

## Testprint Order Confirmation

Date : 12.10.2017 / SCH  
Execution : 2

For further questions quote

Order number :  
Customer :  
Machine number :  

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Customer number :  
Your order date :  
Competent person :  
Projectmanager :  
Tax-ID :

### G.00 **OPTIMAT KFL526/10/A3/30**

HOMAG - PANEL SIZING AND EDGES - OPTIMAT

Double-sided machine for panel sizing of the workpiece edge, edge banding and postprocessing of different edging materials on rolls up to 3 mm edge thickness.

The machine is suitable for the following applications:

- as second machine in a machine line for cross throughfeed (sales no. 0074)
- as single machine for longitudinal and cross throughfeed (sales no. 0006)
- as single machine in a short machine line for longitudinal and cross throughfeed (sales no. 0006+0074)

Fixed stop side on the left, movable side on the right.

#### SHORT DESCRIPTION OF THE BASIC EQUIPMENT

- BASIC MACHINE
- WORKPIECE TRANSPORT DEVICE

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Gesellschaft mit beschränkter Haftung mit Sitz in D-72296 Schopfloch; Registergericht Stuttgart HRB 735174  
Geschäftsführer Dr. Michael Merz (Sprecher), Tobias Schaible, Ulrich Schmitz, Michael Stotz, Dr. Markus Vöge  
Vorsitzender des Aufsichtsrats Heiner Kudrus

Banken	Biz	Kto	SWIFT	IBAN
BW-Bank, Stuttgart	600 501 01	4901040	SOLA DE ST 600	DE56 6005 0101 0004 9010 00
Commerzbank AG, Villingen	694 400 07	154200000	COBA DE FF 694	DE50 6944 0007 0154 2000 00
Deutsche Bank AG, Stuttgart	600 700 70	053943700	DEUT DE SS	DE19 6007 0070 0053 9437 00
HypoVereinsbank AG, Freiburg	680 201 86	7602855	HYVE DE MM 357	DE82 6802 0186 0007 6028 55
Kreissparkasse, Freudenstadt	642 510 60	308733	SOLA DE S1 FDS	DE53 6425 1060 0000 3087 33

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- TOP PRESSURE
- WIDTH ADJUSTMENT electronic
- CONTROL power control PC22
- INFEEED MACHINE II
- NOISE PROTECTION
- COMPACT DOUBLE HOGGER
- FREE SPACE for standard trimming unit
- GLUING PART A3 for material on roll up to 3 mm
- FREE SPACE for further processing units

BASIC MACHINE:

- with continuous machine frame for installation of the processing units
- glue roller drive in case of feed stop
- glue container lift-off in case of feed stop
- glue container clamping actuated by workpiece
- no panel remains in the gluing part sales no. 2138 as option

WORKPIECE TRANSPORT DEVICE:

- rolling block link chain with ball bearings at running and guiding surfaces
- feed drive frequency-controlled, speed regulation at the input unit
- manual central support with roller guide

TOP PRESSURE:

- V-belts, driven
- height adjustment, motorized
- digital position read-out

WIDTH ADJUSTMENT, ELECTRONIC:

- rapid/slow gear drive with digital position read-out
- adjusting speed approx. 3 m/min
- ball-screw spindles and cardan drives for precise positioning
- linear guide as well as rolling guides on hardened supports

LACQUERING:

HOMAG structure lacquer grey RDS 240 80 05

ELECTRIC EQUIPMENT:

- operating voltage 400 volt, 50/60 Hz
- country-specific adaptation of operating

- voltage via transformer (optional)
- FI-safety switching only permitted in connection with an all-mains sensitive/-selective FI-safety switch; if the performance of this device is not sufficient, a differential current monitor is recommended to be provided by the customer
- switch cabinet installed at the machine according to European Norm EN 60204
- feed interlocking with interlocking plan and connecting cable
- emergency interlocking
- electronic frequency invertors with motor-braking function
- hand switch for setting operation
- environmental temperature:
  - + 5 degrees up to + 40 degrees Cels.

power control PC22:

Modern control system based on a Windows PC

Hardware:

- PLC control accord. to international standards IEC 61131
- integrated line control for contactless control of the processing units
- operating system Windows XP (US) embedded
- industrial PC with at least 2 GHz and 512 MByte RAM
- TFT flat screen 15 inch
- PC keyboard and mouse
- 1 hard disk fixed
- 1 hard disk for data securing (option)
- 1:1 data securing (cloning)
- USB connection
- digital field bus system for infeeds/outfeeds and peripheral units
- network connection ETHERNET via additional card and network software (option)
- virus protection

