

## **BHP100/VANTAGE480**

CNC-controlled processing center in moving gantry construction for processing workpieces of wood or similar materials 1. BASIC MACHINE - Solid machine frame in rigid trasversing gantry execution - Gantry movable in X-direction - Cross support movable in Y- and Z-direction - Paint Grey RDS 240 80 05 –

Direct extraction of the processing aggregates and separate connection forthe extraction device (on site)

1.1 PROGRAM-CONTROLLED EXTRACTION CONNECTION By means of program-controlled assignment the main connection nozzle is assigned to the processing unit. Thus the main connection nozzle is always located straight above the processing unit and guarantees optimum extraction behavior.

2. GUIDING SYSTEM AND DRIVE TECHNIQUE - Dust protected linear guiding system - Double toothed rack drive in X-direction rack and pinion drive in Y-direction and ball-screw in Z-direction Travel range of the axes: X = refer to separate layout Y = refer to separate layout Z = refer to separate layout - Digital drive technique in X-, Y- and Z-direction –

Axis speeds: Vector speed: X/Y = 96 m/min Z = 20 m/min

Consisting of: - maintenance free motors with high resolution optical encoders guarantee high accuracy - digital drive control units guarantee high reliability

3. WORKING TABLE Vacuum clamping system for clamping of the workpieces on the complete working table. The working field can be accessed with all processing units without restriction. The working table is suitable for clamping of templates or vacuum cups. Various vacuum cup types are optionally available.

Working table length:2500 mm (8', 98,4 Inch)

Working table width: 1250 mm (4', 49,2 Inch)

Max. workpiece thickness: 100 mm (3,94 Inch)

- vacuum generator with a total vacuum capacity of 300/360 m<sup>3</sup>/h, 50/60 Hz - 4 pneumatically lowerable AL workpiece stops incl. electr. surveillance of lower cylinder position Arrangement: as per enclosed layout - 30 meter rubber sealing

3.1 DESIGN OF THE WORKING TABLE The type of design of the working table is indicated below.

4. CONFIGURATION R1-HSK63-9 KW, TC7 LATERAL R1-HSK63-9 KW Automatic tool change spindle in combination with a tool change magazine. Working capacity: refer to separate layout Tool holder: HSK63 Tool changing: automatic Direction of rotation: right hand / left hand Speed: 1,250 - 24,000 1/min stepless programmable Drive: frequency controlled AC-motor Max. capacity at the tool: up to 7.5/9 kW (10/12 HP) in continuous and intermittent operation (S1/S6 - 50%) Spindle lubrication: permanent grease lubrication Bearing: hybrid bearing (ceramic), little friction, higher stiffness and max. operating life Cooling: air cooled Dust extraction: central AIR JET An air jet is integrated in the extraction hood. Activation via softkey in their operating panel.

Note: In connection with a C-axis or a configuration V21 a rear tool changer is required and the tool changer at the side is abolished. A separate pick-up place for tools and aggregates is added. TC7 LATERAL Automatic tool change magazine for 7 places. Arrangement: in the machine frame Tool holder: HSK63 Magazine places: 7 tool places Tool weight: max. 5 kg incl. HSK cone Tool diameter: max. 135 mm when equipping with 7 routing tools Tool change time: approx. 10 - 18 sec. Tool magazing: via integrated pick-up place at the tool changer 4.1 TOOL CHANGE ASSISTANCE DEVICE Device for automatic feeding of the tool changer. 5. powerControl Modern control system powerControl Hardware: - PLC control according to international standard IEC 61131 - Control PC with operating system Windows 7 - IntelCore I5 - 17 Inches TFT-flat screen - 1 SATA hard disc minimum 160 GByte - Central USB connection at the operating panel- EtherNet connection 10/100 MBIT RJ45 (without switch) - 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)

- Remote terminal with potentiometer and emergency stop switch. powerControl Software: - powerControl CNC-core with: - path control in all axis and parallel sequences by multi-channel technology - look-ahead-function for optimal speed at the transitions - dynamic pre-control for top precise accuracy of the contour - powerControl software package with graphical operating programs: - woodWOP: for graphical, dialogue-oriented generation of CNC-programs - TOOL DATA BASE: with graphical operator guide to manage tool data - PRODUCTION LIST SOFTWARE: for management and creation of product lists for individual manufacturing. Hereby production sequences, target amounts and processing information can be stored - MACHINE DATA RECORDING: for recording of produced workpiece quantities and supervision of the maintenance work - SOFTWARE FUNCTION MOVING Function to manufacture a right program at the left hand workpiece stop and a left program at the right hand workpiece stop - OPTIMIZATION OF SPACE OCCUPATION In this mode processings are optimized in order to save

tool changes (in case the processing sequence of the individual programs allow it) Note: Optimization of space occupation is not possible in production list operation and/or in the case of programs with programmed 'NC stop function'. Copy protection of all software licences via the HOMAG Group licence server. The product must be activated following the installation. Activation via [www.eparts.de](http://www.eparts.de)

6. CE-SECURITY- AND SAFETY UNITS - ride-along partial encapsulation for the processing units, offers an optimum operating safety and process control - Safety fences in the lateral and rear area with safety door - CE-safety light barriers in the front area for single field processing - Attention: it is not allowed to run the machine without all-around safety barriers - EC conformity (CE) according to the currently valid Machinery Directive for individual machines in operation 7. WEEKE QUALITY PACKAGE - The energy supply cables (cable tow) in X,Y and Z-direction are supplied in sealed execution. - The linear guides in X- and Y-direction are delivered with a metal protection cover 8. ENERGY SAVING MODE - ecoPlus button for starting stand-by operation. The button can be activated during processing. This will have the following impacts after the end of the program: - Primary power of drives will be switched off - Vacuum pumps will be switched off - When machine is not processing, stand-by operation will be activated after a pre-set time - Activation of ecoPlus sets a potential-free output which can activate the slide (supplied by customer) of an external extraction device 9. INITIAL PROVISION OF OPERATING MANUALS - Language as indicated under Item D.01 1. Operating manuals consisting of operating and maintenance instructions on DIN A4 paper and data medium 2. Spare parts descriptions on data medium 3. Wiring diagrams on data medium in German and English.

