

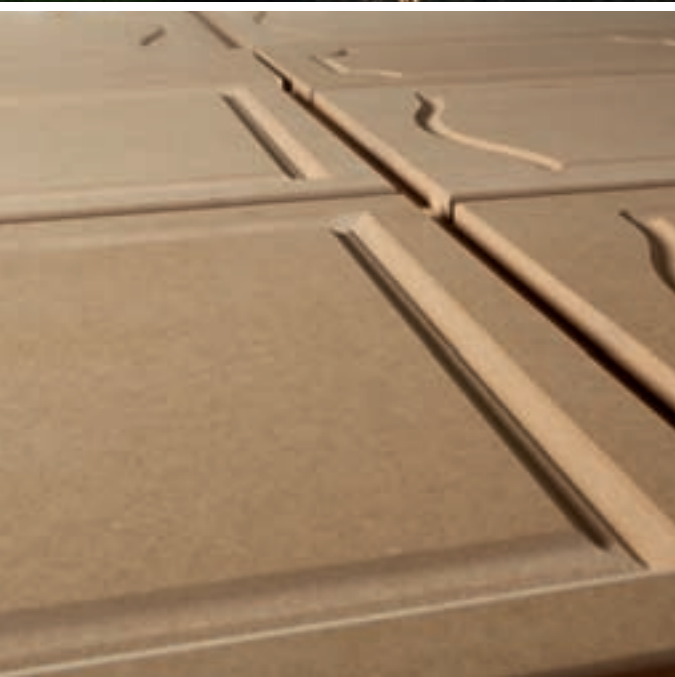
Nested Based CNC-Router Vantech 480 | 510 | 512



Nesting Solutions

Vantech 480 | 510 | 512

Nesting technology means to „nest“ workpieces in order to achieve optimum material utilization by using cutting optimization. Nesting offers the opportunity to significantly improve yield particularly when processing a large variety of shaped parts.





The magic always lies in the detail...

Theodor Fontane



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Vantech 480 | 510 | 512



Configuration V7

- 7 vertical drilling spindles
- Tool changing system with tool pick-up station
(Vantech 480: 7 pick-up places / Vantech 510: 8 pick-up places / Vantech 512: 8 pick-up places)



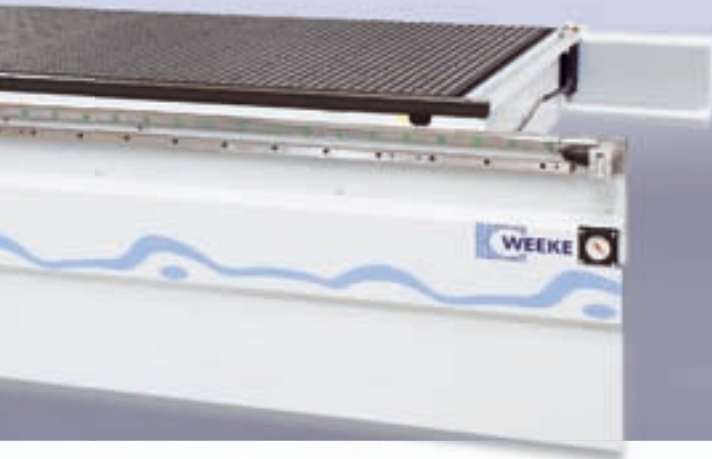
Configuration V12

- 12 vertical drilling spindles
- 7-fold tool changer disc-type pick-up

Basic Machine

Highlights:

- Gantry style – Dual drive for highest precision over the total working width
- 2 synchronized digital servo-drives in X-direction
- Extremely high acceleration
- Vacuum segmented MATRIX PRO table
- 96 m/min vector speed
- The whole working field is reachable with all processing tools
- Electronic surveillance of all stops



Router

- 12 HP (9 kW) HSK 63 routing spindle
- AirJet
- Option: 16 HP (12 kW) HSK 63 routing spindle

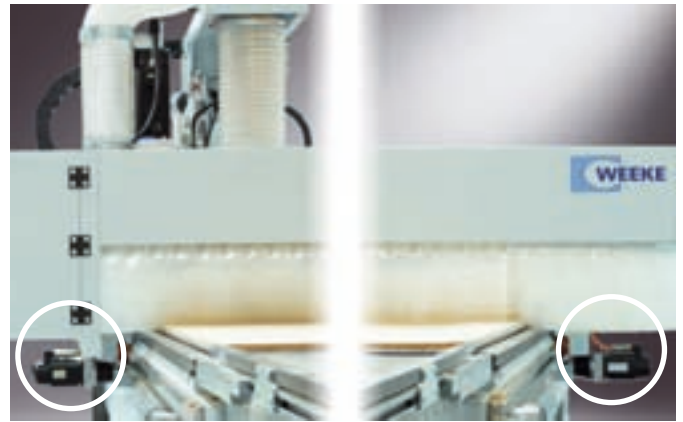


Tool length control

- After tool change a control of the length is carried out and checked with the tool data file

Synchronous drive

- 2 synchronized X-drives guarantee highest processing quality
- 96 m/min vector speed

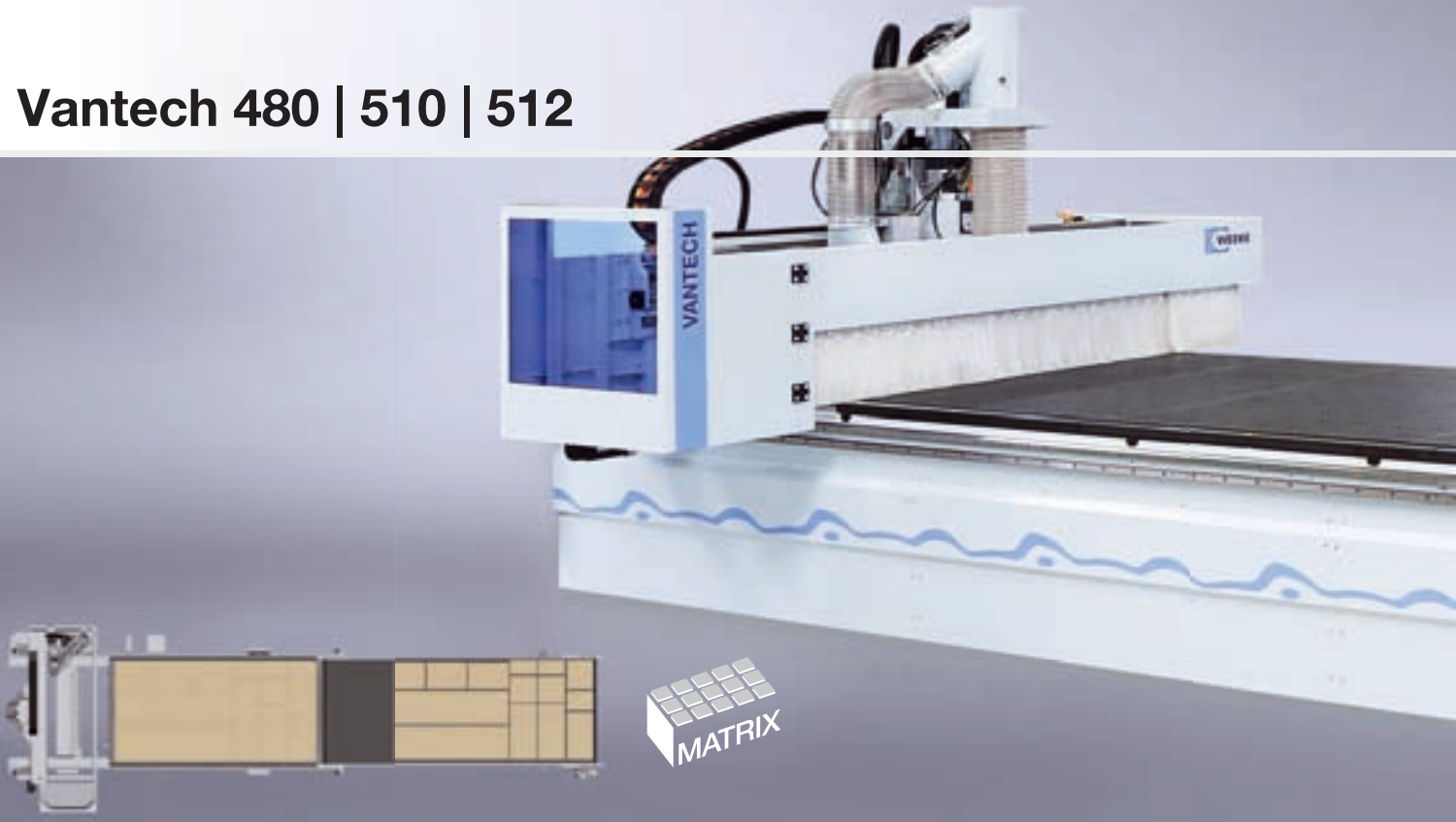


Vacuum pumps

- **Size 480:** in total 267 m³/h, (3 x 89 m³/h)
- **Size 510:** in total 356 m³/h, (4 x 89 m³/h)
- **Size 512:** in total 356 m³/h, (4 x 89 m³/h)

Equipment as described in this brochure is subject to technical changes and further developments. Technical data refer to standard equipment and are not binding for the order.

Vantech 480 | 510 | 512



Configuration V7

- 7 vertical drilling spindles
- Tool changing system with tool pick-up station
(Vantech 480: 7 pick-up places / Vantech 510: 8 pick-up places / Vantech 512: 8 pick-up places)



Configuration V12

- 12 vertical drilling spindles
- 7-fold tool changer disc-type pick-up

Basic Nesting Solution



Dust extraction channel at the outfeed from below

- For cleaning of the workpieces during feeding out



Lowerable fence guide and program-controlled positioning

- Suitable for safe outfeed of workpieces
- Electr. surveillance of all guides and stops



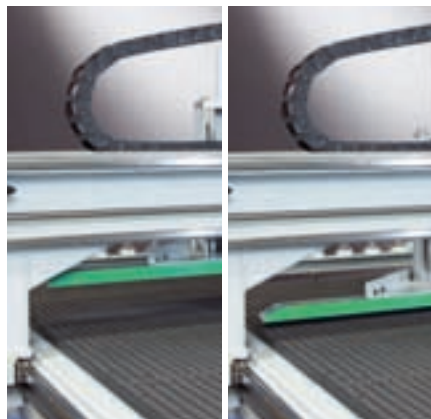
Option: Label Printing Terminal

- PC, flat screen
- Label printer
- Software: Cute Rite Nesting



Transport belt

- A workpiece safety control device is attached at the end of the conveyor belt, this stop function can be deactivated via a foot switch



Push-off device

- Automatic push-off device, mounted to the gantry, for pushing off workpieces and dust extraction for cleaning cover board

