

# CNC Gantry-Processing Centers Vantage 100

## Nesting Solutions





## Nest & More Vantage

// German Technology



### Configuration

- Standard: 12 HP (9 kW) HSK routing spindle
- Optional: 16 HP (12 kW) HSK routing spindle



### Tool changing system

- Depending on working field in standard:
 

Vantage 100/480	= 7 places
Vantage 100/510/512	= 8 places
Vantage 100/610/612	= 10 places
Vantage 100/710/714	= 12 places



### MATRIX table PRO

- High flexibility
- Different vacuum cups available as option



# Vantage 100 – The compact nesting machine in gantry design

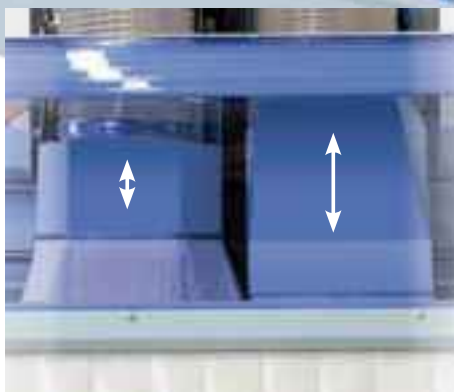
Our CNC processing centers today already offer technology of the future.

Why? – Tradition. »Made in Germany« is our motivation and our commitment. Customers around the world have come to expect the highest standards from this quality label. And we meet those expectations.



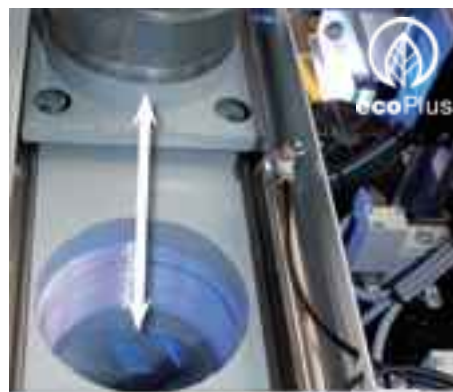
## Highlights:

- Gantry style – for highest precision over the total working width
- Sealed »long-life« linear guiding system
- 2 synchronised digital servo-drives in X-direction
- High acceleration
- Vector speed X/Y 96 m/min
- The whole working field is reachable with all processing tools
- Electronic surveillance of all stops
- Efficient use of energy through high vacuum performances and simultaneously minor power consumption
- 12 HP (9 kW) HSK routing spindle (optionally: 16 HP (12 kW))
- Tool changing system (Pick-Up)
- Software bundle for machine and PC (option)



### 2 CNC-controlled Z-axes in combination with drilling block

- Optimal dust extraction and bigger operative range for processing aggregates
- Weight distribution of the mass (processing units) to the two Z-axes → more stability, higher processing quality



### Program-controlled extraction connection

- For an optimum extraction behavior and economic use of extraction energy (ecoPlus)



### Synchronous drive

- 2 synchronised digital servo-drives in X-direction guarantee highest processing quality

# Options



## High-Speed 7500 Drilling block | 12 spindles

- 12 vertical drilling spindles
- 4 horizontal drilling spindles in the X direction
- 2 horizontal drilling spindles in the Y direction
- 1 grooving saw Ø 125 mm (0° / 90°)



## High-Speed 7500 Drilling block | 21 spindles

- 21 vertical drilling spindles
- 6 horizontal drilling spindles in X
- 4 horizontal drilling spindles in Y
- 1 grooving saw Ø 125 mm (0° / 90°)



## Tool length control

- Following the tool change a tool length control is carried out and compared with the integrated tool data file



## C-axis

- 0-360° – more flexible processing possibilities
- For the use of aggregates



## High-Speed 7500

- Spindles with 1500 - 7500 RPM incl. the patented quick change system



## FLEX5

- HIGH PERFORMANCE unit for drilling, sawing and routing
- You save up to 5 individual adapter units



## Clamping elements

- Different clamping elements available as option

Would you like something extra? Our options provide all opportunities for a perfect adjustment of your nesting machine to your requirements.



