

Testprint Offer

P.00

CENTATEQ P-310

(VENTURE BMG310/42/F/K)

HOMAG CNC PROCESSING CENTRE

CNC-controlled processing centre in moving gantry construction, for trimming and drilling panels made of wood or material similar to wood.

Prepared for 1 main spindle, installed on the right side of the gantry traverse.

Preference model with fix configuration of the basic machine.

1. BASIC MACHINE:

- machine bed in stable steel frame construction, prepared for the construction of a table
- linear guiding systems with dust protection
- rack and pinion drives for X and Y axis
- recirculating ball screws for Z-axis
- drive technology with digital control methods for a high dynamic and exact

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- contours
- unit beam prepared for two separate Z-axes (Z1, Z2). Enables rapid and alternate use of the boring head and main spindle
- traversing speeds:
 - X/Y axis = 70 m/min
 - X axis = 35 m/min
 - Y axis = 60 m/min
 - Z axis = 25 m/min
- central connecting piece for connection on part of the customer
- automatic central lubrication, for a complete and low-maintenance lubrication of all drives and linear guidances (X, Y and Z axes)
- connecting loads for suction, pneumatic, compressed air and electricity are to be taken from the separate installation plan
- floor conditions must correspond to the foundation plan

2. PANEL PARAMETERS:

- Workpiece length max., all units
 - Single processing: 4200 mm
 - Alternating processing: 500 - 2440 mm
- Workpiece length max., tool diameter 25 mm
 - Single processing: 4375 mm
 - Alternating processing:
500 - 2615mm
- Workpiece width max., stop in front
 - All units: 1350 mm
 - Trimming tool diam. 25 mm: 1350 mm
- Workpiece width max., stop rear
 - All units: 1350 mm
 - Trimming tool diam. 25 mm: 1600 mm
- the min. panel size depends on: clamping devices, panel surface and contour
- the machine operator is responsible for the use of suitable materials (boards, glues, edging materials, cleaning means, lacquers etc.)

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3. ELECTRIC EQUIPMENT:

- operating voltage 400 volt, 50 Hz
- separate switch cabinet

- installed accord. to European Standard
EN 60204-1
- incl. potential-free contact for controlling
a suction flap to be provided by the customer
- The machines are not suitable for connection
to a RCD due to operational leakage currents.
Instead the recommendation is to route the
supply in such a way as to prevent ground
faults or short circuits (e.g. in accordance
with DIN VDE 0100-520/521.11)
- prescribed environmental temperature:
+ 5 degrees up to + 40° C
(in case of environmental temperature >35°C
or air humidity >65% a cooling unit for
switch cabinet is recommended)

4. SAFETY AND PROTECTION FACILITIES:

- safety surveillance with pressure-sensitive
cushions accord. to EN1760-3 for an
effective protection of the operating staff

If the customer explicitly desires that
the machine is delivered and installed
without safety barriers, the customer is
obliged to guarantee the safety at the
corresponding machine sides by
proper safety measures. This also applies
for later modifications, especially in case
of later modifications at the site of
installation, in case of installation of
the machine at another site or in case of
resale of the machine

- ATTENTION: the machine must not run without
full safety barriers
- the customer waives guarantee and damage
compensation rights concerning the fact that
the machine was delivered and installed
without full safety barriers. The customer is
obliged to indemnify the deliverer against
any claims of third parties which might be
raised due to this circumstances
- EC conformity (CE) according to the currently
valid Machinery Directive for individual

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machines in operation

- according to the Machinery Directive an additional EC conformity certificate for linked machine operation (cells/plants) is required in the defined countries.
- accessibility of the working zones:
 - the machine has two working fields, selectable empty-running modi permit that the individual fields can be run empty
 - for putting on and withdrawing panels with max. possible processing length in individual operation, the panel must be led under the safety housing
- wood dust protection TRK-value max. 2 mg/m³, subject to the fact that the suction capacity to be provided by the customer is in compliance with the suction plan
- condition for our warranty/product liability is the unrestricted observance of the original production instructions delivered along with the machine including the safety instructions

