# FORMAT4®

# tempora F 600 PUR-EDGE BANDING WITHOUT GLUE POT





# FORMAT 4

# tempora F600 with glueBox: PUR-edge banding without glue pot.





Processing edges needs to be as quick, easy, and efficient as possible. For this purpose, the Format4 tempora models combine the core competencies of speed, productivity, flexibility and ease of operation in a convincing overall package. The final finishing results when processing both coiled and strip material convince with incredibly high standards.

Modern and optimized edge processing aggregates and a flexible machine body guarantees absolute stability and reliability even at the highest of processing speeds. The user friendly control options, "x-motion plus" and "m-motion" ensure absolute repeatability and individual configurable operating programs enable quick manual change of the aggregates as well as control via the smartouch control panel.

# **Variations**

# Models & Your Advantages



# tempora F600 60.06L gluebox

- » Installation length: 191<sup>13</sup>/<sub>16</sub>" (4,872 mm)
- » Edge thickness: 0.4-6 (3) mm
- » Workpiece thickness: 8-60 (40) mm
- » Automation: x-motion PLUS
- » glueBox

The glueBox applies a thin layer of PUR adhesive between the edge and the workpiece and almost invisibly bonds the two components together. Through heat activation of the glue perfect adhesion is achieved.

- » Complete edge processing
- » Changeable gluepot with tool free quick change system



# tempora F600 60.06L

- » Installation length: 173<sup>45</sup>/<sub>64</sub>" (4,412 mm)
- » Edge thickness: 0.4 6 mm
- » Workpiece thickness: 8-60 mm
- » Automation: m-motion and x-motion plus
- » advantEdge Zero Joint Aggregate The advantEdge aggregate from Format4 enables an optical zero joint in the processing of co-extruded edge and laser edge materials.
- » Complete edge processing
- » Changeable gluepot with tool free quick change system

# FORMAT4 Premium Machines for Premium Requirements

- » Constantly high performance in industrial continuous operation
- » Customer specific optimized production solutions
- » Solid design with premium components
- » Wide range of configuration packages with high-tech solutions
- » Complete engineering precision

- » Premium user comfort
- » Quality and precision from AUSTRIA
- » Uncompromised productivity
- » Perfect service package before, during and after the purchase
- » Tailor made financing solutions
- » Mechanical engineering experience since 1956

# The most important highlights at a glance



### **Smartouch control**

Intuitive operation over a 10.4" or 15" smartouch capacitive touch screen in a state-of-theart design.

- » Tiltable 10.4''/15'' touch screen
- » Easy, self-explanatory representation of the units and their functions
- » Unlimited storage space for user-defined edge processing programs
- » Aggregate selection, precise fine adjustment of the motor positionable aggregates
- » Plain text error messages
- » Maintenance assistant, linear metre counter
- » Remote control ready for fast telesupport
- » Adhesive programs for different bonding technologies
- » Simple and fast optimizations of the processing parameters and units
- » User management for different authorization levels



# glueBox - PUR edge banding without glue pot.

The glueBox attaches a thin PUR tape between the edge and the workpiece and fuses the two components together almost invisibly. Through heat activation of the glue perfect adhesion is achieved.

- » Availability: Ready to use in just 90 seconds
- » Flexibility: Free choice between coils of 25 or 100 linear meters for workpiece height of 16, 19, 28 or 40 mm
- » Comfort: Tool-free glue strip replacement
- » Resource efficiency: low consumption of compressed air and energy
- » Dynamic Alternating operation, where it is also possible to work with a gluepot at any time
- » Time saving: No manual cleaning necessary



# Gluepot - short warm-up time, quick operational readiness

The Teflon coated gluepot for PUR or EVA glue has a 1.5 kg capacity and as such around 375 meters of edge material can be applied to a 19 mm panel. The short warm-up time of only 10 minutes guarantees quick operational readiness. Upon request, the integrated easy-clean unit facilitates and accelerates the cleaning process when changing adhesives.