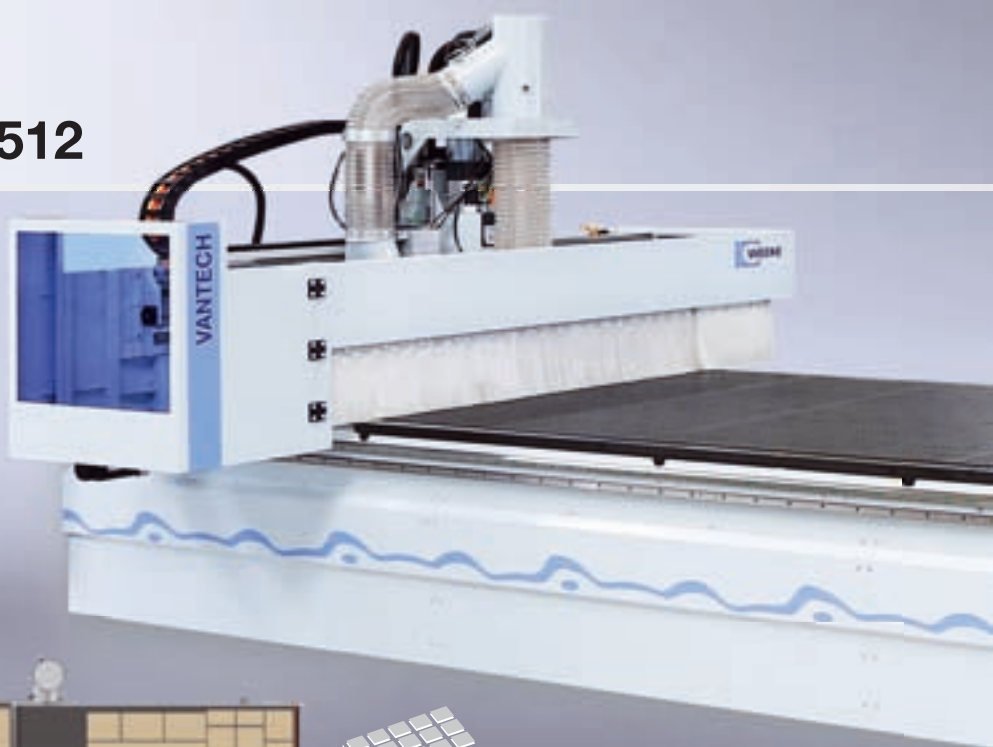


Option: Dust extraction channel at the outfeed from top

- For cleaning of the workpieces during feeding out

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Vantech 480 | 510 | 512

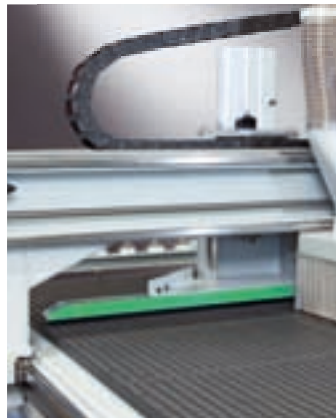
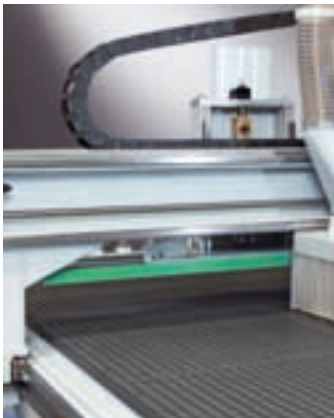


Infeed table
to be provided by
customer



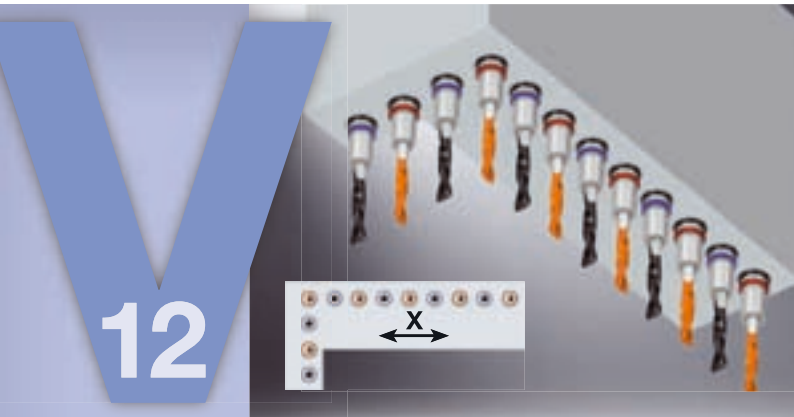
Push-off device

- Automatic push-off device, mounted to the gantry, for pushing off workpieces and dust extraction for cleaning cover board



Vacuum arm for positioning

- The vacuum arm takes over a pre-positioned raw board and aligns this against the end of the table in X direction



Configuration V12

- 12 vertical drilling spindles
- 13-fold tool changer disc-type pick-up



Concept 1 Nesting Solution



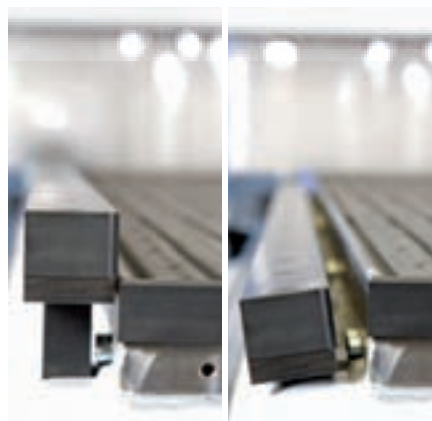
Dust extraction channel at the outfeed from below

- For cleaning of the workpieces during feeding out



Lowerable fence guide and program-controlled positioning

- Suitable for safe outfeed of workpieces
- Electr. surveillance of all guides and stops



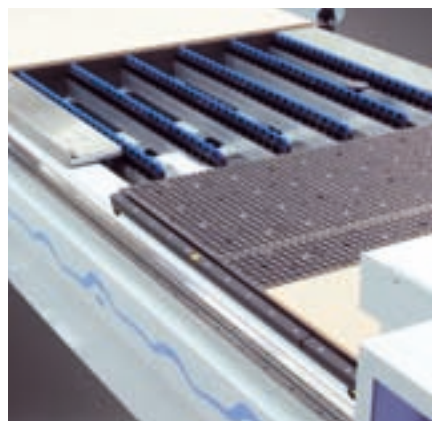
Option: Label Printing Terminal

- PC, flat screen
- Label printer
- Software: Cute Rite Nesting



Transport belt

- A workpiece safety control device is attached at the end of the conveyor belt, this stop function can be deactivated via a foot switch



Transfer rollers

- Intermediary transfer rollers to prevent scratching during the loading process

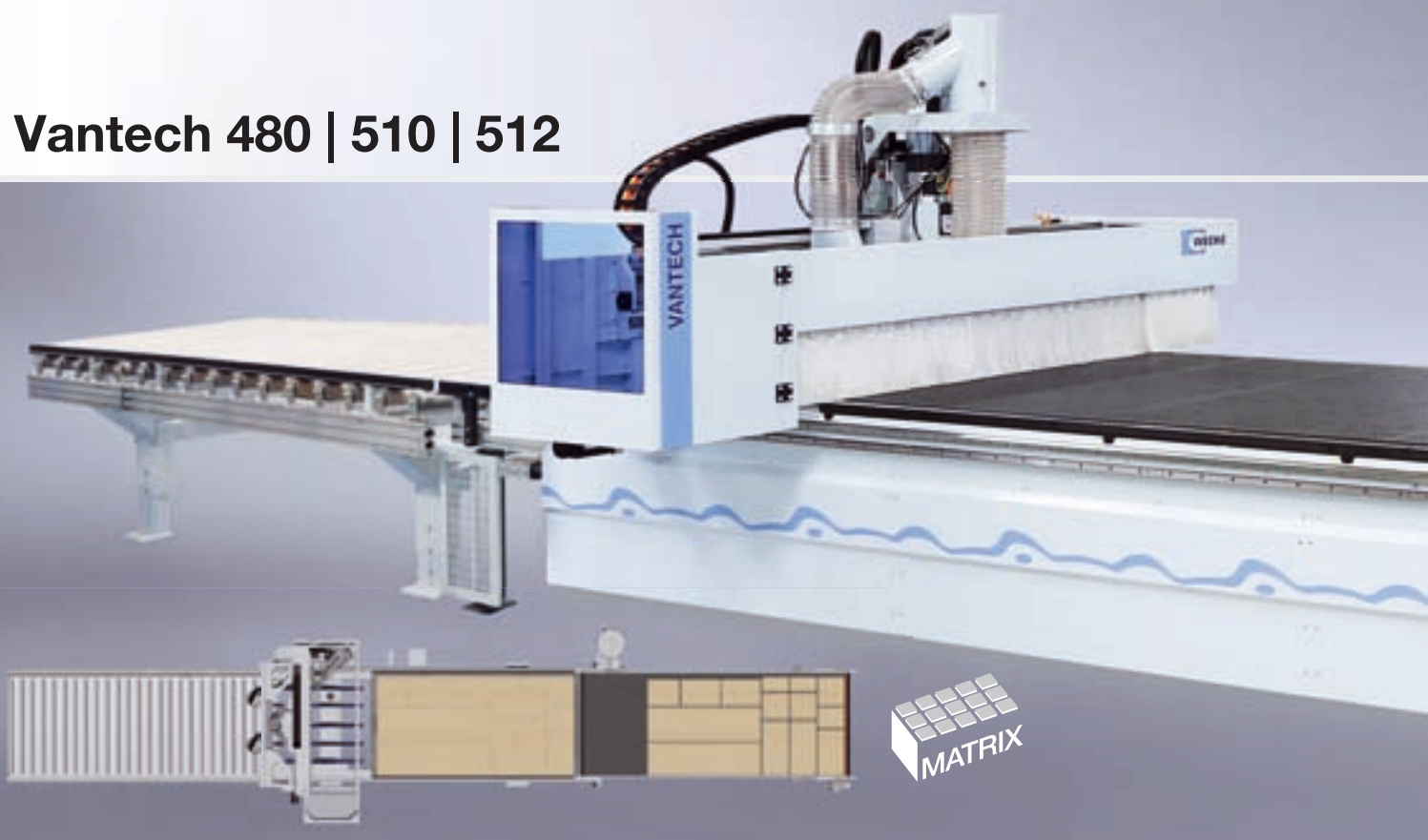


Option: Dust extraction channel at the outfeed from top

- For cleaning of the workpieces during feeding out

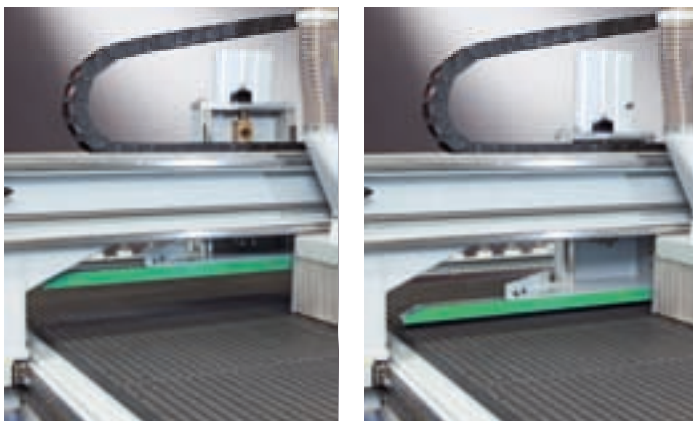
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Vantech 480 | 510 | 512



Push-off device

- Automatic push-off device, mounted to the gantry, for pushing off workpieces and dust extraction for cleaning cover board



Vacuum arm for positioning

- The vacuum arm takes over a pre-positioned raw board and aligns this against the end of the table in X direction



Configuration V12

- 12 vertical drilling spindles
- 13-fold tool changer disc-type pick-up



Concept 1R Nesting Solution



Dust extraction channel at the outfeed from below

- For cleaning of the workpieces during feeding out



Lowerable fence guide and program-controlled positioning

- Suitable for safe outfeed of workpieces
- Electr. surveillance of all guides and stops



Option: Label Printing Terminal

- PC, flat screen
- Label printer
- Software: Cute Rite Nesting



Transport belt

- A workpiece safety control device is attached at the end of the conveyor belt, this stop function can be deactivated via a foot switch



