

## Your PLUS in production

This machine provides three additional routing motors for your staircase production. These units are mounted to the Y-slide and connected to the cardanic head. Each routing motor moves downwards individually and possesses collet chucks.

As a standard, in staircase production a motor (9.0 kW) is used for shaping the outer contours of strings and steps. Another motor (6.7 kW) processes the slots and grooves at the steps and strings. The design of the third routing motor (6.7 kW) with integrated height tracing (float-mounted) permits the manufacture of high-precision profiles at steps and strings. This conception allows for the main processes in staircase production to be attributed to several routing spindles.

Thus, tool changing time is minimised. The utilisation of the main routing motor at the cardanic working head is limited to horizontal and freeform processes, as well as to sawing processes at the steps. Moreover, the tool changing system is still moving along the X-axis next to the main routing motor. Compared to other solutions, in staircase production this machine conception provides for a savings potential of about 20 % in production time caused by a reduction in tool changing time.



## **VISION-II-ST SPRINT**

### BRIEF DESCRIPTION

- Machine table with 7 beams; table size 6,200 x 1,400 mm
- 2 x jigs for steps
- 12 x double-acting vacuum clamps
- 3 x jigs for newel posts
- 7 x vacuum clamps; 3 x supporting beams
- Speed:
- X = 60 m/min; Y = 60 m/min.; Z = 20 m/min
- Displacement: X = 6,140 mm; Y = 1,600 mm; Z = 480 mm
- Gantry passage 400 mm
- 5-axes working unit with a power of 15 kW; 500 24,000 rpm
- Clamping unit; HSK-F63
- 3 x individually movable routing motors; 2 x 6.7 kW, 1 x 9.0 kW
- Height measuring by tracing ring
- Automatic plate magazine for 24 tools
- Chip removal belt
- Vacuum pump of 160 m<sup>3</sup>
- Vacuum accumulator of 250 liters
- Vacuum distribution for alternate feeding
- Movable extraction system Ø 400 mm
- Safety at the machine via bumper (no pressure sensitive mats required)
- Siemens control system type Sinumerik 840D sl in a movable control panel with 17" TFT-monitor including tele-diagnostics
- Laser projector for positioning the vacuum pods and the components on the machine table

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# Highly efficient staircase production

ALC: NOT THE OWNER

ATS/OF

by

## **VISION-II-ST Sprint**





CNC-technology at its best



## **Machining examples**

## **Table configurations**



## String

- Tubeless pod system
- 5-axes-machining of the step slot area
- Curves routed by means of an integrated tracing device
  consistent radii at the component





### Steps

- Sawing speed of 40 m/min at a saw blade diameter of 350 mm
- Left-hand and right-hand step clamping device for alternate machining
- Pod system: one central pod
  → no change required





#### **Rail / Wreath**

- Interpolating 5-axes machining
- Rail is completely machined and separated
- Design and programme established by software companies such as Compass, Wagemeyer, AICADstair, SEMA Software, etc.



## Machine table designs

- Table for automatic setup
- Plain table with stops
- Grooved table with stops
- Automatic or manual beam table
- Nesting table
- Pin table

## Options

- Jigs for newel posts and steps
- Pneumatic clamping units
- Clamping units for semi-circular arches
- Stops
- Supporting beams
- Customised solutions

## Advantages of the automatic beam table

- Considerable reduction in setup time
- Guaranteed maximum rigidity and precision
- Fully automatic adjustment (of beams and base) to the next component within a few seconds