FerWood®
BRILLIANT SOLUTIONS FOR WOOD

HOMAG Through-feed Drilling Machine
DRILLTEQ C-600

DRILLTEQ C-600 (PROFI BHT500)
CNC-Gantry-Processing machine with fully automatic panel cross-feed for processing workpieces of wood or similar materials

BASIC MACHINE
- Rigid steel frame gantry construction Adjustment of the axes in x Y and z
- Ball bearing spindle (V- and Z-direction) and rack and pinion gear (X-direction) Digital AC servomotors
- Workpiece transport for cross transport via frequency-controlled drives

CE SAFETY AND PROTECTION DEVICES
Safety fences on all four sides including four emergency doors

INITIAL PROVISION OF OPERATING MANUALS
- Language as indicated under Item D.01
- Operating manuals consisting of operating and maintenance instructions on DIN A4 paper and data medium
- Spare parts descriptions on data medium
- Wiring diagrams on data medium in German and English
- Help texts integrated in the machine control
- Operating system dialogs in English

PAINT
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

CENTRAL DUST EXTRACTION
For connection to a dust extraction device For more details please refer to the technical data sheet

AUTOMATIC CENTRAL OIL LUBRICAT. DEVICE X-AXIS
Central lubrication device automatically controlled via program. The guide carriages in X-direction are lubricated automatically.

ELECTRICAL EQUIPMENT
- Free-standing switch cabinet with operating panel on the left-hand side of the machine (in through feed direction) switch cabinet tightly fixed at the right-hand side of the machine (in trough feed direction) 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)

- air conditioning for cooling of the switch cabinet for a surrounding temperature exceeding 35 degrees C.
- For more details please refer to the corresponding technical data sheet prescribed environmental temperature:
- + 5 degrees up to+ 40° C

Power Control Open Power Touch
Modern control system which bases on Windows PC

Hardware:
- Operating panel with 24" FULL-HD multitouch display in widescreen format PLC control accord. to International Standard IEC 61131 modern industrial PC with operating system Windows 10 backup manager and storage medium for com- fortable data backup USB connection digital drive technology decentralized, digital field bus system virus protection software network connection ETHERNET via additional card and network software. Within the machine or machine line the HOMAG uses data networks with the identification 192.x.x or 192.168,1.x. If the address range is also used in the customer network, a special project planning has to be effected and, if necessary, an additional hardware has to be used by the customer.
- Adaption transfer speed machine infeed/ outfeed.
- Via 0-10 V (equals 0-120 m/min) or digitally coded signal. Thus the transport speed of the respective area can be transferred dynamically,
- Provision TeleserviceNet Soft capability Feasibility of remote diagnostics via internet. To this end the customer has to provide a DSL connection. After the guarantee period a corresponding teleservice contract has to be signed for the use of the teleservice.
- UPS for the PC (INTERRUPTION-FREE POWER SUPPLY)
- With the purchase of your HOMAG machine, the machine is already prepared to be connected with tapio (connecten).
- This functionality gives you the opportunity to use the innovative digital pr"oducts of tapio and tapio partners and to be ready for the future.
- Wired manual operation unit with emergency stop switch, e.g. for remote control operation or for maintenance work,

Software
- Equal HOMAG operating surface power-touch 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 path control in all axis and parallel processes by multiple channel technology integrated production list for the processing of program lists

WoodWOP for machine
- woodWOP for graphical, dialog-oriented generation of NC programs
- inclusive CAD-Plugin for creating CAD con- tours and for the import of existing CAD drawings in DXF format

Copy protection of all software licences via the HOMAG licence server. The product must be activated following the installation.

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

BASIC SUPPORT SYSTEM
- 4 workpiece supports in X-direction
- Each support is equipped with a separate NC-drive for simultaneous adjusting of all supports.
- Two workpieces can be fed in, aligned and processed simultaneously.

Provided that both workpieces have identical dimensions and processing steps to be done. Lateral support system on fixed and movable side, incl. integrated feeding and clamping system, alternating movable side function. Lateral adjustment of the workpiece guiding and clamping system. For collision-free processing in the edge area and for outfeed transport of dowelled workpieces.

Dowel overhang max. 15 mm

Note: Processing in the edge area only possible with vacuum system (sales no. 0532 or 0541).

Workpiece dimensions:

Length	Max.: 2500 mm
	Min: 250 mm
Width	Max. five sided processing:
	1400mm or 2 x 600mm
Width	Max. vertical and cross edge processing:
	2 x 680 mm

Width min.:	100mm
Panel height	
max.:	60mm
min.:	12 mm

MODIFICATION OF THE STOPPER SITUATION
Description:
After locking the workpiece, the stops will be switched in the lower position.
- Modification of the drilling area for the horizontal Woodpeckers to allow horizontal drilling in through feed direction of 20 mm from the workpiece front edge and in through feed direction 29 mm from the workpiece rear edge.
- Machining height is in the range of 20 64 mm minimum 6 mm above Restrictions.
- Possible crash situation for simultaneous, when horizontal drilling in X-Y direction. The woodpecker processing is always at the end of the program.

