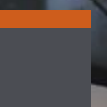




# COMPLETE CATALOGUE PVC

THE PERFECT SOLUTION FOR EVERY REQUIREMENT



***elumatec***

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## 1 | A COMPANY WITH A TRADITION DATING BACK TO 1928

elumatec was established at the main location in Mühlacker near Stuttgart in 1928. In the beginning, elumatec produced light-metal sand-cast parts. Today, we are the leading premium supplier in the segment of profile machining for a vast array of different requirements and materials. With 720 employees as well as our subsidiaries, branches and dealers in over 50 countries, we are always just around the corner from you. The results of our many years of work are characterised by impressive references, numerous patents and inventions, over 28,000 customers and more than 5,000 profile machining centres manufactured.

### Only quality produces quality – Machines made by elumatec

As the leading premium supplier, our focus is not simply on sales figures, but on the even more important aspect of maintaining a leading position in terms of quality. Our machines are only rated “market ready” once they meet our high standards in terms of reliability, efficiency, and accuracy. Our guaranteed supply of spare parts for ten or more years ensures a high level of production reliability.

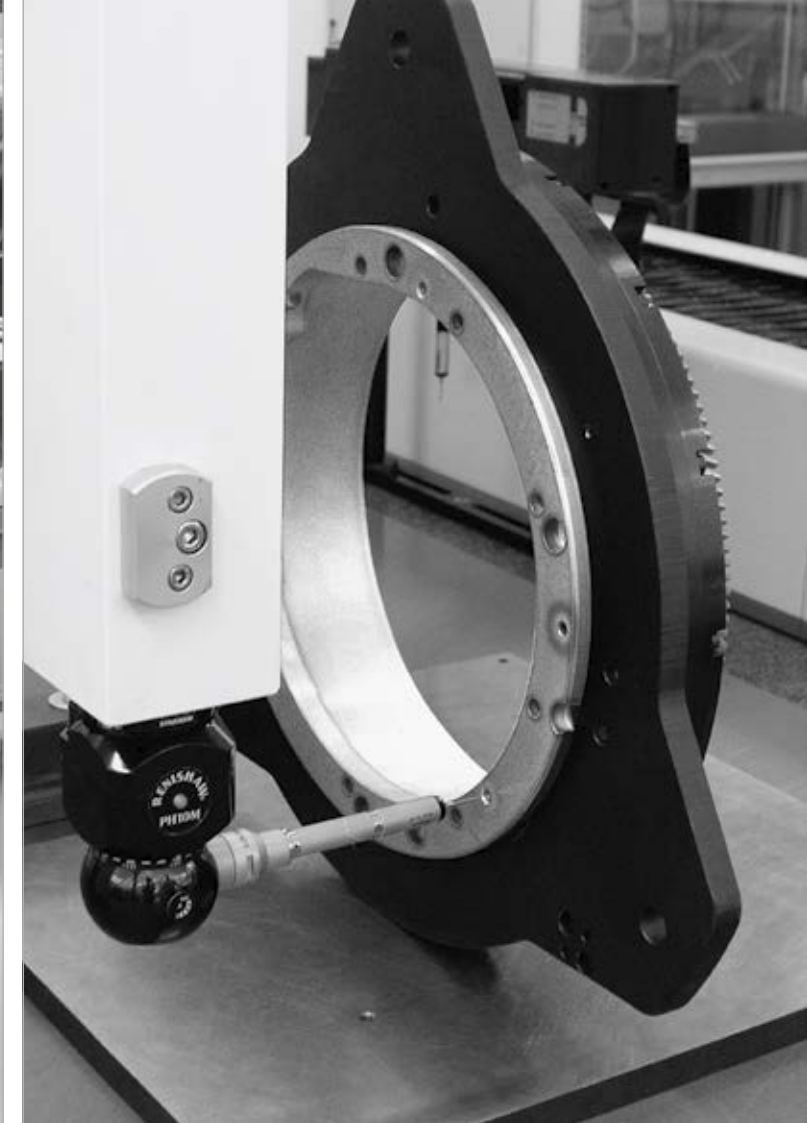
Our quality concept is based on our proximity to you as well as on the know-how and dependability present at all levels of our company – from development and design to manufacturing and on to sales and after-sales service. With commitment and passion we develop the best-possible solution for you, seeing ourselves both as a service provider and a dependable partner.

### Our know-how is your advantage

We operate in an environment characterised by very dynamic customers – in the most diverse industry sectors with completely different requirements – and must react to changing requirements and needs in an instant. And we do, all the time, with our short response times, close proximity the world over and the highest level of commitment. Consequently, we assess our capabilities continuously and know that this requires ongoing learning and unceasing development of our competencies. This enables us to initiate and shape change processes.

### Lean & Green

The broad spectrum of machines and solutions that we offer has made us rely on flexible and lean production processes. The key concept of “Lean & Green” is applied consistently in our production process: We pay careful attention to the conservation of material and energy resources in all of our processes – from vendors on to the finished product.





## 2 | AVAILABLE LOCALLY ALL AROUND THE WORLD – OUR CONTRIBUTION TO YOUR SUCCESS

### We are there for you on site – worldwide

With our subsidiaries, branches and dealers in over 50 countries and cooperation partners in many more, we are available locally around the world. We are represented worldwide, locally and you can always reach us. From implementation to maintenance and repairs, you can quickly and easily benefit from our service.

We even go one step further: We will gladly help you set up your machines, provide your employees with valuable, practical knowledge and perform important servicing and maintenance work. Together, we can work out customised service agreements that are tailored to precisely suit your needs.



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- elumatec Italy
- elumatec Kosovo
- elumatec Malaysia
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- elumatec Netherlands
- elumatec Norway
- elumatec Poland
- elumatec Romania
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- elumatec Spain / Portugal
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You can find our contact persons in your area at <https://www.elumatec.com/en/elumatec-worldwide>

### 3 | THE PERFECT SOLUTION FOR EVERY REQUIREMENT

#### We offer you our expertise in finding the perfect solution

We think things through. With our extensive portfolio of processes, methods and products, we can find the exact solution you need for your special requirements. We cover the whole spectrum from craftsman's enterprises to industrial profile machining operations.

Our range includes basic, manual-operation machines as well as complex, state-of-the-art profile machining centres with CNC control. Moreover, we offer all of the other components you need for setting up efficient, safe and ergonomic production lines, including assembly equipment, roller conveyors, transport trolleys, glazing units and tools. Our machines and operating equipment have a modular design and all components are compatible with each other. This gives you the flexibility you need to adapt your production equipment at any time to suit the growing demands of your enterprise – all from a single source.

We also offer assistance in the planning of your production. We draw on our experience which goes back generations, and always keep the practical issues in mind. All of our products are "made by elumatec", which stands for our promise of quality with exceptional precision, durability and stability.







## 4 | SAWS

We offer a great variety of saws and equipment variants for nearly every requirement including precision cutting of lengths and angles. Our range of saws includes saw blade diameters from 280 mm to 650 mm. With our double mitre saws, cuts are made using the outer dimension, which means that profile tolerances are automatically excluded from the cutting length. You can use the optional PC control to conveniently import the required cutting data from common spreadsheet programs via a network or a USB port.

When developing our saws, we placed a special emphasis on a low-vibration design and very high precision as well as exceptional robustness and guaranteed durability. Planning for long-term, economical production must always take the people involved into account. This is why ergonomic workstation design is one of our top priorities. This is also one of the top features of our saws, as their unique ergonomic design is unparalleled on the market. All of our saws can be loaded and unloaded ergonomically and operated without fatigue. The process of continuous optimisation combined with our many years of experience form the basis of our expertise.

Product overview	Product	Page
Double mitre saw	DG 142	12
Double mitre saw	DG 79	14
Manual cutting length adjustment with digital display	E 111	16
Positioning control	E 390	16
PC control	E 570	16
PC control	E 580	16
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## 4.1 | DOUBLE MITRE SAWS

### Double mitre saw DG 142

- External-dimension cuts possible for all cutting variants
- Ideal machine for high-volume series production when cutting at 90° and 45°
- Equipped with saw blades as standard
- Equipped with digital display E 111 as standard
- Vertical pneumatic material clamping unit
- Safety hoods

#### Technical specifications

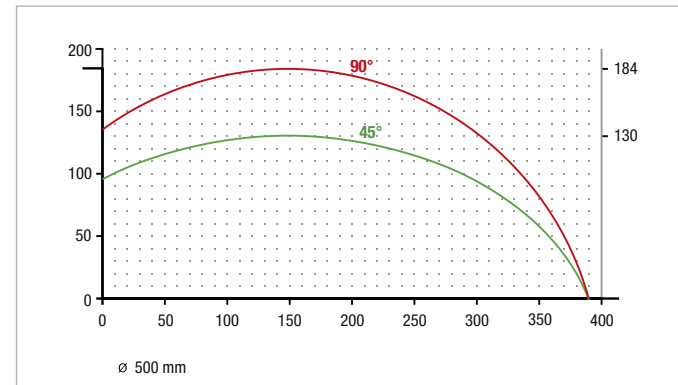
- Minimum cutting length at 90° 370 mm
- Minimum cutting length tilted at 45° 370 mm
- Tilting range inwards 90° – 45°
- For cutting range, see cutting diagram
- Saw blade diameter 500 mm
- Saw blade speed 2,300 rpm
- Power supply 230/400 V, 3~, 50 Hz
- Power output per motor 4 kW
- Compressed air supply 7 bar
- Air consumption per working cycle 40 l without spraying, 64 l with spraying
- Intermediate angle optional 90° – 45°

#### Cutting length variants

- 3,000 mm
- 4,500 mm
- 6,000 mm

#### Options

- DG 142 M machine bed made of steel sheet (only at cutting length of 4,500 mm)
- Intermediate angle setting by hand wheel and digital display E 111
- Additional software for E 580: optimisation program, software module for chop and oversize length cuts
- Label printer for variants with E 390 and E 580
- Mobile or automatically retractable workpiece supports
- Material clamping units
- Transom stop and lead-cut stop
- Extraction system
- Roller conveyor
- Saw blades
- High performance cutting fluid
- Pulsed coolant system



#### Controller variants

Manual cutting length adjustment with digital display **E 111**

Positioning control **E 390**

PC control **E 580**

See page 16



DG 142 + E 580 + special accessories



## 4.1 | DOUBLE MITRE SAWS

Double mitre saw **DG 79**

- The solid cast construction with integrated turn table ensures optimal profile support for cutting to length with angular accuracy
- Continuous pivoting range adjustment of the saw heads from 0° to 45° to the left and right. This makes external and internal dimension cuts possible
- Vertical and horizontal pneumatic material clamping units ensures optimal profile fixation
- Equipped with saw blades as standard
- Equipped with digital display E 111 as standard
- Pulsed coolant system

## Technical specifications

- Minimum cutting length at 90° 520 mm
- Minimum cutting length pivoted at 45° 520 mm
- Positive location points at 15°, 30°, and 45°
- Pivoting range from 0° to 45° continuously adjustable
- Hydro-pneumatic saw feed
- For cutting range, see cutting diagram
- Saw blade diameter 380 mm
- Saw blade speed 2,800 rpm
- Power supply 230/400 V, 3~, 50 Hz
- Power output per motor 3 kW
- Compressed air supply 7 bar

## Cutting length variants

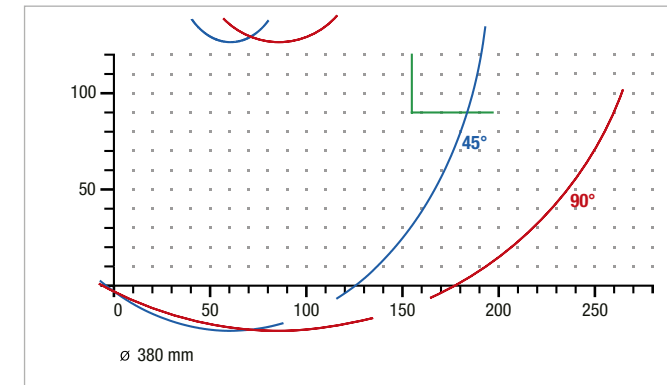
- 3,000 mm
- 4,500 mm
- 6,000 mm

## Options

- DG 79 M machine bed made of steel sheet (Cutting length 3,000 mm, 4,500 mm)
- Workpiece supports
- Transom stop
- Extraction system
- Material clamping units
- Roller conveyors
- Saw blades
- High performance cutting fluid



DG 79 + E 111



## Controller variants

Manual cutting length adjustment with digital display **E 111**

Positioning control **E 355**

See page 16

## 4.7 | CONTROLLER VARIANTS

### Manual cutting length adjustment with digital display E 111 [01]

- Accurate dimension adjustment using digital display
- Switching from absolute dimensions to chain dimensions
- Actual values of the display are stored when mains is switched off
- Quick read-out from the digital display. Resolution 0.1 mm
- Switching between mm/inches
- Input of any desired reference value by means of front keypad

### Positioning control E 390 [02]

- Absolute measuring system, independent of drive
- Pneumatic locking at position
- Ergonomic location of the control unit
- Positioning accuracy +/-0.1 mm
- Memory for 999 data records
- Multilingual user interface
- Switching between mm/inches
- 5.7" touchscreen
- Touch-optimised user interface
- Interfaces for NEDO measuring rod and label printer
- USB port for data transfer

### PC CONTROL E 570 [03]

- Machine available with 1 or 3 axes
- Absolute measuring system, independent of drive
- Pneumatic locking at position
- Robust, low-wear direct drive for moving saw unit
- Ergonomic location of the control unit
- Positioning accuracy +/-0.1 mm
- PC with Windows OS for operating the machine
- Multilingual user interface
- Remote online maintenance
- Switching between mm/inches
- 10.4" touchscreen
- Touch-optimised user interface
- Interface for NEDO measuring rod, label printer and barcode scanner
- USB port for data transfer
- Network connection for integration into company network

