

Edge Banding machine, used from year 2004

producer: Homag Type: KAL 310

machine number: 0-200-24-7137

OPTIMAT KAL310/7/A20/S2

HOMAG - F U E G E - K A N T E N - OPTIMAT

One-sided machine for joint milling of straight workpiece edges,
Gluing and finishing of various edging materials
from the roll or as strips, up to 20 mm edge thickness,
in lengthwise and crosswise passage.

Fixed stop side on the left.

BRIEF DESCRIPTION OF THE BASIC EQUIPMENT:

- stable basic machine with transport chain for precise workpiece transport
- Motorized height-adjustable top pressure with composite V-belt
- HOMATIC control with input unit NC21
- Electronic frequency converters for the processing units
- Milling unit with 2 motors
- Hot-melt adhesive gluing part A20 for roll goods up to 3 mm and
Strip goods up to 20 mm
- Noise protection unit part
- Bevel / straight trimming unit
- Free space for further processing units

BASE MACHINE:

- Continuous machine stand for setting up the processing units
- Workpiece support with roller rail, extendable approx. 800 mm
- Chip channel in the machine frame
- Glue roll drive at feed stop
- Glue container lift at feed stop
- Glue container clamping, workpiece-operated
- Infeed ruler adjustable

WORKPIECE TRANSPORT EQUIPMENT:

- Transport chain 80 mm wide with rubber pad
- Precision running and guide surfaces hardened
- Magnetically braked transport chain

OVERPRINT:

- Driven composite V-belt
- Motorized height adjustment
- Digital position display

PAINTING:

- HOMAG textured paint gray RDS 240 80 05

ELECTRICAL EQUIPMENT:

- Operating voltage 400 volts, 50/60 Hz.
- Country-specific operating voltage adjustment via transformer (optional)
- Control voltage 24 volts
- FI protection circuit only permitted in conjunction
with an all-current sensitive / selective FI circuit breaker
If the performance of this device is not sufficient, we recommend
use a residual current monitoring device on site
- Control cabinet attached, installed according to European standard EN
60204
- Electronic frequency converter with motor brake function
- Manual switch for setup mode

HOMATIC ELECTRONIC CONTROL:

- Programmable logic controller (PLC)
with LED display of all inputs and outputs
- Integrated route control, for contactless
Control of the processing units
- Ambient temperature prescribed:
+ 5 degrees to + 35 degrees cels.

CONTROL NC21:

- LCD flat screen
- Graphical interface for easy and comfortable Operation and programming
- Real-time operating system OS9
- Operation with Windows standard
- Work programs are created menu-driven
- Production according to work programs
- PLC diagnosis in contact plan technology on the display
- Remote diagnosis via modem
Billing according to a separate remote service contract
- Interventions in the machine control by unauthorized persons
Individuals release HOMAG from the warranty obligation and from product liability

OPERATING CONTROL SYSTEM BDL

- Screen display of the necessary manual
Adjustments on the machine for conversion
- Printer to print out the corresponding Lists is recommended (optional)

SAFETY AND PROTECTIVE DEVICES:

- all machines for EU member countries with CE mark
EC Machinery Directive 98/37 / EC, Appendix IIA
- Wood dust tested, TRK value max. 2 mg / m³ if the
Extraction capacity to be provided on site according to the extraction plan
- 2-fold documentation

TECHNICAL SPECIFICATIONS:

- feed 18 m / min
- working height 950 mm
- Minimum working width:
 - 55 mm for a workpiece thickness of 22 mm
 - 100 mm for a workpiece thickness of 60 mm
(depending on the workpiece length)
- Workpiece overhang 30 mm
- Workpiece thickness 12 - 60 mm
- Edge material strips max. 0.4 - 20 mm
- Edge cross-section of strips max. 900 mm²
- Edge material roll 0.3 - 3 mm
- Edge cross-section max. - for PVC 135 mm²
- with veneer 100 mm²
- Roll diameter max. 830 mm
- Pneumatic connection 7-8 bar
- Soil conditions must correspond to the foundation plan
- for the provision of suitable materials
(Panels / edges / glue) the operator is responsible

JOINT MILLING UNIT

- 2 motors each 3 kW, 150 Hz., 9000 1 / min
for milling the workpiece edge before gluing
- Electropneumatic control of the 1 motor
- Workpiece blow-off device
- 2 DIA jointing cutter heads D = 125x35x30 mm, KD, Z = 2x3
- Workpiece thickness max. 30 mm
- larger workpiece thicknesses only in combination
with DIA jointing knife head 63 mm high VK no. 3492