#### Tool changer

- Tool changing system, fixed behind the machine, 14, 28 or 42 places



#### Extendable tool changing system

- Further tool changer places available:  
 Vantage 100/480: + 6  
 Vantage 100/510/512: + 7  
 Vantage 100/610/612: + 9  
 Vantage 100/710/714: + 11



#### Lowerable fence guide

- Suitable for safe outfeed of workpieces



#### Extension stop system

- 4 pneumatically lowerable aluminium stop cylinders (in front right or in front left)



#### Vacuum lever for raw panel positioning

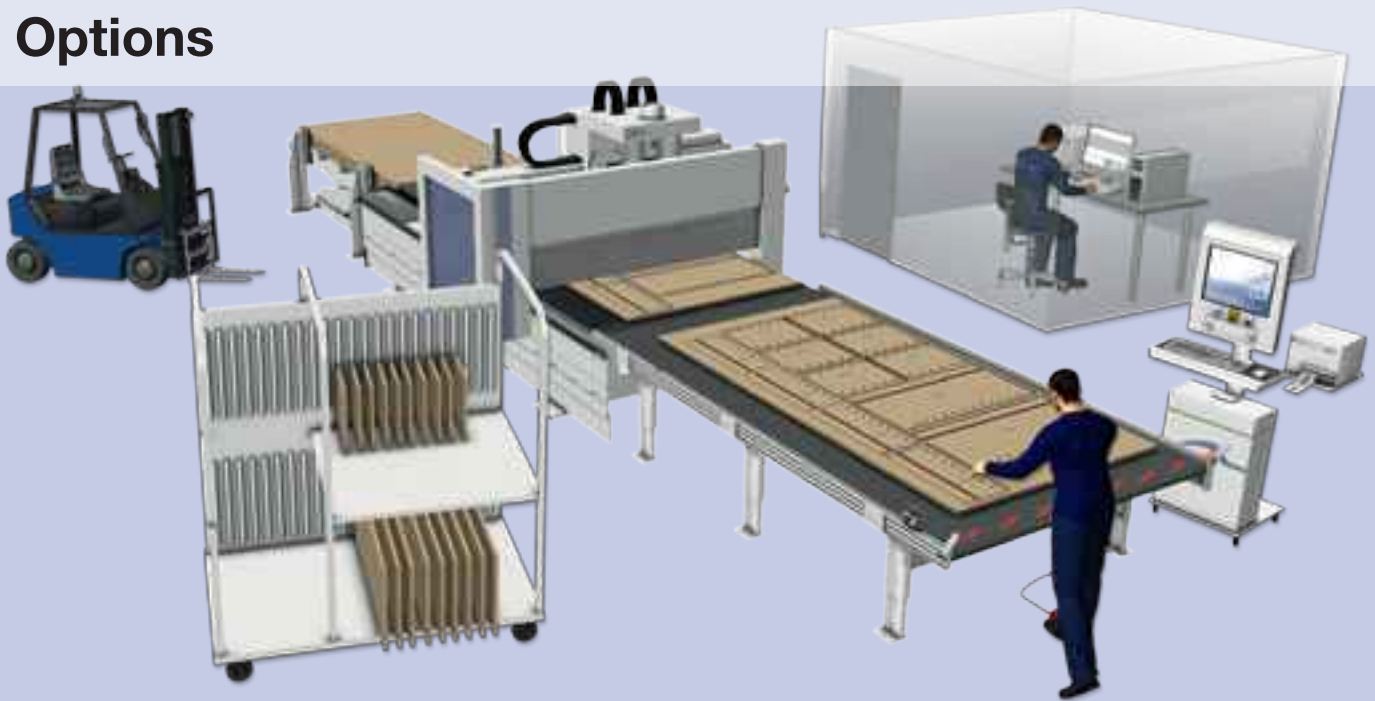
- For automatic positioning of the raw panels against the fence guide.