5. HOMAG QUALITY PACK:

- energy guiding chains (cable trail) in X and Y direction in closed execution in order to prevent cable damages by residual pieces, chips and so on
- linear guidances in X and Y direction are covered with a steel band in order to avoid dirt intrusion
- TÜV certificate accord. to DIN EN ISO 9001:2008
- energy-efficient drives accord. to the EU no. 640/2009
- energy-efficient suction hood
- energy saving functions:
 - ECO Plus button for start of the stand-by mode, which can be activated during the last operation. After program end the button provokes the following:
 - the drives stop running
 - the vacuum pumps are switched off
- when the machine is not producing, the control voltage is disconnected by means

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of preset time

- when no panel is clamped, the vacuum pump is disconnected by means of preset time
- flap control for reduction of the necessary suction energy by automatic switching over between boring gear and main spindle

P.02001 Number : 0699 1 time

PAINTING

- lacquering of the machine and safety fence posts in RAL 9003 signal white
- design strips, safety fence fields, safety doors and stela in RAL 7021 dark grey

P.02004 Number : 0661 1 time

WORKPIECE THICKNESS 300 MM

- Workpiece thickness:
 - max. 300 mm inclusive clamping elements
 - up to max. 60 mm with standard clamping element without restrictions for units and suction

EQUIPMENT PACKAGES

P.03004 Number : 9252 1 time

GANTRY PACKAGE PERFORMANCE 12 KW DRIVE5C

P.03007 Number : 9275 1 time

K-TABLE PACKAGE LED ../42

FIXED FUNCTIONS

P.04004 Number : 7460 1 time

PLATE-TYPE TOOL CHANGER 32-SLOOT (24+8) D=110

- Für Werkzeuge und Aggregate mit HSKF63
- Tellerwechsler für 32 Werkzeug-/Aggregatplätze
- Werkzeuggewicht max. 6 kg inkl. Aufnahme für Aggregate max. 10 kg
- Folgende Werkzeug- und Aggregatbestückungen sind möglich:
 - Äußerer Werkzeug-/Aggregatekranz:
 - 24 x Durchmesser max. 110 mm oder

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- 12 x Durchmesser max. 140 mm und
- 12 x Durchmesser max. 80 mm
- Aggregatelänge max. 320 mm
- Innerer Werkzeugkranz:
 - 8 x Durchmesser max. 80 mm
 - Werkzeuglänge max. 200 mm
- Bestückgewicht max. 125 kg
- Sägeblatt Durchm. 350 mm A-Maß 50 mm kann aus dem äußeren Werkzeugkranz eingewechselt werden
- Die Gewichtsverteilung von Werkzeugen und Aggregaten im Tellerwechsler muss symmetrisch erfolgen
- Achsgesteuerter Antrieb des Werkzeugtellers für schnellen Werkzeugwechsel
- Abblasvorrichtung für HSK-Aufnahmen
- Bei der Bestückung mit Aggregaten ergeben sich Einschränkungen auf den benachbarten Plätzen

Included in the kit
GANTRY PACKAGE PERFORMANCE 12 KW DRIVE5C

P.04007 Number : 7446 1 time
LINEAR CHANGER 8-SLOT FOR P-310

- tool changing places		8 pcs.
with tool diameter		135 mm
- tool diameter		max. 300 mm
- tool length		max. 320 mm
- tool weight incl. chuck		max. 6 kg
- tool weight for units		max. 10 kg
- loading weight of the changer		max. 60 kg
- traversing speed for max. tool change		25 m/min
- for tools and units with HSKF63		
- add-on position on the left side in the machine bed		
- no limitation in the processing dimensions		
- with integrated tool transfer place		
- saw blade diameter 350 mm A-dimension 50 mm can be exchanged from the linear tool changer		
- limited pendulum operation		
- the weight distribution of the tools and units in the changer must be effected symmetrically		