### PC control E 580 [04]

- Machine available with 1, 3 or 5 axes
- Absolute measuring system, independent of drive
- Pneumatic locking at position
- Robust, low-wear direct drive for moving saw unit
- Ergonomic location of the control unit
- Positioning accuracy +/-0.1 mm
- PC with Windows OS for operating the machine
- Multilingual user interface
- Remote online maintenance
- Switching between mm/inches
- 12" touchscreen
- Touch-optimised user interface
- Interface for NEDO measuring rod, label printer and barcode scanner
- USB port for data transfer
- Network connection for integration into company network



01



02



03



04

ARTIKEL	927100	FACH	
INFO		POSITION	
BARCODE		FARBE	
AUFTRAG			

SOLLWERT NEIGEN AGG1	SOLLWERT SCHWENKEN AGG1	SOLLWERT TERELANGE	SOLLWERT SCHWENKEN AGG2	SOLLWERT NEIGEN AGG2
90.0	45.0	1000.0	45.0	90.0
ISTWERT NEIGEN AGG1	ISTWERT SCHWENKEN AGG1	ISTWERT LANGE	ISTWERT SCHWENKEN AGG2	ISTWERT NEIGEN AGG2
90.0	45.0	1000.0	45.0	90.0
SOLLWERT KAPP AGG1	ISTWERT STÜCKZAHL	SOLLWERT STÜCKZAHL	SOLLWERT KAPP AGG2	
	5	0		

## 4.3 | MITRE SAWS

### Mitre saw MGS 72/30

- Stable, ground, continuous support table with turn table on precision bearings
- Wear-resistant and quiet multi-V belt drive
- Manual saw feed
- Equipped with saw blade as standard
- Table-top unit

#### Technical specifications

- Pivoting range from 0°–45°, continuously adjustable to the left and to the right
- Positive location points at 15°, 30°, and 45°
- For cutting range, see cutting diagram
- Saw blade diameter 380 mm
- Saw blade speed 2,800 rpm
- Power supply 230/400 V, 3~, 50 Hz
- Power output 3 kW
- Length 780 mm, depth 900 mm, height 815 mm, weight 120 kg

#### Options

- Machine base
- Pneumatic material clamping unit
- Quick-acting clamping device
- Length stop and measuring systems, see page 28
- Roller conveyors
- Saw blades
- Pulsed coolant system
- High performance cutting fluid

### Mitre saw MGS 72/10

See MGS 72/30, however:

- Machine base
- Pneumatic material clamping units (2x horizontal, 1x vertical)
- Pulsed coolant system

#### Technical specifications

- Length 780 mm, depth 900 mm, height 1,600 mm, weight 210 kg

### Mitre saw MGS 73/33

See MGS 72/10, however:

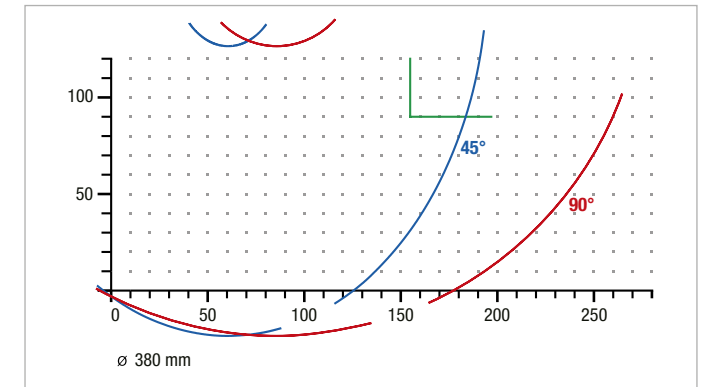
- Hydro-pneumatic saw feed
- 2-hand operation

#### Technical specifications

- Compressed air supply 7 bar
- Length 850 mm, depth 900 mm, height 1,450 mm, weight 220 kg

#### Options

- Extraction system
- Length stop and measuring systems, see page 28
- Roller conveyors
- Saw blades
- High performance cutting fluid



MGS 73/33 + AMS 200 + roller conveyor



## 4.4 | VEE-NOTCH AND NOTCHING SAWS

### Vee-notch and notching saw **KS 101/30**

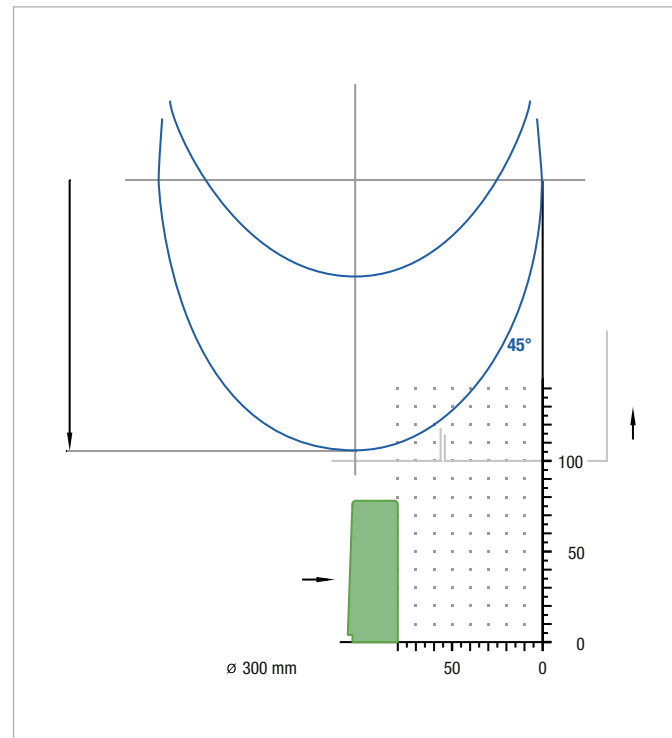
- Precision Vee-cuts in aluminium and PVC profiles
- Pneumatic continuously adjustable saw blade feed for fast and precise sawing with rapid return
- Simple setting of cutting depth
- Equipped with connection for swarf extraction hose and swarf container as standard
- Equipped with saw blades as standard
- Equipped with pulsed coolant system as standard

#### Technical specifications

- Cutting range for Vee-cuts: cutting depth 80 mm, profile height 100 mm
- Saw blade diameter 300 mm
- Saw blade speed 2,800 rpm
- Power supply 230/400 V, 3~, 50 Hz
- Power output per motor 0.9 kW
- Compressed air supply 7 bar
- Air consumption per working cycle 20 l without spraying, 44 l with spraying
- Length 980 mm, depth 800 mm, height 1,650 mm, weight 240 kg

#### Options

- Material clamping units
- Length stop and measuring systems, see page 28
- Roller conveyors
- Saw blades
- High performance cutting fluid



KS 101/30



## 4.5 | TABLE SAWS

## Table saw TS 161/00

- Accuracy is achieved by cutting from below
- Wide pivoting range of up to 0° to the right and up to 45° to the left
- The special pivoting mechanism with integrated turn table enables working from the front at any angle position
- The workpiece stop is adjustable to allow optimal use of the saw blade capacity for wide and flat profiles
- Manual saw feed
- Manual material clamping unit (vertical)
- Equipped with saw blade as standard
- Table-top unit

## Technical specifications

- For cutting range, see cutting diagram
- Saw blade diameter 280 mm
- Saw blade speed 3,200 rpm
- Power supply 230/400 V, 3~, 50 Hz
- Power output 1.05 kW
- Length 650 mm, depth 750 mm, height 1,300 mm, weight 130 kg

## Table saw TS 161/21

See TS 161/00, however:

- With machine base
- Pneumatic material clamping unit (vertical)
- Pulsed coolant system
- Maintenance unit

## Options

- Digital display for pivoting angles
- Extraction system
- Length stop and measuring systems, see page 28
- Roller conveyors
- Saw blades
- High performance cutting fluid

## Table saw TS 161/22

- Accuracy is achieved by cutting from below
- Wide pivoting range of up to 0° to the right and up to 45° to the left
- The special pivoting mechanism with integrated turn table enables working from the front at any angle position
- The machine body does not move
- The workpiece stop is adjustable to allow optimal use of the saw blade capacity for wide and flat profiles
- Machine with base
- Pneumatic material clamping unit
- Digital display for pivoting E111

## Technical specifications

- For cutting range, see cutting diagram
- Power supply 230/400 V, 3~, 50 Hz
- Power output 1.1 kW
- Saw blade diameter 280 mm
- Saw blade speed 3,200 rpm
- Compressed air supply 7 bar
- Air consumption per working cycle with spraying: 10 l

Included accessories:

- One hard metal saw blade for aluminium and PVC, 280 mm diameter, 88 teeth
- Machine base
- Pneumatic material clamping unit (vertical)
- Pulsed coolant system

## Table saw S 161/30

See TS 161/21, however:

- Pneumatic saw feed
- Manual safety hood
- Length 650 mm, depth 750 mm, height 1,300 mm, weight 170 kg

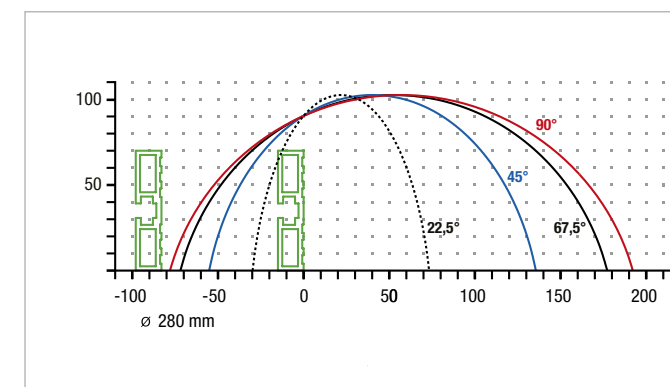
## Table saw TS 161/31

See TS 161/22, however:

- Pneumatic saw feed
- Safety hood
- 2-hand operation
- Digital display for pivoting E111

## Technical specifications

- Air consumption per working cycle with spraying: 15 l



TS 161/21



TS 161/30

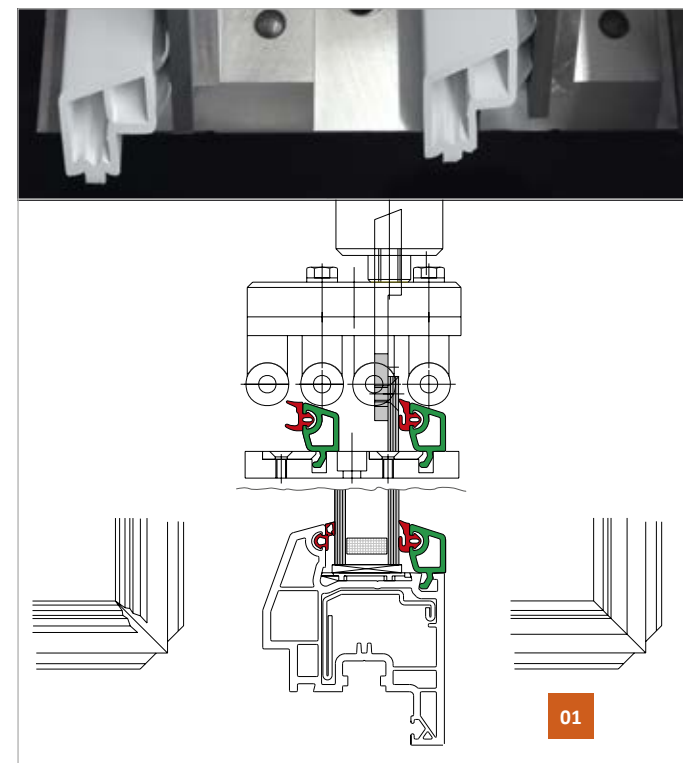
## 4.6 | GLAZING BEAD SAWS, UP-CUT SAWS

## Glazing bead saw GLS 192

- V-cutting saw with special saw blades for simultaneous undercutting of the glazing bead profile
- Two glazing beads can be cut simultaneously with no difficulty (double cutting)
- Equipped with two vertical material clamping units as standard
- Equipped with exhaust connectors for connection to an extraction system
- Automatic saw feed with foot switch operation

## Technical specifications

- Saw blade diameter 200 mm, 98 mm (45° bevel)
- Saw blade speed 2,800 rpm
- Power supply 230/400 V, 3~, 50 Hz
- Power output 0.9 kW
- Compressed air supply 7 bar
- Air consumption per working cycle 20 l
- Length 510 mm, depth 1,200 mm, height 1,180 mm, weight 140 kg



## Options

- Optimal cutting of glazing bead profiles with gasket. Our patented clamping unit simulates the position of the installed glass pane when cutting the glazing beads [01]
- Profile clamping system for special glazing beads [02]
- Extraction unit for residual pieces [03]
- Glass pane simulation with 12-fold depth stop
- Roller conveyor with stand
- Length stop and measuring systems, see page 28
- Support blocks [04]
- Saw blades

## Glazing bead saw GLS 192/031

- Pneumatic V-cutting saw with four special saw blades for simultaneous undercutting of the glazing bead profile
- Pneumatic, special-purpose clamping device for glazing beads, as standard
- Equipped with two (optionally four) vertical material clamps as standard
- Simultaneous sawing of two or four glazing beads (double or four-fold cutting) made possible by wide saw table
- Automatic saw feed with foot switch operation
- Equipped with exhaust connectors for connection to an extraction system