#### Push-Off device for workpieces

- The Nest is pushed out
- Cleaning cycle possible
- Option: Push-off device with controlled Z axis

# Options



Example of a nesting cell Concept 2



## Barcode connection

- Barcodescanner / -software
- Supported barcodes:
  - 1D – Barcode
  - 2D – Data Matrix Code
- Every workpiece is exactly identified for the further workpiece flow



## Central vacuum system

- Up to 3 vacuum pumps can be centralised collectively



## Tool box »STARTER KIT«



## Cut Rite Nesting

- Profi Nesting Software



## Cut Rite Nesting Terminal

- Incl. Profi Nesting software, terminal, label printer and PC screen



## Air-conditioning

- Air-conditioned switch cabinet



# Vantage 100 with aluminium grid table

The optional aluminium grid table allows the positive locking of clamping elements and thus reliable fixture of the workpieces even under exposure to high hogging forces. By means of the table design, the vacuum transmission optimizes the distribution of the vacuum, reduces leaks and transmission losses and supersedes extensive installations.

The grid table is also suitable for aggregates due to different clamping elements with variable mounting heights.



## Your benefits at a glance:

- Optimizes the distribution of the vacuum by the fine grid of the table
- Free definable vacuum surfaces reduce leaks and transmission losses
- Different clamping elements with variable mounting heights for more flexibility
- Reliable part fixture even under exposure to high hogging forces
- Also suitable for the use of aggregates
- Processing of wood-based composite materials provided, e.g. acryl glass







**Processing example**

- The possibilities to fix the workpiece on the narrow table grid provide a lot of flexibility for the applications



**Processing example**

- Due to rotatable vacuum cups even special shapes of the workpieces are possible without any problems



**Clamping elements**

- With diverse types of vacuum blocks it is also possible to carry out simple and quick horizontal processing on grid tables



# Nesting Solutions



# Nesting – the method with four-fold “focus”...

We divide the typical nesting areas into four areas. The carcass production, the dividing and refining of furniture fronts, the processing of frame furniture as well as the very interesting possibilities for “advanced materials”, such as processing block elements, plexiglass, aluminium or alucobond.



## Carcass furniture

### Advantages by nesting:

- Routing of all components required for a carcass
- Drilling, grooving in just one cycle
- Clamping elements also provide horizontal drilling



## Processing of furniture fronts

### Advantages by nesting:

- Fast dividing and refining of furniture fronts from one workpiece - everything in one cycle!
- The application of aggregates provides high flexibility for the further processing



## Frame furniture

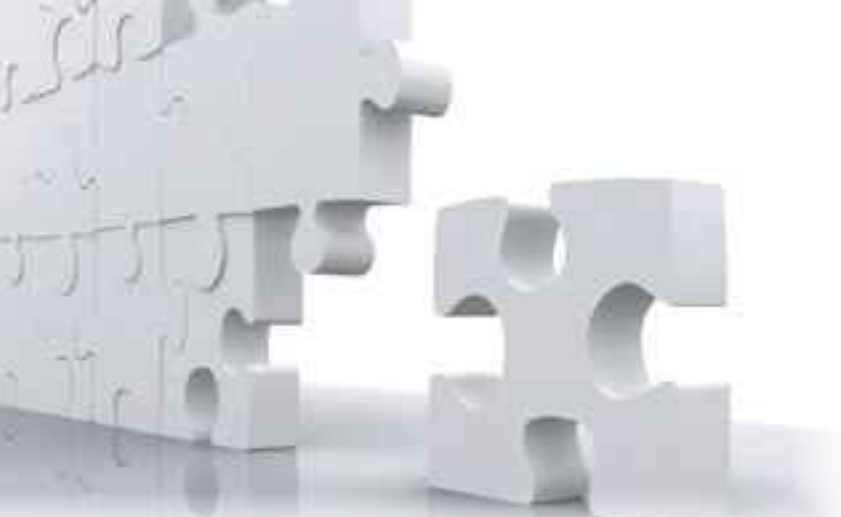
### Advantages by nesting:

- High degree of utilization due to easy handling of “free” formed parts



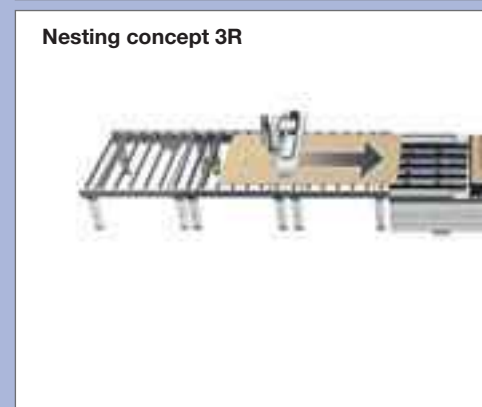
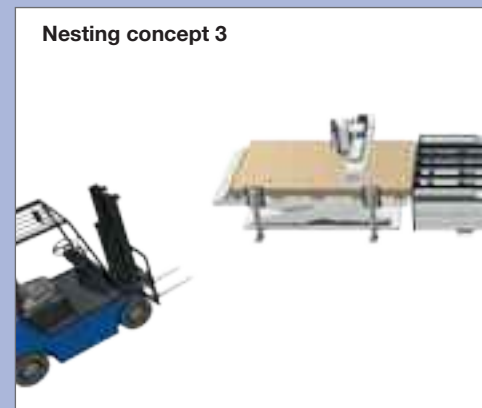
## Advanced Materials

- High flexibility of processing possibilities of e.g. block elements, plexiglass or acrylic glass
- Proper cutting of e.g. foam material, carpets or veneer
- High gloss polishing routing



## Discover the possibilities...

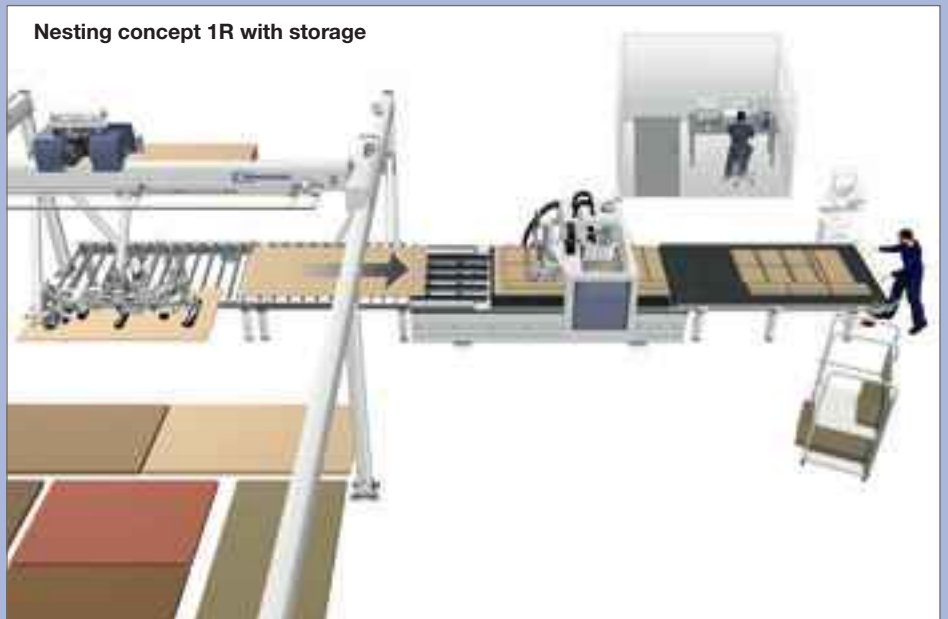
With the WEEKE nesting solutions you are always well-advised. Whether manual feeding of workpieces, by lifting carriage or by storage - we have always the proper concept for your application. You wish to identify, for example, the workpiece flow exactly by barcode? No problem!