Infeed table

- Frequency-controlled roller table

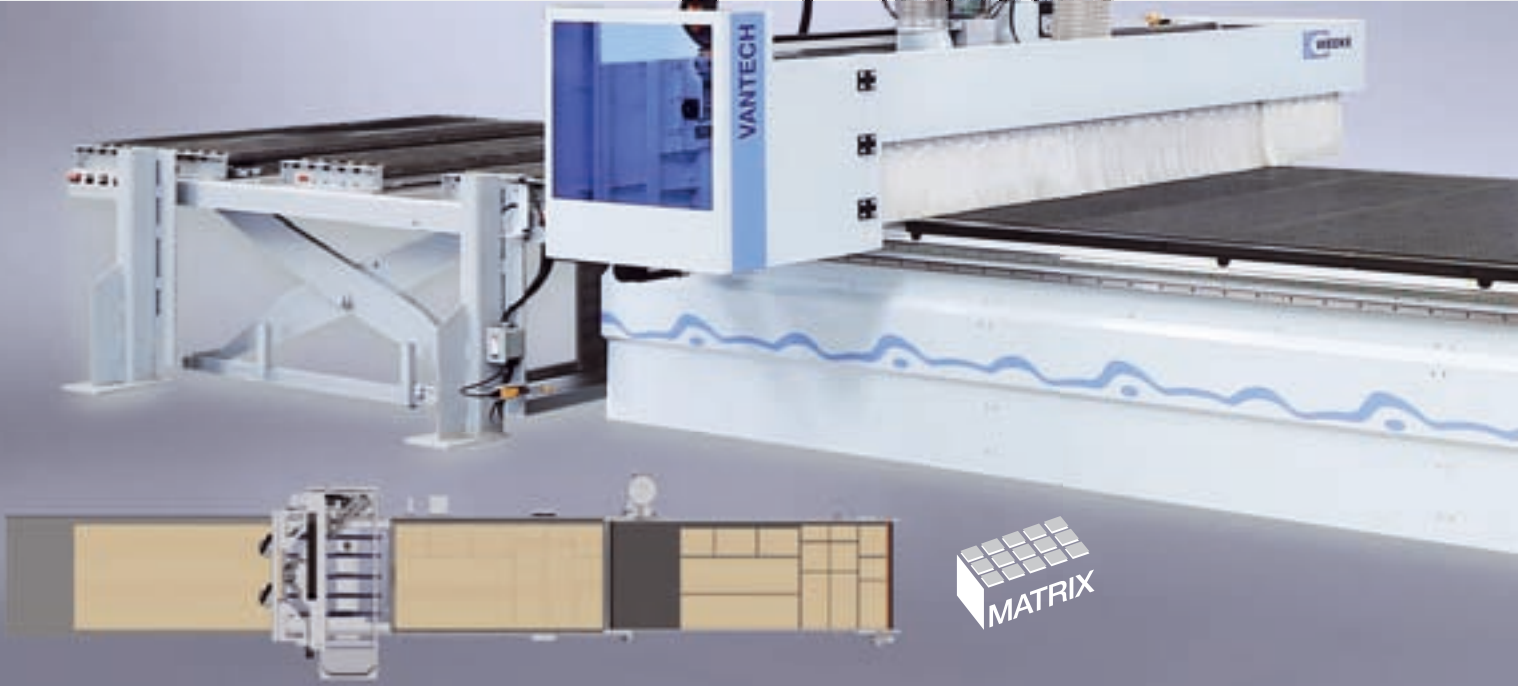


Option: Dust extraction channel at the outfeed from top

- For cleaning of the workpieces during feeding out

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Vantech 480 | 510 | 512



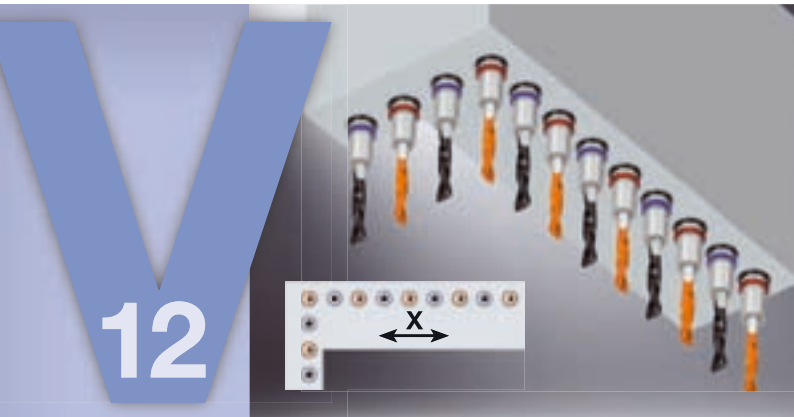
Lifting table

- For easy infeeding



Vacuum arm for positioning

- The vacuum arm takes over a pre-positioned raw board and aligns this against the end of the table in X direction



Configuration V12

- 12 vertical drilling spindles
- 13-fold tool changer disc-type pick-up



Concept 2 Nesting Solution



Tool pick-up station

- Secure and fast feeding of the tool changer magazine



Lowerable fence guide and program-controlled positioning

- Suitable for safe outfeed of workpieces
- Electr. surveillance of all guides and stops



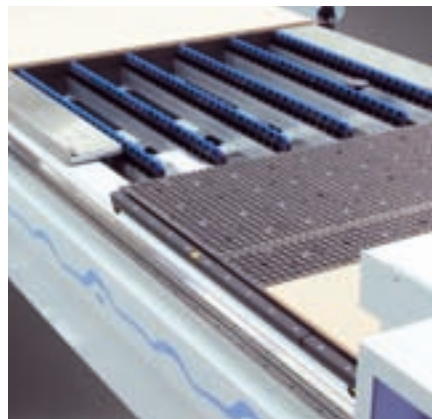
Option: Label Printing Terminal

- PC, flat screen
- Label printer
- Software: Cute Rite Nesting



Transport belt

- A workpiece safety control device is attached at the end of the conveyor belt, this stop function can be deactivated via a foot switch



Transfer rollers

- Intermediary transfer rollers to prevent scratching during the loading process

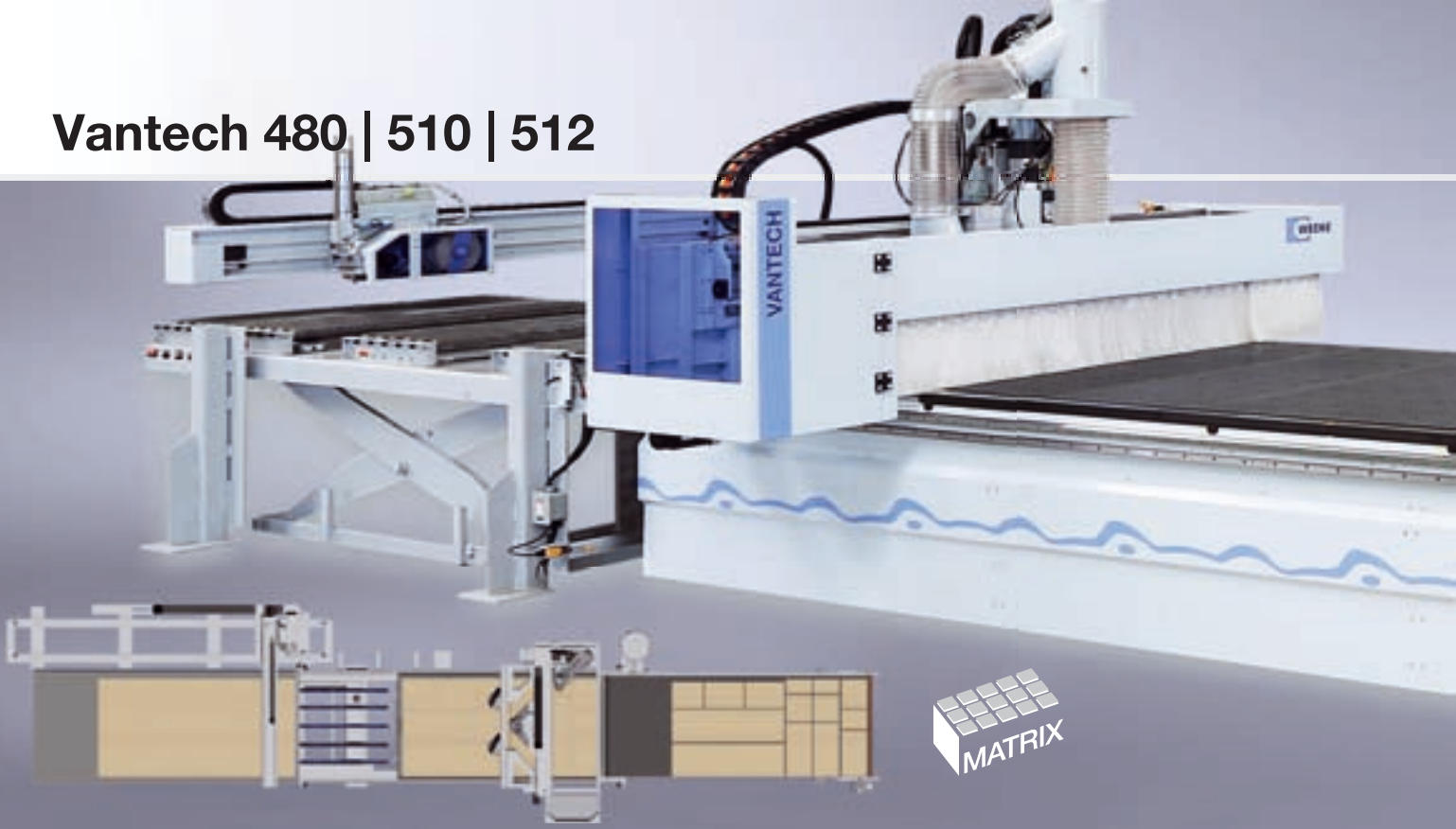


Option: Dust extraction channel at the outfeed from top

- For cleaning of the workpieces during feeding out

Equipment as described in this brochure is subject to technical changes and further developments. Technical data refer to standard equipment and are not binding for the order.

Vantech 480 | 510 | 512



Barcode printer / Lifting table

- Automatic Label Printing for precise handling and identification of the workpieces

Vacuum arm for positioning

- The vacuum arm takes over a pre-positioned raw board and aligns this against the end of the table in X direction



Configuration V12

- 12 vertical drilling spindles
- 13-fold tool changer disc-type pick-up

Concept 3 Nesting Solution



Tool pick-up station

- Secure and fast feeding of the tool changer magazine



Lowerable fence guide and program-controlled positioning

- Suitable for safe outfeed of workpieces
- Electr. surveillance of all guides and stops



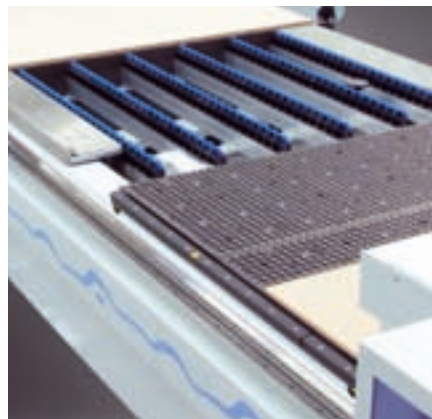
Option: Dust extraction channel at the outfeed from top

- For cleaning of the workpieces during feeding out



Transport belt

- A workpiece safety control device is attached at the end of the conveyor belt, this stop function can be deactivated via a foot switch



Transfer rollers

- Intermediary transfer rollers to prevent scratching during the loading process

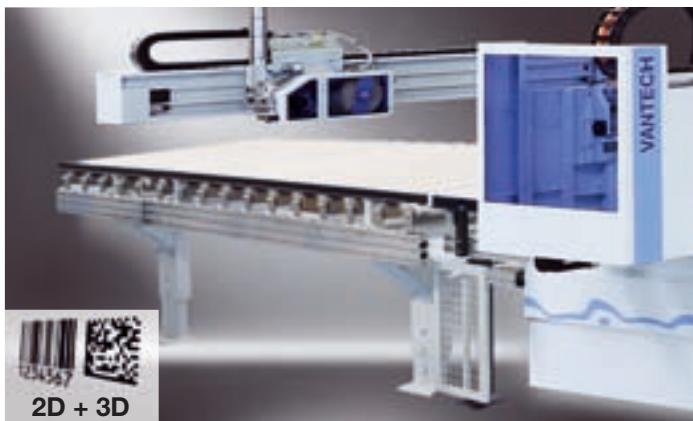
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Vantech 480 | 510 | 512



Barcode printer / Lifting table

- Automatic Label Printing for precise handling and identification of the workpieces



Vacuum arm for positioning

- The vacuum arm takes over a pre-positioned raw board and aligns this against the end of the table in X direction