## Technical specifications

- Saw blade diameter 200 mm and 98 mm (45° bevel)
- Saw blade speed 2,800 rpm
- Power supply 230/400 V, 3~, 50 Hz
- Power output 0.9 kW
- Compressed air supply 7 bar
- Air consumption per working cycle: 20 l
- Roller conveyor 3.0 m long, 300 mm wide with stand
- Connector plate for roller conveyor 300 mm wide

## Options

- For glazing bead measuring systems see page 32



## Up-cut saw 930

- 2.3 m cutting length
- 5-fold horizontal and vertical clamping device
- Automatic work sequence
- Working length 2.3 m
- Profile support table 3.0 x 1.3 m
- Machine dimensions 3.0 x 2.0 x 1.4 m
- 400 V, 3~, 3 kW

## Up-cut saw 931

- 2.3 m cutting length for longitudinal cuts on mullions, old-style-construction frames,
- frames and frame point cuts
- 5-fold horizontal and vertical clamping device
- Cutting height 25/90 mm
- Profile stop adjustment from the front with digital display and hand wheel
- Working length 2.3 m
- Profile support table 3.0 x 1.3 m
- Machine dimensions 3.1 x 2.0 x 1.4 m
- 400 V, 3~, 3 kW



## 4.7 | SAWS FOR STEEL

### Metal circular saw, table-top unit CO 250

- For cutting reinforcing steel to length
- Mitre cuts up to 45° to the left
- Automatic cooling system
- Spindle vice with double clamping arm for saw cuts with minimal burr formation
- Saw head with double bearings

#### Technical specifications

- Saw blade diameter 250 mm
- Saw blade speed 52 rpm
- Power supply 230/400 V, 3~, 50 Hz
- Power output 1 kW
- Length 400 mm, depth 700 mm, height 850 mm, weight 73 kg

#### Options

- Machine base
- Roller support MST 1000
- Length stop and measuring systems, see page 28
- Roller conveyors

### Metal circular saw CO 275

- For cutting reinforcing steel to length
- With machine base and integrated tool compartment
- Mitre cuts up to 45° to the left
- Automatic cooling system
- Conical safety clutch of hardened steel to protect the saw blades
- Low-wear and easy to adjust

#### Technical specifications

- Saw blade diameter 275 mm
- Saw blade speed 33 – 66 rpm
- Power supply 230/400 V, 3~, 50 Hz
- Power output 1.5 kW
- Length 500 mm, depth 850 mm, height 1,800 mm, weight 137 kg

#### Options

- Length stop and measuring systems, see page 28
- Roller conveyors



### Metal band saw S 320

- For cutting reinforcing steel to length
- Universal metal band saw with a large cutting range for non-standard mitre cuts
- Conventional mitre cuts by adjusting the vice jaws to 90°–45°
- Coolant supply from both sides
- Band saw blade guided by means of reversing pulleys and hard metal jaws
- Hydraulic lowering mechanism
- Automatic shutdown upon completion of cut
- Roller conveyors

#### Technical specifications

- 90° round 320 mm
- 90° flat 400x210 mm or 430x100 mm or 330x260 mm
- 45° round 240 mm
- 45° flat 220x200 mm
- Cutting speeds 30, 60 m/min.
- Band saw blade dimensions 3,660 x 27 x 0.9 mm
- Band saw blade pulley diameter 400 mm
- Power supply 230/400 V, 3~, 50 Hz
- Drive motor 1.1/1.4 kW
- Length 2,020 mm, depth 800 mm, height 1,300 mm, weight 390 kg







## 5 | LENGTH STOP AND MEASURING SYSTEMS

We offer a broad spectrum of high-quality manual or automatic length stop and measuring systems as well as a wide variety of options – such as centring units, various length stop systems or roller conveyors – for almost any need and requirement. You can also use our optional PC control to conveniently transfer all of the data you need from common calculation programs via the network or a USB port.

Product overview	Product	Page
Length stop and measuring system	AMS 200, MMS 200, MMS 100	30
Length stop and measuring system	AMS 200 + E 570	30
Length stop and measuring system	MMS 200 + E 111	31
Length stop and measuring system	MMS 100	31
Glazing bead measuring system	EMA 201	32
Manual measuring system	MMA 201	32
PC control	E 580	32
Positioning control	E 355	32



## 5.1 | LENGTH STOP AND MEASURING SYSTEMS

### Length stop and measuring systems **AMS 200**, **MMS 200**, **MMS 100**

- For cutting aluminium profiles to length accurately
- For mounting on all single-head saws (right-hand side)
- Stop carriage can be folded back for positioning of profiles
- Automatic retraction unit: No re-cutting by the saw blade (optional)
- Patented rail and carriage system

#### Length variants **AMS 200**, **MMS 200**, **MMS 100**

- 1,500 mm (only for MMS 100)
- 3,000 mm
- 4,500 mm
- 6,000 mm
- Variant for left-hand attachment on request

### Controller variants

#### Length stop and measuring system **AMS 200** with **E 570**

- Length stop and measuring system with 1-axis control for cutting-length positioning

#### Technical specifications

- Machine configurations with 1, 3 or 5 axes
- Length measurement using an absolute measuring system independent of drive
- Pneumatic locking at position
- Robust, low-wear direct drive for moving saw unit
- Ergonomic location of the control unit
- PC with Windows operating system
- Four USB ports
- 12" touchscreen
- One serial RS 232 interface
- Two network ports, RJ45, 10/100 Mbit
- Ports for connecting additional keyboard and mouse

#### Optional

- Label printer
- EMA measuring and reading system



### Versions with hand wheel drive

#### Length stop and measuring system **MMS 200** with **E 111**

- Length stop and measuring system with sliding stop and difference scale for quick and accurate adjustment
- Digital display E 111

#### Technical specifications

- Accurate dimension adjustment using digital display
- Switching from absolute dimensions to chain dimensions
- Actual values of the display are stored when mains is switched off
- Quick read-out from the digital display with a resolution of 0.1 mm.
- Power supply 230 V, 1~, 50/60 Hz
- Switching between mm/inches
- Input of any desired reference value by means of front keypad

### Versions with manual adjustment

#### Length stop and measuring system **MMS 100** with manual adjustment

- Adjustment on stop carriage
- Manual locking



MMS 200 + E 111

## 5.2 | GLAZING BEAD MEASURING SYSTEMS

### Manual measuring system MMA 201

- Manual measuring of glazing beads using mechanical scanning
- Manual measuring up to 1,500 mm, with extension up to 2,500 mm

### Glazing bead measuring system EMA 201

- Electronic measuring of glazing bead profiles with an accuracy of 0.2 mm
- Manual cutting data input via measuring chip (telescopic measuring rod) or online
- Wireless measuring data transfer via measuring chip, independent of location and with no bothersome connection cables
- Light, handy telescopic measuring rod which can store 255 different measurements
- Electronic telescopic measuring rod (measuring length 2,500 mm) and measuring chip included as standard

#### Optional

- Length variants

### Positioning control E 355

- Measuring system is independent of drive
- Positioning accuracy +/- 0.1 mm per metre
- Pneumatic locking at position
- 5.7" matrix display with membrane keyboard and hand wheel for navigation through the operation menus
- Memory for 1,000 data records. Correction values for profiles

- The block number, length dimension, profile number, angular position and quantity can be saved in the memory
- Language selection
- Switching between mm/inches
- RS 232 interface
- USB port on the front

#### Optional

- Label printer

### PC control E 580

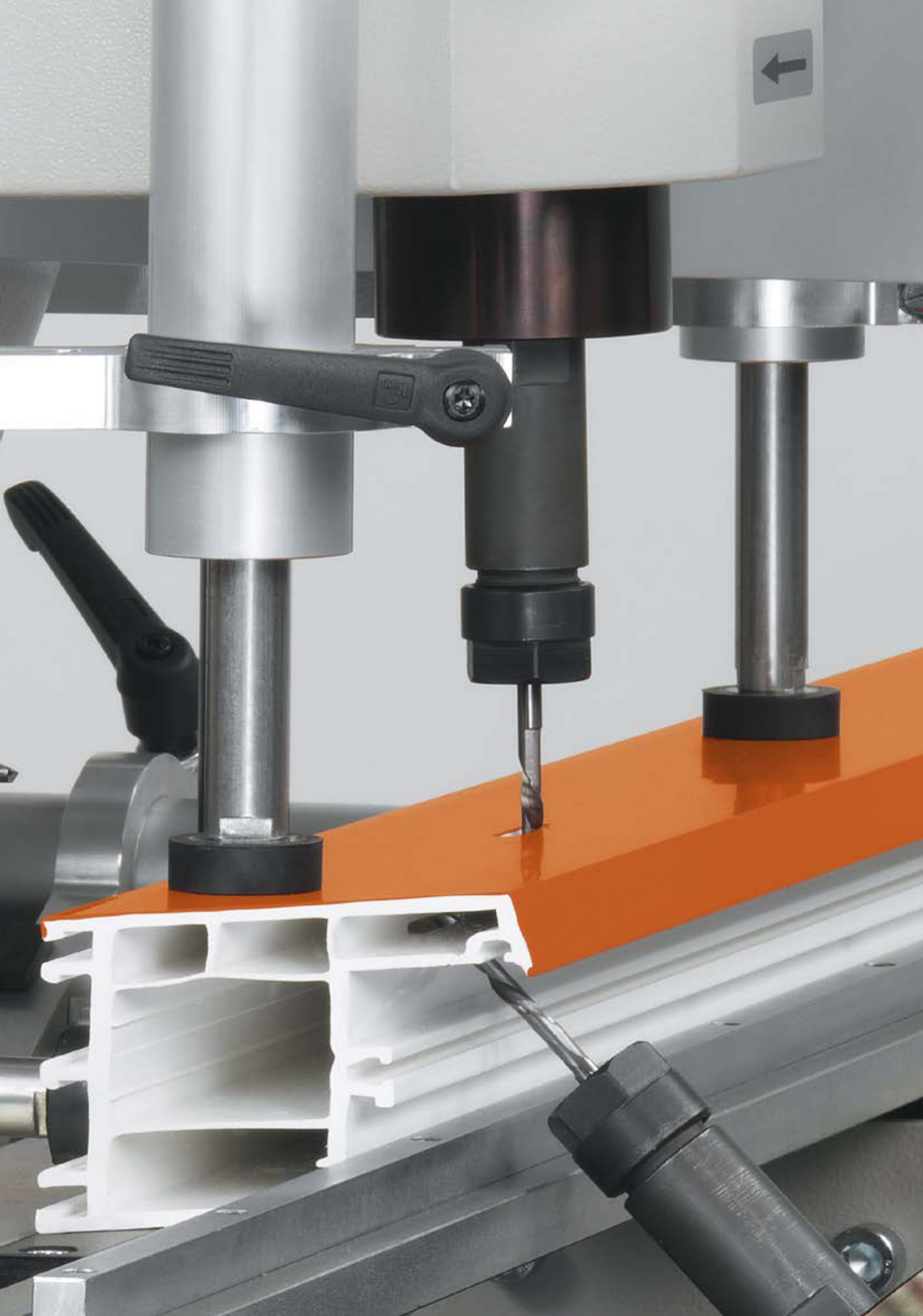
- Machine available with 1, 3 or 5 axes
- Absolute measuring system, independent of drive
- Pneumatic locking at position
- Robust, low-wear direct drive for moving saw unit
- Ergonomic location of the control unit
- Positioning accuracy +/- 0.1 mm
- PC with Windows OS for operating the machine
- Multilingual user interface
- Remote online maintenance
- Switching between mm/inches
- 12" touchscreen
- Touch-optimised user interface
- Interface for NEDO measuring rod, label printer and barcode scanner
- USB port for data transfer
- Network connection for integration into company network



GLS 192 + MMA 201



TS 161 + EMA 201



## 6 | ROUTERS

Machines for a wide variety of routing and milling operations such as automatic water slot routers, copy routers and end milling machines have become indispensable in our time. This is especially true in the production of plastic windows. We offer a broad spectrum of the highest quality manual or automatic equipment versions as well as a wide variety of options – such as centring units, various length stop systems or roller conveyors – for almost any need and requirement.