# Air cushion table for easy and gentle material handling

Easy and careful handling of large-size and surface-sensitive workpieces Located directly on the machine and equipped with a powerful blower motor, a constant air cushion between the machine table and the resting workpiece ensures easy and gentle workpiece feed. The solid table construction with a  $41^{11}/_{32} \times 15^3/_4$ " (1050 x 400 mm) supporting surface and the flexible extendable frame guarantee maximum stability during workpiece feed.

# **Details**



### Smartouch control unit with "m-motion"

The new Smartouch control unit with 10.4" touch-screen and m-motion control enables a quick and easy selection and control of the aggregates as well as the complete monitoring of all machine functions.

- » Storage and loading of user-defined working programs
- » Intuitive adjustable and self-explanatory display of the aggregates
- » Setting of the glue parameters (EVA or PUR)
- » Order specific selection of the aggregates
- » Fine adjustment of the distance parameters
- » Maintenance plan, clear text error messages, odometer for total meters of material used



### smartouch Control with x-motion plus

The smartouch control unit with 15" monitor and network connection reduces manual settings to a minimum and enables quick, simple and intuitive selection and control of the units as well as full monitoring of all machine functions directly on the screen. The features of the smartouch include:

- » Unlimited storage space for user-defined edge processing programs
- » Maintenance plan, clear text error messages, odometer for total meters of material used
- » Easy, self-explanatory representation of the units and their functions
- » Selection of the aggregate and exact fine adjustment of the motor positionable aggregates (accuracy of up to 1/100 mm) all from the main control panel
- » Glue temperature setting and automatic temperature reduction of the glue whilst in standby mode Available now



### Pressure bar

Pressure beam in welded, torsion resistant steel construction. The workpiece height adjusts automatically and allows the machining of workpiece thickness from 8–60 mm. Smooth double row staggered upper rollers distribute pressure evenly across the workpiece. The monitoring of the workpiece clearance is carried out by means of a stop light system. On the m-motion model, the pressure beam is positioned using a handle.



### Edge feed

Depending on the application, coiled and strip material from 0.4 up to 6 mm can be glued to panel materials up to 60 mm in thickness. Shown with optional strip magazine



### Infeed fence

Variable setting of the depth of cut of the premilling unit. With both equipment options, the settings are carried out manually using an indicator clock. The variable depth of cut can be adjusted and set between 0 - 2 mm.



# Premilling unit Ensures a perfect "finish"

Two counter rotating, activation controlled and individually adjustable premilling units with diamond laminated spiral cutters ensure first class edge processing before the material is glued to the edge. With the premilling unit you will achieve chip free edges when processing laminated material. With exact dimensional allowance in the raw cut, the premilling unit takes over the dimensionally accurate formatting of your workpieces. For e-motion models, the adjustment of the takeoff is done through motorized positioning control.



# edgeControl: Edge and workpiece measurement with Bluetooth

Format4 edgeControl now provides even easier and more precise operation and adjustment of tempora edgebanders.

The edge and workpiece thickness values that are recorded to the hundredth of a millimeter with the wireless measuring unit are transferred to the machine's smartouch operating unit via Bluetooth (workpiece thickness only with e-motion models). The controller recognizes the measured values and sorts them automatically according to workpiece or edge thickness. The operator then selects the desired setting values from the measurement data log that contains the five last measured values. Smartouch automatically calibrates all required units to the exact dimensions.

With edgeControl, production losses due to typing or measuring errors as well as tolerance deviations of the edge dimensions are eliminated.



### Format4 advantEdge for a visual zero joint

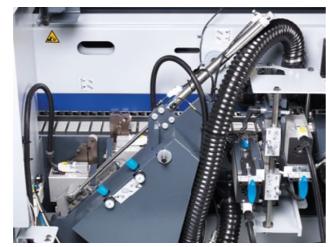
The advantEdge aggregate from Format4 allows for a visual zero joint when processing co-extruded edge and laser edge materials. The aggregate is controlled by the workpiece and can be activated and deactivated directly from the control unit.

advantEdge offers the homogenized optic finish of the workpiece with the panel and edge material, in particular with high gloss material. An edge material suited exactly to the material ensures a zero-joint line and as no time-consuming glue change of various colors is required, you profit from considerably reduced changeover times.