WORKPIECE HANDLING

WORKPIECE TRANSPORT DEVICE INFEED 2 SECTIONS
2 transport belts as fixed- and movable side, separated in 2 sections, speed 10-90 m/min, on separate basic frame

WORKPIECE TRANSPORT DEVICE OUTFEED 2 SECTIONS
- 2 transport belts as fixed- and movable side, separated in 2 sections, frequency controlled drives, speed 10-90 m/min, on separate basic frame with linear guides.

HANDLING TABLE (INLET)
- For feeding workpieces manually.
- Consisting of:
  1 base frame with mounted plate and integrated brush strips.
  handling table length (in throughfeed direction): 930 mm
  max. workpiece length: See basic machine
  1 control panel with illuminated buttons and emergency-off switch
  control panel, traffic light and side fence at the fixed side of the basic machine

EQUIPMENT

CONFIG. 2V38, 2H6Y, GS2, 2 FREE PLACES
- Incl. additional aggregate carriage Y/Z
- 2V38
- 2 Vertical drilling blocks with 38 spindles which can be separately activated via program Working capacity: refer to separate layout
- Stroke: 60 mm
- Drilling depth: max. 38 mm
- Direction of rotation: right hand/left hand
- Rotation: 1500 to 7500 1/min frequency controlled
- Drive: 2.7 KW
- Shaft diameter: 10 mm
- Total length of drill: 70mm
- Drill diameter: max, 35mm
- Spindle distance: 32mm
- Type of spindle: individually selectable

- right hand/left hand 1500 to 7500 1/min frequency controlled
  - 2.7 kW
  - 10 mm
  - 70 mm
  - max, 35 mm
  - 32 mm
  - individually selectable

2H6Y
- 2 horizontal drilling blocks with 6 spindles which can be activated separately. 3 spindles each front and rear in Y-direction.

- Working capacity: refer to separate layout
- 6 spindles: 3 each in Y-direction
- Drilling depth: max, 38 mm

- Drilling height: Z-direction: max. 32 mm from upper workpiece edge
- Direction of rotation: Speed: Right hand/left hand
- Speed: 1500 to 7500 1/min frequency controlled
- Shaft diameter: 10 mm
- Total length of drill: 70 mm
- Drill diameter: 20 mm
- Type of spindle: individually selectable

GS2
- 2 grooving saws in X-direction.
- Working capacity: refer to separate layout
- Cutting depth: 10 mm
- Cutting section: max 50 mm2
- Direction of rotation: right hand
- Rotation: 2000 to 7500 1/min frequency controlled

Saw blade
- inner bore: 30mm
- Tool diameter: 100 mm
- Cutting width: max 5mm

2 FREE PLACES
For installation of separately driven processing aggregates.

SURCHARGE PER FURTHER SPINDLE x 30
Drilling spindle can be activated separately as only or additional spindle by means of the program, incl. pneumatic devices.
When placing the order the exact position has to be fixed in the equipment plan.

VERT. FITTING DRILL BLOCK, 3 SPINDLES x 2
incl. feed unit, integrated in the vertical drilling gear (arrangement as per equipment plan)

Technical data:
- number of spindles: 3
- stroke
- Z-direction: 60 mm
- drilling depth: max. 38 mm
- spindle distance in X direction: 2 x 19,5 mm
- spindle distance in y direction: 7.5 mm
- drill hole diameter of main spindle: XX, X mm
- drilling depth of main spindle: XX, X mm
- drill hole diam. of
- auxiliary spindles: XX,X mm with clamping surface
- drilling depth of auxiliary spindles: XX,X mm
- tool holder: 10 mm shaft diameter with clamping shaft

- tool length: Max. 70mm
- RPM (speed): Max. 3000 rpm
- direction of rotation: right/left

2 HORIZONTAL DRILLING DEVICES
- 1 horizontal guide unit (movable side) (right, seen in through feed direction)
- 1 horizontal guide unit (fix side) (left, seen in through feed direction)
- 2 horizontal drill supports with high dynamic height adjustment (W-axis) via servo motor incl. control switch and control part.
- Assembled in the horizontal guiding unit. 2 horizontal drilling units with motorical drill feed via servo motor, suited to accept 1 drill block.
- 2 motorized movements of the horizontal drill unit via servo motor and ball screw spindle.

TWO ADDITIONAL HORIZONTAL DRILLING DEVICES
- Two horizontal drilling units with motorical drill feed via servo motor, suited to accept 1 drill block,
- Two motorized movements of the horizontal drill unit via servo motor and ball screw spindle.