WORKPIECE PREHEATING

- for heating the workpiece edge in front of the
Glue specification to improve the glue quality

GLUING PART A20

- MELT GLUE AGGREGATE A34
- glue container 5L
- Electronic temperature control with LED display
- Melting performance max. 8 kg / h

- VK no. for larger quantities of glue 2158 required
- MAGAZINE
- for solid edges, strip goods and rolled goods
- Feeding of the strip goods via vacuum suction cups
- Edge monitoring with automatic feed stop
if the edge is missing
- Magazine height adjustment via spindle, adjustment range +/- 10 mm
- ROLLER SEPARATOR
- PRINT ZONE C
- 1 driven pre-press roller diam. 150 mm
- 6 pressure rollers diam. 70 mm
- Pneumatic pressure adjustment
- Central adjustment to different edge thicknesses

NOISE PROTECTION JOINT + AGGREGATE PART

- for the processing units
- with individual suction

KAPPAGGREGAT HL83 BEVEL / STRAIGHT

- 2 motors each 0.5 kW, 200 Hz., 12000 1 / min.
for cutting the protruding edges on the front and rear edges
- Motors can be swiveled manually to the bevel caps
- Edge thickness bevel max. 3 mm
- 2 HM chop saws diam. 120 mm
- Capping is not possible if the top layer protrudes

Note: workpiece thickness at least 8 mm

F.01 Number: 3495 1 x left

I-SYSTEM-DIA-JOINT MILLING SET WD 40

- Surcharge instead of standard tools
- 2 I-DIA jointing cutters 125x43x30 mm, DKN, Z = 2x3 with
integrated chip collection
- high degree of chip collection up to 97%
- Reduction of the suction power by approx. 50%
- high processing quality due to low contamination of the workpieces
- Repair edge up to 1 mm thick possible
(Melamine, paper and veneer edge)

F.04 number: 2929 1 x left

RELEASE AGENT SPRAY UNIT TOP / BOTTOM

Release agent application using spray nozzles before
Format part from above and below. Manual adjustment
when changing the workpiece protrusion.
Incl. 2 L release agent.

V.01 number: 2158 1 x left

MELTING UNIT WITH GRANULAR CONTAINER

- instead of glue container 5 L
- required for:
 - Melting performance > 8 kg / h
 - Feed > 18 m / min.
- Melting performance depending on glue 18-35 kg / h
- Level control of the amount of melt

N.01 number: 3056 1 x left

KAPPAGGREGAT HL04 / 05 INSTEAD OF HL81 / 83

suitable for workpieces with a cover layer overhang of up to max. 10 mm
Vertical end stop for sensitive transverse edges.

N.0101 number: 3114 1 x left

PNEUMATIC ADJUSTMENT BEVEL / STRAIGHT

for electropneumatic conversion from chamfer to
Straight. Manual adjustment of the side
Trimming stop required for changes in edge thickness.

N.0104 number: 3113 1 x left
PNEUMATIC ADJUSTMENT CAP MOTOR
for electro-pneumatic adjustment
the chopping motors on 2 positions.
Position 1 - flush caps
Position 2 - caps with overhang - for re-milling
with profile milling unit
Note: Front / rear edge can be controlled separately

N.04 number: 3209 1 x left
PRE-MILLING UNIT 1.5 KW OPTIMAT
2 motors on top of each other
1.5 kW each, 200 Hz., 12000 1 / min.
Height adjustment with the upper pressure. In the opposite direction
working. Swivel range +/- 1 degree.
2 HM milling cutters 70 x 25 mm, HSK 25, Z = 4
Incl. electronic frequency converter with
Motor brake function and extension of noise protection.