Software:

- operation menue-guided with Windows standard
- software kit woodCommander with
  - comfortable, graphically supported creation and storage of machine programs
  - administration of tool data by tool macros

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- operator guiding system (BDL) for indicating necessary manual adjustments at the machine in case of resets
  - error message in plain text
  - diagnostic system woodScout (option)
  - Schuler MDE basic for machine data acquisition
  
  - Remote diagnosis via modem
    - invoicing accord. to separate teleservice contract
    - telephone line (analogue) is to be installed on part of the customer
  
  - Interferences in the machine control by non authorized persons release HOMAG from any warranty commitments and product liability

#### SAFETY AND PROTECTION FACILITIES:

- all machines destined for EC member countries are fitted with CE-plates in accordance with EC-Machine Directive 98/37/EC, Appendix IIA
- Wood dust protection max. 2 mg/m<sup>3</sup>, subject to the required extraction capacity being provided by the customer according to the suction plan
- technical documentation in duplicate

#### TECHNICAL DATA:

- feed infinitely variable 15 - 40 m/min  
(optionally up to max. 50 m/min)
- up to max. 40 m/min in case of thin edge up to 0,6 mm
- up to max. 30 m/min. in case of thick edge up to 3 mm
- workpiece overhang fixed 30 mm
- workpiece thickness 12 - 40 mm
- working height up to upper chain edge 950 mm
- working width double-sided min. 220 mm
- working width double-sided max. ... mm
- workpiece length in front of cam max. 1200 mm
- edging material on roll 0,3 - 3 mm
- edge cross section max. - PVC 135 mm<sup>2</sup>
- veneer 100 mm<sup>2</sup>
- roll diameter max. 830 mm

- pneumatic connection 7-8 bar
- floor conditions have to correspond to the foundation plan
- the machine operator is responsible for providing suitable material (boards/edges/glue)
- the max. performance data refer to average workpiece dimensions, in case of max. dimensions the performance reduces accordingly!
- working speed dependent on the processing units

INFEED MACHINE II:

for putting on the parts in front of the stop cams

- chain track extension
- stop cams submergable, distance 1000 mm
- cam height stepless, manually adjustable to max. 4 positions
- cam projection max. 25 mm
- pre-selection of the cam distance

INTERMEDIATE TANSPORT AT THE OUTFEED:

- 400 mm long

NOISE PROTECTION PANEL SIZING + FINISHING PART

- workpiece blowing-off device and suction hood after the panel sizing part
- single suction of the processing units

COMP. DOUBLE HOGGER LONGITUD./CROSS 6,6 KW KD11

- 1 motor 4,5 kW, 100 Hz, 6000 rpm with electropneumatic control for trimming the panel front edge in case of cross processing
- suction hood I-system for tool diameter 180 mm
- 2 motors each 6,6 kW, 100 Hz, 6000 rpm for panel sizing, displaced installation one above the other at the trimming column
- suction hood I-system, for tool diam. 220-250 mm
- without tools
- workpiece dimensions see Technical Data

FREE SPACE:

- for 1 standard trimming unit SF20

GLUING UNIT A 3 - 2 ROLLS:

consisting of:

HOT MELT GLUING UNIT A34

- melting unit with granulate container
- melting capacity depending on glue 18-35 kg/h
- level control of the melting quantity
- glue roller heated

MAGAZINE A3 - 2 ROLLS

- height adjustment manual +/-5 mm
- roll clipping unit
- roll change automatic or manual
- edge control with feed stop
- remnant edge length surveillance at 2400 mm

PRESSURE ZONE A

- 1 controlled prepressure roller diam. 90 mm
- 4 post-pressure rollers diam. 70 mm
- pneumatic pressure adjustment

G.0004 Number : 0714 1 x left  
CENTRAL SUPPORT AUTOMATIC KF/FL/KL 20  
with roller guide

G.0007 Number : 0078 1 time  
STEPLESS AXIS FOR PANEL TAKE-OVER DEVICE  
- for automatic height adjustment of the upper  
pressure rollers in case of varying workpiece  
thickness

G.0010 Number : 0211 23 x left 23 x right  
STEPLESS STOP CAMS  
- cam projection max. 25 mm