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- P.04013 Number : 7430 1 time
PROCESSING SPINDLE 12 KW DRIVE5C
- cardanic 5-axis head for milling, drilling and sawing with arbitrary angle
 - with interface for HSK F63 - DIN 69893
 - for precisely mounting tools and units for high processing forces
 - three-phase asynchronous motor for high torque even for low revolutions
 - liquid cooling with temperature control to avoid thermal damages and to increase the operating life.
Cooling unit with closed coolant feed and active cooling system
 - spindle with hybrid bearing for highest precision and long life time in case of high speeds
 - 12 kW for S6 operation (cyclical output in practical operation)
 - 10 kW for S1 operation (permanent operation)
 - frequency convertor for electronic speeds regulation of 0 - 24000 rpm
 - full nominal capacity as of 12000 rpm
 - tool weight max. 6 kg incl. chuck
 - tool length max. 230 mm as of motor spindle bottom edge
 - tool diameter:
maximum 180 mm for trimming tools
maximum 350 mm for using a saw blade
(tool chuck with A-dimension=50 mm, sales no. 7942)
 - the max. cutting depth depends on the spindle position (see techn. data sheet)
 - inclusive Z-axis module
 - cardanic arrangement of the adjusting axes
 - the A- and C-axis of the 5-axis head are equipped with one pre-tensioned gear each
 - rotation angle in the C-axis: +/- 361 degrees
 - When A is uneven to 0 degrees the rotating angle reduces in the C-axis
 - rotating angle in the A-axis: +/- 100 degrees
 - vibration sensor for monitoring the spindle during the operation
 - records vibrations which arise through

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- tool imbalance or improper use
- when the threshold value is exceeded, e.g. sudden overload, the machine stops and an error message occurs
- automatic feed reduction when the spindle speed falls
- without tool chuck and tooling
- incl. suction hood
- visualization of the vibration data on the operating terminal, e.g. indication of the spindle use in the area of strong loads (improper use), possible as option (see sales no. 6376)
- working fields for horizontal spindle position see techn. data sheet

Programming 5-axis spindle:

- woodWOP enables programming of the 5-axis spindle as setting axis for sawing, boring and trimming works in arbitrary levels
- max. standard tool configurations are:
 - boring and trimming tools diameter 20 mm, total length up to 230 mm
 - rough cutting tools diameter 80 mm, effective length 80 mm, total length 165 mm
 - saw blade diameter 350 mm with chuck having an A dimension = 50 mm
 - standard tools can be swivelled collision-free within the suction hood (A-axis)
- tools with increased disruptive contour result in a restricted working field
- the processing accuracy using the swivelled spindle (A-axis not 0 degrees) can be up to +/- 0,35 mm depending on the used tool length
- increased demands in view of process forces, surface quality or contour accuracy need a previous examination and the production of basic samples. Material, as the case may be clamping devices, tools and programs must be provided for this
- for interpolating 5-axis processings the woodWOP CAM-Plugin professional (option) or a proper external CAD/CAM system is required

Suction capacity 5-axis spindle:

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- spatial suction prepared for the 5-axis processing
- depending on the system the cleaning effect of the suction is reduced when different processes are carried out (e.g. sawing or nesting)
- the suction hood can be adjusted in height at 3 levels
- programming of the hood position is effected subject to panel thickness, tool and position of the A-axis
- the suction effect is accordingly reduced
- for optimally damming up contamination, an ENCAPSULATION of the machine is required

Unit interface Drive5C:

- for the use of processing units in A=0 position, unit application accord. to technical data sheet
- 3-point support system for a safe force transmission in case of high hogging forces
- pneumatic supply for the unit interface, e.g. for HP units or traced units

Included in the kit
GANTRY PACKAGE PERFORMANCE 12 KW DRIVE5C

P.04016 Number : 7478 1 time
DRILLING GEAR 31 SPINDLES: V21/H10/S0/90°

- 1 motor 2,3 kW, frequency-controlled
- number of revolutions max. 7500 rpm selectable by program for quick processing also in case of small diameters

21 VERTICAL SPINDLES HIGH-SPEED:

- every drilling spindle with quick change system for reduction of set-up times
- each spindle can be called up individually
- spindle retraction stroke 60 mm
- drill spindles locked in the retraction stroke in order to achieve the drilling depth in any case
- arrangement of the spindles in L-form
 - 11 drilling spindles | X direction
 - 9 drilling spindles | Y direction

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- additional row for 2 drilling spindles
- spindle distance | 32 mm
- drill diameter | max. 35 mm
- total length of drill | 70 mm
- shaft diameter | 10 mm
- drill depth | max. 38 mm
- with special drill | max. 55 mm
- and restrictions of sawing processings
- and horizontal processings
- with clamping surface and adjusting screw
- direction of rotation: right, left in alternation

