

I N F O

VIRTUS

CNC-technology at its best



Optimized nesting

Above all wood materials with special static properties and high-quality surfaces represent a cost factor one would like to keep as small as possible by their optimised utilisation. These requirements are met by nesting in an ideal way. In so-called nesting, plate-shaped components are arranged such with respect to each other that optimum use is made of the original plate. This technology is known from the textile and the steel industries. The main fields of application in wood machining are for plank plywood and sandwich elements.

In the case of the CNC-machining centre VIRTUS, the CAM-module NC-Hops performs the administration of the plates available in accordance with their material, size, number and the side on which they are resting on the table.

On the loading side of the VIRTUS there is a lifting table that permits the stacking of the plates in dimensions 2,800 x 2,070 mm to a height of about 600 mm. The lifting table is automatically positioned at the entry level by means of an integrated sensor. The extendable extraction and push-out device removes the milled plate and at the same time cleans the machine table. The finished plate is pushed onto a conveyor belt situated at the exit side and transported out of the machine. Simultaneously, a new plate is positioned on the loading side of the machine table.

VIRTUS

T E C H N I C A L D A T A

Configuration example:

3-axes working unit

Power: 10.0 (S1) / 12.0 kW (S6)
Speed: 1,000 to 24,000 rpm
Tool interface: HSK-F63

Multi-spindle drilling unit with groove saw

Power: 2.2 kW
Speed: 3,200 rpm
13 drilling spindles in L-form: 10 vertical drilling spindles + 3 horizontal drilling spindles
1 spindle for saw Ø 120 mm, attached in X-direction

Tool changer

Plate changer with 14 places (moving along in the X-axis)

NC-axes

Linear axes: X = 3,870 mm Y = 2,680 mm Z = 200 mm
Axes speeds: In X- and Y-axis 70 m/min, in Z-axis 35 m/min

Machine table

Design: Vacuum grooved table, dimensions = 3,250 x 2,180 mm
Working area 3,200 mm x 2,150 mm for unilateral loading,
2 x 1,000 x 2,150 mm (as an option) for reciprocal loading, table partitioned with 2 clamping stations
Accessories: 5 x pneumatically retractable stops with automatic control at the rear, 5 x pneumatically retractable stops with automatic control at the front, 1 x group of stops at the rear, 1 x group of stops at the front, vacuum pump 500 m³/h, vacuum accumulator 500 litres, 1 license NC HOPS with work centre and additional module V5 for nesting

Control system

Type: Siemens Sinumerik 840D sl

Safety equipment

Safety-bumper

Supplementary equipment on demand.