HORIZONTAL DRILLING BLOCK H21 x 4
- Horizontal drilling block (can be individually controlled with variable speed range).
- Spindle clamp for safe reaching of the drilling depth.
- Travel path: see fitting diagram attached

- Advance stroke	
- X-direction:	50 mm
- Drilling depth:	max. 35 mm
- Direction of rotation:	right/left
- Tool speed:	1.500 7,500 1/min, frequency regulated
- Drive:	2,3 kW
- Drill chuck:	d = 10 mm
- Drill total length:	70 mm
- Drill diameter:	max. 12 mm
- Spindle distance:	32 mm
- Spindle type:	separately controlled
- Arrangement:	1 drill line with 21 spindles drive spindle offset by 32 mm, see fitting diagram attached

ENERGY AND SUPPLY

MACHINE SPECIAL VOLTAGE
Note: Please indicate the necessary operating voltage in case of order.

INSTALLATION ACCORDING TO UL/CSA SPECIFICATIONS
switch cabinet executed according to UL/CSA specifications

UPS FOR MORE THAN 5 AXES (INTERRUPTION-FREE POWER SUPPLY)
In case of voltage drops this device provides the electronic control and the Regulating circuit with power by the installed batteries for approx. 3 further minutes. The USV also

serves as a voltage stabilizer for the electronics as in case of Overvoltage resp. undervoltage the batteries are also in operation.

AIR CONDITIONING FOR COOLING THE SWITCH CABINET
Air conditioning for cooling of the switch cabinet for a surrounding temperature exceeding 35 degrees C.

MACHINE LINKING HOMAG GROUP MACHINES INCL. SIGNAL LIGHT
Signal light for the optical presentation of the machine condition Interlocking disruption contacts after HOMAG definition.
Note: Is needed for each machine.

EMERGENCY OFF-LINKING OF HOMAG GROUP MACHINES
Note: Is needed for each machine.

EMERGENCY-OFF MASTER
Master of an interlinked line for connection of up to 8 external emergency-off circuits.

SWITCH CABINET POSITION RIGHT HAND MACHINE SIDE
The switch cabinet is positioned on the right hand side of the machine.

PC KEYBOARD: ENGLISH

OPERATING MACHINE

BARCODE READER HAND SCANNER, WIRELESS WITH DISPLAY
- Reader: Datalogic laser scanner industrial version, wireless with basis station, internal decoder with display
- For reading of 1D or 2D barcodes.
- Quality requirements for the barcode min.
- Degree 3 of the ISO/IEC 15416

BARCODE SOFTWARE
- 'woodScan' for preparing the control for automatically taking over a 1D or 2D barcode from the barcode reader the connection of the barcode reader with the control is effected via separate interface simple allocation of the information in the barcode to the machine control

- Range of functions:
  - up to two different barcodes can be read transfer of up to ten variables, which positions must be defined clearly in barcode transfer of location- or mode information, by choice as a second barcode or as last character in the barcode
  - transfer of program names in a production list with transfer of a set-point which position must be defined clearly in barcode import of a production list

  - This item does not include the hardware.

- The product must be activated following the installation. Activation via https://eparts.homag.de

CENTRAL DATA INPUT BASIC SYSTEM
Easy resetting as the data for resetting only can be centrally entered in one processing machine. Wood Commander is used as central input station. (without database, without part identification)central data input of all workpiece parameters with relevance to production (length, width, thickness, edge, program machine 1, program machine 2, feed,...) for all HOMAG machines in a machine line the input of the parameter is centrally done on the first machine and there can be saved as complete data set for each resetting the machine line must be manually run until it is empty, this is not monitored by the control the parameters length and width are correctly assigned to the machine according to the workpiece orientation (longitudinal/cross- wise) after the central data output on the machine the parameters can be subsequently changed. In case of a new resetting the data changed on the machine is overwritten any manual adjustment must be acknowledged on the single machine for the determination of the cycle number only the edge-banding machines are considered the feeds and the required Minimum gap of the corresponding edge-banding machine have to be specified in the data set

PLAUSIBILITY CHECK INV DIRECTION
Note: Depending on the edge surface, edge profile, etc. an accuracy of+/- 5 mm is possible.

WASTE

CHIP CONVEYOR BELT
for working area 2500 -3000 mm

- Chip conveyor integrated in the machine frame. Outfeed direction: left (standard)
- In case another execution is required this should be defined by Sales No. 1801.

- For disposing of chips an extraction connection has to be provided on site.

SUCTION DEVICE AT OUTFEED TRANSPORT FROM THE TOP (2500 mm)

Improves the suction of surface chips

Comprises:
- 1 suction device with 3 connection nozzles, which can be activated individually
- Suction height can be adjusted manually

DOCOIVIENT

SELECTION OF LANGUAGE: ENGLISH
for operating manuals and display texts fo'r machine operators in English

COPY OF DIGITAL DOCUMENTATION FOR SSC/SSP

consisting of manuals and maintenance guidelines, spare parts lists and elec- trical plans on data carrier.