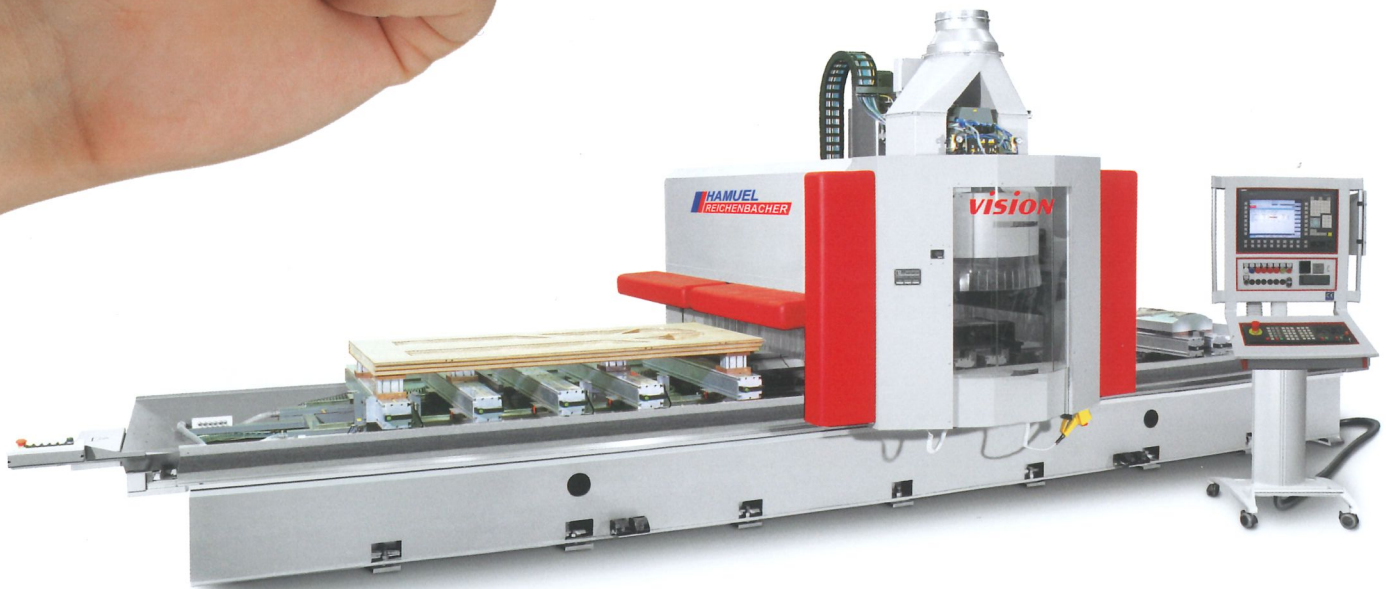
vision

CNC-technology at its best

vision

vision-L

vision-U



HAMUEL
REICHENBACHER

A member of the SCHERDEL group



VISION

The proven VISION machining centre already has an impressive track record of success in many demanding applications around the world. And, like all Reichenbacher Hamuel machines, the VISION

features outstanding machine rigidity – the basis for precision machining. These models have been designed to further reduce production costs whilst maximising throughput, delivering high

Workpieces show what the machine can do

performance at an affordable price. It is therefore that these machining centres are suitable for customised component production with short runs. And it has an outstanding cost-performance ratio.



VISION-L

The machine types VISION-L and -U complete the reliable VISION series. A major feature of these machines is that they can be supplied with a choice of

table dimensions and a wide variety of different heads. These features can be combined for single and parallel machining with up to two independent

All round performance by Design

Y-slides. It is possible to use different working heads next to each other or one behind the other, thanks to the extremely rigid machine construction.