N.0401 number: 3251 1 x left
PNEUMATIC ADJUSTMENT OF PRE-MILLING UNIT
on 2 positions
Position 1 - Pre-milling with edge overhang (approx. 0.2 mm)
Position 2 - flush milling without edge overhang

N.07 number: 3703 1 x left
FORM MILLING UNIT FK11 MANUAL
for processing the protruding edges on the
Workpiece top and bottom edge and for
Milling of the front and rear edges of the workpiece
in connection with trimming unit and pre-milling unit.
- 2 motors each 0.55 kW, 200 Hz., 12000 1 / min.
- Mounting with quick-change device for each
1 interchangeable head set, manual change
- without interchangeable head set - without tools
- Longitudinal / circumferential milling selector switch
- Feed max. 20 m / min.
- Workpiece length at least - 240 mm on one side
- 120 mm double-sided (under 240 mm only in connection with VK-No. 3745)
- Workpiece gap min. 680 mm
- Workpiece thickness 12 - 60 mm
- for workpiece thicknesses over 40 mm, the min.
Workpiece length to at least 230 mm
- Edge thickness max. 5 mm
- there is a separate one for each tool type and edge thickness
Interchangeable head required
- Milling of veneers and solid edges is only possible to a limited extent
- Flush / bevel milling of glued softforming edges is not possible
- Including frequency converter with motor brake function and extension of
noise protection

N.0701 number: 3719 1 x left
I-INTERCHANGEABLE HEAD SET AUTOMATICALLY ADJUSTABLE / FK
- 2 processing units for mounting on the profile milling unit FK
11/13/21/23
- for automatic adjustment to different edge thicknesses
for bevel cutters and / or for the automatic conversion of bevel cutters
on radius milling
- max.edge thickness for chamfer with radius tool:
- at R 1.5 = 0.6 mm
- at R 2 = 0.8 mm
- with R 3 = 1.0 mm
- Chamfer angle approx. 13 degrees, see technical data in chapter 5.9.1

- designed for I-tools with tool-integrated extraction
 - without tools
- Note: for bevel and R2

N.0704 number: 3716 1 x left
I-INTERCHANGEABLE HEAD SET FOR MILLING MILLING FK
2 processing units to build on
Profile milling unit FK. Designed for I tools
with tool-integrated extraction.
Without tools.
Note:_
for radius R = 3 mm

N.0705 number: 3718 1 x left
Change I-INTERCHANGEABLE HEAD SET MANUALLY ADJUSTABLE / FK
- 2 processing units to build on
Profile milling unit FK 11/21
- for manual adjustment to different
Edge thicknesses with chamfer milling and / or for
manual conversion of bevel milling machines to
Radius milling
- max.edge thickness for chamfer with radius tool:
- at R 1.5 = 0.6 mm
- with R 2.0 = 0.8 mm
- with R 3.0 = 1.0 mm
- Chamfer angle approx. 13 degrees, see technical data in chapter 5.9.1
- designed for I-tools with tool-integrated extraction
- without tools
Note:_
for bevel 45 degrees adjustable from 0.4 - 6 mm edge thickness (KW)

N.0707 number: 3733 1 x left
I - DIA-RADIUS MILL SET F. FK R = 2 MM Z = 4
2 DIA milling cutters base dia. 62 mm
Edge thickness max. 2 mm

N.0710 number: 3738 1 x left
I - DIA-RADIUS MILL SET F. FK R = 3 MM Z = 4
2 DIA milling cutters base dia. 62 mm
Edge thickness max. 3 mm

N.0713 number: 3727 1 x left
Modification I - DIA-BEVEL MILLING SET F. FK 45 DEGREE Z = 4
2 DIA milling cutters base dia. 62 mm, 45 degrees, Z = 4
Note: edge thickness 0.4 - 6 mm (KW)

N.10 number: 4523 1 x left
RETROFITTING DEVICE PROFIL OPTIMAT PN10
- Scanning from above, below and from the side
- for chamfering or rounding pre-milled
PVC edges
- Pneumatically controlled air nozzles
- Edge thickness max. 3 mm
- Height adjustment with the upper pressure
- Extraction box for PVC chips

- without tools
- Feed max. 24 m / min

N.1001 number: 4525 1 x left

QUICK CHANGE HEAD R = 2 MM FOR PN10

- 2 quick change heads for easy radius change
- incl. 2 WPL profile knives

N.1004 number: 4527 1 x left

QUICK CHANGE HEAD SET R = 3 MM FOR PN10

- 2 quick change heads for easy radius change
- incl. 2 WPL profile knives

N.13 number: 4506 1 x left

FINISHING AGGREGATE FA11 UP / DOWN

for finishing the long edge

consisting of:

- REPLACEMENT DEVICE GLUE JOINT
- for the disposal of glue residues
- Height adjustment with the upper pressure
- Carbide knife
- Pneumatic adjustment for moving out of the work area
- DETERGENT APPLICATION
- by means of a spray nozzle
- BOBBING UNIT
- Height adjustment with the upper pressure