

## **PROFILINE KDF 650 – year 2011**

### **Machine number: 0-261-20-5984**

BRANDT SINGLE-SIDED EDGE BANDING MACHINE

MODEL: HIGHFLEX 1650

One-sided edge banding machine for editing of straight workpiece edges and for gluing and post-processing of various edge materials in longitudinal and transverse passage.

#### OVERVIEW OF UNIT EQUIPMENT:

JOINING MILLING UNIT 2 X 2.2 KW 200 HZ

RENTAL UNIT A12

CUT UNIT BEVEL/STRAIGHT 2 X 0.35 KW

PNEUMATIC ADJUSTMENT CUTTING BEVEL/STRAIGHT

PNEUMATIC 2-POINT ADJUSTMENT CUTTING

PRE-MILLING UNIT 2 X 0.55 KW 0 DEGREE

PNEUMATIC 2-POINT ADJUSTMENT

MULTIFUNCTIONAL FORM MILLING UNIT 2 X 0.4 KW

PROFILE SCRAPING BLADE WITH QUICK-CHANGE HEADS

PNEUMATIC ADJUSTMENT OF SCRAPING BLADE

GLUE JOINT SCRAPER

BUFFER UNIT

#### 1. BASIC MACHINE:

- Continuous machine stand for constructing the machining units
- Fixed stop side on the right
- Gray paintwork RDS 240 80 05
- Infeed ruler adjustable by motor
- Inlet lock pneumatically controlled
- top pressure:
- Individual rollers in 2 rows, arranged in a staggered manner
- Motorized height adjustment
- Position display and input centrally via the control
- Workpiece transport device:
- Transport chain with rubber pad, 80 mm wide
- Precision running and guiding surfaces
- Equipped with automatic central lubrication as standard for the transport chain
- Workpiece support with roller rail, extendable approx. 600 mm
- Noise protection equipment, with individual suction for joining part and collecting suction for aggregates as well as shavings collector for scraper shavings
- feed | 8 - 18 m/min
- Max. feed with form cutter | 14 m/min
- Working height | 950 mm
- Pneumatic connection | min. 6 bar
- Overall length | 5,760 mm

Floor conditions must correspond to the floor plan and suction plan,

No: 5-701-80-2262

Technical data refer to the standard version.

Options lead to changes in the connection values for electricity, suction and air consumption.

#### 2. WORKPIECE AND EDGE PARAMETERS:

- workpiece width min:
  - With a workpiece thickness of 8-22mm | 70 mm\*
  - With a workpiece thickness of 23-40 mm | 120 mm\*
  - With a workpiece thickness of 41-60 mm | 150 mm\*
- \*Depending on the workpiece length
- Workpiece overhang | 38 mm
  - Workpiece thickness | 8 - 60 mm
  - Edge height max.= workpiece height | + 6 mm

- Edge material roll | 0.4 - 3 mm
- Edge cross-section max.
- For PVC | 135 mm<sup>2</sup>
- For veneer | 100 mm<sup>2</sup>
- Roll diameter max. | 830 mm
- Edge material strips | 0.4 - 15 mm  
(or 12 mm) (When using the VKNR 4845 replacement milling unit  
the max. edge thickness is 12 mm!)
- Edge cross-section max.
- For strips | 600 mm<sup>2</sup>
- If no radius is specified, R=2 mm is retracted and delivered
- For the use of suitable materials (panels, glue, edges,  
cleaning agents, paints, etc.) is the responsibility of the machine  
operator.
- When using edge material with high-gloss surfaces,  
painted surfaces, matted surfaces and pressure-sensitive ones  
materials, we recommend the use of a suitable protective film on the  
Edging material in connection with the VKNR 0059 (additional device for  
sensitive surfaces).