Hinweis

Nockenabsand: 500mm

- G.0013      Number      : 0074            1 time  
SUBASSEMBLY LINE EXECUTION F. OPTIMAT 500  
for using the KFL/KAL/FPL500 as second machine  
in a machine line, consisting of:
- belt infeed for taking over the pieces in  
  one plain
  - top pressure, manually adjustable
  - alignment station left and right
  
  - When using the machine in a short line,  
  sales no. 0090 is recommended
- G.0016      Number      : 0070            1 x left            1 x right  
**Modif.**      ALIGNMENT STATION  
for lateral workpiece fixation
- F.01        Number      : 2929            1 x left            1 x right  
SEPARATING AGENT SPRAY DEVICE TOP/BOTTOM  
- application of separating agent by means of  
  spray nozzles in front of panel sizing part,  
  application from top and bottom  
- manual adjustment in case of modified panel  
  overhang  
- without separating agent, is to be supplied  
  by the customer
- F.04        Number      : 1607            2 x left            2 x right  
MOTOR SHAFT D=40 FOR MOUNTING OF HYDRO-CLAMPING  
- special motor shaft dimension without  
  standard key  
- motor shaft length 75 mm  
- hardened
- V.01        Number      : 2325            1 x left            1 x right  
PANEL PRE-HEATING UP TO 45 MM PANEL THICKNESS  
- for heating of workpiece edge before glue  
  application  
- for improvement of gluing quality

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- V.04           Number     : 2461           1 x left           1 x right  
ERWEITERUNG MAGAZIN A3 AUF 24 ROLLEN OPTIMAT
- V.0401        Number     : 2474           1 x left           1 x right  
EDGE HOLDING-DOWN DEVICE STEPLESS  
- for automatic adjustment in case of  
  different edge heights
- V.0404        Service: 6281           1 x left           1 x right  
FLEXIBLE EDGE SEQUENCE CONTROL SOFTWARE  
- defined assignment of the edging material to  
  the corresponding edge channel in the edge  
  magazine  
- for the denomination of the edging material  
  max. 8 places (numeric) can be input by means  
  of the input unit NC21/PC21/PC22  
- workpieces are followed through from the in-  
  feed of the machine right to the edge  
  magazine  
- allocation on time of edging material by  
  automatic recognition of requested edge  
  channel
- V.08           Number     : 2596           1 x left           1 x right  
AUTOMATIC PRESSURE-ZONE ADJUSTMENT OPTIMAT  
for automatic adjustment of the pressure zone  
in case of varying edge thickness.
- N.01           Number     : 1318           1 x left           1 x right  
FREE SPACE 715 MM STANDARD TRIMMING    SF20  
- incl. extension noise protection,  
  connecting branch for suction  
- without electric pre-installation
- N.04           Number     : 3051           1 x left           1 x right  
SNIPPING UNIT SERVO HL86/0,22 KW  
for snipping the edge overhangs at the front  
and rear edge  
  
- upright snipping stop  
- servo-operated motion sequence



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- motion sequence via servo cylinder
  - 2 motors each 0,22 kW, 200 Hz, 12000 rpm
  - incl. electronic frequency convertor with motor braking function and extension noise protection
  - 2 TCT special snipping saws, diam. 120 mm
  
  - panel overhang min. 30 mm
  - edge thickness straight max. 3 mm
  - edge thickness chamfer max. 3 mm
  - chamfer 30 degrees
  - workpiece thickness max. 60 mm
  - snipping depth soft max. 10 mm
  - edge width 65 mm
  - edge cross section max. 135 mm<sup>2</sup>
  - feed speed:
    - up to panel thickness 40 mm max. 35 m/min
    - up to panel thickness 60 mm max. 28 m/min
  - panel gap min. 400 mm
  - panel sequence front edge/front edge in case of max. feed 1000 mm
  
  - peripheral installation

N.0401      Number      : 3114            1 x left            1 x right  
PNEUMATIC ADJUSTING DEVICE CHAMFER/STRAIGHT  
 - for electropneumatic reset from chamfer to straight snipping  
 - manual adjustment of the lateral snipping stop necessary in case of varying edge thicknesses

N.07            Number      : 3201            1 x left            1 x right  
ROUGH TRIMMING UNIT 0,55 KW            OPTIMAT  
 2 motors one above the other  
 each 0,55 kW, 200 Hz, 12000 rpm,  
 height adjustment with the top pressure  
 Working in opposite movement. Swivelling range +/- 1 degree.  
 2 TCT cutters 70 x 25, HSK 25, t=4  
 Including electronic frequency inverter with motor braking function and extension of noise protection.