Product overview	Product	Page
Automatic water slot router	WSF 74/03	36
Router and triple spindle drill	GF 171	38
3-spindle copy router	KF 178	39
End milling machine	AF 222	40



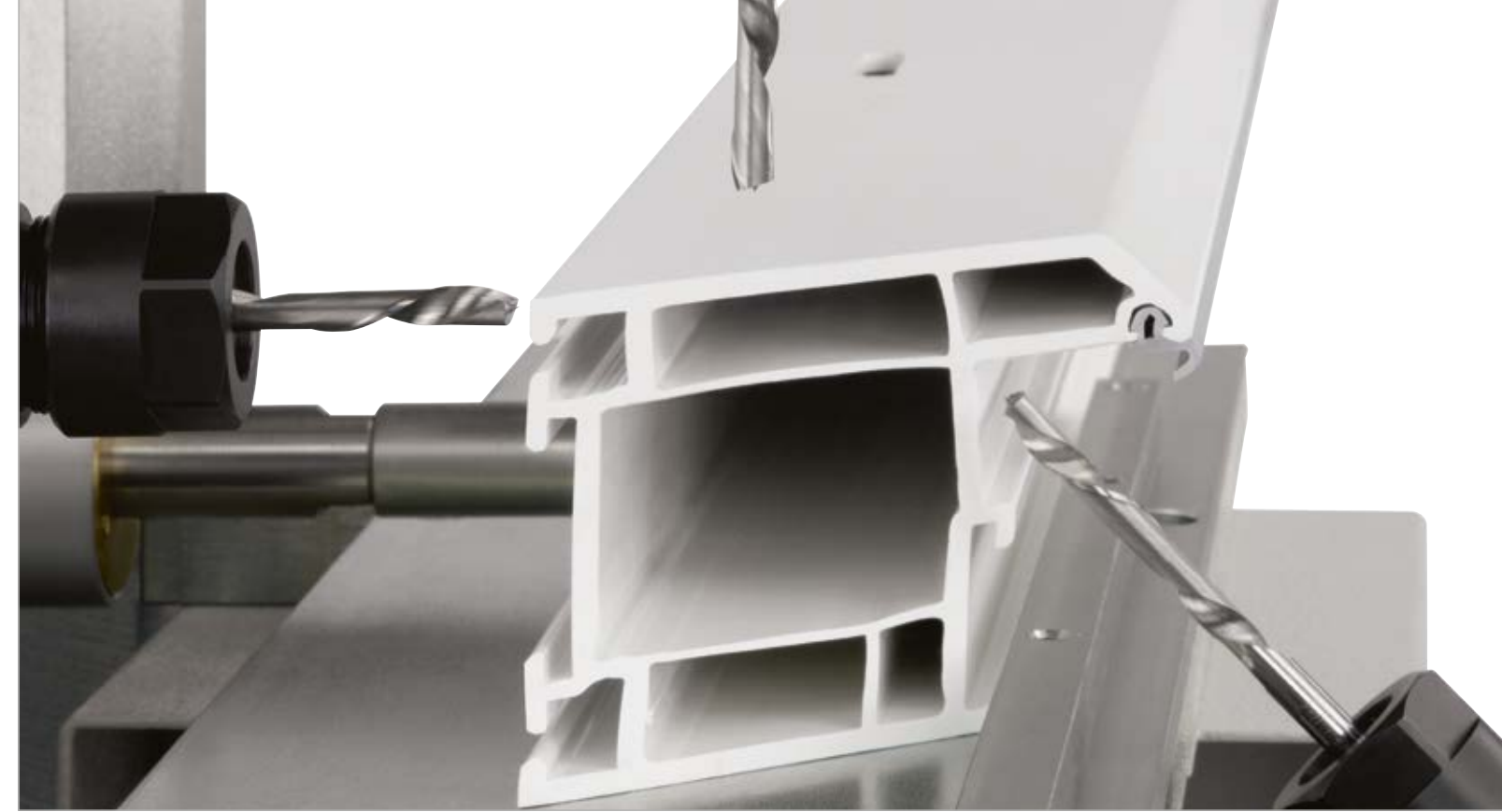
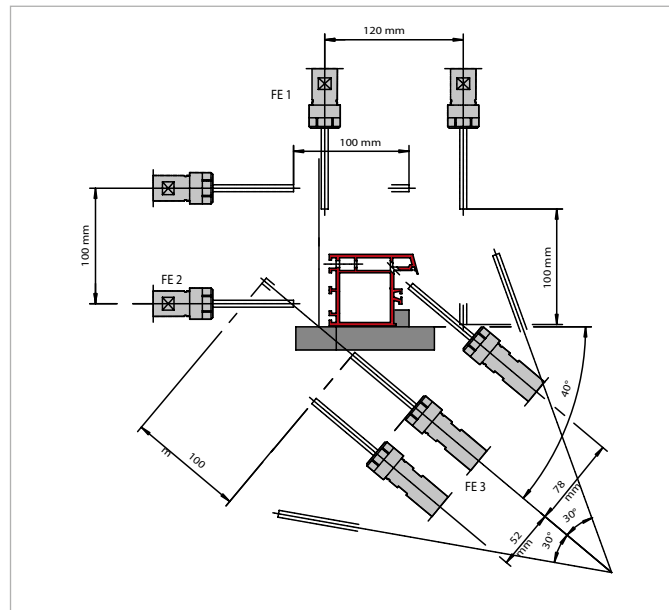
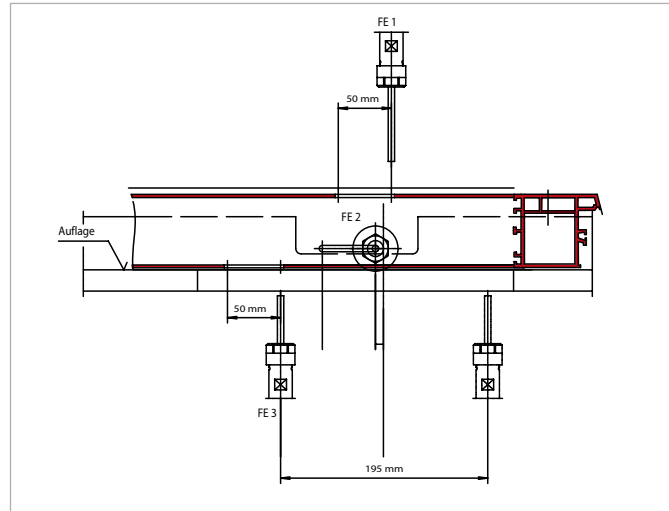
## 6.1 | AUTOMATIC WATER SLOT ROUTER

### Automatic water slot router **WSF 74/03**

- Three routing units for automatically routing and drilling water slots and ventilation openings in PVC profiles
- Routing units have a compact design with automatic feed for routing depth and slot length
- Wear-free motors with a spindle speed of 17,000 rpm
- Complete machining of the left and right parts of a sash and frame profile accomplished by pneumatic adjustment of the lower routing unit
- Length-adjustable stops make it possible to machine profiles of different heights
- Easy adjustment of the individual units (angle, height and depth) using a scale
- Pneumatic material clamping
- The units can be switched on individually
- Three carbide cutters included as standard (diameter 5 mm)

#### Technical specifications

- Three routing units
- Spindle speed 17,000 rpm
- Drilling travel 100 mm
- Routing travel 50 mm
- Cutting height 110 mm
- Cutting depth 100 mm
- Transverse travel 195 mm
- Pivoting of the lower routing unit +/- 30°
- Power supply 230/400 V, 3~, 50/60 Hz
- Power output per motor 0.74 kW
- Compressed air supply 7 bar
- Air consumption per working cycle 15 l
- Length 1,000 mm, depth 1,000 mm, height 1,600 mm
- Weight 280 kg



WSF 74



## 6.2 | COPY ROUTERS, ROUTERS AND TRIPLE SPINDLE DRILLS

### Router and triple spindle drill GF 171/00

- The handle drilling unit with a 3-spindle boring head and automatic feed makes it possible to machine in two planes without re-clamping the material. The height of this unit can be adjusted
- Door machining is possible
- Copy routing using side stops or templates at a ratio of 1:1
- Pneumatic tracer point with two levels for two different cutter diameters
- The "Spindle Lock" feature makes tool changing easy
- Pneumatic material clamping unit

#### Technical specifications

- Horizontal cutting range using a stop 300 x 120 mm
- Horizontal cutting range using a copy template 285 x 110 mm
- Clamping range for profiles, with drilling unit 150 x 130 mm
- Travel 105 mm
- Power supply 230/400 V, 3~, 50 Hz
- Router motor power output 0.74 kW
- Spindle speed 12,000 rpm
- Drill motor power output 1.05 kW

- Drill spindle speed 750 rpm
- Compressed air supply 7 bar
- Air consumption per working cycle 12 l
- Length 780 mm, depth 930 mm, height 1,545 mm, weight 230 kg

#### Options

- GF 171/10 with centring unit for a centered handle position
- GF 171/11 with right and left stop system for a consistent handle position
- Additional pneumatic tracer points (for optimal utilisation of the template)
- Hydro-pneumatic feed with rapid mode
- Collets
- Special material clamping units
- Stop systems
- Routing and drilling tools



GF 171/11

### 3-spindle copy router KF 178/10

- The ideal machine for economical door manufacturing
- For routing lock cylinders and round rosettes (safety locks) in profile systems or multi-chamber profiles with large dimensional depths
- Three copy routing units which operate completely independently
- Separate control of the horizontal and vertical router heads
- The workpiece is clamped upwards towards the contact surface of the lock, which eliminates the need for readjustment of the machine for the backset when working with profiles of different heights
- The "Spindle Lock" feature makes tool changing easy
- Flexible back-stop system with support rollers and adjustable folding stops

#### Technical specifications

##### Top routing unit:

- Cutting range using stops or copy templates 340 x 100 mm
- Travel 110 mm

##### Bottom routing unit:

- Cutting range using stops or copy templates 240 x 85 mm
- Travel at front 95 mm
- Travel at back 45 mm

- Spindle speed 12,000 rpm
- Clamping range for profiles 115 x 100 mm
- Power supply 230/400 V, 3~, 50 Hz
- Power output per motor 0.74 kW
- Compressed air supply 7 bar
- Air consumption per working cycle 12 l without spraying, 24 l with spraying
- Length 980 mm, depth 1,250 mm, height 1,610 mm, weight 360 kg

### 3-spindle copy router KF 178/13

See KF 178/10, however:

- Continuously adjustable speed control from 3,000–12,000 rpm. This allows routing of even thin-walled steel and stainless steel profiles

#### Options

- Copy templates
- Copy template blanks
- Collets
- Stop systems
- Cutting tools
- High performance cutting fluid



KF 178/10

## 6.3 | END MILLING MACHINES

## End milling machine AF 222/02

- For machining transoms and door profiles made of plastic
- Large cutting range of up to 400 mm
- Continuously adjustable table height
- Manual feed of the routing unit
- Tool diameters of up to 280 mm can be used
- The material stop can be pivoted up to 60° to the left and right. Notching up to 30° (acute angles, left and right). Detent at 90° with index pin
- Two installation positions for the material stop
- With quick tool change system and “Spindle Lock” for easy tool changing
- Precise, smooth-action and low-wear recirculating ball guides
- Horizontal and vertical pneumatic material clamping provides flexibility
- Depth stop for four different notching depths
- Integrated connecting piece with extractor hose for connection to an extraction system
- Pulsed coolant system
- Automatic safety curtain

## Technical specifications

- Cutting tool diameter max. 280 mm
- Cutter bore 40 mm
- Profile height max. 165 mm
- Cutting height 145 mm
- Cutting depth 110 mm
- Cutting length 400 mm
- Spindle speed 2,800 rpm
- Travel 550 mm
- 2.5 kW of power at 400 V / 50 Hz
- Compressed air supply 7 bar
- Power output 2 kW
- Air consumption 10 l per working cycle, 20 l with minimum-volume lubrication system
- Length 1,540 mm, depth 905 mm, height 1,000 mm, weight 248 kg

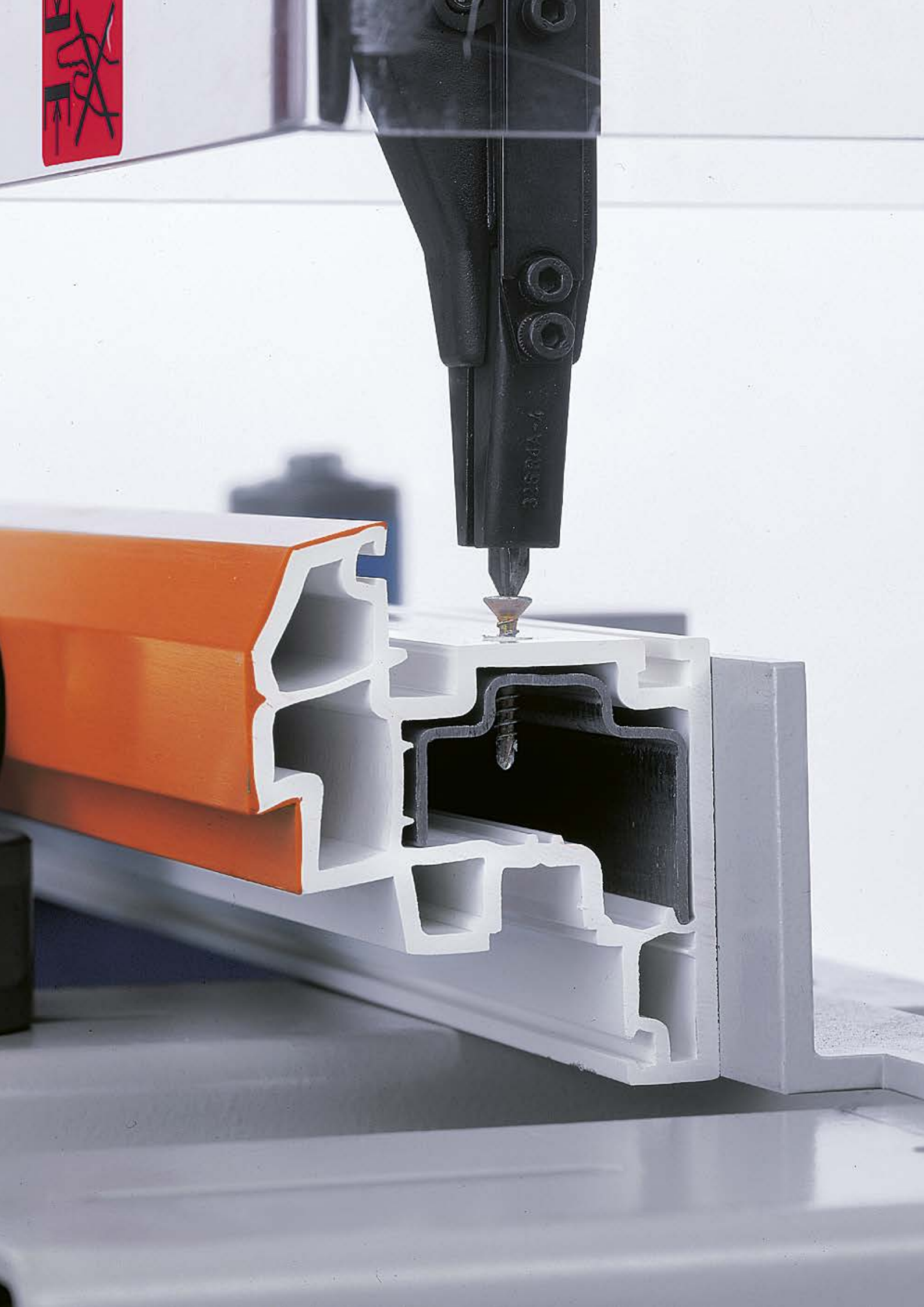
## Options

- Extraction system
- 4-fold turret stop for table height
- Digital display
- Cutting tools
- High performance cutting fluid



AF 222/02





## 7 | STEEL REINFORCEMENT

We offer a wide variety of reinforcement screwdriver systems which are available both as table-top units or with a machine base. The equipment variants include everything from manual to automatic screw feed and on to an integrated dowel-hole drilling unit. All of the machines are exceptionally robust, have a long service life and are very versatile.