10 HORIZONTAL SPINDLES:

- 3x2 drilling spindles | X-direction
- 2x2 drilling spindles | Y-direction
- drill diameter | max. 20 mm
- drill chuck | d=10 mm
- total length of drill | 70 mm
- drill depth | max. 38 mm
- drill height | max. 38 mm
- in Z-direction from workpiece upper edge
- with clamping surface and adjusting screw for Weldon chuck
- direction of rotation: right, left in alternation

SAW:

- saw alignment | 0/90° swivelable
- saw blade diameter | 125 mm
- saw blade width | max. 5 mm
- cutting depth | max. 30 mm
- hogging cross section | max. 70 mm²
- mounting flange | d= 30 mm
- pitch circle diameter | 48 mm
- countersunk head screw | 4 pcs. M5
- direction of rotation | right-hand rotation

- inclusive Z-axis module
- inclusive suction hood
- without tools

Included in the kit
GANTRY PACKAGE PERFORMANCE 12 KW DRIVE5C

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WORKPIECE FIXING AND POSITIONING

- P.07004 Number : 0776 1 time
BASIC CONSTRUCTION MANUAL CONSOLE TABLE
- clamping table with consoles and tubeless vacuum guidance for flexible positioning of any amount of vacuum clamps
 - working height 960 mm lower edge workpiece
 - linear guides for exact and torsion-free adjustment of the clamping console
 - table construction with great free space below the consoles for removal of chips and residual strips
 - double occupation and alternate station working to increase productivity
 - working field and position of the stop pins according to technical data sheet
 - extreme workpiece dimensions have to be clamped with templates or mechanical workpiece clamps
 - the reference point of the machine is at the front left
 - workpieces are put on by hand from the front side

Included in the kit
K-TABLE PACKAGE LED ../42

- P.07007 Number : 7209 2 times
CARRIER PROFILE FOR X-STOP
- Aluminium profile with grooves for mounting of adjustable lateral stop pins.
 - Adjusting range see Technical Data.
 - Without stop pins.

- P.07019 Number : 0973 8 times
CONSOLE Y=1350 MM FOR K TABLE
- clamping console for manual console table

Included in the kit
K-TABLE PACKAGE LED ../42

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P.07013 Number : 0770 18 times
STOP PINS TOP PIECE WITH FLAT-SURFACE OVERHANG
- stop pins with top piece, prepared for manual
installation of a top piece with flat for
workpieces with surface overhang incl.
electrical end position sensing
- without folding attachment

P.07188 Number : 7309 6 times
SWING-OPEN ATTACHMENT FOR STOP PIN
- swing-open stop which can be manually
installed onto the stop pin, used for
workpieces with surface overhang
- surface overhang max. 20 mm

P.07028 Number : 7207 6 times
LIFT-OFF RAIL HPL STROKE 100 MM
- lifting rail gliding, in HPL execution
laterally installed on the console
- lifting device for 100 mm free space below
the workpiece support
- total elevation approx. 105 mm
- Lifting power of each lifting rail 35 kg

Included in the kit
K-TABLE PACKAGE LED ../42

P.07031 Number : 0764 8 times
CONNECTION FOR POWERCLAMMP CLAMPS K TABLE
- double circuit pneumatic system for the use
of powerClamp clamping elements
- pneumatic connections for powerClamp clamping
element per console
- the production in alternate production is
effected by the activation of the existing
foot switch
- for the production of arches the operation is
effected directly on the clamping element
(powerClamp)

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P.07182 Number : 0762 2 times
VACUUM CONNECTION FOR TEMPLATE
- by means of plug coupling

Included in the kit
K-TABLE PACKAGE LED ../42

P.07025 Number : 7877 8 times
LED POSITION INDICATION SYSTEM FOR CONSOLE
1300-1850 mm
- optical LED indication system for manual positioning of vacuum clamps and consoles
- the consoles and vacuum clamp positions which have been programmed in woodWOP are optically indicated in a LED grid of 5 mm in X and Y direction on the table
- with the aid of intermediate distances, a position accuracy of +/- 2,5 mm can be achieved

Included in the kit
K-TABLE PACKAGE LED ../42

P.07154 Number : 0771 1 time
DYNAMIC OCCUPATION K/A TABLE
- enables the optimum exploitation of the available processing field of the machine in alternate operation
- the machine automatically controls the maximal possible part dimension by means of the program occupation
- the consoles are firmly attached to the processing fields
- the necessary safety range is 1260 mm
- through the dynamic space occupation it is possible to create variable asymmetric pendulum fields
- for length 60+74 applies:
Dynamic space occupation only possible after manual dismantling or after moving of the center stop