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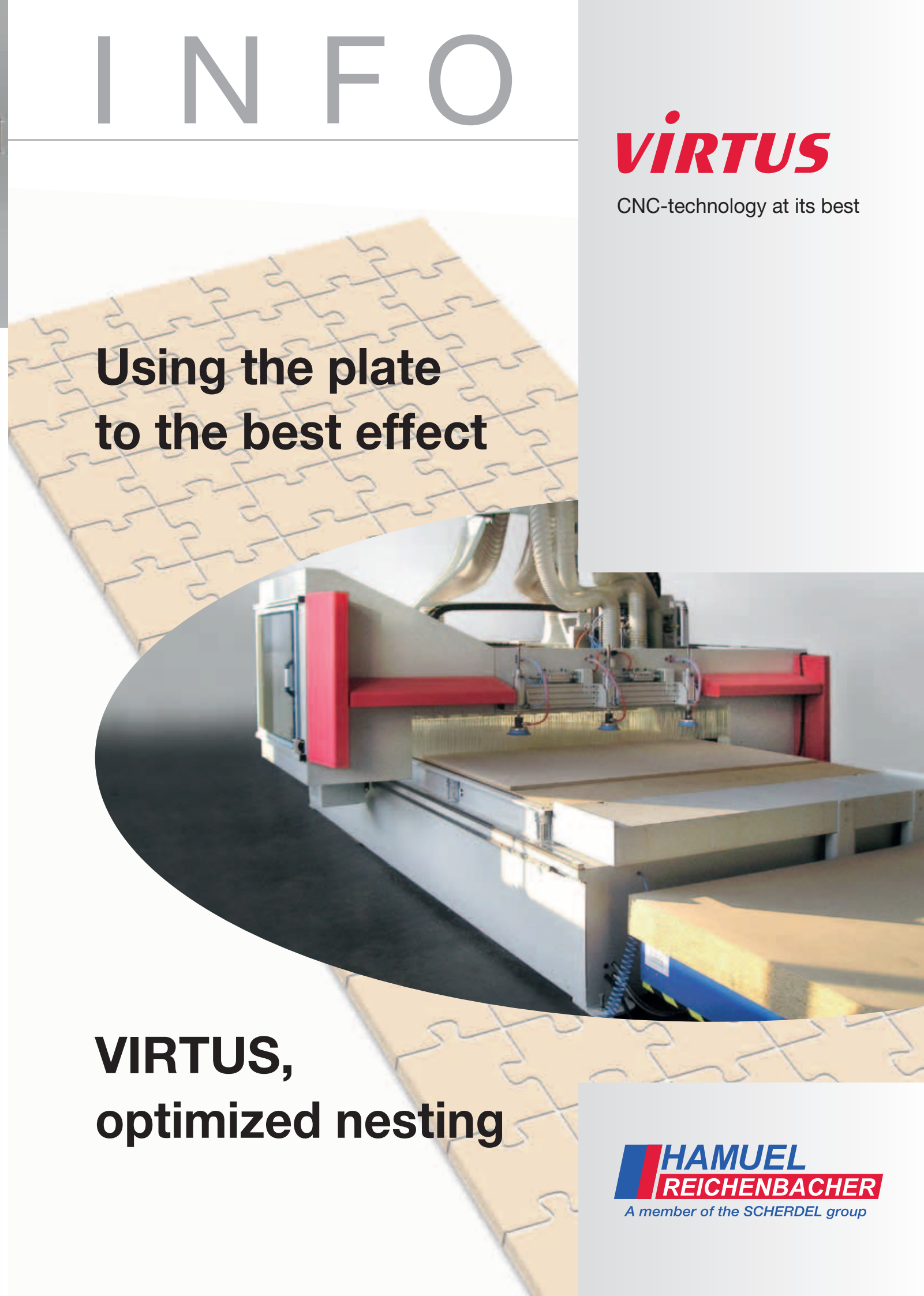
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Using the plate to the best effect

VIRTUS, optimized nesting

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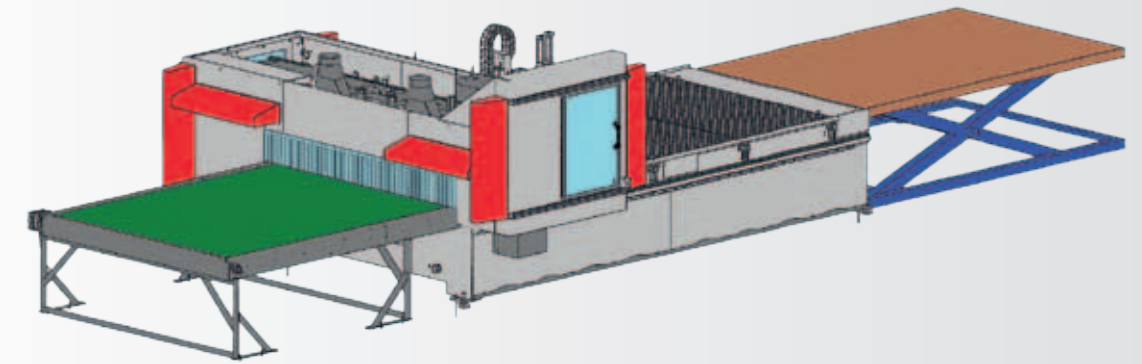
Equipment



Displacement

- X-axis: 3,870 mm (longitudinal displacement)
- Y-axis: 2,680 mm (transversal displacement)
- Z-axis : 200 mm (vertical displacement)
- Passage between top edge of table and bottom edge of portal approx. 120 mm