4. Help texts integrated in the machine control 5. Operating system dialogs in English 10. PACKING Note for sea freight: - Delivery is carried out in several separate packages. The basic machine frame is mechanically separated from the gantry. Note for lorry transport: - Delivery is carried out in one package. The basic machine frame is NOT mechanically separated from the gantry. - If lorry transport is favored in several packages (container dimensions), the basic machine frame can be mechanically separated from the gantry. See Technical Data Sheet and Sales No. 8993. G.0001 Number : 0364 1 off MATRIX-TABLE PRO FOR VANTAGE 100/480 (1250 X 2500 MM) System MATRIX Pro with grid grooves for clamping of templates or workpieces. Grid grooves for inlaying of a rubber sealing. Vacuum system for clamping of the workpieces on the complete workpiece table. The working table can individually be divided into various vacuum areas by manually placing plugs (see equipment plan). To save energy further vacuum generators can be switched on when required via softkeys in the operating panel. Connection nozzle for an additional vacuum pump (connection dimensions acc. to technical data sheet)

E.04 Number : 6777 1 off OFFICE PACKAGE PREMIUM (SINGLE PLACE LICENSE) Consisting of: - IDENT-No. 6676 woodWOP for external PC (Single place license) - IDENT-No. 6062 woodWOP DXF-Import Basic (Single place license) - IDENT-No. 6012 woodAssembler (Single place license) - IDENT-No. 6692 woodNest Basic (Single place license) - IDENT-No. 6001 3D CNC-Simulation (Single place license, can be used either on the machine or at the process planning work- place) - IDENT-No. 6676 woodWOP for external PC (Single place license) - graphical, dialogue orientated CNC-programming system - 3D view of workpieces, processings, supports and clamping means - graphic display of any working planes - generation of contours via integrated contour element programming - entry of dimensions as absolute values or variables - interactive setting of drillings and contour lines by using the mouse - incl. automatic vacuum cup proposal with 3D view - incl. file explorer Mosaic for fast and easy administration of own woodWOP programs.

- incl. reduction of residual areas for automatic detection of residual areas between a workpiece and the raw panel and generation of routing tracks Requirements: Windows 7, Windows 8 - IDENT-No. 6062 woodWOP DXF-Import Basic (Single place license) - Interface for CAD-data import of 2D-CAD- programs to woodWOP - Import of 2D DXF-files - Converting is carried out under fixed profiles (rules). - Display of the geometry, layer and drawing elements. - Creation of the woodWOP program Conditions for the DXF-file: The drawing elements have to be filed on the corresponding layers for differentiation of the processings. The layer should include numeric values for the definition of the Z-axis- alphanumeric layer definition Requirements: Windows XP, Vista, Windows 7, Windows 8 - IDENT-No. 6012 woodAssembler (Single place license) woodAssembler is a program for visualizing of woodWOP programs (MPR) in 3D and enables assembly of single workpieces to complete objects. Including import interface for objects from BLUM Dynalog. Including woodVisio woodVisio visualizes objects generated in woodAssembler or Blum Dynalog with surface materials. The objects are displayed in a free-standing position. An expandable library with surface materials is provided. Note: The woodWOP programs must be stored in mpr format. The new file format mprx is not supported. Files can be converted from mprx format into mpr format.

- IDENT-No. 6692 woodNest Basic (Single place license) - Software for nesting woodWOP programs - manual positioning and turning around with the mouse - optical distance control Requirements: Windows XP, Vista, Windows 7, Windows 8, woodWOP for the production planning PC Note: The woodWOP programs must be stored in mpr format. The new file format mprx is not supported. Files can be converted from mprx format into mpr format. - IDENT-No. 6001 3D CNC-Simulation (Single place license, can be used either on the machine or at the

process planning work- place) - Graphical simulation of the CNC-program in '3D' - Time calculation with an accuracy of +/- 10%. - Display of error messages - Display and checking of the positions of clamping elements - Collision check of tools with the workpiece or clamping elements Requirements: Windows XP, Vista, Windows 7, Windows 8 Note: - The license server is installed on one computer (terminal servers are not supported)- On a machine computer only single place licenses can be run. - At the process planning workplace all software products are protected either by single places licenses or floating licenses. It is technically not possible to install different types of licenses.

Note: The installation of the software for the process planning workplace and the integration of the machine into the customer network will be carried out by the customer. Optionally supported by our software support (at customer's expense). The product must be activated following the installation. Activation via [www.eparts.de](http://www.eparts.de) Note: Only for the use with new machines! D.01 Number : 8322 1 time SELECTION OF LANGUAGE: ENGLISH- for operating manuals and display texts for machine operators in English.