Included in the kit
K-TABLE PACKAGE LED ../42

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P.07178 Number : 0962 1 time
CLAMPING SUPPLY UNIT

LOW/HIGH-PRESSURE CONTROL F. PNEUM. CLAMPS

- For the use of mechanical/pneumatic clamping elements with unsecured manual intervention by the machine operator
- when the clamping element is activated, the panel is hold with low pressure, only when the program is released it comes to full clamping force for the processing

FIXING WORKPIECE

P.07194 Number : 7360 16 times
VACUUM CLAMP 160X115 MM FOR K-TABLE

- vacuum clamp with double sealing lip for stepless positioning on the console
- in case of wear and tear the rubber coating can be exchanged
- clamp height 100 mm

Included in the kit
K-TABLE PACKAGE LED ../42

P.07197 Number : 7362 8 times
VACUUM CLAMP 125X75 MM FOR K-TABLE

- vacuum clamp with double sealing lip for stepless positioning on the console
- in case of wear and tear the rubber coating can be exchanged
- clamp height 100 mm

Included in the kit
K-TABLE PACKAGE LED ../42

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- P.07203 Number : 7363 8 times
VACUUM CLAMP 125X75 MM 0/90° FOR K-TABLE
- vacuum clamp with double sealing lip for
stepless positioning on the console
- in case of wear and tear the rubber coating
can be exchanged
- clamp height 100 mm
- can be manually mounted 0/90°

ENERGY AND SUPPLY

- P.08004 Number : 0594 1 time
COMPRESSED AIR SUPPLY 7 BAR
- input pressure min. 7 bar

- P.08007 Number : 7076 1 time
VACUUM SYSTEM 126/152 M³/H
50 Hz = 126 m³/h
60 Hz = 152 m³/h

Consisting of:

- 2 oil-lubricated rotary slide-valve pumps of the type Busch with a nominal power of 63 m³/h
- constant suction power over the entire working area, greater or equal to a 90 m³/h standard rotary slide-valve
- in case of several vacuum pumps each pump can be individually connected by a softkey, this enables an energy efficient vacuum output

- P.08013 Number : 0398 1 time
ELECTRICAL INSTALLATION

- P.08016 Number : 0977 1 time
UNINTERRUPTED POWER SUPPLY CNC
- uninterrupted power supply, protects the PC from damages in case of a network fails, overload and short circuit

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CONTROL MACHINE

P.09004 Number : 0963 1 time
POWERCONTROL PC87 POWERTOCH
Modern control system based on a Windows PC

Hardware:

- operating panel with 21.5" FULL-HD multitouch display in widescreen format
- PLC control accord. to International Standard IEC 61131
- modern industrial PC with operating system Windows 7
- backup manager and storage medium for comfortable data backup
- USB connection
- digital drive technology
- decentralized, digital field bus system
- virus protection software

Software:

- equal HOMAG operating surface powerTouch
- ergonomic touch operation with gestures such as zooming, scrolling and swiping
- easy navigation for equal and intuitive operation of the machine
- intelligent display of readiness of production by light function
- 3D-display of the machine bed, consoles, clamping elements and workpieces inclusive processings
- workpiece assignment via Drag & Drop inclusively automatic proposal for vacuum clamping element depending on the space
- turning of the workpiece within the assignment in 90 degree steps in X/Y level
- path control in all axis and parallel processes by multiple channel technology
- look-ahead-function for optimum speeds on the transitions
- dynamic look-ahead-control for accurate contours
- graphic tool data base: Software kit for assistance of the Homag units listed in the scope of delivery. Consisting of woodWOP processing macros, NC sub programs and administration of unit data

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- possibility to import tool data from tool measuring stations
- integrated production list for the processing of program lists

The control of the machine is not suitable to process personal data within the meaning of EU-DSGVO.