VISION-U

The system VISION:

- Leading safety concept of gantry machines still market-leading after 15 years
- Enclosed gantry made of sheet steel with safety bumpers
→ no pressure sensitive mats
→ no safety barriers
- One-dimensional safety curtain
→ Maximum holding capacity by linear alignment
- Safe view to the working process by generously dimensioned windows

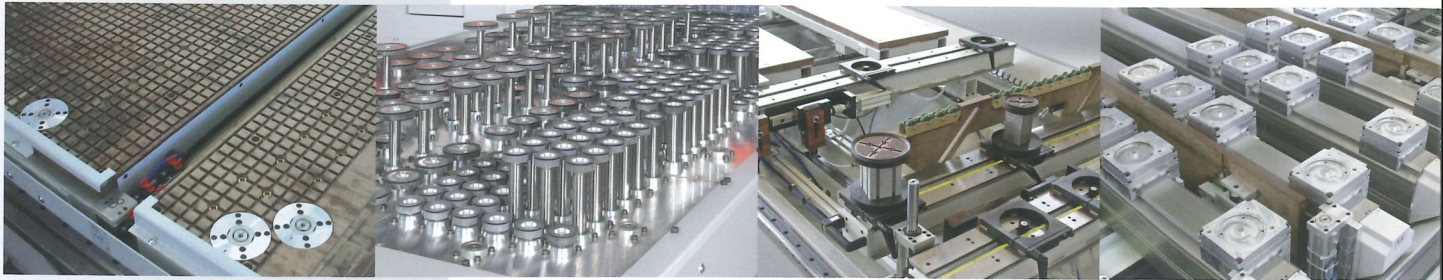
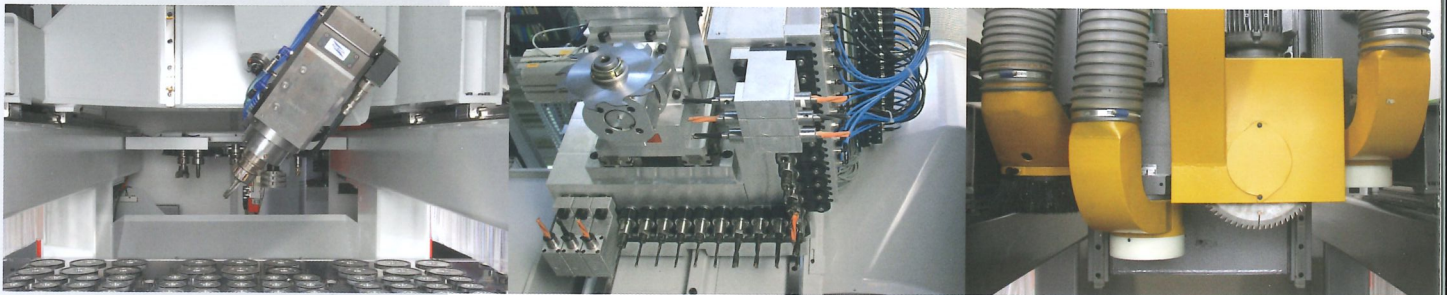


Table types

Whether employed in the production of furniture, interiors, stairs, doors, round-headed windows, worktops or frames, there are no limits to the machines'

capabilities. There are different table lengths and table systems available. The grooved plate table, with different clamping areas, is the proven universal version most commonly used. With the PIN-table, a unique table and

clamping system, new levels of versatility in unit production can be achieved. The automatic beam table is a highlight. Thanks to this new design the table is adjusted for the new workpiece within a few seconds.