Product overview	Product	Page
Rotary screwdrivers	TP 2000	44
Reinforcement screwdriver system	ADS 259	44

## 7 | REINFORCEMENT SCREWDRIVER SYSTEMS

### Rotary screwdriver TP 2000

- With pistol-grip design for manual screw feed

### Reinforcement screwdriver system ADS 259/00

- For processing a profile bar
- Manual transportation of the profile bar
- The screw driving process is controlled by a foot switch
- Manual screw feed
- Automatic depth shutoff independent of the height of the workpiece
- Table-top unit

#### Technical specifications

- Max. torque 6 Nm at 2,400 rpm
- Compressed air supply 6 – 7 bar
- Screw lengths 13.0 – 45.0 mm
- Shank diameters 3.0–4.5 mm
- Head diameters 6.0 – 9.0 mm



### Reinforcement screwdriver system ADS 259/01

See ADS 259/00, however:

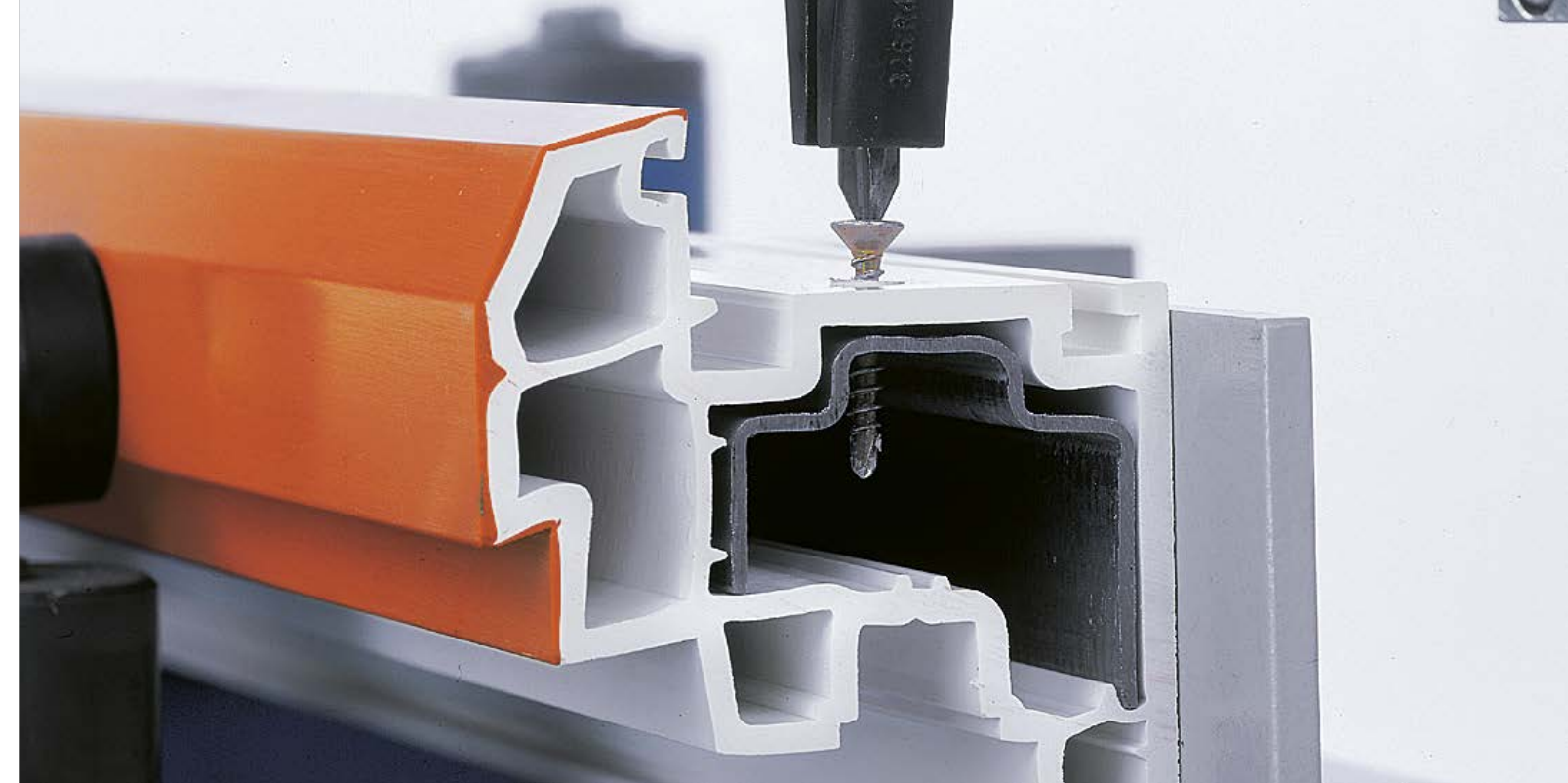
- Automatic screw feed

### Reinforcement screwdriver system ADS 259/10

- For processing a profile bar
- Manual transportation of the profile bar
- The screw driving process is controlled by a foot switch
- Manual screw feed
- Equipped with a roller conveyor on the left and right as standard
- With machine base
- Automatic depth shutoff independent of the height of the workpiece
- Pneumatic material clamping units (horizontal)

#### Technical specifications

- Max. torque 6 Nm at 2,400 rpm
- Compressed air supply 6 – 7 bar
- Screw lengths 13.0 – 45.0 mm
- Shank diameters 3.0–4.5 mm
- Head diameters 6.0 – 9.0 mm
- Length 3,600 mm, depth 550 mm, height 1,500 mm, weight 68 kg



### Reinforcement screwdriver system ADS 259/11

See ADS 259/10, however:

- Automatic screw feed

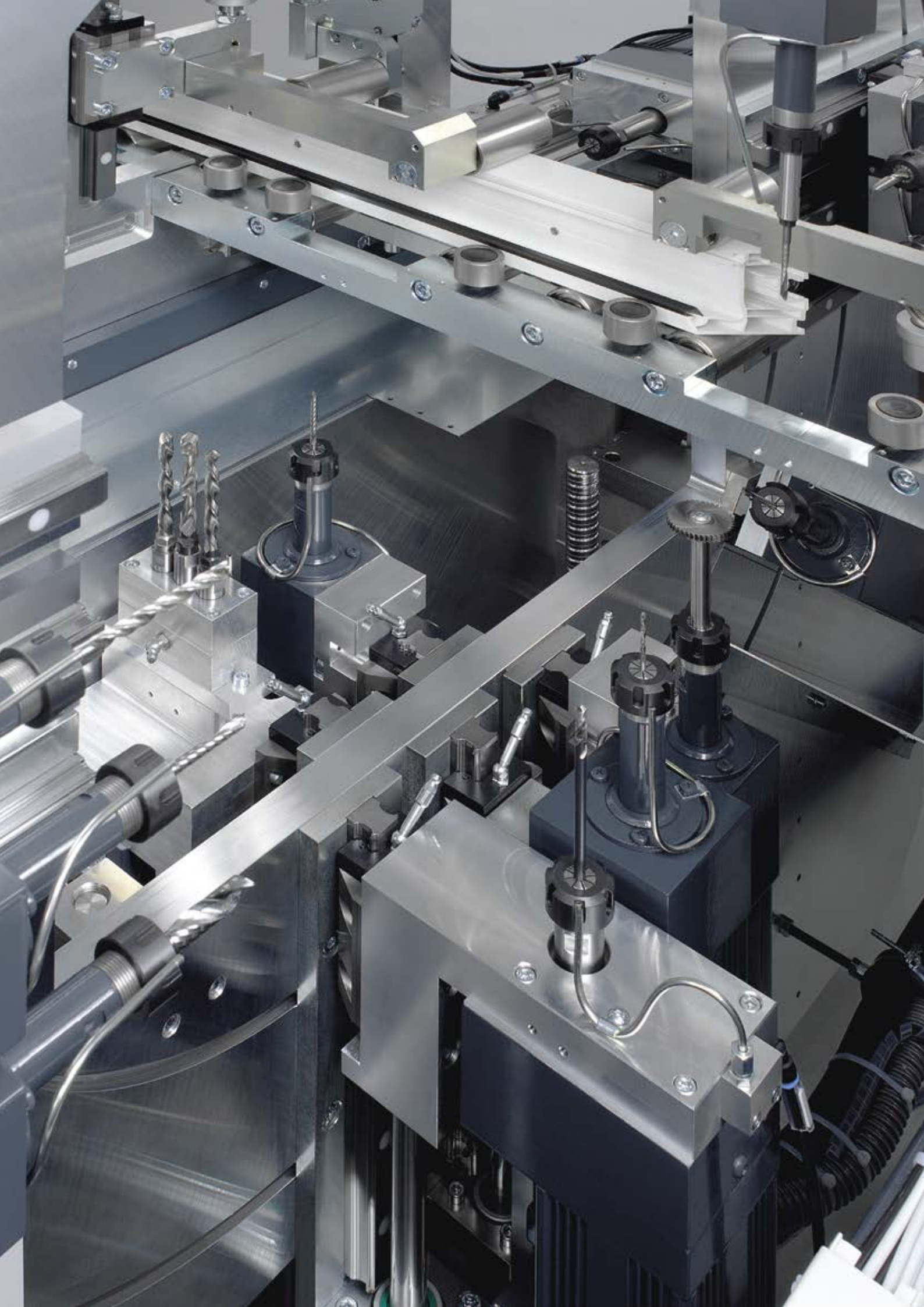
### Reinforcement screwdriver system ADS 259/20

See ADS 259/11, however:

- Automatic dowel-hole drilling unit (from below)
- 6-fold turret stop for adjustment of the workpiece stop for different profile widths (manual)







## 8 | PROFILE MACHINING CENTRES

Efficient profile machining is the ultimate standard for our design and development work – whether in craftsman’s enterprises or industrial operations. We offer a truly unmatched product portfolio: From stand-alone profile machining centres to complex production systems, we can provide the right product with the desired degree of automation for every type of plastic window production.

Our profile machining centres SBZ 608, SBZ 609, SBZ 610, SBZ 615, SBZ 616 and SBZ 620 have a modular design that offers automation solutions for every need by making use of different configuration levels. The various machining tasks are carried out independently of the profile type, without support blocks and completely automatically on PVC profiles with or without steel reinforcement.

This intelligent setup using a modular system design means that all requirements can be taken into account during the planning of the machine configuration, even including the number of machining tasks and the desired capacity. The profile machining centres are conceived so that the largest number of machining tasks possible can be included in the automated process so they do not have to be done manually.

### The individual stations:

#### Loading station

Loading station with feed magazine: Loading of up to ten profile bars; stable and low-vibration welded steel construction.

#### Routing and drilling station

Machining without conversion using the tool carrier for up to 30 machining units with optimal drilling and routing results, thanks to the special elumatec design.

#### Transfer unit with buffer function

The key interface providing even more efficiency.

#### Sawing station

Versatile, precise and fast. As needed, either with a 1, 3 or 5-blade sawing system.

#### Unloading station

Save even more time by optimising the last work step as well.

#### Machine control

Manually, via barcode scanner, USB or network – with elumatec machines, all forms of input are possible.

Product overview	Product	Page
Cut-to-length centre	SBZ 610/03	48
Cut-to-length centre	SBZ 610/05	49
Cut-to-length centre	SBZ 616/01	50
Profile machining centre	SBZ 620	52
Profile machining centre	SBZ 615	54
Profile machining centre	SBZ 610	56
Downstream centre	SBZ 609	58
Downstream centre	SBZ 608	60
3-axis profile machining centre	SBZ 122/71	62



## 8.1 | CUT-TO-LENGTH CENTRES

### Cut-to-length centre **SBZ 610/03**

This all-rounder can be used as a fast automatic saw.

Maximum machining speeds with the highest quality are delivered by three saw units.

Automatic saw with three built-in saw units for cutting profiles to length for window, door and curtain wall manufacturing.