### 3. A G G R E G A T E - EQUIPMENT

#### 3.1 JOINING MILLING UNIT 2 X 2.2 KW 200 HZ

- For attaching in front of the gluing part, vertical spindle adjustment,  
electronic  
Horizontal pneumatic control, 2 motors (1 x synchronous, 1 x counter-  
rotation), max. chip removal / stroke 3 mm  
(The maximum cutting cross-section depends on the material and feed rate)  
Cover hood with suction socket diam. 120mm
- Including jointing cutter set in DIA design  
diam. 100 x 44 x dia. 30mm, Z=3  
with double keyway 8 x 3 mm  
max. workpiece thickness 42 mm

#### 3.2 RENTAL UNIT A12

Consisting of:

##### WORKPIECE PREHEATING

- Emitters to prepare the workpiece for an optimal bonding quality

##### QUICKMELT APPLICATION UNIT

- Melting unit and quick-change, small-volume Quickmelt application unit
- Processing of PU adhesive granules with the standard application unit  
changeable PU (VKNR 2068) is possible in compliance with the adhesive  
processing instructions
- Leak-proof glue supply below the glue roll
- Finely dosed glue application to the workpiece using a glue roller, no  
adjustment to the workpiece thickness required
- Direction of rotation of the glue roller either synchronous or counter-  
rotating. Glue temperature monitoring using an electronic thermostat
- Automatic glue temperature reduction when work is interrupted
- Glue container lift at feed stop
- Workpiece-actuated glue container clamping

##### ADHESIVE REACTIVATION

- Infrared emitter to maintain the ideal glue temperature

##### MAGAZINE

- Automatic edge magazine for rolls and fixed lengths, including roll plate
- Equipment with reinforced pre-cut shears
- Standard equipment with edge and workpiece distance monitoring using a  
lock on the machine infeed

##### PRESSURE ZONE WITH MOTORIZED ADJUSTMENT

- Pressure zone with driven, pneumatically operated main pressure roller  
and 3 free-running pressure rollers
- Equipped with motorized one-axis adjustment of the print zone to edge  
thickness

### 3.3 CUT UNIT FASE/STRAIGHT 2 X 0.35 KW

- For trimming the front and rear edge material overhang with a pulling cut.

2 motors, each equipped with a chop saw blade.

Swivel range straight to chamfer caps 0-15 degrees

- Soft touch function for sensitive edge materials.

- 2 motors each 0.35 kW, 200 Hz, 12,000 rpm.

- 2 HM saws diam. 100 x 32 x 2.6mm, Z=30

- Feed speed: 8 - 18 m/min.

0.4 - 3 mm edge thickness max. 18 m/min.

3 - 15 mm edge thickness max. 14 m/min.

### 3.4 PNEUMATIC ADJUSTMENT CUTTING BEVEL/STRAIGHT

- for electro-pneumatic changeover of the snipping unit from straight to chamfer

### 3.5 PNEUMATIC 2-POINT ADJUSTMENT CUTTING

- For flush trimming or trimming with material allowance

- Finishing takes place when material is added the protruding edges with the profile trimming unit

### 3.6 PRE-CUTTING UNIT 2 X 0.55 KW 0 DEG

- for flush milling in CONTRA-FLOW of the upper and lower edge material-supernatant. 2 motors arranged one above the other, vertically scanning, manually moveable 30 mm to the side

- Height adjustment of the upper motor with the top pressure

- Digital counters for quick adjustment

- Edge thickness max. 15 mm

Workpiece thickness 8 - 60 mm

- 2 motors each 0.55 kW, 200 Hz, 12,000 rpm.

- Standard equipment with

2 pcs. HM milling cutters diam. 70x20x16 mm Z = 4

### 3.7 PNEUMATIC 2-POINT ADJUSTMENT

- the vertical feeler rollers for switching from Milling (with overhang) or flush milling

### 3.8 MULTIFUNCTIONAL FORM MILLING UNIT 2 X 0.4 KW

For processing the edge overhangs on the top and bottom edge of the workpiece as well as for corner copying of the front and rear edges.