### Pressure zone - Practically invisible glue-joint

Solid in its design, the first operation controlled motor driven roller presses the edge material onto the work-piece. The application control ensures that there can be no smearing of glue or movement of the edge material while processing. Both the conical pressure rollers close the glue joint above and below.



# End trimming unit Precise cuts for every application

The end trimming unit consists of two independent saw trimming units with high frequency motors (12,000 rpm). Linear guides ensure maximum precision. The end trimming unit can be tilted from 0°-10° - - depending on the equipment either manually or pneumatically with control via the control panel (e.g. trimming 10°, trimming only at the front of the workpiece, trimming only at the back or both front and back).



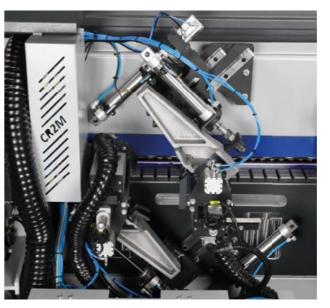
# Multi-functional trimming unit Innovative precision with quick setup

Multifunction unit for bevel, flush and radius trimming, as well as the processing of thin edges, consists of two independent routing units with high frequency motors (12,000 rpm). Linear guides ensure highest precision and lowest maintenance. The structural optimization of the adjustment axes for edge strength and profile ensures the quickest adjustment. Depending on the configuration, the multifunction aggregate is brought into position manually or electro-mechanically via the control panel. Figure m-motion configuration option



# Corner rounding unit - An indispensable option for increased productivity

No time consuming post processing of the workpiece! The Format4 corner rounding unit handles the "finish" of workpiece corners (including soft-forming or post-forming materials) for edge material from 0.4–3.0 mm and 60 mm processing height at a feed rate of 10 m/min. The solid construction, high-quality guides and TC moulders with start-up coupling ensure long-lasting precision. The control of the corner rounding unit is done via the control panel - with the choice of which corners are to be rounded (only on the front side of the workpiece, only the rear, or the front and rear).



## Two motor double corner rounding unit

Especially for post- and soft-forming the tempora 60.06L with double motor corner rounding unit enables a new dimension in edgebanding. Workpieces with different profiles can be completed in just a single processing step, the need for time consuming subsequent processing is rendered redundant by the perfect finish.

### Radius glue scraper

Radius mill marks are removed using a slight pulling cut resulting in a perfect, smooth "finish". The fine adjustment is done manually; depending on the equipment, the radius scraper activation can be done either manually or pneumatically from the touch-screen display. With the x-motion, fine adjustment is motor-driven and position-controlled from the 15" touch color screen. Figure Radius Scraping Unit - m-motion



### **Buffing unit**

The unit is made up of two independent electric motors, which are equipped with cotton buffers. The task of the buffing unit is to clean and polish the top and bottom part of the edge. Superior "finish" for ABS and PVC edging material. The machine can, on request, be equipped with spraying equipment to apply polish onto the work-



# Spray equipment for the application of solutions to leave a finished work-piece that requires no further processing

Low consumption thanks to application-controlled spray nozzles for the application of release agents for PUR adhesives, antistatic coolants and lubricants for sensitive edge materials as well as cleaning and buffing agents for clean components ensure a perfect "finish" without touch-ups.



# Electronically controlled glue scra-

For a perfect workpiece surface "finish". The light scraping function of the surface scraper knives removes all glue residues from the glue bond on the workpiece surface. One more step towards the perfect and completely finished workpiece.



# Infrared heater for better edge adhesion on cold workpieces

The activation controlled, high quality infrared quartz heating lamp heats the edge surface before the panel reaches the glueing unit, ensuring maximum process reliability with improved adhesion, particularly on cold workpieces.



# "Nesting" Package

The "Nesting" Package optimizes the processing of workpieces with cup hinge holes or surfaces with acute angles.