- Work sequence as needed, either from the left towards the right or the reverse
- Infeed with motorised, continuously adjustable gripper
- Lifting function for gap-free loading of the feed magazine
- Profiles are guided on rollers to ensure gentle treatment of the profile and protective film
- Optimised length cutting with no processing waste
- Internal gripper avoids damaging the profiles
- Integrated measuring sensors for residual piece detection
- Outfeed for parts via discharge table
- Industrial PC with Windows operating system

#### Technical specifications

- Feed magazine capacity, eleven profile bars
- Profile bar lengths, 500 to 6,500 mm
- Profile cross-sections up to 130 x 205 mm W x H
- Part lengths 300 – 4,000 mm
- Three large saw blades with a diameter of 550 mm
- Three powerful saw motors delivering 4 kW each

#### Options

- Outfeed for parts via a belt conveyor protects profiles and offers different capacities
- Noise abatement enclosure

### Cut-to-length centre **SBZ 610/05**

See **SBZ 610/03**, however:

- With five built-in saw units for cutting profiles to length for window, door and curtain wall manufacturing with screwed and welded transom connections
- Notch cuts possible on both sides
- Pointed cuts are possible



SBZ 610/03

## 8.1 | CUT-TO-LENGTH CENTRES

### Cut-to-length centre **SBZ 616/01**

Automatic saw for PVC profiles

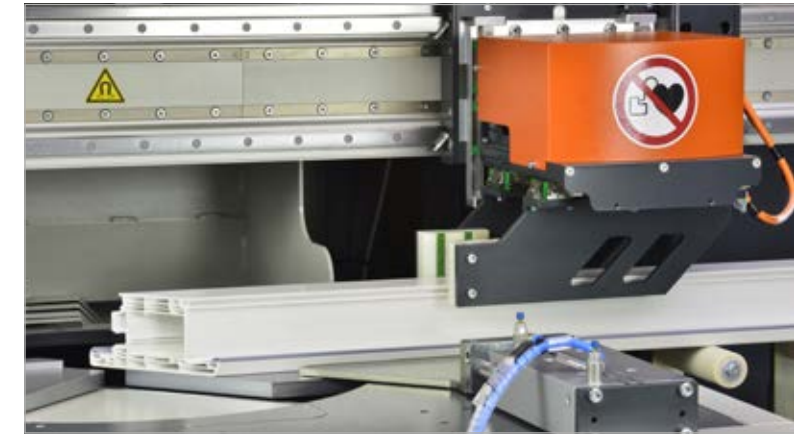
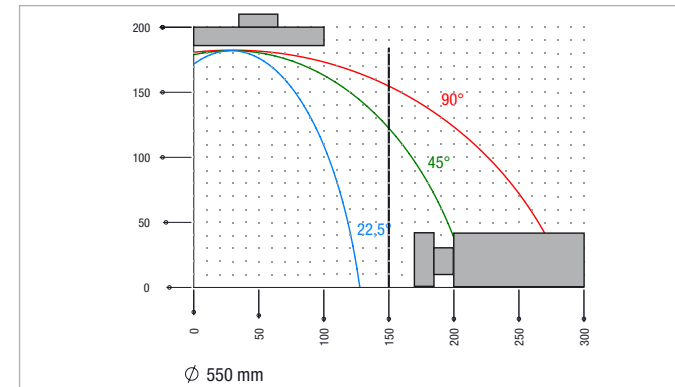
- Loading magazine for up to nine profiles
- Lifting function for cycling the empty compartments
- In- and outfeed with motorised, continuously adjustable gripper
- Rubberized gripper jaws prevent profile damage
- Pneumatic saw feed
- Outfeed for parts via discharge table

#### Technical specifications

- Large saw blade with a diameter of 550 mm
- For cutting range, see cutting diagram
- Saw motor 4 kW
- Continuously adjustable pivoting range with servo drive from 22.5° to +157.5°

#### Options

- Feed with servo drive
- Label printer
- Outfeed for parts via a belt conveyor protects profiles and offers different capacities
- Gasket downholder for precision gasket cutting
- High fences for precision cuts on high profiles



SBZ 616/01



## 8.2 | PROFILE MACHINING CENTRES

### Profile machining centre **SBZ 620**

The expandable solution for maximum capacity.  
The ultimate in customisation thanks to its modular design.

Modular, subsequent linking of an SBZ 610/03 profile machining centre with up to three SBZ 609 downstream centres for maximum performance.

- Work sequence as needed, either from the left towards the right or the reverse
- Patented profile transport system
- Infeed with motorised, continuously adjustable gripper
- Lifting function for gap-free loading of the feed magazine
- Profiles are guided on rollers to ensure gentle treatment of the profile and protective film
- Simultaneous reinforcement screw driving through external screw driving stations
- Optimised length cutting with no processing waste
- Internal gripper avoids damaging the profiles
- Integrated measuring sensors for residual piece detection
- Outfeed for parts via discharge tables
- Industrial PCs with Windows operating system

#### Technical specifications

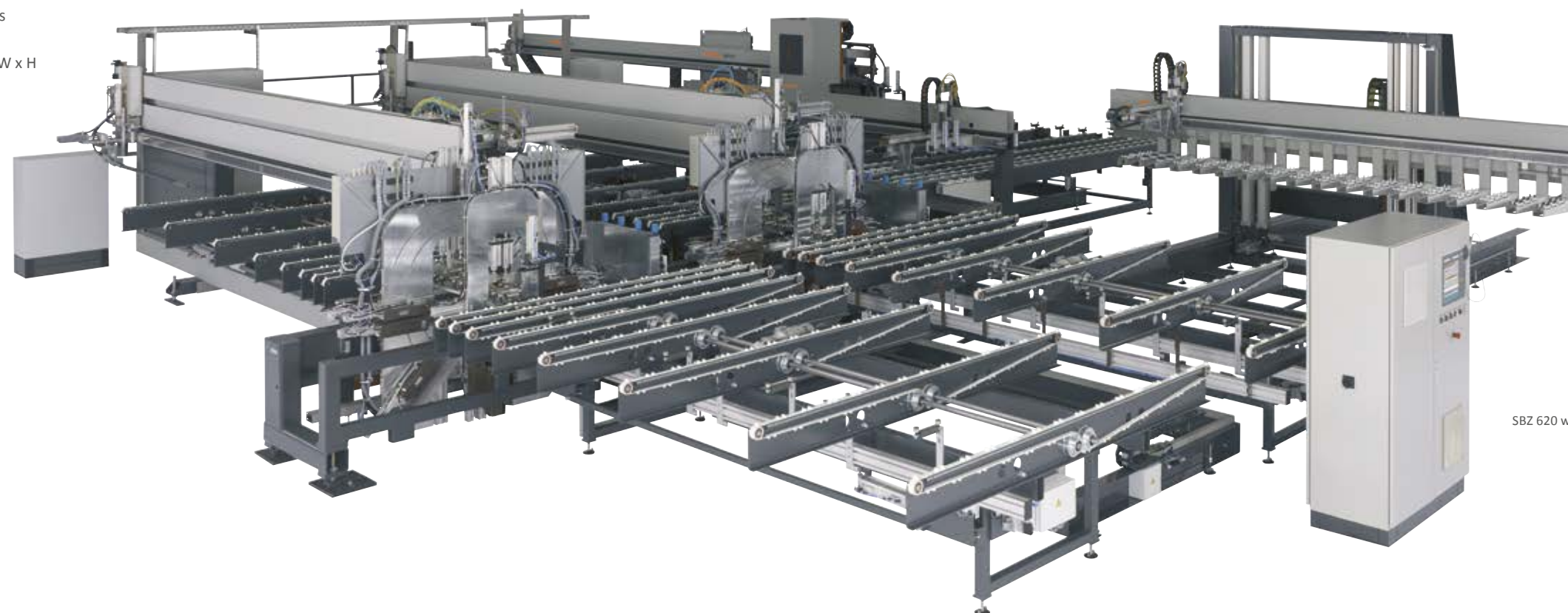
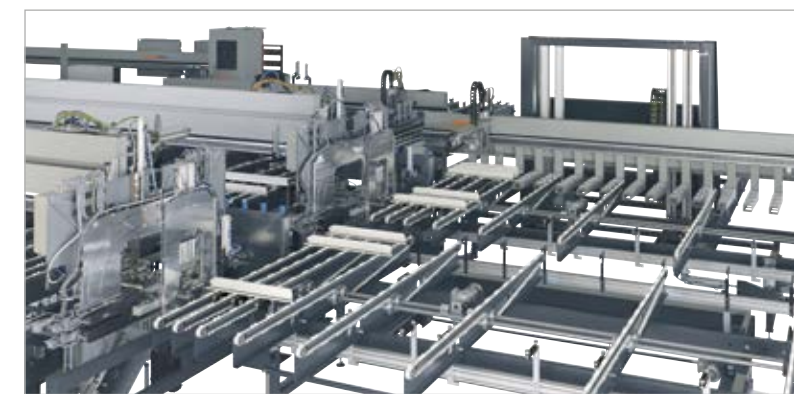
- Feed magazine capacity, eleven profile bars
- Profile bar lengths, 500 to 6,500 mm
- Profile cross-sections up to 130 x 205 mm W x H
- Part lengths 400 – 4,000 mm

#### Machining stations

- Capacity for up to 30 machining units
- Drilling unit with gear unit delivers 1.2 kW
- Pivoting reinforcement screwdriver unit

#### Sawing station

- Three large saw blades with a diameter of 550 mm
- Three powerful saw motors delivering 4 kW each



SBZ 620 with automatic racking



## 8.2 | PROFILE MACHINING CENTRES

### Profile machining centre SBZ 615/13

The speed champion, optimised for profiles without steel reinforcement. Maximum machining speeds with the highest quality are provided through parallel processing.

Profile machining centre for cutting to length, drilling and routing profiles for window, door and curtain wall manufacturing without steel reinforcement and with screwed transom connections.

- Work sequence as needed, either from the left towards the right or the reverse
- Infeed with motorised, continuously adjustable gripper
- Lifting function for gap-free loading of the feed magazine
- Profiles are guided on rollers to ensure gentle treatment of the profile and protective film
- Optimised length cutting with no processing waste
- Intermediate buffering of profile bars between length cutting and processing
- Internal gripper avoids damaging the profiles
- Integrated measuring sensors for residual piece detection
- Outfeed for parts via discharge table
- Industrial PC with Windows operating system

#### Technical specifications

- Feed magazine capacity, eleven profile bars
- Profile bar lengths, 500 to 6,500 mm
- Profile cross-sections up to 130 x 205 mm W x H
- Part lengths 300 – 4,000 mm

#### Machining stations

- Capacity for up to 30 machining units
- Routing units with up to 20,000 rpm
- Drilling unit with gear unit delivers 1.2 kW

#### Sawing station

- Three large saw blades with a diameter of 550 mm
- Three powerful saw motors delivering 4 kW each

#### Options

- Outfeed for parts via a belt conveyor protects profiles and offers different capacities
- Upending unit for profiles that are difficult to clamp
- Noise abatement enclosure



### Profile machining centre SBZ 615/15

See SBZ 615/13, however:

- With five built-in saw units for cutting to length, drilling and routing profiles for window, door and curtain wall manufacturing without steel reinforcement and with screwed and welded transom connections

### Profile machining centre SBZ 615/23

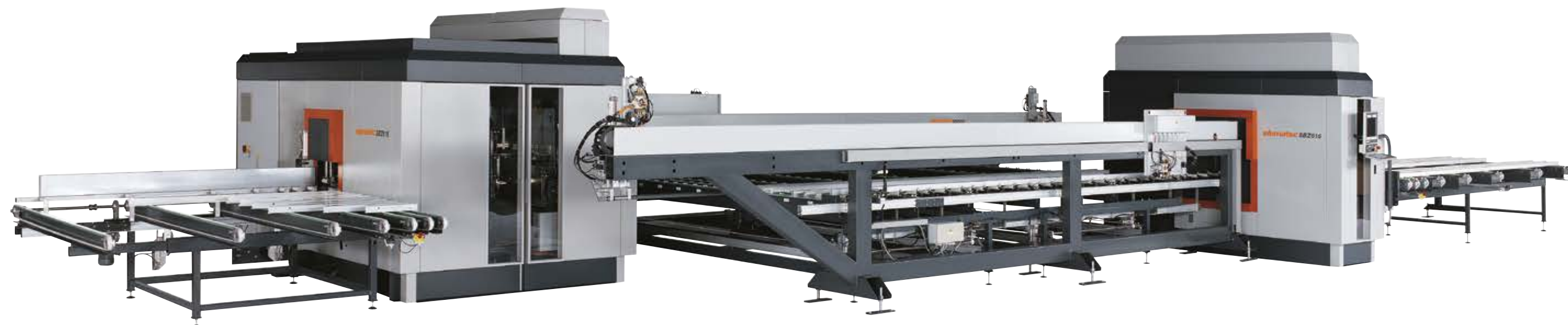
See SBZ 615/13, however:

- With a second machining station to increase performance for cutting to length, drilling and routing profiles for window, door and curtain wall manufacturing without steel reinforcement and with screwed transom connections

### Profile machining centre SBZ 615/25

See SBZ 615/23, however:

- With five built-in saw units for cutting to length, drilling and routing profiles for window, door and curtain wall manufacturing without steel reinforcement and with screwed and welded transom connections



SBZ 615/23

## 8.2 | PROFILE MACHINING CENTRES

### Profile machining centre **SBZ 610/13**

This all-rounder offers maximum flexibility as a profile machining centre. Total profile machining of profiles without steel reinforcement.

Profile machining centre for cutting to length, drilling and routing profiles for window, door and curtain wall manufacturing without steel reinforcement and with screwed transom connections.

