Nesting.
One procedure.
Many possibilities.

HOMAG

Our Gantry-Processing Center
CENTATEQ N-500

YOUR SOLUTION

CENTATEQ N-500 – the compact nesting machine in gantry design

Our nesting machines enable cutting-optimized processing and dividing of plateshaped materials. We divide the typical nesting areas into four areas. Various possibilities for the automation of the material handling ensure a high time saving and an even more effective work. The typical application areas of nesting: Creating components for carcass furniture, dividing and refining of furniture fronts and processing of frame.

The Highlights

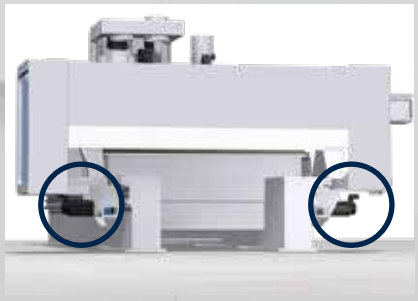
- **Gantry style – for highest precision over the total working width**
- **Sealed »long-life« linear guiding system**
- **High acceleration**
- **Vector speed X/Y 96 m/min**
- **The whole working field is reachable with all processing tools**
- **Electronic surveillance of all stops**
- **Efficient use of energy through high vacuum performances and simultaneously minor power consumption**
- **14-fold tool chaning system incl. pick-up (optional)**
- **Optimization software**
- **Remaining parts handling**

Configuration

- Standard: 13,4 HP (10 kW) HSK routing spindle
- Optional: 17,7 HP (13,2 kW) HSK routing spindle

MATRIX table PRO

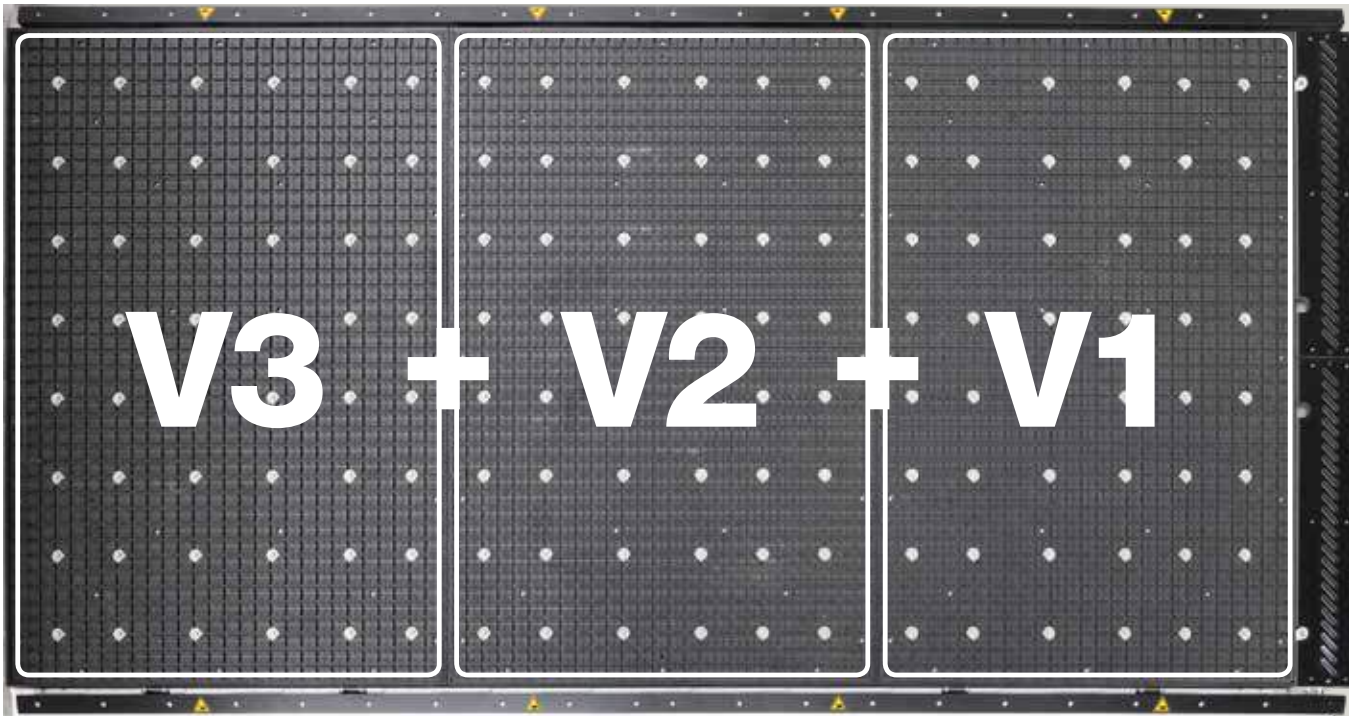
- High flexibility
- Individual division into various vacuum areas by manually placing plugs