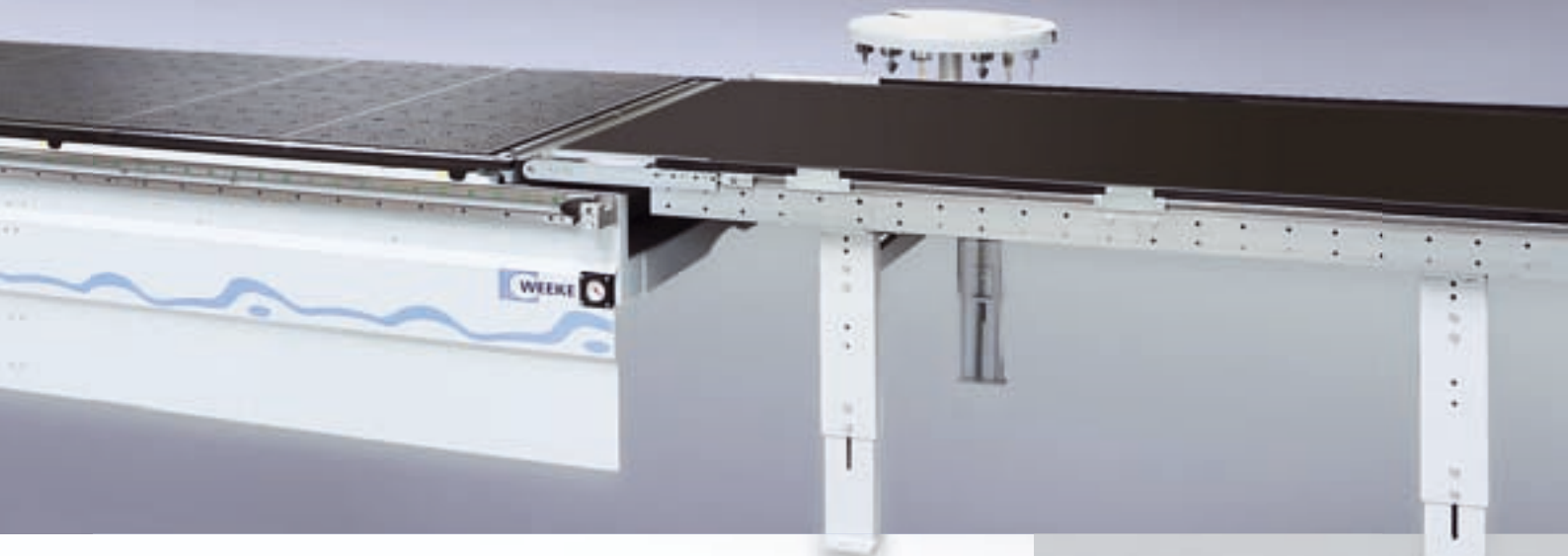


Configuration V12

- 12 vertical drilling spindles
- 13-fold tool changer disc-type pick-up



Concept 3R Nesting Solution



Tool pick-up station

- Secure and fast feeding of the tool changer magazine



Lowerable fence guide and program-controlled positioning

- Suitable for safe outfeed of workpieces
- Electr. surveillance of all guides and stops



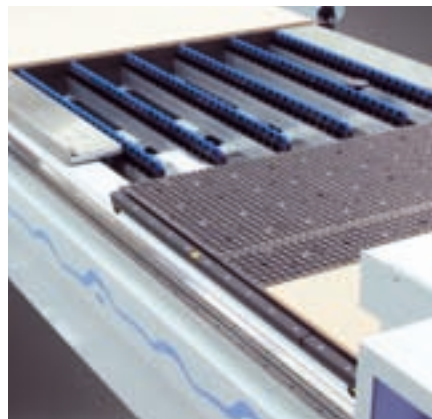
Option: Dust extraction channel at the outfeed from top

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Transport belt

- A workpiece safety control device is attached at the end of the conveyor belt, this stop function can be deactivated via a foot switch



Transfer rollers

- Intermediary transfer rollers to prevent scratching during the loading process

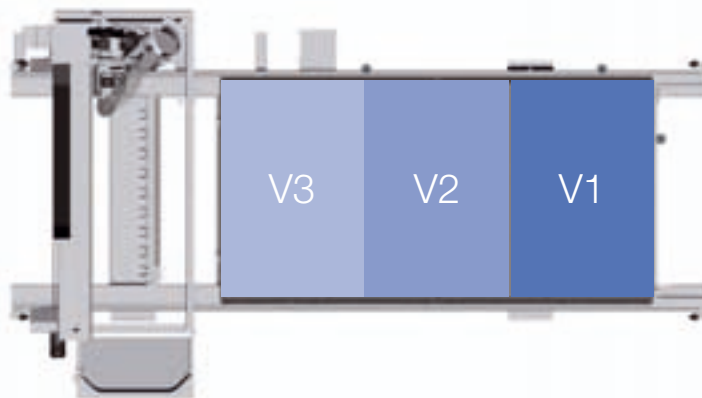
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Vantech 480 | 510 | 512

Nesting machines are utilized across a wide variety of market segments. We see nested based manufacturing strategies employed in the production of cabinetry, doors and drawers, closets and storage, furniture, store fixtures, work surfaces, plastics and composites, non-ferrous metals, as well as aerospace.

The Vantech PRO+ MATRIX Table system is perfectly suited to handle the raw material variance noted by some of today's multi-faceted manufacturers. The solution reads the raw board size of the incoming program and automatically concentrates vacuum pressure to the correct area of the machine, limiting machine setup time. Vacuum zones can also be manually selected at the machine control.

480
Matrix Pro

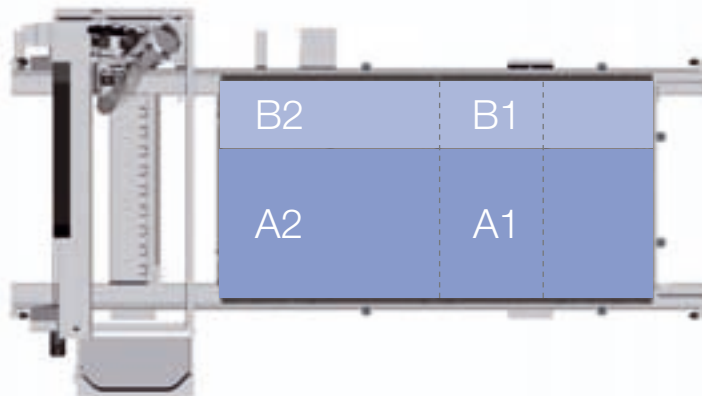


Matrix-Table PRO for Vantech 480 (1250 x 2500 mm)

3 zones controlled by softkey at the machine control

V1 = 800 x 1250 mm
V1+V2 = 1600 x 1250 mm
V1+V2+V3 = 2500 x 1250 mm

510
Matrix Pro +

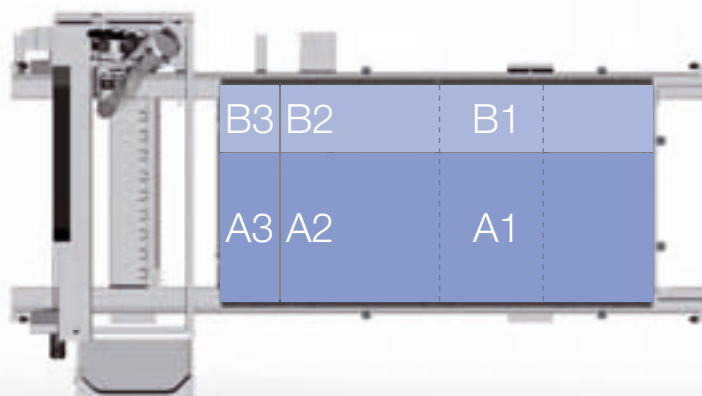


Matrix-Table PRO+ for Vantech 510 (1550 x 3100 mm)

8 automatically controlled vacuum fields for boards with dimensions such as:

A1 = 8 x 4 ft
A1+A2 = 10 x 4 ft
A1+B1 = 8 x 5 ft
A1+A2+B1+B2 = 10 x 5 ft

512
Matrix Pro +

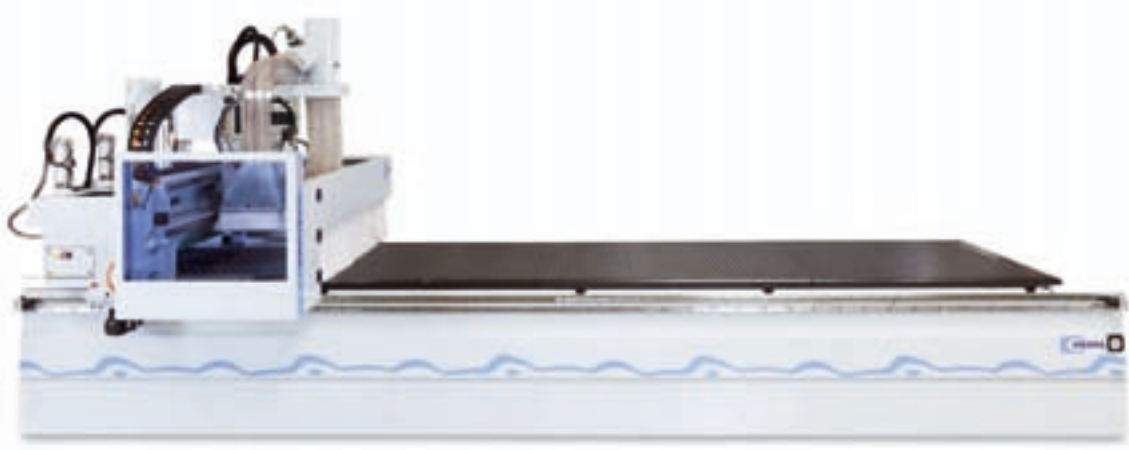
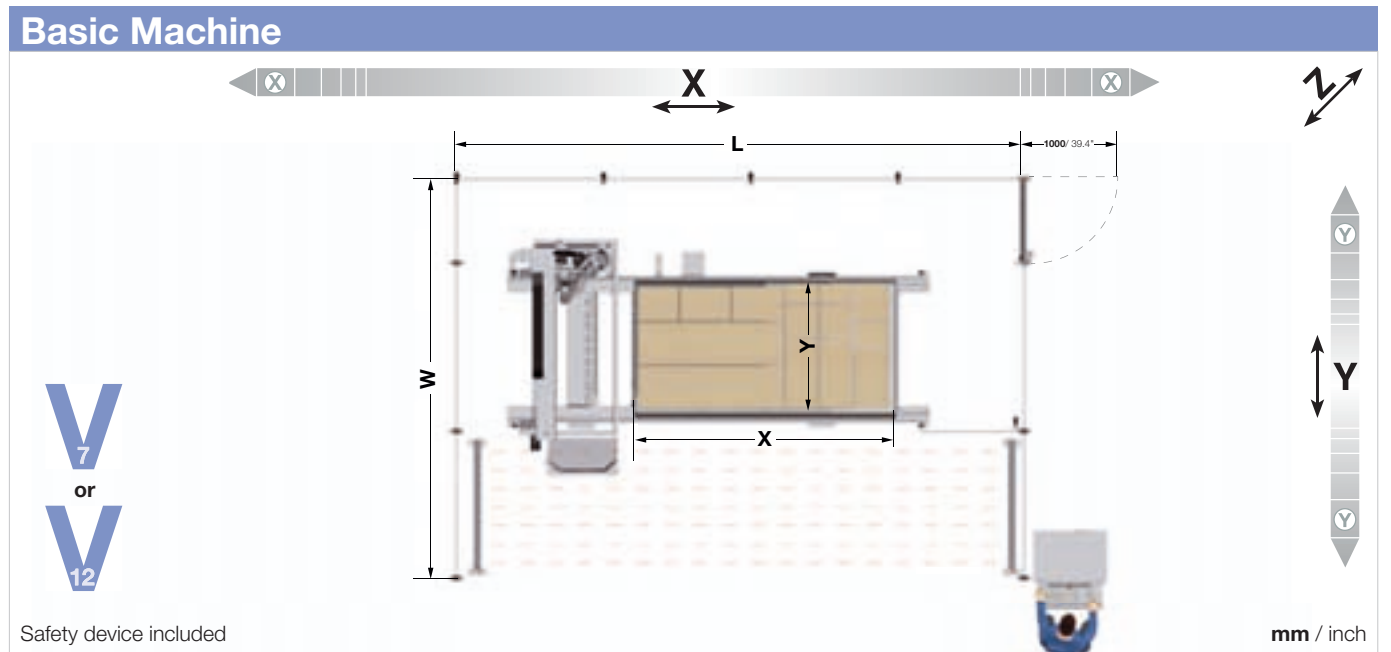
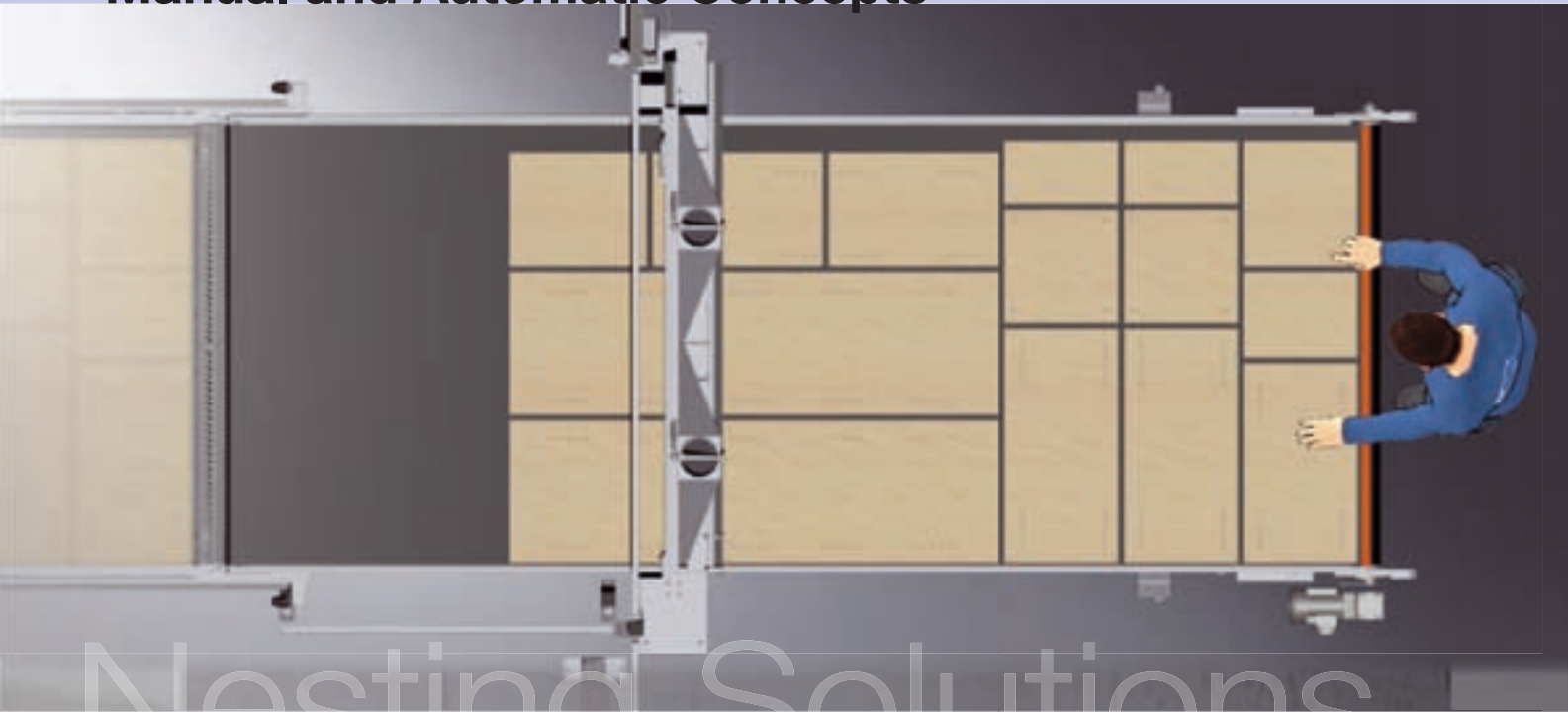