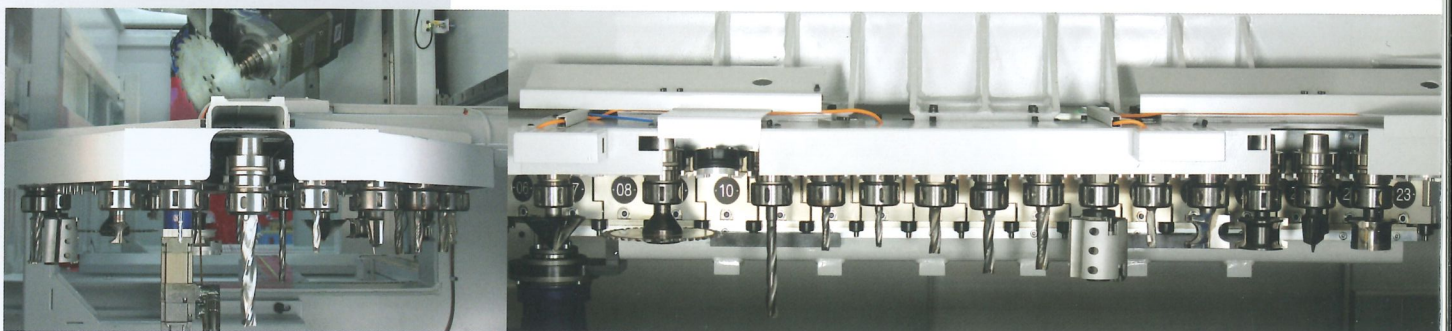


Machining units

The VISION Sprint is equipped with a cardanic working head for 3-dimensional machining of free-form surfaces and profiles. Flexibility has no limits with this

multi-sided machining due to freely definable planes. The multi-spindle drilling unit has 30 individually controllable spindles mounted in L-shape. It is mounted in front of the vertical head in Z-direction and moves around the

entire working table. With three routing motors with separately supported spindle and a sawing head, together with special clamping devices and PIN-table base plates the entire stair machining can be carried out in one clamping.



Tool changer

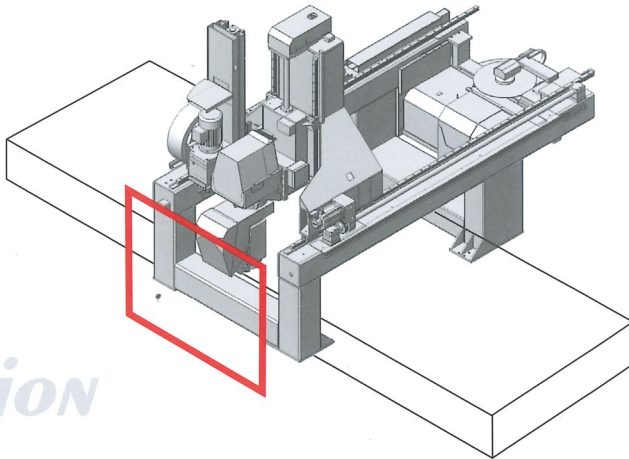
The high-performance heads in the gantry are supplied by a plate magazine with 12 or 24 tools or a chain magazine

with up to 120 tools. In this case maximum time savings are possible by parallel tool change. The hollow cone shanks are suitable for high-speed cutting due to their high

transferrable torque. To perfect flexibility a multi-spindle drilling unit with individually controllable spindles can be added.

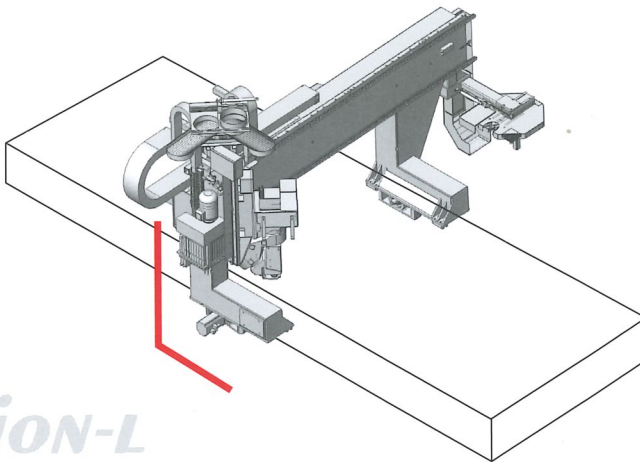
Universal application – for example for special profiles in the aeroplane, car or stair production, efficient all round machining of formed parts and plates, machining of combined hybrid parts made of plastics and metal, machining of aluminium and plastic parts.