### Save twice the space!

The Format4 storEdge offers space saving storage of your edge material, replaces the edgebander support plate and can be placed next to the machine as and when required.



### puReady: nitrogen box for glue pots with PUR adhesive

The puReady nitrogen box makes you flexible in the use of PUR adhesives. In the future you can stay relaxed during production breaks, color or glue changes. With puReady, your PUR adhesive, stored in nitrogen, remains fresh and processable for a long time. This keeps you flexible in edgebanding and also facilitates the cleaning of the glue pots.

- » Delays reaction processes in the PUR adhesive and thus prolongs its proces-
- » Facilitates and speeds up the cleaning process
- » Increases flexibility when using different PUR color and PUR adhesives
- » Provides space for the storage of two glue pots
- » Simple operation and clear control displays
- » Mobile and space saving without power- and compressed air connection
- » Compatible with all glue pots of the tempora edgebanders F400 / F600 / F800





### Silicone glue pot insert

The silicone glue pot insert enables faster and more efficient processing of amounts of glue. The reducer limits the glue holding capacity to 1/4 and reduces the cleaning effort to a minimum due to the small amount of adhesive required. Ready for use up to 150°C



Te	chnical specifications		
Elect	Electrics		tempora F600 60.06L glueBox
1	3x 400 V motor voltage, 50 Hz motor frequency	S	S
2	3x 230 V motor voltage, 60 Hz motor frequency	0	0
29	CSA certificate	0	0
77	Tempora air conditioning unit (for continuous external conditions of over $40^{\circ}$ C)	0	0
25	Multiple voltage 3x400V-230V as well as 50-60Hz (#001 + #004)	0	0
Worl	Working dimensions		tempora F600 60.06L glueBox
-	Min. workpiece width (mm) *The minimum workpiece width varies depending on the workpiece length, height and type of surface	2 <sup>3</sup> / <sub>4</sub> " (70 mm)	2 <sup>3</sup> / <sub>4</sub> " (70 mm)
-	Min. workpiece length [mm]	5 <sup>33</sup> / <sub>64</sub> " (140 mm)	5 <sup>33</sup> / <sub>64</sub> " (140 mm)
-	Min. workpiece height (mm)	<b>3/8</b> " (8 mm)	<b>3/8</b> " (8 mm)
-	Max. workpiece height (mm)	2 <b>3/s</b> " (60 mm)	2 <b>3/8</b> " (60 mm)
-	Processing of coiled material in thick PVC/ABS from 0.4 to 3.0 mm in thickness; single feed of strip material up to 6mm is also possible	S	S
55	Strip material magazine 120mm	0	tempora

00	emp maiorial magazine - zemin		Ü
Aggr	egates	tempora F600 60.06L	tempora F600 60.06L glueBox
-	Control with 10.4" Touch Screen display, integrated maintenance software and network connection	S	-
60	Edge thickness measurement using Bluetooth transfer device	0	0
80A	Edge and workpiece thickness measurement (#75 / #755)	0	0
76	Fan for electrical control box	0	0
72	Operating hour summary for multiple users	0	0
-	Solid machine chassis made from steel;	S	S
-	Pull-out workpiece support of $17^{23}/_{32}$ " (450mm) - facilitates working with large workpieces	S	S
-	Manually adjustable pressure beam with 2 staggered roller tracks for uniform pressure on the workpiece	S	-
-	Chain feed with 10 m/min feed speed and rubber covered pads for optimum grip of the workpiece	S	S
59	Automatic lubrication of the guide tracks chain feed (!60)	0	0
60	Chain feed with 10 and 18 m/min feed speed and rubber covered pads for optimum grip of the workpiece	0	0
64	Pneumatic/mechanic barrier prevents a premature feeding of a panel into the machine	0	0
-	Ball bearing mounted $\varnothing$ 29 <sup>17</sup> / <sub>32</sub> " (750 mm) coiled material support plate	S	S
46	Extended infeed guide and table size	0	0
48	Air cushion table with pull-out workpiece support instead of table top (!46)	0	0
89	Mitre fence for narrow parts (#46)	0	0
-	Premilling unit with activation controlled diamond cutters and 2 independent motors each with 1.1kW, 12,000 rpm, manually adjustable depth of cut from 0–2 mm, including 2 diamond cutters ( $\varnothing$ 80 mm, H 49 mm, Z 2+2)	S	S
44	Price reduction tempora 60.06 without premilling unit (!45)	0	0
45	Premillers 64 mm height instead of 49 mm, 2 motors with 1.5kW each instead of 1.1kW each (!44)	0	0
47	Premillers with replaceable knives 64 mm height instead of 49 mm, 2 motors with 1.5 kW each instead of 1.1 kW each (!44/!45)	0	0
43	Infrared heating lamp to preheat the panel edges	0	-
-	Edge feed for coiled & strip material from 0.4– 6 mm in thickness; single feed of strip material also possible	S	S
-	Guillotine cutters for the pre-cutting of thick PVC/ABS edge material from 0.4-3.0 mm in thickness;	S	S