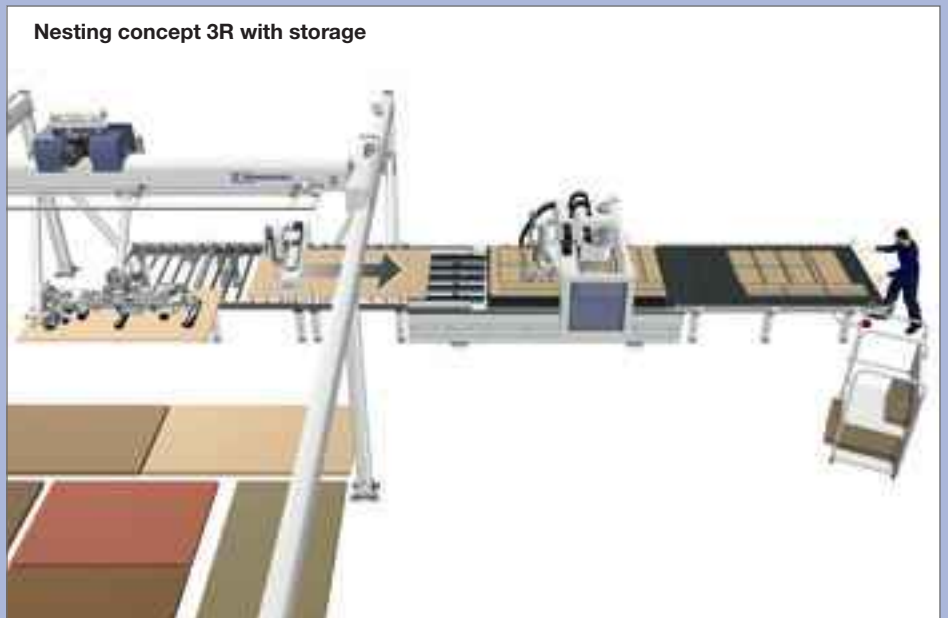
# Nesting Solutions



Nesting concept 1R with storage



Nesting concept 3R with storage



# Hardware | Software

With this software package you are »Ready to Race«. You will receive one of the most established CNC-programming systems, the woodWOP software, which has proven itself by more than 30.000 installations worldwide.

Please use our website:

Worldwide largest forum for woodWOP:

[www.woodWOP-Forum.de](http://www.woodWOP-Forum.de)

Free Download of woodWOP-components:

[www.weeke.com](http://www.weeke.com) → Products → Software

## Standard | Software Machine

### powerControl

- 17" TFT monitor
- Provision teleservice capability
- USB frontside bus
- Ethernet connection 10/100 Mbit
- Ergonomic hand terminal
- Position of the switch cabinet »freely selectable« (left/right)



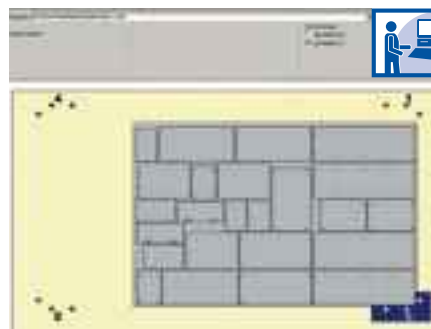
### woodWOP

- Modern software based on Windows®
- More than 30,000 installations worldwide



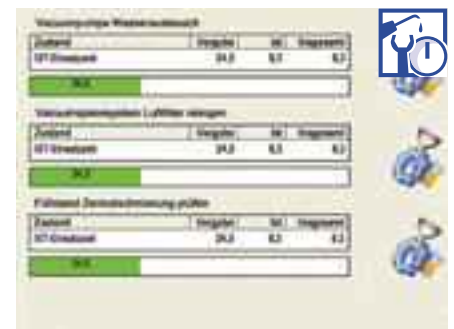
### Production list software

- For management and creation of product lists for individual manufacturing.



### MCC

- Simple control of main machine functions through soft keys
- Graphical loading



### Machine data recording Basic

- Machine Data Recording – collecting and evaluating machine states via time meter and event meter

# Optional

## Optional | powerTouch

- **powerControl** with **powerTouch**
- 21" Full-HD multitouch display with wide screen 16:9
- Provision of teleservice capability
- USB frontside bus
- Ethernet connection 10/100 Mbit
- Ergonomic hand terminal
- Position of switch cabinet freely selectable (right/left)
- **available as of June 2015**



## Options | Office Package „Premium“

### woodWOP

- Modern software based on Windows®
- More than 30,000 installations world-wide



### woodNest Basic

- Software for manual Nesting of shaped parts



### woodAssembler

- To visualize woodWOP-programs (MPR) in 3D
- Enables the construction of individual workpieces to finished objects



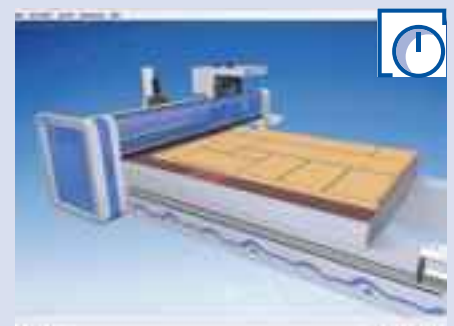
### woodVisio

- Objects generated in woodAssembler or Blum Dynalog can be provided with surface materials
- The objects are displayed in a free-standing position



### woodWOP DXF Basic

- Interface for CAD-Data Import
- Basis to generate woodWOP programs



### 3D CNC-Simulator

- Simulates the processing in the order it is stored in the NC-program
- Allows time calculation
- Collision check of the vacuum cups

# Aggregates

## HIGH PERFORMANCE

FLEX5  
.....