Synchronous drive

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

CENTATEQ N-500 – Highlights as standard



Segmentation of vacuum zones
for example: table size 1250 x 2500 mm

- Automatic adjustment of vacuum fields
- Saves energy and vacuum power

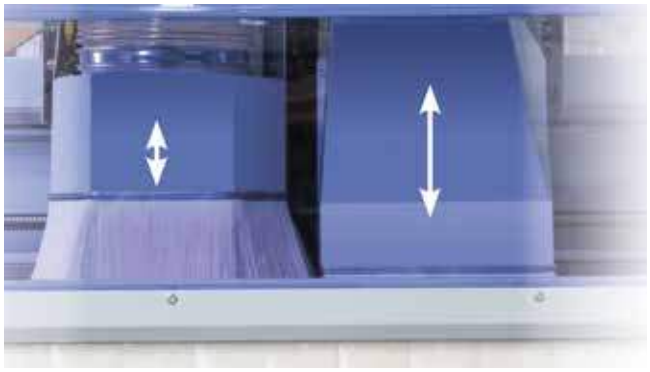
Vacuum segmentation:

V1	= 2,6 x 4 Ft
V1+V2	= 5,2 x 4 Ft
V1+V2+V3	= 8,4 x 4 Ft

Tool changing system

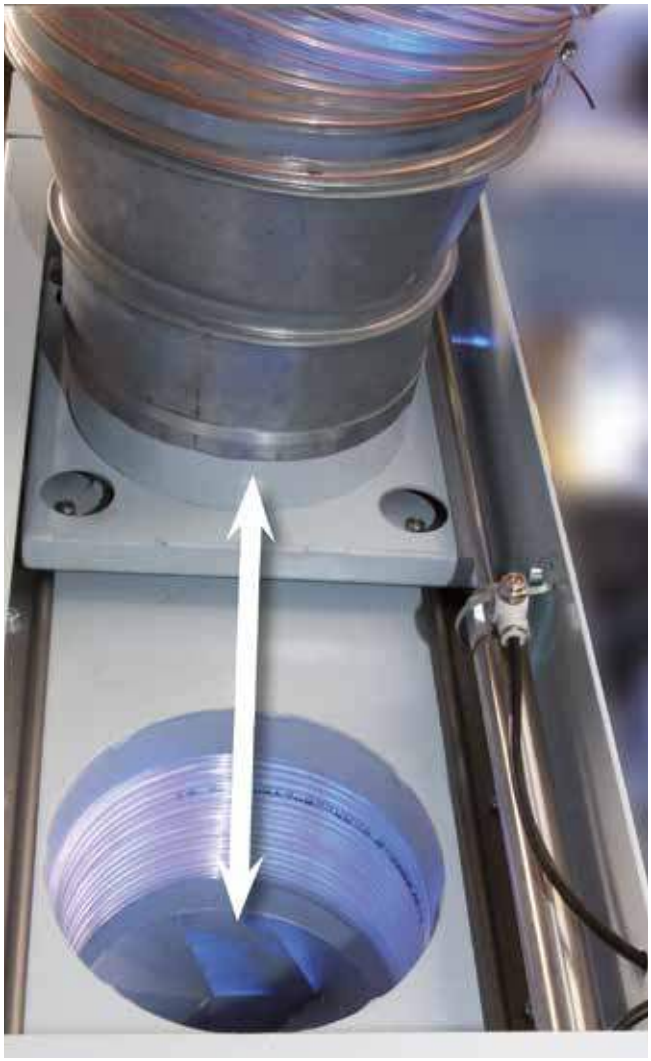
- Depending on working field in standard:

CENTATEQ N-500 / 480 = 7 places
CENTATEQ N-500 / 512 = 8 places
CENTATEQ N-500 / 612 = 10 places
CENTATEQ N-500 / 714 = 12 places



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

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

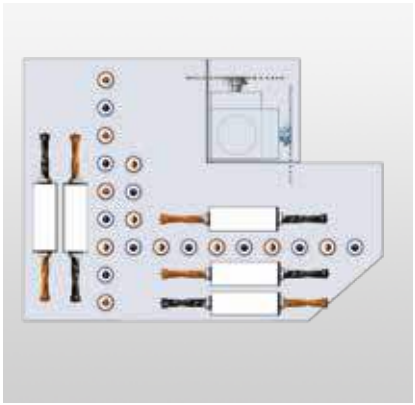


Program-controlled extraction connection

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

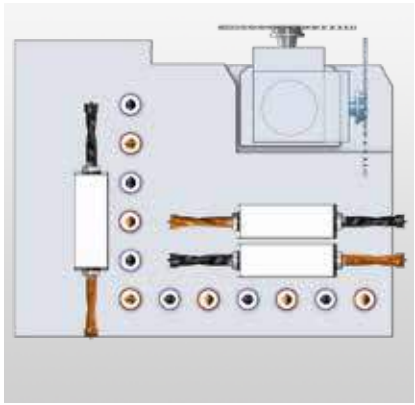
Options

WOULD YOU LIKE SOMETHING EXTRA? Our options provide all opportunities for a perfect adjustment of your nesting machine to your requirements.



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°)



High-Speed 7500 Drilling block | 12 spindles

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

High-Speed 7500

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

Tool length control

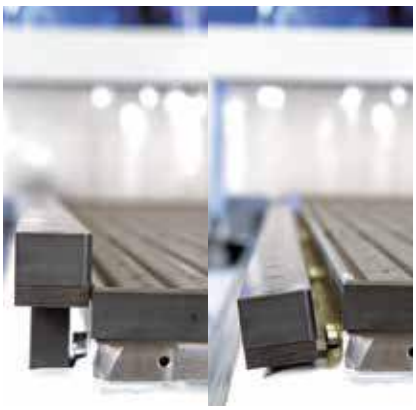
- Following the tool change a tool length control is carried out and compared with the integrated tool data file

Tool changer

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

Tool box »STARTER KIT«

- Top equipment – from the very start



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)

Clamping elements

- Verschiedene Spannmittelelemente sind optional erhältlich

Vacuum lever for raw panel positioning

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

Barcode connection

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

Handling solutions with many possibilities

THE TYPICAL APPLICATIONS OF NESTING are creation of carcass furniture, dividing and refining of furniture fronts and construction of frame furniture.