Unit arrangement



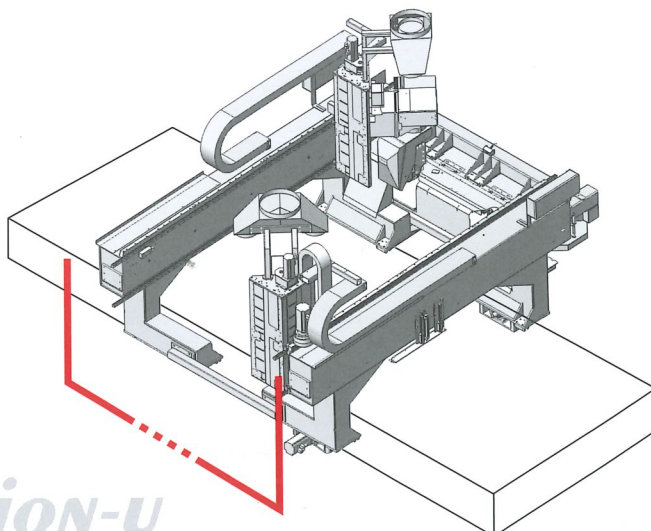
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Machines of the VISION series have a machine substructure with a fixed table. The gantry is mounted upon the machine table and carries out the longitudinal motions (X-motions). All head motions are carried out within the enclosed gantry which is equipped with safety bumpers. The main machine components consist of ripped weldments which have an optimal rigidity and/or weight ratio. This allows very high acceleration values.



VISION-L

With the VISION-L up to two independent Y-slides for the heads can be mounted one behind the other. This allows a parallel tool change from two tool magazines and synchronous machining of two workpieces one behind the other – for example when 5-axis fork heads are used. The independent heads are mounted on an L-support in Y-direction and guarantee high availability.



VISION-U

The VISION-U offers a lot of varieties for parallel and single machining thanks to the U-shaped gantry. Thus a tool change parallel to machining is possible with two heads from a chain magazine for example – double tools can be omitted. The use of up to two cardanic 5-axis heads with a wide additional equipment guarantees maximum flexibility, such as synchronous machining of two workpieces which are clamped one next to the other and/or one behind the other.

Control system

Control system with integrated safety concept

The VISION is equipped with the latest generation of control systems, the Sinumerik 840D solution line (sl) from Siemens whose openness and modular system architecture perfectly matches the design concept of the VISION. The machine is operated and programmed in a

time-saving and intuitive manner using a graphic user surface (NC-HOPS). Above all the control system is able to handle the short reaction times resulting from the high processing speed. This means that the ultimate machining precision is also guaranteed during high speed routing. The high speeds also require a sophisticated

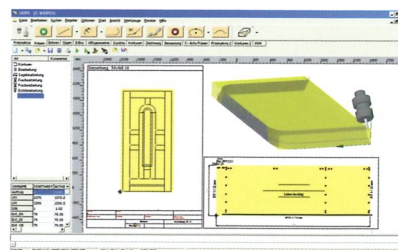
safety concept. The Sinumerik 840D sl offers the best conditions in this regard with the safety concept Safety Integrated. As all the safety functions are directly integrated in the control and drive technology, this intelligent solution provides a high level of protection for man and machine whilst featuring convenient handling.

Software

NC-HOPS

Using NC-HOPS as a CAD/CAM solution allows fast visual development of dynamic parts. Thanks to the machine neutral workpiece description, time-consuming movements, positioning processes and special functions do not need to be programmed at the machine.