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- depending on profile
  - further performance data: see techn. data
  
  - per profile and per edging material (wood or plastics) a separate change head is required
  - profile trimming of veneer and solid lipping only partly possible
  - flush/chamfer trimming of glued Softforming edges is not possible
  - incl. 5 contour programs  
further customer-specific programs are to be programmed separately, sales-no. 8225, or the customer himself has to programme them, sales no. 6639

N.1001      Number      : 3719            1 x left            1 x right  
SET OF CHANGE HEADS "I" AUTOMATICALLY

ADJUSTABLE / FK

- 2 change heads for installation on the profile trimming unit FK 11/13/21/23
- for automatic adjustment to varying edge thickness in case of chamfer trimming and/or for automatic reset from chamfer trimming to radius trimming
  
- max. edge thickness for chamfer with radius cutter:
  - in case of R 1,5 = 0,6 mm
  - in case of R 2,0 = 0,8 mm
  - in case of R 3,0 = 1 mm
- chamfering angle approx. 15 degrees
- designed for I-tool with tool-integrated suction
- without tools
- cross processing of the softforming profiles depends on the profile

N.1004      Number      : 3734            1 x left            1 x right  
SET OF DIAM.RADIUS CUTTERS I, R=2 MM T=6 FOR FK

- 2 diamond cutters basic diam. 62 mm
- Edge thickness max. 2 mm



- APPLICATION OF DETERGENTS
  - by means of spray nozzles
- EDGE BUFFING UNIT
  - height adjustment with the top pressure

N.22           Number       : 6275           1 x left           1 x right  
ELECTRONIC HEIGHT ADJUSTMENT

N.25           Service: 6373           1 time  
SCHULER-MDE PROFESSIONAL

- collecting and evaluating machine states via time meter and event meter
- per announced shift the following information is automatically seized:
  - number of pieces
  - ACTUAL working time (on-time of the machine)
  - production time
  - set-up time
  - malfunction period
  - interruption time
- the reason of an interruptance, as for example a tool change, can be detected by manual input and thus be evaluated
- the evaluation of the data is effected graphically at the operating monitor or via extensive protocol lists
- coupling to schuler-MOS (evaluation system of several machines) is possible
- the necessary service works which meet customer's requests are indicated by maintenance hints

N.28           Number       : 6162           1 x left  
EMERGENCY INTERLOCK. DISRUPT. F. HOMAG MACHINES

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- E.04      Number      : 6167            1 x left  
INCREASE OF COOLING CAPACITY  
Increase of cooling capacity for an environmental temperature of more than 40 degrees Celsius
- E.07      Number      : 6176            1 x left  
NO-BREAK POWER SUPPLY (UPS)  
in case of a voltage loss the electronic control is provided with current from the installed batteries for approx. another 10 minutes.  
All values and states are stored.  
The PC must be restarted.  
Furthermore the USV serves as voltage stabilizer for the electronics (online UPS).
- E.10      Service: 6383            1 time  
DIAGNOSIS SYSTEM WOODSCOUT  
Software kit for the graphical diagnosis of the machine condition. With the woodScout system it is possible to systematically eliminate troubles, which leads to a considerable increase of the plant availability.  
- Graphical PLC diagnosis in different levels  
- Learning system due to the possibility of entering the reasons for disturbances and the measures to eliminate them  
- Optimum support for the elimination of machine down-times
- E.13      Number      : 6161            1 time  
**Modif.**    FEED INTERLOCKING FOR MACHINES OTHER THAN HOMAG  
incl. interlocking plan and connection cables to the individual machines.
- E.16      Number      : 6163            1 time  
**Modif.**    EMERGENCY INTERLOCKING DISRUPTION - MACHINES OTHER THAN HOMAG

- E.19 1 time  
**Modif.** ANSTEUERUNG VORSCHUBGESCHWINDIGKEIT  
für TR von BST 100
- D.01 Service: 8335 1 time  
DOCUMENTATION AND CONTROL TEXTS:  
Scope of delivery:  
1. production instructions  
consisting of operator's manual and  
maintenance guidelines on DIN A4 paper  
and CD-ROM  
2. on-screen operator control texts  
for machine operators, only for PC22,  
PC52 and PC85  
3. spare parts designations in ENGLISH  
on CD-ROM  
- delivery time: After delivery of the machine
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