Matrix-Table PRO+ for Vantech 512 (1550 x 3700 mm)

10 automatically controlled vacuum fields for boards with dimensions such as:

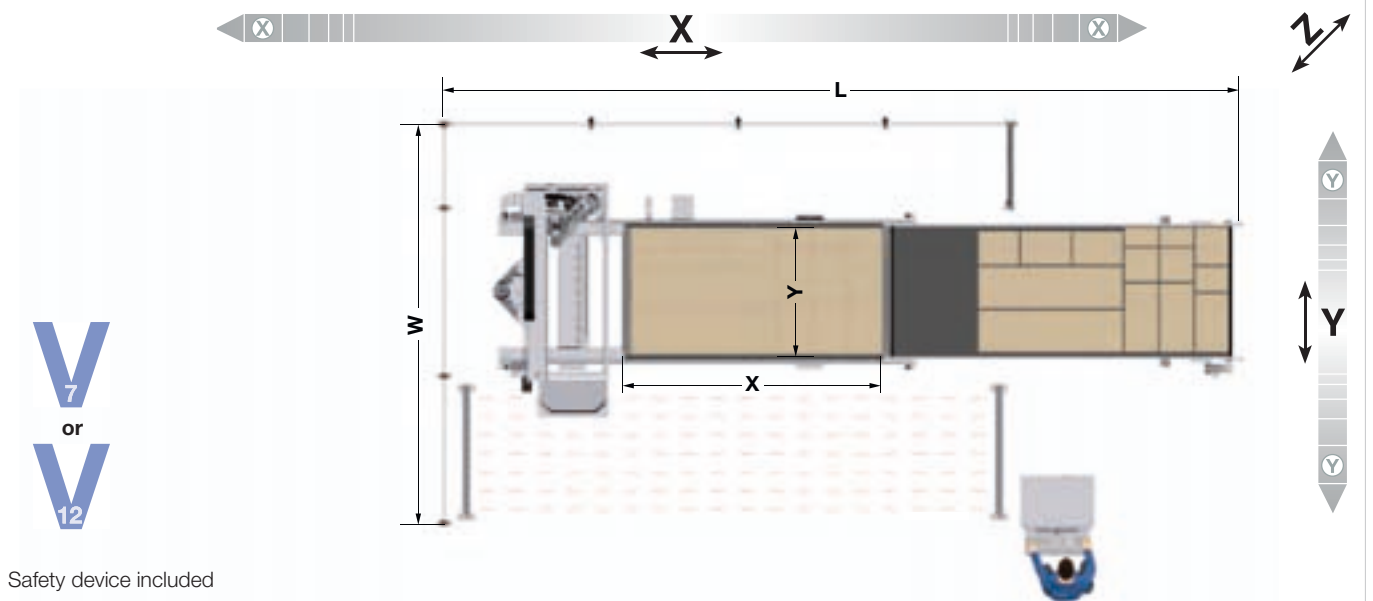
A1 = 8 x 4 ft
A1+A2 = 10 x 4 ft
A1+A2+A3 = 12 x 4 ft
A1+B1 = 8 x 5 ft
A1+A2+B1+B2 = 10 x 5 ft
A1+A2+A3+B1+B2+B3 = 12 x 5 ft