- Servo-controlled motion sequence with soft-touch function

- 2 motors each 0.4 kW, 200 Hz, 12000 rpm with tool holder HSK 25

- Constant speed of the milling motors for a perfect finish

- Compact milling head with integrated chip extraction

- Quick-change head set for manual profile change

- Longitudinal milling or corner copying, freely selectable via the machine control

- Servo-motor adjustment to different edge thicknesses

- feed 14 m/min

- Workpiece length min. 160 mm

- Workpiece thickness 12 - 60 mm

- Edge thickness max. 3 mm

- A separate interchangeable head is required for each profile (option VKNR 4838)

- Shape milling of veneer and solid edges is only possible to a limited extent

### 3.9 PROFILE SCRAPING BLADE WITH QUICK-CHANGE HEADS

- Scanning from above, below and from the side. To the Chamfering or rounding of pre-milled PVC edges

- Max edge thickness 3 mm Height adjustment of the upper device with the top pressure

- 2 quick-change heads for easy radius change,

with 2 WPL profile knives

### 3.10 PNEUMATIC ADJUSTMENT OF SCRAPING BLADE

- For electro-pneumatic axial movement of the scraper unit

### 3.11 GLUE JOINT SCRAPER

- For removing adhesive residues in the area of the glued joint
- Scanning from above and below. Height adjustment with the top pressure
- Equipped with 2 WPL reversible knives
- incl. Suction

### 3.12 DIFFUSER UNIT 2 ENGINES

- For gripping the edges at the top and bottom
- 2 motors each 0.18 kW, individually suspended, adjustable in height and angle
- Height adjustment of the upper motor with the top pressure
- 2 Molton discs diam. 150x20mm

## 4.0 POWER CONTROL PC 20+ ELECTRONIC CONTROL

BRANDT control system with color graphic user interface for simple and convenient operation and programming.

Technical details:

- Swivel control panel at the machine infeed
- Durable short-stroke membrane keyboard
- 12 inch color graphic flat screen
- Industrial PC with compact flash disk as mass storage
- Aggregate function keys with LED status display
- Support for operator guidance using color pictograms
- Commission-related production data acquisition, for the exact determination of production data through direct assignment of commission and order. Data retrieval with the supplied Brandt Browser Software via network (Ethernet) to an existing PC
- Online language switching between various foreign languages
- Presentation of the essential machine target and actual states
- Status messages in plain text
- Easy choice and correction of the route points
- Simple possibility of axis adjustment (with corresponding unit design)
- Context-related help function, detailed information on operation and function of the machine directly on the control
- Inspection and maintenance interval display
- Saving machining programs
- Production according to machining programs
- Data backup of editing programs
- Fan for electronic controller. Module built into the control panel for ventilation of the electronic control
- Modem for remote service and maintenance of the machine via the public telephone network.

There is an on-site analogue telephone connection on the machine for this purpose

necessary. Outside of the warranty period, the Remote service and maintenance services to our valid remote service billing rates

## 5.0 ELECTRICAL EQUIPMENT

- Operating voltage 400 volts - 3Ph - 50Hz
- Control cabinet installed according to Euronorm EN 60204
- Electronic frequency converter with engine braking function
- Overvoltage protection for machines with electronics
- Country-specific operating voltage adjustment via transformer (optional)
- Electrical equipment with modular control system for increased operator comfort

- Electronic stabilization of the internal 24 V control voltage
- Permissible ambient temperature min. +15 degrees / max. +35 degrees Celsius,  
for the electrical and mechanical functionality of the machine
- If the mains voltage fluctuations are greater than +/- 10%, a Voltage stabilizers are installed

#### 6.0 SAFETY AND PROTECTION DEVICES

- CE mark according to EC Machinery Directive 98/37/ EU member countries
- Wood dust tested TRK value max. 2mg/m<sup>3</sup> if the on-site requirements are observed  
extraction capacity to be provided according to the installation plan
- A prerequisite for our warranty/product liability is the full compliance with those supplied with the machine  
Original operating instructions including the safety regulations.