-	Teflon coated gluepot with 1.5 kg capacity and quick change system, glue applied using glue roller with monitoring of the heating cartridge (approx. 250 running meters per 1 kg glue granulate on a 19mm panel)	S	S
67	Reverse function for the glue applicator roller	0	0
50	Additional changeable gluepot (!67)	0	0
50A	Additional changeable gluepot reverse operation (#67)	0	0
63	easy-clean cleaning device for the standard gluepot	0	0
61	advantEdge glue unit for co-extruded edge material instead of standard glue unit	0	-
62	advantEdge glue unit for co-extruded edge material	0	-
79	Controlled pneumatic pressure control incl. unlimited program memory for advantEdge glue unit (#61)	0	-
65	glueBox application unit (!61 / !62)	-	S
-	Manually adjustable pressure roller unit with 1 large driven pressure roller and 2 subsequent conical pressure rollers, pneumatically operated;	S	S
-	End trimming unit with 2 independent motors each with 0.35 kW, 12,000 rpm, tilted manually $0^{\circ}$ - $10^{\circ}$ ;	S	-
-	m-motion multifunction milling unit for radius, flush and bevel trimming of thin edges with 2 independent motors each with 0.55 kW ( $F400$ ) / 0.75 kW ( $F600$ ), 12,000 rpm	S	-
51	Multifunction trimming unit with multiple copy rollers for processing workpieces with hinge cups holes	0	0
69	Machine without corner rounding unit (#65 / !68)	0	0
-	Single motor edge processing unit for post and soft form profiles up to 60mm	S	S
68	Dual motor edge processing unit for post and soft form profiles up to 60mm	0	0
78	Alternating checking for 2 motor Corner processing unit	0	0

"Fin	ish aggregates"	tempora F600 60.06L	tempora F600 60.06L glueBox
-	m-motion radius scraping unit, pneumatic disengage function, mechanical adjustment for R=2mm;	S	S
52	Application of anti-static agent	-	0
20	Glue scraping unit, pneumatically controlled (!121)	0	0
21	Glue scraping unit	0	0
-	Buffing unit with 2 motors	S	S
32	Spraying unit for cleaning agent positioned before buffing unit (only in combination with the buffing unit)	0	0
42	Spraying unit of releasing agent on the machine infeed side (PUR glue) (!44)	0	0
53	Spraying unit for lubrication agent	0	0
87	Omission of Riepe spray liquids	0	0
88	Jowat type adhesive incl. 2 kg adhesive granulate	0	0

Optio	onal equipment	tempora F600 60.06L	tempora F600 60.06L glueBox
33	LED lighting	0	0
81	Tool preparation R=1 mm instead of R=2mm	0	0
83	Tool preparation R=3mm instead of R=2mm	0	0
86	Tool preparation $R = 1.5$ mm for corner rounding unit (1.68)	0	0

software and available network connection

software and available network connection

cushion connection table to the machine

75 x-motion PLUS package tempora F 600 60.06L (included additional equipment)

x-motion PLUS trimming unit, 2 pneumatically swiveling motors

755 motorised height adjustment of the pressure beam (#75 / #75A)

x-motion PLUS trimming unit, 2 pneumatically swiveling motors

"x-motion PLUS" control with 15" smartouch instead of 10.4" touchscreen with integrated maintenance