SWITCH CABINET POSITIONING LEFT

- the detached switch cabinet is positioned on the left in front of the processing table

PC KEYBOARD: GERMAN

P.09009 Number : 6491 1 time

TAPIO READY

- your HOMAG machine is already prepared to communicate with tapio
- a functionality that gives you the opportunity to use tapio's innovative digital products and to be ready for the future
- find out more from your HOMAG Sales team or at www.tapio.one
- the machine is delivered as "tapio ready"
- please consider that the offers and services of the tapio platform only can be used when you register for this and when you activate the corresponding functionalities
- otherwise "tapio ready" functionality only establishes a connection to the tapio agency service which checks by means of the machine number if the corresponding machine is activated for using the tapio platform

MACHINEBOARD

- MachineBoard provides current states of all machines to mobile devices such as Smartphones
- in case of necessary actions such as errors

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or setups, push messages are sent to the machine operator

- MachineBoard supports the machine operator in the daily work with several machines and creates more flexibility and better planning of his tasks
- at shop.tapio.one you can buy this and other products

SERVICEBOARD

- with ServiceBoard, service cases are solved faster and easier through video diagnostics with service partners (e.g. HOMAG)
- in addition, service cases can be documented, sent directly to the service partner and be tracked by you
- with a maintenance overview, maintenance is easier planned and done (online documentation)
- furthermore, there is an access to the HOMAG online spare parts shop eParts
- the ServiceBoard supports the maintenance and service employees in their daily work
- it helps to solve service cases faster to improve productivity
- at store.tapio.one you can buy this and other products

DATASAVE

- DataSave helps you quickly restore your production and configuration data in case of machine breakdown
- you can easily back up your data to a tapio storage at a defined time of your choice, for all of your machines
- DataSave helps you to ensure greater production reliability even in the event of a breakdown
- at store.tapio.one you can buy this and other products

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P.09015 Number : 0964 1 time
NETWORK CONNECTION ETHERNET CNC
- HOMAG uses data networks with the identification 192.2.x.x or 192.168.1.x within the machine or machining line.
If the customer's network also uses this identification, then the customer has to provide a router to avoid network conflicts.

P.09018 Number : 6340 1 time
HAND OPERATION FOR RUN-IN MODE
The following functions can be selected
- run-in mode
- feed start
- emergency switch

P.09021 Number : 6351 1 time
CONVENIENCE PACKAGE OPERATION
3 additional press buttons in the cover offer the following functions:

- moving free
- pause program
- raise extraction hood

- if the laser scanner detects a person within the travel range of the machine, the machine stops before the bumpers make contact
- deactivation of the function possible via softkey on the operating terminal for uninterruptible processing in case of flying chips

OPERATING MACHINE

P.10004 Number : 0975 1 time
WOODWOP FOR MACHINE
- woodWOP for graphic and interactive creation of CNC-programs
- great program library with example programs for contours, corpus furniture, worktops, doors
- free download under: www.homag.com
- inclusive CAD-Plugin for creating CAD contours and for the import of existing CAD drawings in DXF format

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P.10007 Number : 0974 1 time

WOODWOP DXF-IMPORT BASIC

- interface to take over drawing data from CAD systems in DXF format
- by the use of certain layer denominations processings can be automatically generated from the DXF drawing

P.10016 Number : 6304 1 time

WOODMOTION ON THE MACHINE

woodMotion graphically simulates the processings by means of a CNC program of a stationary machine with powerTouch control.

- graphic processing simulation on the workpiece
- simulation during the production possible
- material abrasion and recognition of residual parts can be selected
- collision detection selectable between tool/unit and the programmed consoles/platforms/clamping elements
- collision detection selectable between tool holder/not processed part of the tool/unit and the tool
- display of workpiece, consoles, platforms, clamping elements, tools / units and 5-axis head in 3D
- 3D display, free shifting, turning, zooming
- available graphics of current tool chucks, standard units and clamping elements
- contour definition of profile tools via contour program in woodWOP possible by the user
- saving and loading of simulation runs
- high proximity to reality through a CNC simulation on basis of a virtual machine control with real machine data
- comprehensive error detection in the foreground (e.g. exceeding the software limit switch)
- the application of materials no matter of which kind is not simulated

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- only slight material abrasion in case of traced workpieces
- operating modes: single operation (note: pendulum operation and in this context the independent operation for linear gantry machines is not supported)
- processing kinds: single operation left/right, fast change, synchronous processing
- list operation: list operation is not supported
- feeding system: feeding system is not supported
- for the machine control PC87 the creation of production lists "JobMaster" is required

Exclusion of guarantee: woodMotion is a simulation. Deviations from the reality are possible. No guarantee against collisions of the real machine. No claim for completeness and correctness of the delivered graphic data