**High Performance**

Sawing,  
Ø 220 mm



**High Performance**

Drilling/Sawing/  
Routing,  
2 spindles,  
Ø 220 mm



**High Performance**

Cam box router,  
2 spindles,  
Ø 16/20 mm



**High Performance**

Drilling/Sawing,  
swivelling  
(0° - 90°),  
Ø 180 mm



**High Performance**

Planing Aggregate



**Drilling/Sawing/  
Routing**



**Drilling/Routing/  
Sawing**

2 spindles



**Drilling/Routing**

4 spindles,  
50 mm



**Cam box router**

2 spindles,  
Ø 16/20 mm



**Drilling/Sawing,  
swivelling**

(0° - 90°),  
Ø 180 mm



**Drilling/Routing,  
swivelling  
cranked**

(0° - 90°)



**Tracing routing  
unit with tracing  
ring**

Ø 70 mm |  
Ø 130 mm



**Drilling,  
7 spindles**

25 mm pitch



**Fitting drilling  
head, 3 spindles**






# Technical data

Position of switch cabinet freely selectable

	L	B	L1 (with transport belt)	L2 (Concept 3 with lifting table and belt)
<b>Vantage 100/ 480</b>	6480	5120	7860	11215
<b>510</b>	7030	5420	9415	13470
<b>512</b>	7630	5420	10015	14570
<b>610</b>	7030	5740	9410	13470
<b>612</b>	7630	5740	10020	14570
<b>710</b>	7030	6150	9450	13470
<b>714</b>	8230	6150	11620	16270

 mm

## Vantage 100 Series – working fields

	Width (mm)	Length (mm)	Thickness (mm)	Width (ft)	Length (ft)	Thickness (inch)	Vacuum capacity
<b>Vantage 100/ 480</b>	1250	2500	100	4	8	3,94	300/360 m <sup>3</sup> /h 50/60 Hz
<b>510</b>	1550	3100	100	5	10	3,94	600/720 m <sup>3</sup> /h 50/60 Hz
<b>512</b>	1550	3700	100	5	12	3,94	600/720 m <sup>3</sup> /h 50/60 Hz
<b>610</b>	1850	3100	100	6	10	3,94	600/720 m <sup>3</sup> /h 50/60 Hz
<b>612</b>	1850	3700	100	6	12	3,94	600/720 m <sup>3</sup> /h 50/60 Hz
<b>710</b>	2250	3100	100	7	10	3,94	900/1080 m <sup>3</sup> /h 50/60 Hz
<b>714</b>	2250	4300	100	7	14	3,94	900/1080 m <sup>3</sup> /h 50/60 Hz

<b>Vector speed</b>	m/min (X - Y) 96 - (Z) 20
<b>Compressed air connection</b>	inch R ½
<b>Compressed air required</b>	bar 7
<b>Dust extraction port</b>	mm Ø 200
<b>Dust extraction volume</b>	m <sup>3</sup> /h min. 3170
<b>Total machine weight 480 - 714</b>	kg appr. 2800 - 5200
<b>Electrical power – total connection load</b>	kW 19,5 - 32,5
<b>Switch cabinet</b>	mm 1000/800 x 800 x 1970

# Vantage 100 | Nesting

The magic  
always lies  
in the detail

Theodor Fontane







## Choose the Original Choose Success!

For the Success of Original Technology  
A campaign of the VDMA



### You may contact us - WORLDWIDE

- Teleservice possibility via basic internet connection (TSN possibility)
- Competent spare parts service
- WEEKE Communication: Up-to-date information at all times:  
**www.weeke.com**
- Any questions, new ideas, criticism & praise to: **info@weeke.de**

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