Manual and Automatic Concepts

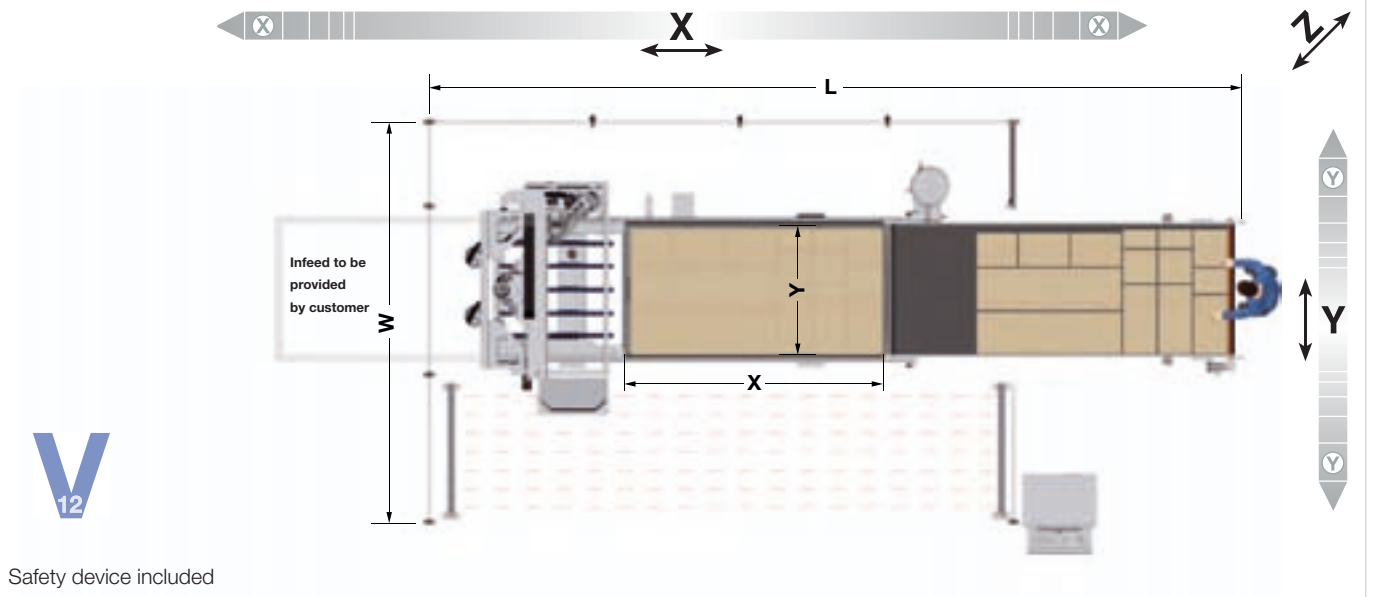


Manual and Automatic Concepts

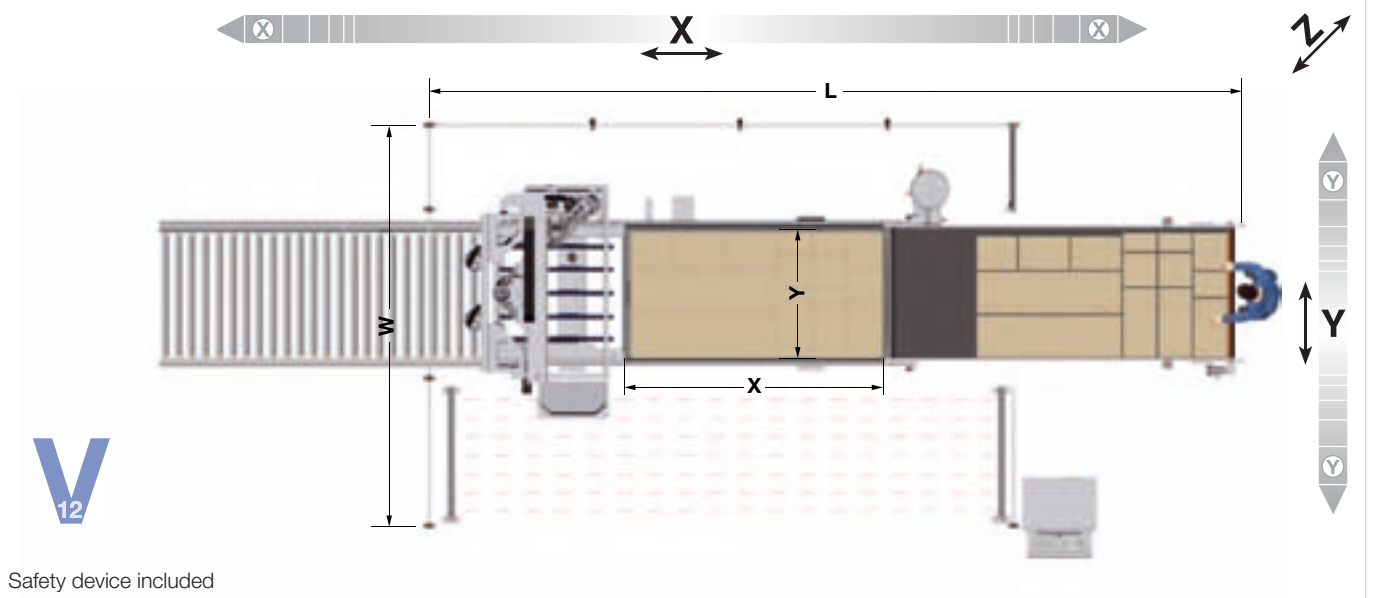
Basic Nesting Solution



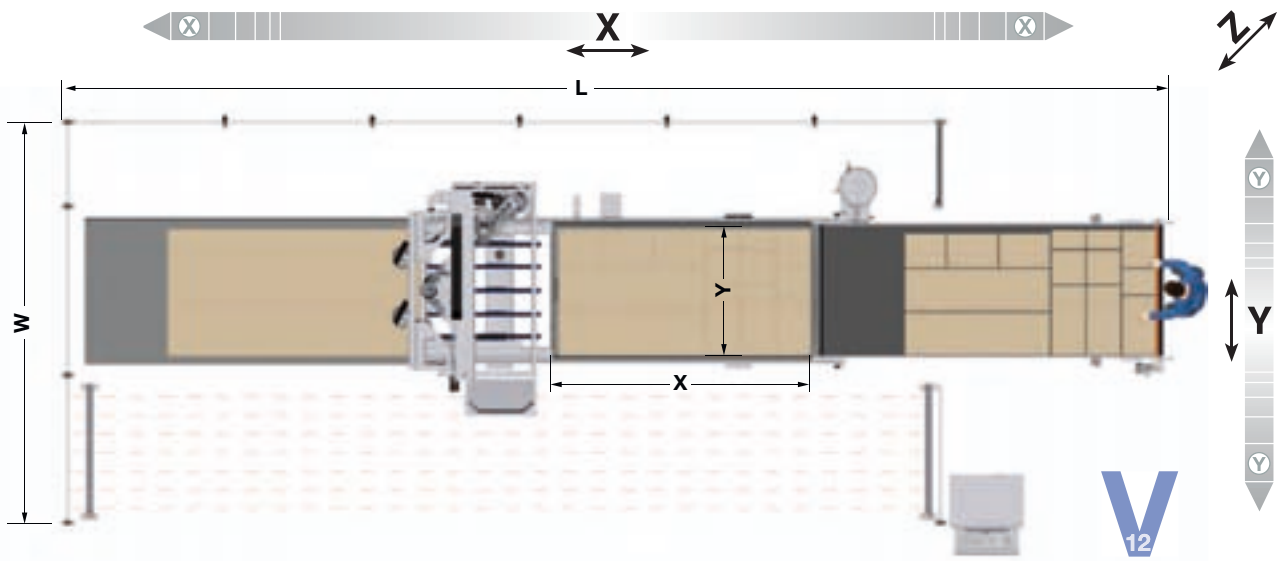
Concept 1 Nesting Solution



Concept 1R Nesting Solution

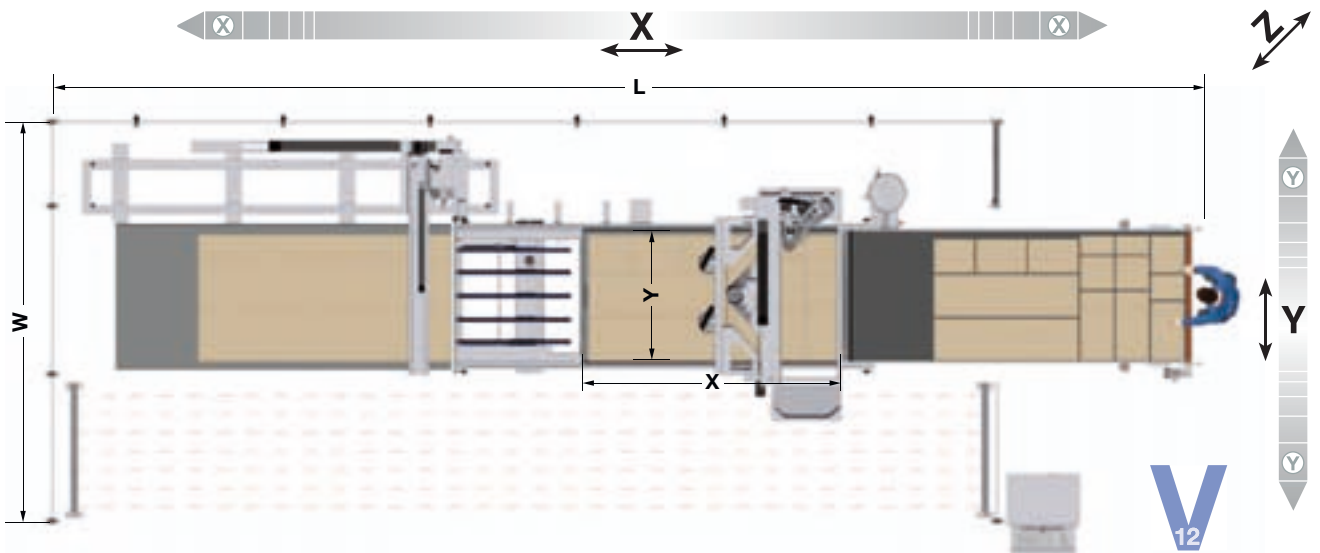


Concept 2 Nesting Solution



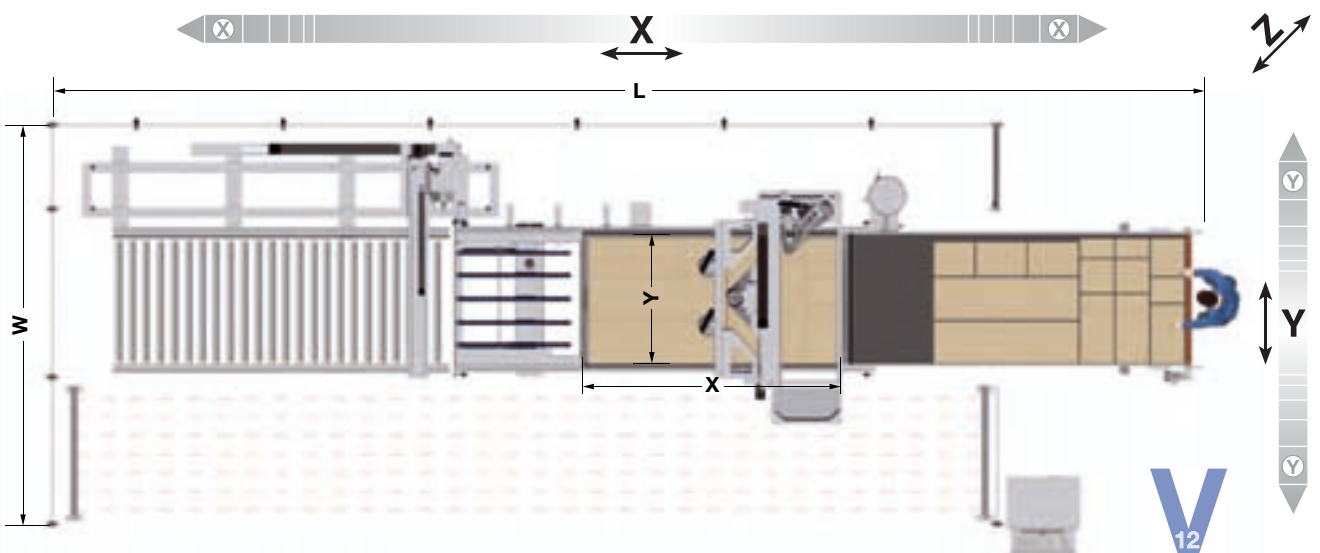
Safety device included

Concept 3 Nesting Solution



Safety device included

Concept 3R Nesting Solution



Safety device included

Nesting with storage



Do you have to routinely deal with short lead times for the delivery of your products? Do your people have to manually inventory material stock to determine what needs to be ordered to complete a job? Do your customers change their orders on short notice, yet expect little delay in the production of the product? The consequences of meeting these demands are far reaching and include lost profitability, production and material utilization inefficiencies, overtime and negative impact upon employee morale.

If this sound familiar to you, its time to lern more about an automated material storage and inventory management solution.

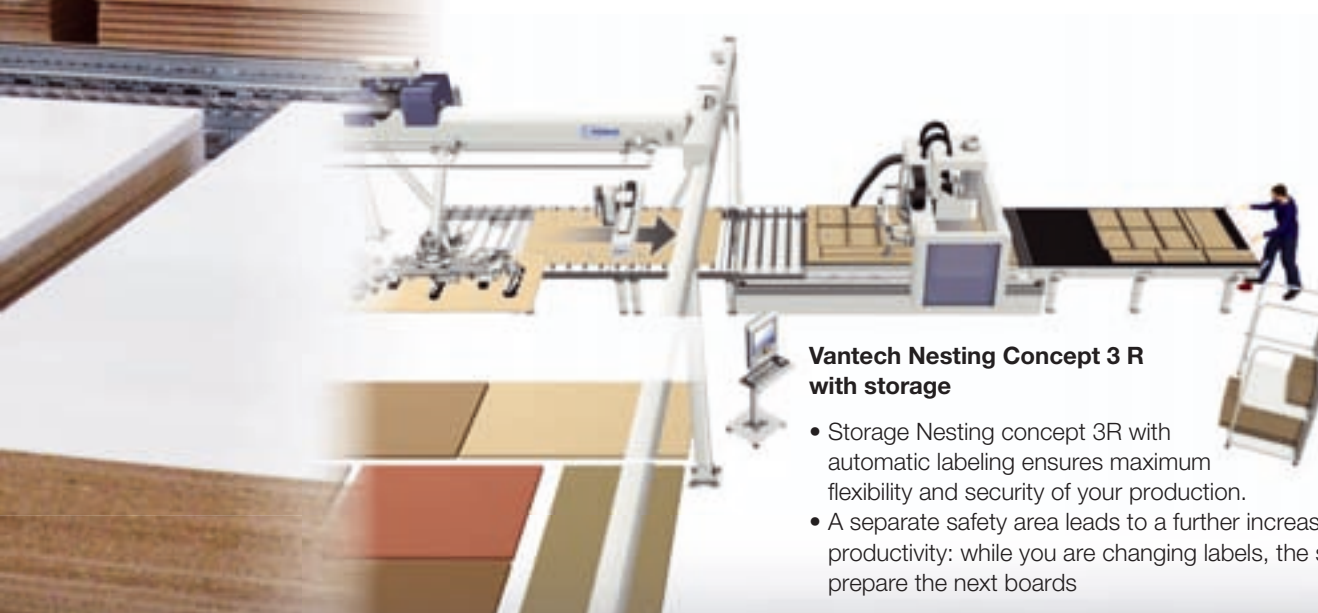


Nesting Solutions



Vantech Nesting Concept 1 R with storage

- Storage Nesting concept 1R will take your „Batch size one“ production to the next level.
- “Storage control” creates an optimal material flow in your production.