- quick learnability
- efficient working environment
- graphic identification (click to get)
- extensive processing functions
- reusable macros (libraries)
- side-neutral processing

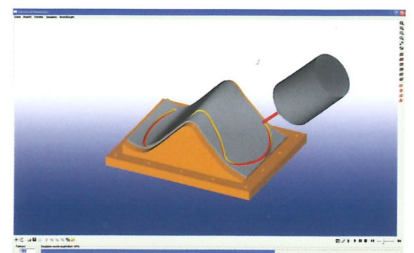


Door frame elements with 5-axis machining and layout, programmed in NC-HOPS

- tool-specific positioning of the working head
- support of the positioning aids for pods and workpieces
- workshop-oriented system

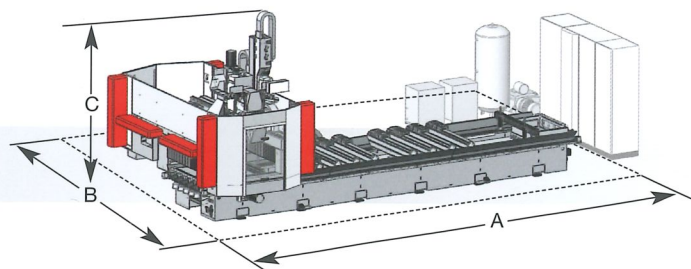
Licom AlphaCAM

is a modular CAD/CAM system for timber and plastics processing. The emphasis lies on programming on solid models, graphic parametric, excellent nesting solutions and much more, from the 2.5D up to 5-axis routing.



5-axis trimming with the tool edge, programmed in AlphaCAM

Dimensions for installation



	VISION I (T)	VISION II (T)
Measure A mm	7,940	10,300
Measure B mm	4,570 (5,170)	4,570 (5,170)
Measure C mm	3,170	3,170

→ in consideration of 800mm safety distance

VISION

Technical Features

Working head	Cardanic 5-axis working head, exchangeable additional heads, different types of drilling units, sawing heads with different performances	
Cardanic working head	Performance 15.0/18.0kW, maximum performance from 11,300rpm. Number of revolutions programmable from 500 – 24,000rpm (15.0kW / 30,000rpm or 24.0kW / 24,000rpm optional) Tool fixtures with hollow cone shank HSK-F63 B-axis, swivelling range +/- 180° C-axis, swivelling range +/- 360° Equipped with 3-axis or 4-axis working heads, gantry passage 320mm	
Tool changer	The automatic tool changing system is placed in the gantry. A magazine plate with 12 places is integrated. (Magazine plate with 24 places or chain magazine with 40 to 60 places optional) Tool diameter max 300mm / pick up place with saw blades up to Ø 400mm	
Machine table	VISION I Plate table 3,800mm x 1,500mm Gantry passage 400mm	VISION I-T 3,800mm x 2,100mm Gantry passage 400mm
Axis motions	X-axis 3,740mm - max 60m/min Y-axis 1,600mm - max 60m/min Z-axis 480mm - max 20m/min	X-axis 3,740mm - max 60m/min Y-axis 2,200mm - max 60m/min Z-axis 480mm - max 20m/min
Machine weight	approx 7,000kg	approx 9,000kg
Machine table	VISION II Plate table 6,200mm x 1,500mm Gantry passage 400mm	VISION II-T 6,200mm x 2,100mm Gantry passage 400mm
Axis motions	X-axis 6,140mm - max 60m/min Y-axis 1,600mm - max 60m/min Z-axis 480mm - max 20m/min	X-axis 6,140mm - max 60m/min Y-axis 2,200mm - max 60m/min Z-axis 480mm - max 20m/min
Machine weight	approx 9,000kg	approx 11,000kg
Types	Equipped with 3-axis or 4-axis working heads, gantry passage 320mm	
Additional equipment	Machine table with beams (automatic positioning system optional), vacuum system 250m ³ /h, chip removal belt, special clamping devices, tool identification system, laser projection system, modem for telediagnostic, barcode reader, user software for the graphically supported program generation in stair and furniture production. Further Option: Elevated gantry system up to 700mm, for the machining of big dimensioned and curved 5-axis parts.	
Control	Siemens Sinumerik 810D / 840D / 840D sl (Solution Line) VISION-L and -U The unique flexibility of these machine series is based on a modular unit equipment, versatile additional equipment and different table types. The machining centres can be individually equipped to the customers' requirements. After an extensive expert advice an offer based on these requirements will be prepared.	

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