Concept 3
- Optimized with new printing system

Label printing system
- Automatic labelling of raw boards before processing.
- Modular concept - plug & play (retrofitable)
- Fast - 60 m/s in X-Direction

Air cussion function
- Optimal and smooth handling

Infeed- and push-off function
- Simultaneous infeed of the raw material and push-off of processed workpieces

Handling solutions for CENTATEQ N-500

Basic machine

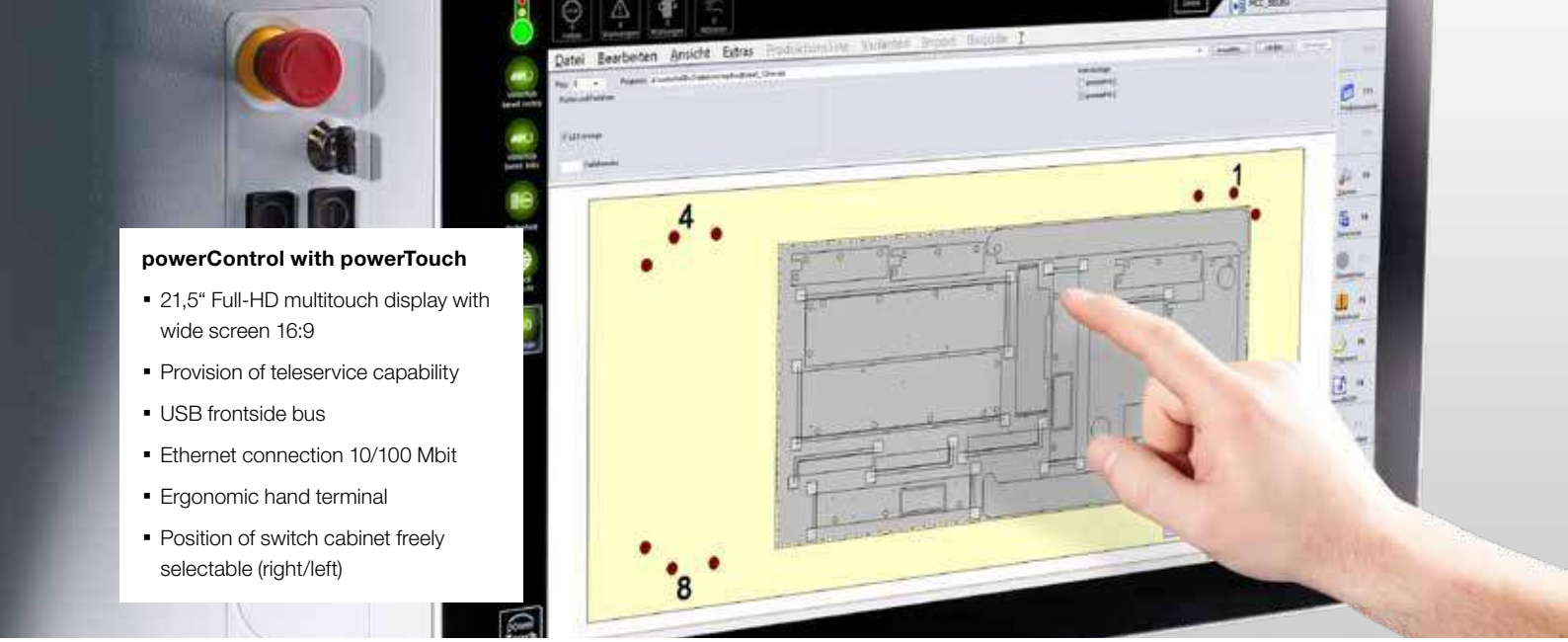
Basic machine
with outfeed belt

Basic machine
with outfeed belt incl. preparation for external infeed

Basic machine
mit outfeed belt and conveyor (available with lift table or roller table)

Basic machine
mit outfeed belt, conveyor and labelling system
(Lift table or roller table)