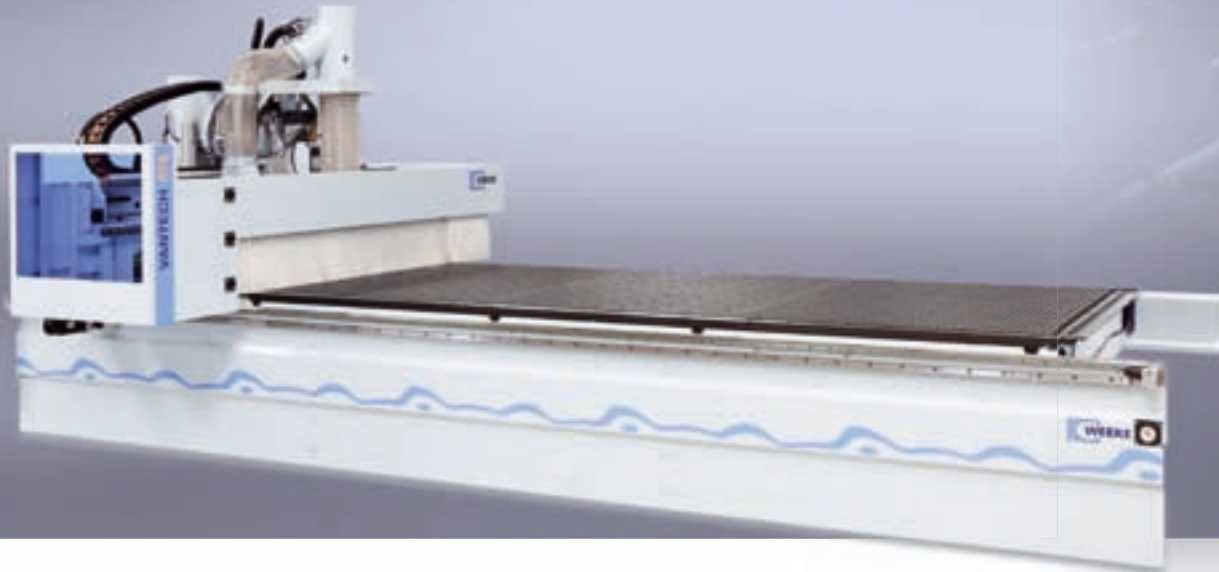
Vantech Nesting Concept 3 R with storage

- Storage Nesting concept 3R with automatic labeling ensures maximum flexibility and security of your production.
- A separate safety area leads to a further increase in your productivity: while you are changing labels, the storage can prepare the next boards

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Options

Need a custom configuration? Our options provide opportunities for a perfect adjustment of your nesting machine to your application.



Vacuum pods

- High flexibility
- Different sizes and types available as option



Label printing terminal

- PC, flat screen
- Label printer
- Software: Cute Rite Nesting



Extension stop system

- Pneumatically lowerable stop cylinders



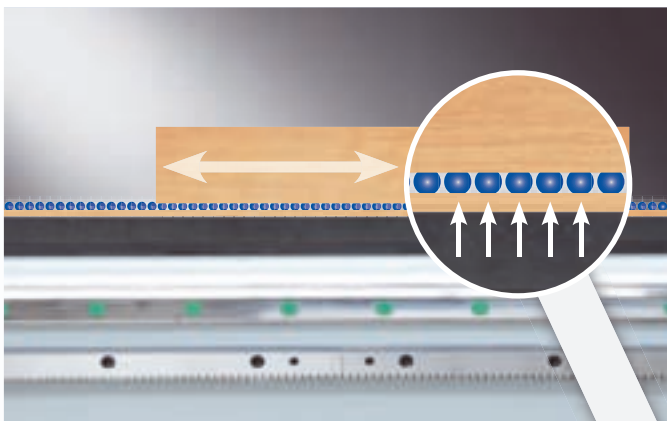
Dust extraction channel at the outfeed from top

- For cleaning of the workpieces during feeding out



Air cushion

- Air cushion function between raw bord and workpiece
- Positioning of "sensitive materials" with little effort



Air-conditioning

- Air-conditioned switch cabinet



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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 resources:

Worldwide largest forum for woodWOP:

www.woodWOP-Forum.de

Free Download of woodWOP-components:

www.weeke.com → Products → Software

Standard | Software Machine

powerControl

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



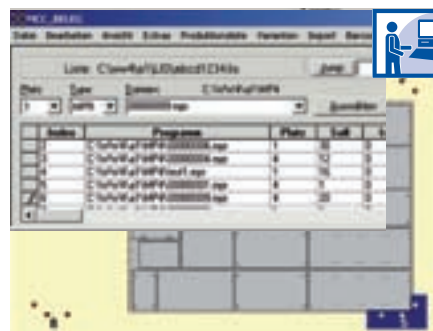
woodWOP

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



Production list software

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



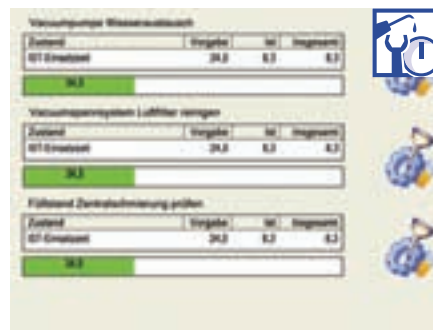
Option Hand terminal

- Easy control of main machine functions



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



Options | Office Package „Premium“

woodWOP

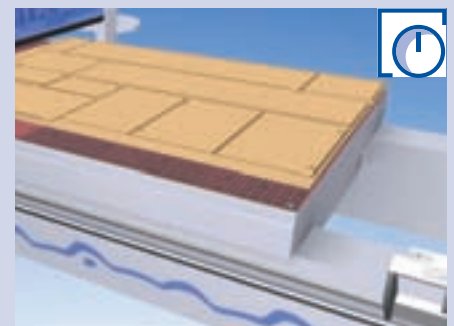
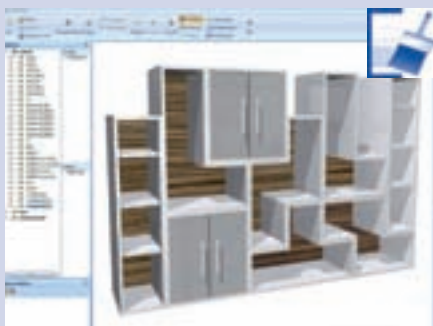
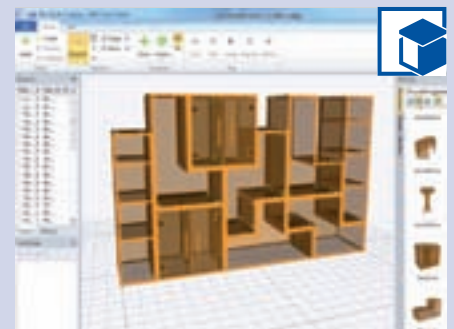
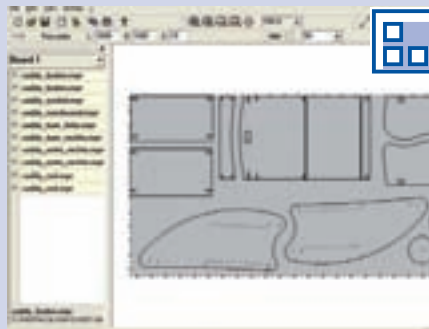
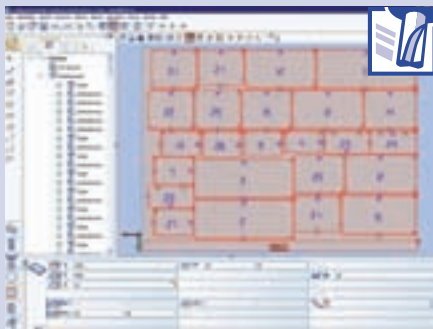
- Modern software based on Windows®
- More than 30,000 installations world-wide

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

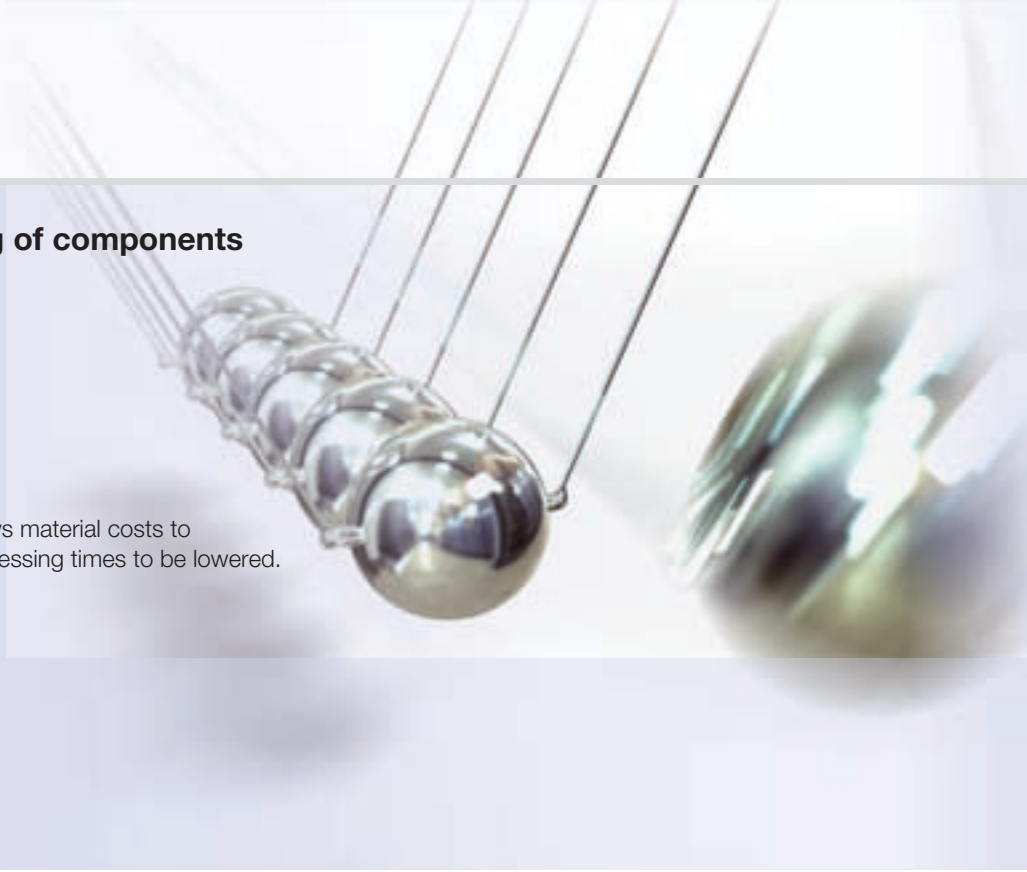
- Simulates the processing in the order it is stored in the NC-program
- Allows time calculation
- Collision check of the vacuum cups

Nesting Software

Solutions for nesting of components

Your benefits

- Advanced optimization allows material costs to be reduced and overall processing times to be lowered.



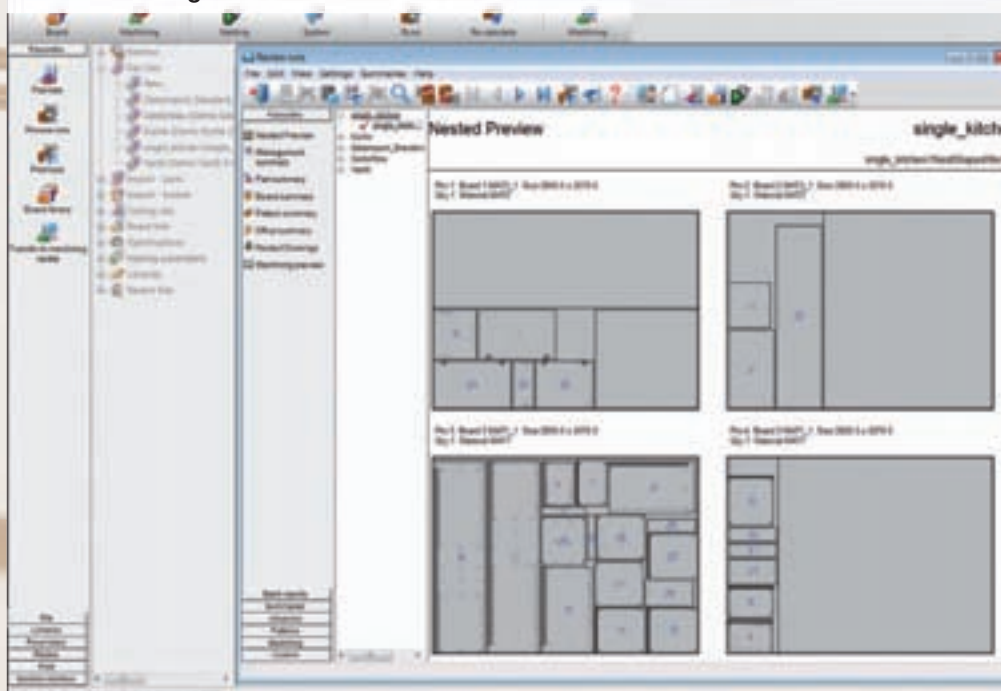
Cut Rite Nesting

Cut Rite, the optimization software of the HOMAG Group, is used for cutting boards on sawing machines as well as nesting machines. The modular structure of the software allows users already controlling their sawing machine via **Cut Rite** to integrate the nesting module without problems.