- Work sequence as needed, either from the left towards the right or the reverse
- Infeed with motorised, continuously adjustable gripper
- Lifting function for gap-free loading of the feed magazine
- Profiles are guided on rollers to ensure gentle treatment of the profile and protective film
- Optimised length cutting with no processing waste
- Internal gripper avoids damaging the profiles
- Integrated measuring sensors for residual piece detection
- Outfeed for parts via discharge table
- Industrial PC with Windows operating system

#### Technical specifications

- Feed magazine capacity, eleven profile bars
- Profile bar lengths, 500 to 6,500 mm
- Profile cross-sections up to 130 x 205 mm W x H
- Part lengths 300 – 4,000 mm

#### Machining station

- Capacity for up to 30 machining units
- Routing units with up to 20,000 rpm
- Drilling unit with gear unit delivers 1.2 kW

#### Sawing station

- Three large saw blades with a diameter of 550 mm
- Three powerful saw motors delivering 4 kW each

#### Options

- Outfeed for parts via a belt conveyor protects profiles and offers different capacities
- Upending unit for profiles that are difficult to clamp
- Noise abatement enclosure

### Profile machining centre **SBZ 610/15**

See **SBZ 610/13**, however:

- With five built-in saw units for cutting to length, drilling and routing profiles for window, door and curtain wall manufacturing without steel reinforcement and with screwed and welded transom connections
- For complete profile machining, sawing and machining are set up in two separate stations connected by a transportation buffer to maximise efficiency

### Profile machining centre **SBZ 610/23**

#### Machining units for machining PVC profiles

See **SBZ 610/13**, however:

- Two machining stations

### Profile machining centre **SBZ 610/25**

#### Machining units for machining PVC profiles

See **SBZ 610/13**, however:

- Two machining stations
- 5-blade saw (45°/45°/90° at front, 45°/45° at rear)



SBZ 610/23



## 8.3 | DOWNSTREAM CENTRES

### Downstream centre **SBZ 609**

A fast downstream centre for reinforcement screw driving, drilling and routing cut-to-length profiles for window, door and curtain wall manufacturing with and without steel reinforcement.

Portal design for high profile cross-sections and process-optimised throughput. Additional efficiency through parallel processing by external reinforcement screwdriver system.

- Work sequence as needed, either from the left towards the right or the reverse
- Infeed with motorised, continuously adjustable gripper
- Lifting function for gap-free loading of the feed magazine
- Profiles are guided on rollers to ensure gentle treatment of the profile and protective film as well as completion of long machining operations without re-clamping
- Simultaneous reinforcement screw driving through external screw driving station
- Internal gripper avoids damaging the profiles
- Integrated measuring sensors for part length monitoring
- Outfeed for parts via discharge table
- Industrial PC with Windows operating system
- Barcode scanner

#### Technical specifications

- Feed magazine capacity, eleven profile bars
- Part lengths 300 – 4,000 mm
- Profile cross-sections up to 130 x 205 mm W x H
- Capacity for up to 30 machining units
- Routing units with up to 20,000 rpm
- Drilling unit with gear unit delivers 1.2 kW
- Pivoting reinforcement screwdriver unit for screw placement from both sides

#### Options

- Outfeed for parts via a belt conveyor protects profiles and offers different capacities
- Additional reinforcement screwdriver units for multiple types of screws
- Upending unit for profiles that are difficult to clamp
- Reinforcement screwdriver unit with controlled servo drive for screw tightening with a gentle touch
- Noise abatement enclosure



SBZ 609



## 8.3 | DOWNSTREAM CENTRES

### Downstream centre **SBZ 608**

Downstream centre for reinforcement screw driving, drilling and routing cut-to-length profiles for window, door and curtain wall manufacturing with and without steel reinforcement.

Portal design for high profile cross-sections and process-optimised throughput.

- Work sequence as needed, either from the left towards the right or the reverse
- Infeed with motorised, continuously adjustable gripper
- Lifting function for gap-free loading of the feed magazine
- Profiles are guided on rollers to ensure gentle treatment of the profile and protective film as well as completion of long machining operations without re-clamping
- Internal gripper avoids damaging the profiles
- Integrated measuring sensors for part length monitoring
- Outfeed for parts via discharge table
- Industrial PC with Windows operating system
- Barcode scanner

#### Technical specifications

- Feed magazine capacity, eleven profile bars
- Part lengths 300 – 4,000 mm
- Profile cross-sections up to 130 x 205 mm W x H
- Capacity for up to 30 machining units
- Routing units with up to 20,000 rpm
- Drilling unit with gear unit delivers 1.2 kW
- Two powerful reinforcement screwdriver units with a standard bit holder

#### Options

- Additional reinforcement screwdriver units for multiple types of screws
- Upending unit for profiles that are difficult to clamp
- Noise abatement enclosure



SBZ 608



## 8.4 | PROFILE MACHINING CENTRES

### Profile machining centre **SBZ 122/71**

- Designed for economical and efficient machining of aluminium, PVC and steel profiles
- All operations, such as routing, drilling and tapping, are performed while the profile bar is stationary to protect the profile surfaces
- A rotation unit (rotating mechanism) integrated into the spindle makes it possible to adjust the rotating angle head to 0°, -90°, -180° and -270°
- Better machining results thanks to the intelligent control technology
- Fast positioning of the machining unit with up to 120 m/min thanks to dynamic servo drives
- Tapping without compensation chuck
- Automatic clamp recognition and clamp positioning
- Automatic tool changer with four tool tray positions (without tools)
- Automatic tool changer for an angle head
- State-of-the-art 3-axis controller
- The absolute rotary encoder system means no axis homing is required
- Automatic clamp recognition and positioning prevents collisions
- Power torque routing motor with enclosed speed control for short spindle start-up and braking times.
- Certified, drive-integrated safety functions
- Low power consumption thanks to the intelligent control technology
- DC link coupling in the axis drives for greater energy efficiency
- Windows operating system
- 15" flat screen display, USB ports and network connection
- Simple, stress-free program entry with eluCam on the operating panel, even during operation
- Remote maintenance via TCP/IP using existing Internet connection

#### Technical specifications

- Max. machining length without profile end machining, 4,150 mm
- Max. machining length with profile end machining, 4,000 mm
- Traverse path X-axis 4,295 mm, Vmax. 120 m/min.
- Y-axis traverse path 910 mm, Vmax. 60 m/min.
- Z-axis traverse path 475 mm, Vmax. 60 m/min.
- Direction of machining 5 (above, behind, front, left, right)
- Positioning accuracy +/- 0.1 mm
- Max. spindle speed 24,000 rpm
- Spindle power output 8 kW, S1 with feedback (air-cooled)
- Tool holder HSK-F63
- Automatic tool changing
- Four (max. 16) tool tray positions in the automatic magazine
- Angle head
- Disc milling cutter diameter 120 mm
- Tool length (from extent of taper) max. 150 mm
- Clamp positioning automatic
- Clamp Basic (with round guides)

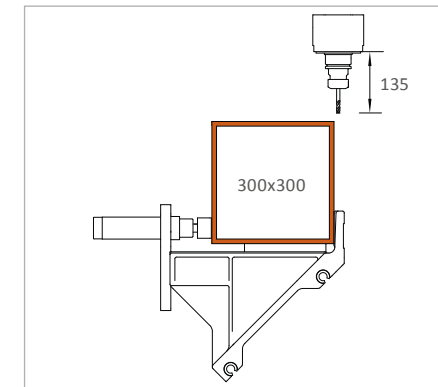
- eluCam software
- Compressed air supply > 7 bar
- Power supply 400 V, 3~, 50 Hz, 25 A
- Air consumption per minute approx. 185 l with spraying
- Total length 6,739 mm
- Depth 2,180 mm
- Height 2,810 mm
- Weight Approx. 2,900 kg

#### Machine configuration

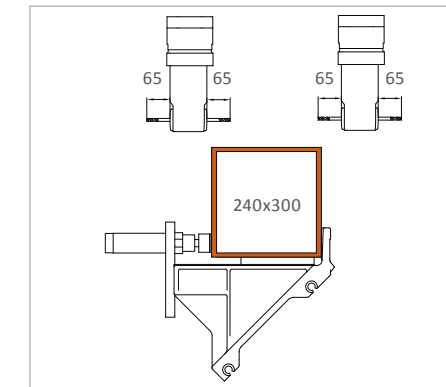
- Air-cooled 8 kW, S1 routing spindle
- Enclosure to protect the operator
- Four horizontal, pneumatic material clamping units
- A material stop on the left
- Tool holder HSK-F63
- Routing spindle with integrated rotation unit (0°, -90°, -180° and -270°) for angle head
- HSK-F63 rotating angle head for two tools
- Swarf trays for swarf removal
- Minimum-volume lubrication system
- High performance cutting fluid
- Hand-held operator terminal
- Depth gauge

#### Options

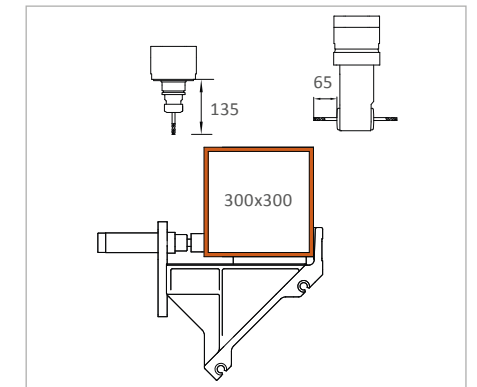
- Uninterruptible power supply (UPS)
- Tools
- Tool holders
- Automatic tool changer for max. four standard tools
- Automatic tool changer for angle head
- Length measurement on both sides
- Additional stop for overlength machining (left)
- Green Line cooling unit for the control cabinet with reduced energy consumption
- Barcode scanner
- Protective enclosure can optionally completely enclose the machine on all sides, with additional sound insulation
- Easy and intuitive operation thanks to the modern elumatec Customer Interface (ECI)
- Four clamps as standard. Can be equipped with up to eight clamps
- Material reference stop (right) for positioning workpieces with overlength machining
- Double clamping and other accessories on request



Machining area, Y and Z-axes  
Profile machining from above



Machining area, Y and Z-axes  
Profile machining from the front  
and from behind

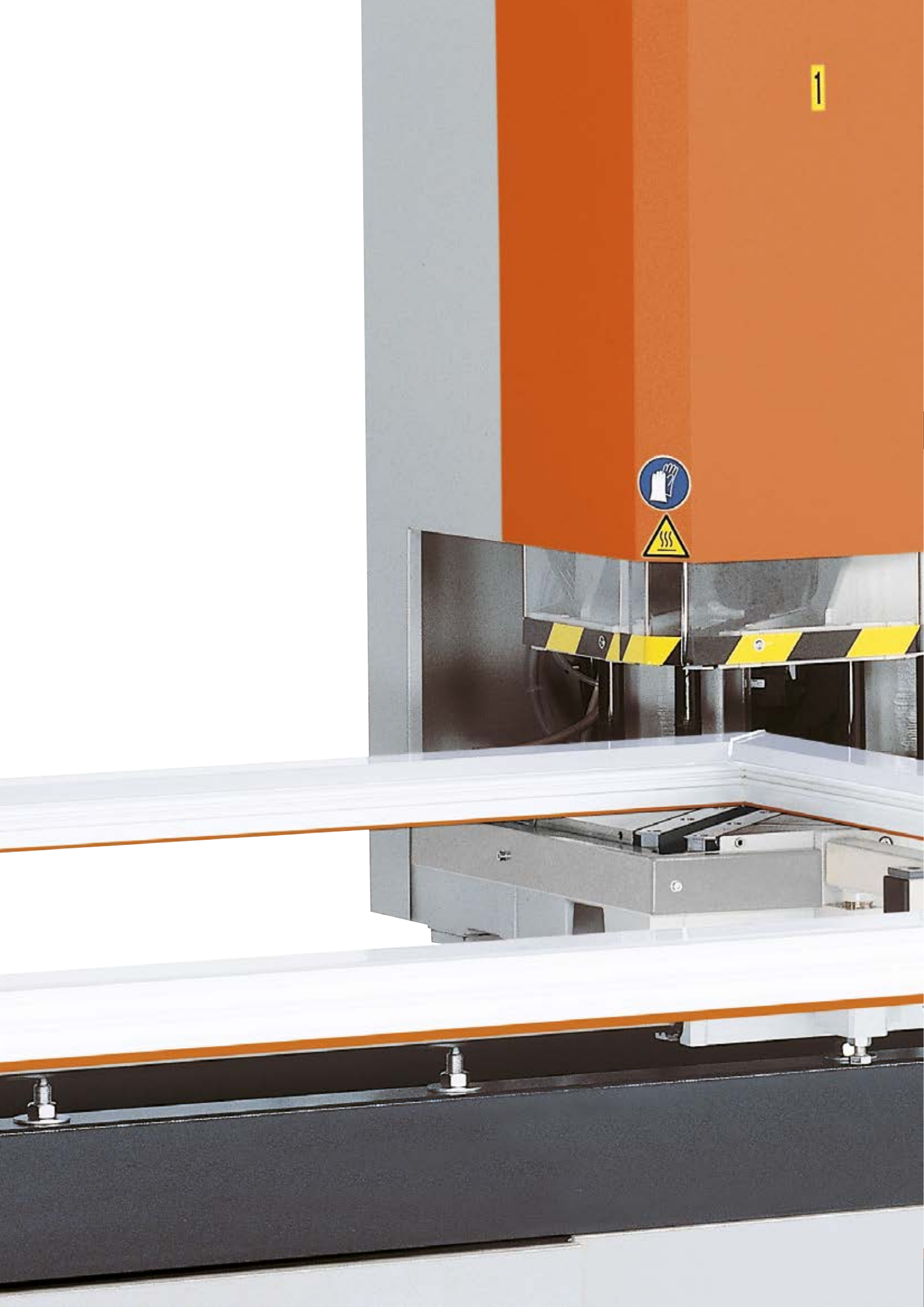


Machining area, Y and Z-axes  
Profile machining from above  
and from behind



SBZ 122/71





## 9 | WELDING/CLEANING

Our selection of products, variants and options is large and can always be adapted to suit the needs of any plastic window manufacturing task. We offer stand-alone machines as well as single and multi-head machines. Our portfolio also includes automated welding and corner cleaning production lines for parallel welding or for high-temperature or high-speed welding. All our products are subject to a continuous improvement process as well as consistent development. Consequently, our machines and variants are always state-of-the-art and are available in the highest quality.