Multifunction milling unit "x-motion PLUS" for radius, flush and bevel milling of thin edges with 2 independent motors each with 0.75 kW, 12,000 rpm, motor position controlled edge adjustment from the 1 motor Edge processing unit for post and soft form profiles up to 60mm with motorised Adjustment

"x-motion PLUS" control with 15" smartouch instead of 10.4" touchscreen with integrated maintenance

Multifunction milling unit "x-motion PLUS" for radius, flush and bevel milling of thin edges with 2 independent motors each with 0.75 kW, 12,000 rpm, motor position controlled edge adjustment from the

2 motor Edge processing unit for post and soft form profiles up to 60mm with motorised Adjustment

2-axis motor position-controlled radius scraping unit incl. pneumatic disengage function |

2-axis motor position-controlled radius scraping unit incl. pneumatic disengage function |

75A x-motion PLUS package tempora F 600 60.06L/2 (included additional equipment)

**Packages** 



# **Product range**



tempora

F600 60.06L

glueBox

S

0

F600 60.06L

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0

tempora

Impo	rtant accessories	tempora F600 60.06L	tempora F600 60.06L glueBox
-	200-106 – Mobile cleaning trolley for the gluepot incl. temperature regulation and drive for the glue roller incl. adapter for premelter	0	0
-	200-107 – Storage container for gluepot including dehumidifier for PUR glues	0	0
-	202-122 - storEdge edge storage including support plate	0	0
-	202-123 - storEdge edge storage without support plate	0	0
-	202-129 puReady nitrogen container	0	0
210	Rolling carriage	0	-
-	202-128 - Silicon gluepot insert F600 / F400	0	0

Trans	port	F600 60.06L	F600 60.06L glueBox
229	Container packaging	0	0
Returi	n System U-motion classic	tempora F600 60.06L	tempora F600 60.06L glueBox
602	Returning without rotating function for workpieces; length 300-2800 mm; width 50-1300 mm; thickness 8-60mm; part size for 4-sided edge gluing; min 300x300 mm; max 1300x1300 mm; max. weight < 700 mm length = 30kg; max. weight > 700 mm length = 60kg; variable feed speed 7-20 m/min; max. 11 cycles/min; conveyor belt for the return transport of the parts as well as discharge station (2000x800 mm); 3x400 Volt / 50-60Hz; 6 bar; 10Nl/min	0	0
620	Mechanical rotation function of the workpieces on the conveyor belt	0	0
621	Ergonomics package incl. air cushion lifting table instead of outfeed roller conveyor as well as an air	0	0

Preparation of U-motion System	tempora F 600 60.06L	tempora F600 60.06L glueBox
84 u-motion classic preparation (!85)	0	0











Sliding Table Panel Saws

Shapers

Planer

kappa 590 e-motion/x-motion kappa 550 e-motion/x-motion

kappa 450 x-motion kappa 550





















Edgebanders

tempora F800 60.12

tempora F600 60.06L

glueBox

tempora F600 60.06L tempora F400 45.03/L







finish 1352/1353 modular



HVP heated veneer press With Elkom® electric heating platens with warm water heating with thermal oil heating connection to an existing heating system













Nesting-CNC



D-Jet



Machining Centers

Industrial Panel

Saws

kappa V60/V80



profit H801



kappa automatic classic

kappa automatic 80 edition

Vacuum panel lifter Return systems Feeding Units





kappa V60 classic







# FORMAT4 Uncompromising expertise for the highest of requirements

The Felder Group premium brand has met the highest standards of professional users since 2001. The customised high-performance solutions are uncompromisingly innovative, offer maximum operating comfort and complete productivity.

### **FELDER GROUP**

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