Highlights

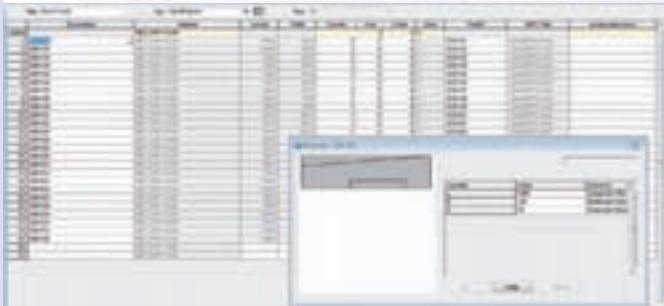
- Board library and calculation of material costs
- Labeling in the office incl. layout editor
- Additional modules can be applied optionally, e. g. for stock management

Cut Rite Nesting



Cut Rite Nesting | Functions

Cut Rite Nesting | Parts list



Cut Rite Nesting | Parts list

- Can be manually created by entering individual woodWOP-files
- Can be imported from other programmes, e.g. excel charts
- Can be optionally edited and processed
- Import of up to 50 woodWOP-variables
- The program optimizes the parts list sorted according to material or any other parameter

Cut Rite Nesting | Label designer



Cut Rite Nesting | Label designer

- With the integrated label designer you can create labels at your workplace and print them directly in the office
- This function does not replace the automatic printing function at the machine

Cut Rite Nesting | Editor



Cut Rite Nesting | Editor

As needed, the optimization result can be manually modified, e.g. adding filling parts.

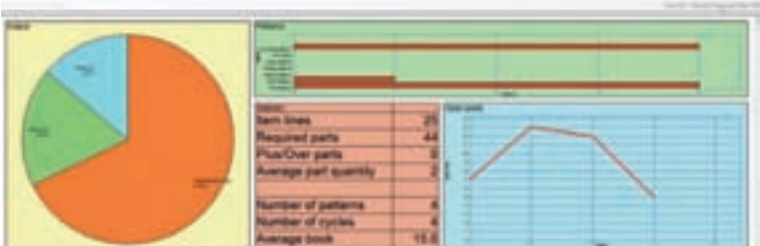
Cut Rite Nesting | Result



Cut Rite Nesting | Cutting plan templates



Cut Rite Nesting | Result



Cut Rite Nesting | Clear structured results

Cut Rite provides a clear and structured presentation of the results of the optimization. For every optimization run several reports are issued which can be individually configured.

Cut Rite Nesting | Cutting plan templates

It is possible to create cutting plan templates, e.g. for furniture fronts, in order to guarantee a continuous texture over several individual parts.



Processing of 3D-surfaces with woodWOP

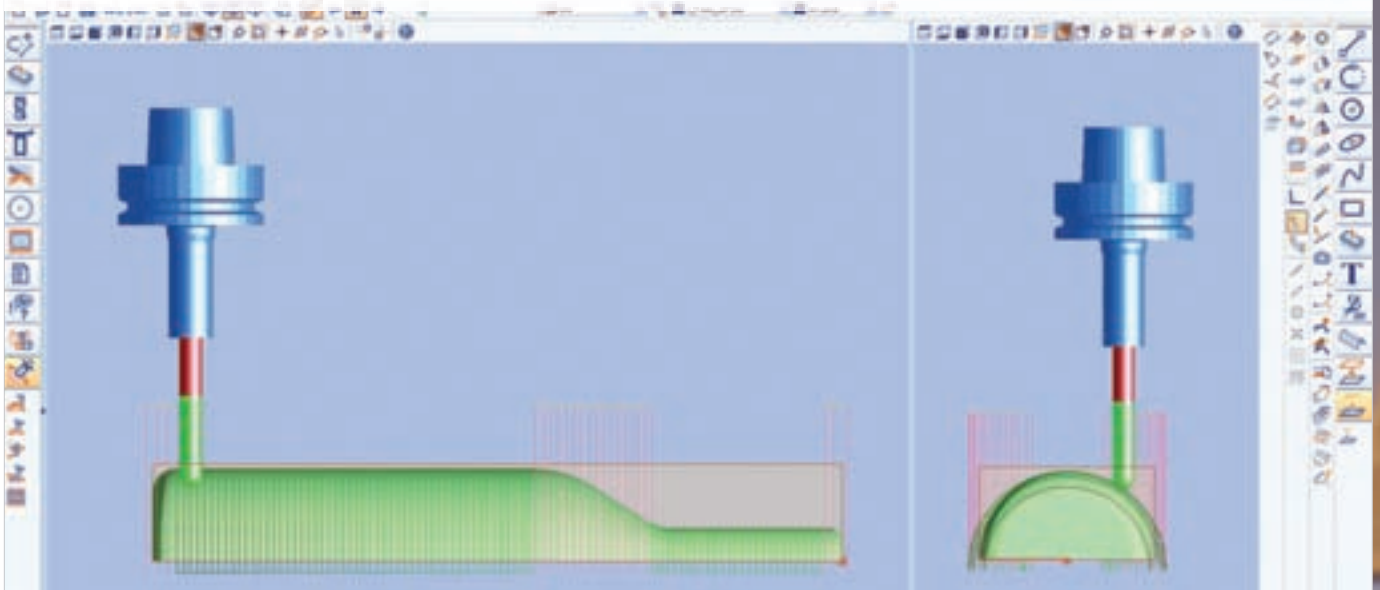
With the woodWOP CAM-Plugin the HOMAG Group AG heralds a new age in machine-oriented programming. When in former times the router was programmed via contour elements, the CAM-Plugin actually allows to select a surface according to which the software then automatically calculates the required paths.

The CAM-Plugin completes the function range and enlarges woodWOP to a fully-fledged CAD/CAM-system within 3D-surfaces can be processed in a 3-axis way.

Your benefits

- Directly integrated in the woodWOP user interface
- Intuitive operation and fast familiarization with an identical look & feel
- Easy entry for 3D programming
- Already applicable for 3-axis machines

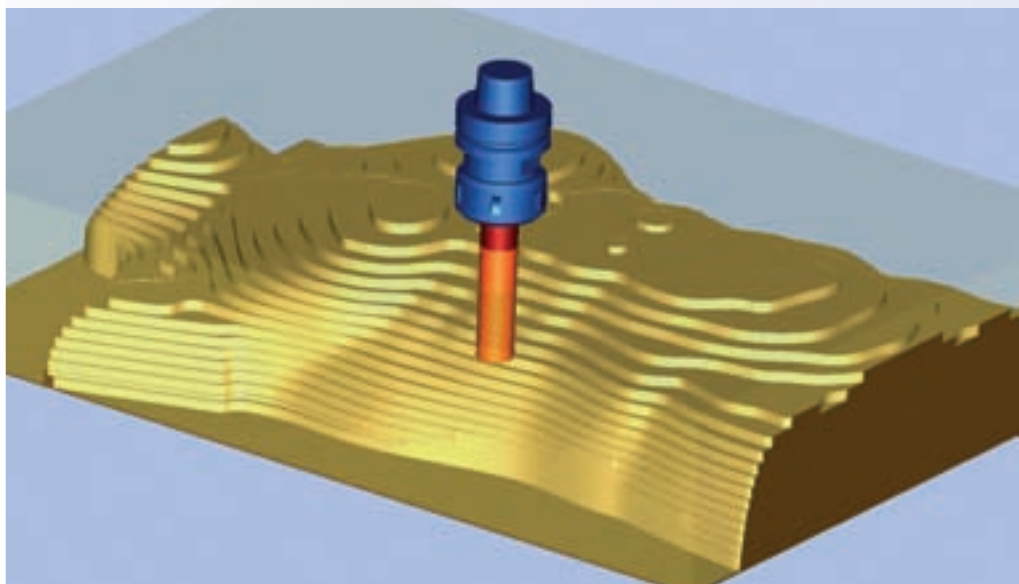
3-axis processing of a 3D-object



3D-roughing

- Programming by selection of the surface that should be processed
- Automatic calculation of the tool paths
- Different routing strategies for vertical 3-axis routing
- Different approach and retract modes

3D-roughing



On the road to success...

...with software from the HOMAG Group

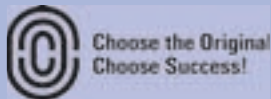
Choose from a wide range of software modules to find the optimum configuration for your requirements. A trial version of the different applications can be found at our web site www.woodWOP-forum.com under Download > Download a trial version.

WOODWOP goes 3D

Advantages include:

- Complete solutions for integrating the machine into the production process
- Investment security thanks to downwardly compatible development
- Coordinated modules

Technical Data



For the Success of Original Technology
A campaign of the VDMA



Vantech 480/510/512 | 12/2015

		X	Y	Z
Working field	Vantech 480	2520 / 99.2	1250 / 49.2	100 / 3.9
	Vantech 510	3100 / 122.0	1550 / 61.0	100 / 3.9
	Vantech 512	3700 / 145.7	1550 / 61.0	100 / 3.9
Travel range	Vantech 480	3710 / 146.1	1660 / 65.4	245 / 9.6
	Vantech 510	4300 / 169.3	1965 / 77.4	245 / 9.6
	Vantech 512	4900 / 193.0	1965 / 77.4	245 / 9.6

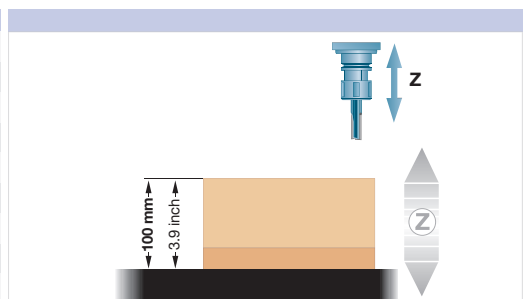
mm / inch

		L	W		
Floor space	Manual Concepts*				
	Basic Machine	Vantech 480	6580 / 259.1	4420 / 172.0	
		Vantech 510	7080 / 278.7	4720 / 185.8	
		Vantech 512	7580 / 298.4	4720 / 185.8	
	Basic Nesting Solution	Vantech 480	8070 / 317.7	4420 / 172.0	
		Vantech 510	9800 / 385.8	4720 / 185.8	
		Vantech 512	10290 / 405.1	4720 / 185.8	
	Automatic Concepts*				
	Concept 1 Nesting Solution	Vantech 480	8320 / 327.6	4420 / 172.0	
		Vantech 510	10050 / 395.7	4720 / 185.8	
		Vantech 512	10540 / 415.0	4720 / 185.8	
	Concept 1R Nesting Solution	Vantech 480	11770 / 463.4	4420 / 172.0	
		Vantech 510	14050 / 553.1	4720 / 185.8	
		Vantech 512	14690 / 578.3	4720 / 185.8	
	Concept 2 Nesting Solution	Vantech 480	10300 / 405.5	4420 / 172.0	
		Vantech 510	12550 / 494.1	4720 / 185.8	
		Vantech 512	13790 / 542.9	4720 / 185.8	
	Concept 3 Nesting Solution	Vantech 480	11040 / 434.6	4420 / 172.0	
		Vantech 510	13050 / 513.8	4720 / 185.8	
		Vantech 512	14290 / 562.6	4720 / 185.8	
	Concept 3R Nesting Solution	Vantech 480	13340 / 525.2	4420 / 172.0	
		Vantech 510	15300 / 602.4	4720 / 185.8	
		Vantech 512	15840 / 623.6	4720 / 185.8	

*Subject to technical changes

mm / inch

Vector speed X/Y - Z-axis	m/min	96 - 25
Compressed air connection	inch	R ½
Compressed air required	bar	7
Dust extraction port	mm	Ø 200*
Dust extraction volume	m³/h	min. 3170**
Electrical power – total connection load	kW	27.5**
		** Basic Machine



Member of the HOMAG Group



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Subject to technical modifications, misprints and errors. Pictures may show special equipment.