Integration in
HOMAG Automation storage

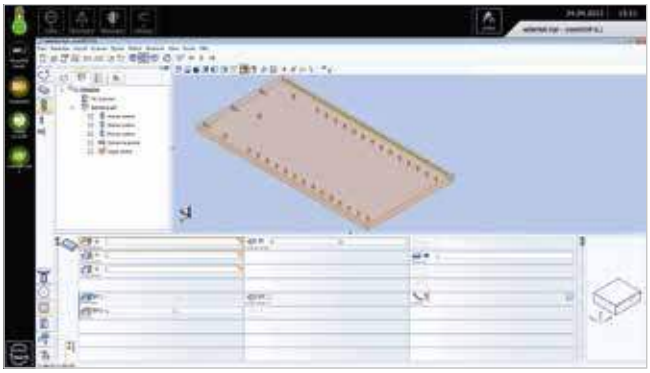


powerControl with powerTouch

- 21,5“ 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)

Software | Machine

Our machines are equipped with everything needed for productive use as standard.
In addition, a wide range of software modules can be supplemented to create the optimum configuration.



woodWOP

- Modern software based on Windows©
- Import of CAD files in DXF format
- More than 30.000 installations worldwide
- Worldwide largest forum for woodWOP

Production list software

- For management and creation of product lists for individual manufacturing

MCC

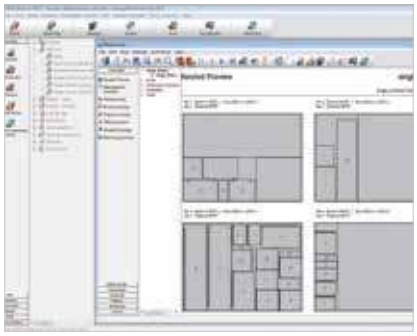
- Simple control of main machine functions through soft keys
- Graphical loading

Machine data recording Basic

- Machine Data Recording – collecting and evaluating machine states via time meter and event meter
- Display and logging of maintenance measures

Process optimization

CUT RITE, THE OPTIMIZATION SOFTWARE OF THE HOMAG, 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. Plus, customer processes can be made even more efficient by woodCAD|CAM and residual parts management.



woodCAD|CAM

- Parametric design in 3D
- Seamless data flow in operation
- Bill of materials, cutting to size and cost estimation
- CNC data for HOMAG Group machines
- Barcode generation
- Photorealism for sales negotiations

Optimization software: woodNest Basic and Cut Rite Nesting

- Optimization and generation of cutting plans for rectangular and free-formed workpieces (woodNest Basic: manually | Cut Rite: automatically)
- Functions with Cut Rite:
  - Import of parts lists, e.g. from Excel, or direct import of woodWOP programs
  - Additional milling strategies “bars”, “common line” and “stay down”
  - Includes material management, parts sorting by material type, and label printing in the office
  - Manual editing of cutting plans

Technical Data

CENTATEQ N-500	L	B	L1	L2
480	6480	5120	7860	11215
510	7030	5420	9415	13470
512	7630	5420	10015	14570
610	7030	5740	9410	13470
612	7630	5740	10020	14570
710	7030	6150	9450	13470
714	8230	6150	11620	16270

L (with transport belt)
L2 (Concept 3 with lifting table and belt)

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

WORKING FIELDS							
CENTATEQ N-500	**Width** (mm)	**Length** (mm)	**Thickness** (mm)	**Width** (Fuß)	**Length** (Fuß)	**Thickness** (inch)	**Vacuum capacity**
480	**1250**	2500	100	4	8	3,94	290/345 m^3/h 50/60 Hz
510	**1550**	3100	100	5	10	3,94	580/690 m^3/h 50/60 Hz
512	**1550**	3700	100	5	12	3,94	580/690 m^3/h 50/60 Hz
610	**1850**	3100	100	6	10	3,94	580/690 m^3/h 50/60 Hz
612	**1850**	3700	100	6	12	3,94	580/690 m^3/h 50/60 Hz
710	**2250**	3100	100	7	10	3,94	870/1035 m^3/h 50/60 Hz
714	**2250**	4300	100	7	14	3,94	870/1035 m^3/h 50/60 Hz

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