P.10019 Number : 0779 1 time
ERROR DIAGNOSIS
- display of the error description on the machine control
- error message in plain language

P.10022 Number : 0780 1 time
CAPTURE AND EVALUATE MACHINE DATA - MMR
MMR basic:
- integrated counters and predefined maintenance intervals always inform the machine operator about necessary maintenance works in due time
- through the need-based maintenance the availability of the machine increases and the downtimes of the machines are significantly reduced
- besides the maintenance data the amount of produced workpieces and the total running time of the machine is gathered
- therefore information about the productivity is constantly available

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- P.10028 Number : 6659 1 time
WOODWOP COMPONENT LAMELLO CLAMEX-P
- variable woodWOP special macro for trimming the Lamello connector Clamex-P
 - the component contains the trimming of the connector as well as the drilling for the clamping screw
 - the workpiece processings can be made in any swivelling and rotating angle with a proper disc cutter in XY position (under consideration of the swivelling zone of the unit or of the spindle)
 - the workpiece processings can be made with a proper end mill cutter, swivelling angle $A=0^\circ$ (vertical) and $A=90^\circ$ (horizontal), by 5-axis spindle
 - constructive modifications of the Clamex-connector must be adapted by the customer in the program
 - documentation included

- P.10034 Number : 0967 1 time
WOODWOP OFFICE PROF. (SINGLE-SEAT LICENCE)
With this software package CNC programs for 3-, 4- and 5 axis machines can be created.

The following functions are included:

woodWOP

- comfortable, completely menu guided operating surface
- 3D view of workpieces, processings, consoles and clamps
- contour generation by an integrated contour programming
- predefined processing macros for trimming, sawing and drilling at any angle (feasibility depends on the machine's equipment)
- input of dimensions as absolute values or variables
- interactive setting of drillings and contour lines with the mouse
- inclusive CAD-Plugin to create the CAD contours

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- inclusive automatic proposal for suction cup with 3D view
- inclusive engraving of single line fonts and double line fonts
- inclusive residual surface cutting for automatic recognition of residual surfaces between a workpiece and a raw part and the generation of trimming paths

Post processor and tool data base editor

- generation of programs in DIN 66025
- administration of tools and tool data
- simple generation of own profile tools incl. 3D tool generator

P.10037 Number : 0974 1 time

WOODWOP DXF-IMPORT BASIC

- interface to take over drawing data from CAD systems in DXF format
- by the use of certain layer denominations processings can be automatically generated from the DXF drawing

P.10046 Number : 6799 1 time

SOFTWARE SYSTEM REQUIREMENTS AND NOTES

System requirements for PC of the customer

- operating system: Windows 7, 8, 10
For PC87: 64-Bit-system required
- processor: at least Dual Core
(recommended Quad Core)
- main storage: at least 2 GB RAM
- graphic card: with at least 1 GB memory and OpenGL 2.1 support
- when using Intel Onboard graphic cards at least GMA X4500, better Intel HD graphic

Notes regarding software licences:

- the HOMAG software is licence protected
- on a machine PC only single-seat licences are running
- on an office PC all software products are protected by single-seat licences or floating licences (network licences)
- single-seat licences are bound to a PC
- with a floating licence the software can be

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used at several workplaces.

Multiple users can use the software simultaneously as long as enough single-seat licenses are available. All workplaces must be integrated into the customer's network

- the installation of single-seat licences and floating licences of different products is possible as long as the PC itself is not configured as a server for floating licences

Notes for the installation

- the installation of the software respect. the integration of the machine into the customer network is effected by the customer himself or as an option with the support of our software support (with costs)
- when using floating licences the licence administration (licence server) is installed on a PC or server in the customer network. The licence server also can be installed on a terminal server
- the installation of the software on a terminal server is not supported
- if the licence server is installed on a virtual server or if the software shall work in a virtual environment, floating licences are required
- the product must be activated after the installation. Activation under <https://eparts.homag.de>

PROTECTION OF THE OPERATOR

- P.12004 Number : 7141 1 time
PROTECTIVE GRID RIGHT
- supports with safety barrier dowelled onto the floor
- P.12007 Number : 0591 1 time
PROTECTIVE GRID LEFT WITH DOOR
- supports with safety barrier dowelled onto the floor
- incl. safety door