#### 7.0 HOMAG GROUP QUALITY PACKAGE

- TÜV certificate according to DIN EN ISO 9001:2000
- The machine is supplied according to the Homag Group standard range brought in and delivered

#### 8.0 DOCUMENTATION

- Documentation on CD-ROM
- Operating and maintenance instructions also in printed form

G.0001 number: 4876 1 x right  
TOOL SET R = 2 MM

G.0004 number: 0047 1 x right  
INFEED RULER EXTENSION BY 300 MM  
Can be used on the following machines:  
Ambition/Highflex/Profiline 1200 - 1800

G.0005 number: 0061 1 x right  
PUSHING CARRIAGE  
- For inserting short workpieces at right angles  
- Workpiece dimensions max. 200 x 600 mm  
Can be used on the following machines:  
Ambition/Highflex/Profiline 1400-1800

G.0007 number: 0057 1 x right  
PU TOP PRESSURE ROLLERS INSTEAD OF RUBBER ROLLERS  
Instead of the standard knurled ones  
Rubber top pressure rollers become smooth PU top pressure rollers built up. Use with particularly sensitive workpiece surfaces.

G.0010 number: 0059 1 x right  
OPTION DELICATE SURFACE  
- For processing sensitive surfaces or edges.  
Consisting of:  
- Release agent specification for edge material  
- Information on the release agent on the leading and trailing edges  
- Without release agent, must be provided by the customer  
A notice:  
Only in connection with PU top pressure rollers VKNR 0057.  
When using a belt top pressure, VKNR 0057 PU top pressure rollers can be omitted.

G.0013 number: 0501 1 x right  
HOOD INTERIOR LIGHTING 3 LAMPS

G.0016 number: 2620 1 x right

#### AUTOMATIC EDGE FEEDER

for quick changing of different roll edges

up to 3 mm thick. The edging material is motorized from the roller plate promoted to the working position.

No need for manual magazine adjustment when edging height is adapted to the respective workpiece thickness.

G.0019 number: 2043 1 x right

#### APPLICATION UNIT QA 45 EVA

- Surcharge for a Quickmelt EVA melting unit and a quick exchangeable order unit, instead of the standard order unit
- EVA melting unit
- Filling volume approx. 4 l hot-melt adhesive granulate
- Temperature control
- Melting capacity max. 8 kg/h depending on the adhesive
- Flushing function via key switch
- can be moved sideways
- Application unit QA 45
- Special coating of the gluing part for all types of glue, including PUR adhesive
- Quick changeover to different types of adhesive with a Automatic emptying function
- Automatic cleaning function via the controller
- Program-controlled adjustment of the amount of glue applied by means of a servo motor
- Glue application in the same or opposite direction
- Only in connection with PC 20+ control

G.0022 number: 2215 1 x right

#### RELEASE AGENT SPRAY UNIT WORKPIECE

- Separating agent indication above and below, for easy removal of glue residue
  - On the machined workpiece
- Manual adjustment when the workpiece overhang changes
- Without release agent, must be provided by the customer

N.0101 Number : 5767 1 x right

#### SET OF QUICK-CHANGE HEADS FOR R - 1 MM

- Additional set of quick-change heads above and below for scraper units 5760+5765, incl. 2 WPL profile knives R - 1 mm.

N.04 Number : 2220 1 x right

#### CLEANING AGENT SPRAY UNIT WORKPIECE

- Spray device for cleaning agent on workpiece surface and bottom edges.
- For removing release agent and adhesive residues.
- Use in combination with a buffing unit is recommended.
- Without cleaning agents, must be provided by the customer

E.01 number: 0669 1 x right

#### INTERFACE LIGMATECH ZHR05 FOR 1600/1800

- Electrical and mechanical preparation of an edge banding machine for mounting the Ligmatech workpiece return ZHR 05, for Ensuring a regulatory safety function

D.01 number : 8321 1 time

#### DOCUMENTATION AND CONTROL TEXTS: GERMAN

##### Scope of delivery:

1. Operating instructions, consisting of commissioning, operating and maintenance instructions on DIN A4 paper and CD-ROM
2. Screen operating texts for machine operators, for the PC 20+ control
3. Spare part designations on CD-ROM

Delivery time: With machine delivery

(Only for machines from delivery year 2003)

Price for first delivery (net) EUR 96,300.00