Views of the machine

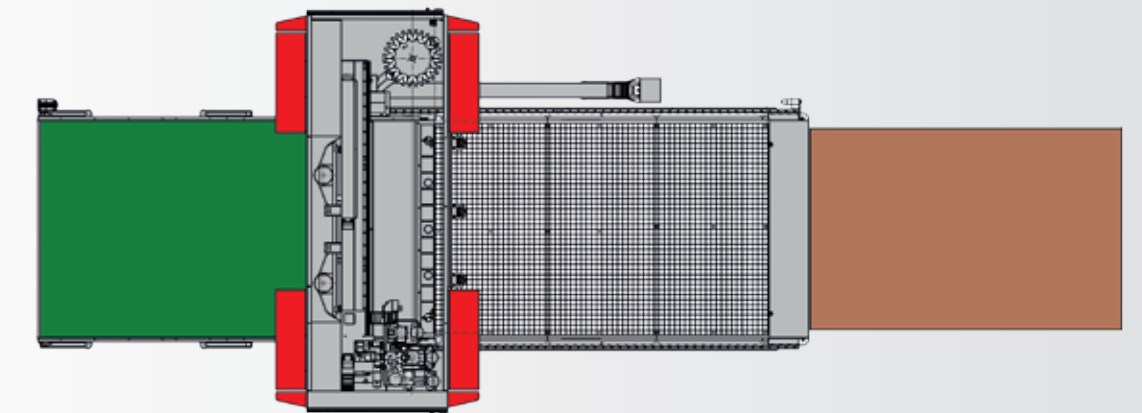


VIRTUS – front view



Units

- 3-axes machining unit with a power of 10.0 kW
- Drilling unit with 13 individually controlled drilling spindles in L-form arrangement
- Integrated groove saw

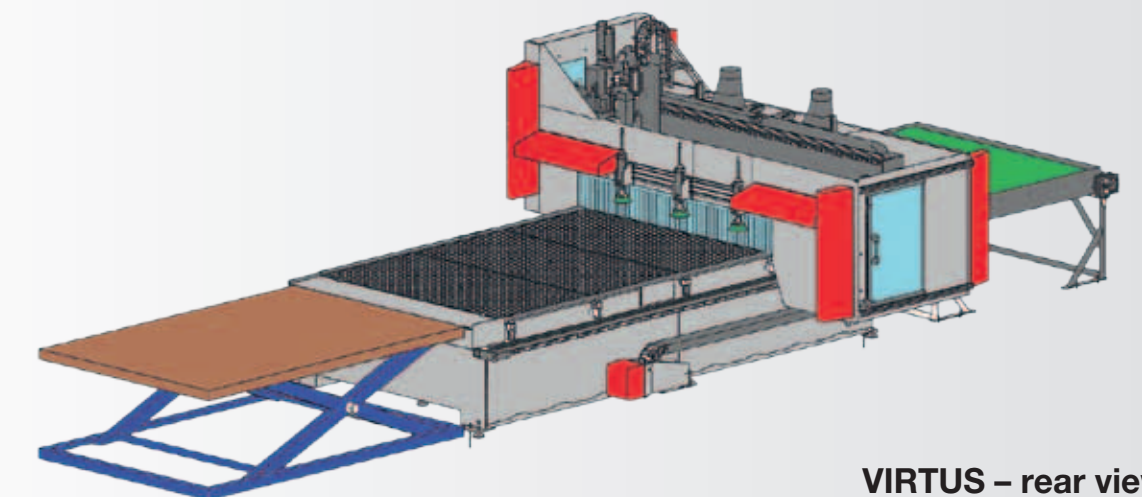


VIRTUS – top view



Tool changer

- Automatic plate magazine with 14 places
- Distance between individual tool places 112 mm
- Tool diameter \varnothing 150 mm maximum
- Tool length 150 mm maximum between bottom edge of spindle and top edge of table



VIRTUS – rear view