Product overview	Product	Page
2-head welding machine	ZS 720 LV	66
1-head welding machine	ES 710 LV	68
Corner cleaning machine	EV 834	70
Corner cleaning machine	EV 832	71

## 9.2 | SINGLE AND MULTI-HEAD WELDING MACHINES

2-head welding machine **ZS 720 LV**

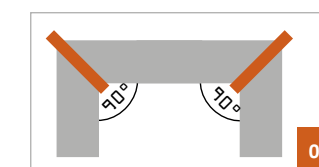
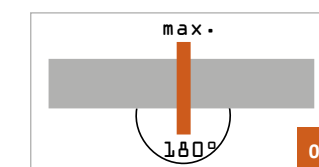
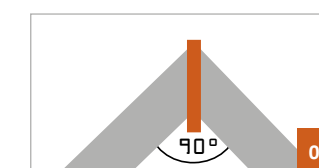
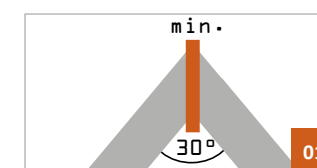
- Fixed L-head (90°)
- Variable L-head (30° – 180°)
- Continuously adjustable stops make it possible to weld any angle from 30° – 180°
- Heated welding bead limiting blade, configurable for a welding bead limitation of 0.2 to 2.0 mm, for welding profiles covered with a film or acrylic coating
- Also suitable for welding large-volume profiles (monobloc)
- Automatic adjustment for different profile cross-sections by means of a sensor-controlled melting time
- Easy maintenance, e.g. through simple cleaning of the welding plates, special clamping springs for fast Teflon film changing
- Changing the profile stop plate for different melting losses is easy (standard, 6 mm)
- Corrosion-resistant welding carriage guide
- Height-adjustable support arms included as standard

## Options

- Gasket downholder for the inside corner area
- Welding supports
- Welding supports for profiles with gasket already installed
- Profile stop for small frames (melting loss) results in smallest frame dimension, 300 mm
- Support arms

## Technical specifications

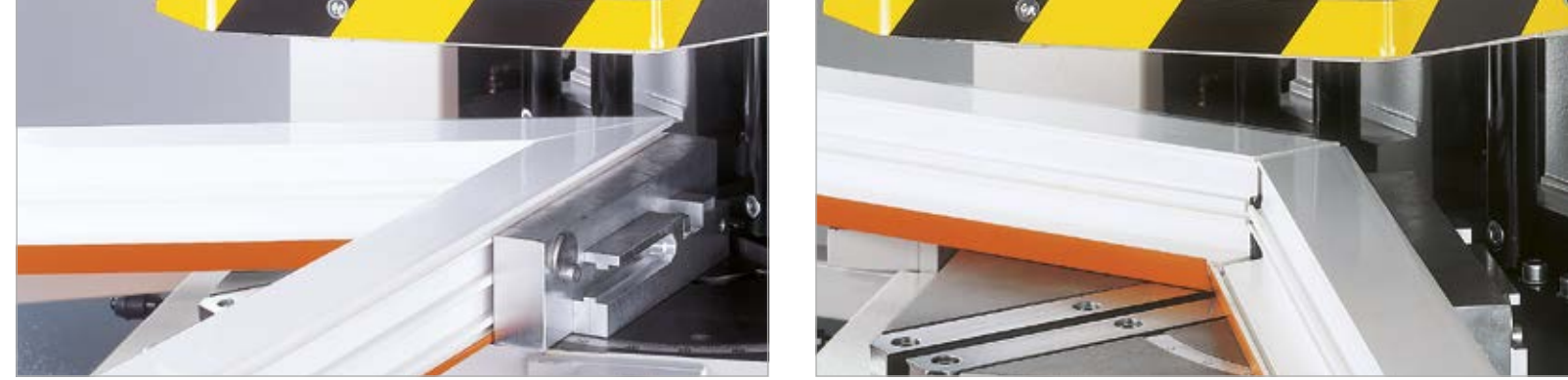
- Purpose of use [01, 03, 04]
- Right head in single-head mode, also [01-03]
- Two L-plates
- Width of L-plate 340 mm
- Height of L-plate 300 mm
- Profile width at 90° max. 180 mm
- Profile width at 180° max. 220 mm
- Profile height max. 210 mm
- Profile height min. 40 mm
- Profile height with special adapter min. 20 mm
- Profile length max. 2,520 mm (special lengths optional)
- Smallest frame dimension 480 mm
- Power supply 230/400 V, 3~, 50/60 Hz
- Power output 5.2 kW
- Compressed air supply 6 – 8 bar
- Air consumption per weld 120 l
- Length 3,265 mm, depth 750 mm, height 1,800 mm, weight 950 kg



ZS 720 LV



## 9.2 | SINGLE AND MULTI-HEAD WELDING MACHINES



### 1-head welding machine ES 710 LV

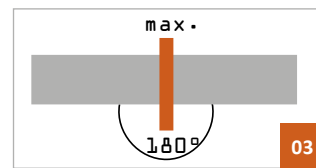
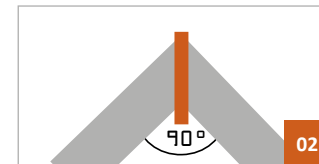
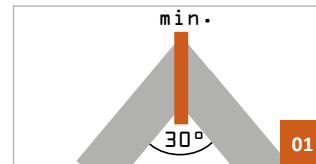
- Suitable for welding large-volume profiles (monobloc profiles)
- Heated welding bead limiting blade, configurable for a welding bead limitation of 0.2 to 2.0 mm, for welding profiles covered with a film or acrylic coating

#### Technical specifications

- Intended uses [01–03]
- Welding bead limitation 0.2 – 2.0 mm
- Welding bead temperature control 0° – 70°C
- Profile height max. 210 mm
- Power supply 230 V, 1~, 50/60 Hz
- Power output 2.7 kW
- Air consumption per weld 60 l
- Length 920 mm, depth 950 mm, height 1,875 mm, weight 320 kg

#### Options

- Welding supports
- Welding supports for profiles with gasket already installed
- Gasket downholder for the inside corner area



ES 710 LV

## 9.3 | CORNER CLEANING MACHINES

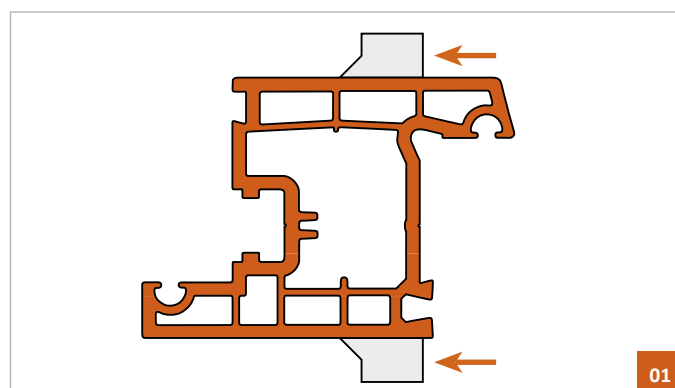
### Corner cleaning machine EV 834

See EV 832, however:

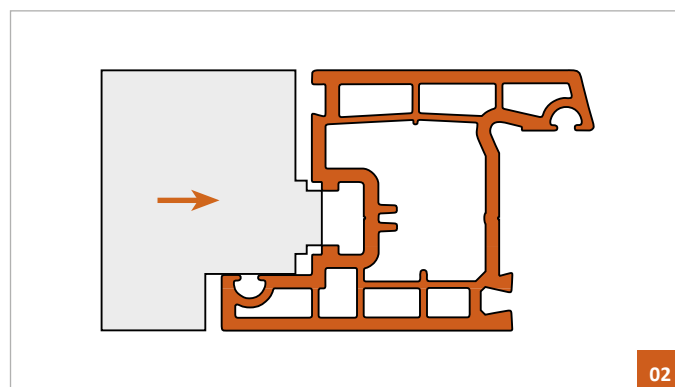
- Four milling cutter positions for freely-configurable cutter sets
- Four router spindles for cutter diameters up to a maximum of 260 mm
- Error minimisation through intelligent, automatic profile distinction between frames and sashes at milling positions 1 and 2

#### Technical specifications

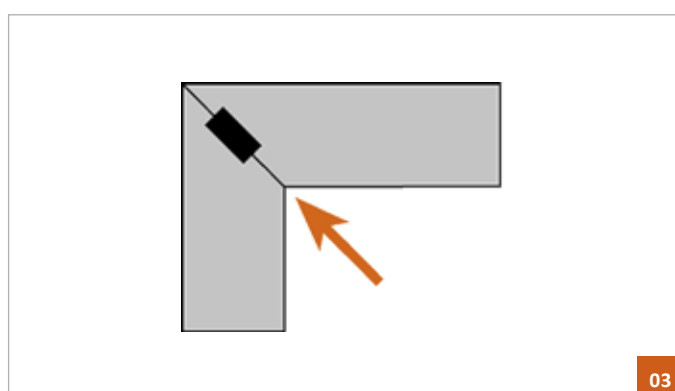
- Router spindle diameter 32 mm
- One router spindle for cutter packages up to a height of 200 mm
- Length 980 mm, depth 1,700 mm, height 1,670 mm, weight 590 kg



01



02



03



### EV 832 corner cleaning machine

- Simultaneous machining of outer contours and the welding beads on the top and bottom
- Two milling cutter positions for freely-configurable cutter sets
- Optimal groove quality on convex and concave profile surfaces thanks to spring-loaded groove knife
- Adjustable infeed draws even heavy and high profile elements (e.g. entry doors) in accurately and reliably
- No twisting of the profiles thanks to horizontal and vertical profile clamping
- Cutter diameters up to 260 mm for profiles with extreme depth dimensions possible
- Equipped as standard with unit for blowing off chips which prevents inaccuracies due to chips becoming stuck
- Versatile due to groove knives and milling cutters which can be switched on individually as well as cutter combinations that can be changed quickly

#### Technical specifications

- Intended uses [01–03]
- Maximum frame size is theoretically unlimited
- Min. frame size outer dimension 290 x 290 mm
- Min. frame size inner dimension 160 x 160 mm
- Max. profile height 200 mm
- Profile height min. 25 mm
- Cutting tool diameter max. 260 mm
- Spindle speed 3,200 rpm
- Router spindle diameter 32 mm
- Power supply 230/400 V, 3~, 50 Hz
- Power output 2.5 kW
- Compressed air supply 7 bar
- Air consumption per working cycle 100 l
- Length 980 mm, depth 1,700 mm, height 1,670 mm, weight 495 kg

#### Options

- Router spindle 200 mm
- Cleaning miller



EV 832





## 10 | HARDWARE/ASSEMBLY/LOGISTICS

Hardware assembly on sash and frame elements is another indispensable process – especially in the production of plastic windows. We can provide you with all of the relevant products, such as sash assembly tables, automatic sash hardware screw driving units or complete frame assembly centres. Various storage and sorting racks and automatic racking and storage systems round out our hardware assembly range. All of these products can be adapted flexibly to meet your individual needs.

Product overview	Product	Page
Sash assembly centre	FAZ 2800	74
Hardware rack	BR 36	74
Hardware rack	BR 40	74
Frame assembly centre	RMZ 4000	76



## 10.1 | SASH HARDWARE

Sash assembly centre **FAZ 2800**

Sash assembly centre for installing hardware on plastic and aluminium window sashes

- Ergonomic screw driving of hardware in a very short time
- Sash assembly table for measuring and cutting to length of hardware components
- Optimisation of sash processing by bundling various work tasks at a single workstation
- Assembly table can be tilted pneumatically
- The sash, measurement and centring units can be moved pneumatically
- Gear cropper with stops for a centred or constant handle position
- Two stop blocks for different sash widths
- Mobile screwing unit with pneumatic height adjustment [01]
- Manual insertion funnel for second screw length
- Automatic depth shutoff
- Screw feed unit
- Table supporting surface with plastic slide bars

## Technical specifications

- Table length 2,800 mm
- Table width 1,400 mm
- Total length 3,400 mm
- Total width 2,000 mm
- Weight 450 kg
- Table height adjustable 850 – 1,000 mm
- Table inclination approx. 15°
- Sash inside dimensions approx. 280 – 2,300 mm
- Compressed air supply 7 bar
- Air consumption:
  - Screw driving unit approx. 250 l/min.
  - Clamping unit approx. 35 l/min.
- Screw dimensions:
  - Head diameters 5.0–9.0 mm
  - Shank diameters 3.5–4.5 mm
  - Length approx. 10.0–35.0 mm
- Power supply 230/400 V, 3~, 50 Hz
- Electrical connected load approx. 3 W

## Options

- Corner hinge drilling unit [02]
- Handle hole drilling unit [03]
- Lock case milling unit [04]
- Hardware rack
- Punching tool [05]
- Drilling and screwing-in unit (Anuba)

Hardware rack **BR 36**

Hardware rack with 36 compartments for orderly hardware storage at the sash assembly station [06]

- Stable steel construction
- Hardware rack with 36 compartments
- With six angled supports for corner linkage gears
- Space for a monitor, with keyboard holder

## Technical specifications

- Length 3,100 mm
- Width 1,525 mm
- Height 2,100 mm
- 36 compartments
- Lower compartment size 265 x 200 mm
- Upper compartment size 265 x 100 mm
- Safe load approx. 800 kg
- Weight 400 kg

Hardware rack **BR 40**

Hardware rack with 36 compartments for orderly hardware storage at the sash assembly station [06]

- Stable steel construction
- Hardware rack with 40 compartments
- With six angled supports for corner linkage gears

## Technical specifications

- Length 3,100 mm
- Width 1,525 mm
- Height 2,100 mm
- 40 compartments
- Lower compartment size 265 x 200 mm
- Upper compartment size 265 x 100 mm
- Safe load approx. 800 kg
- Weight 400 kg





## 10.2 | FRAME HARDWARE

Frame assembly centre **RMZ 4000**

- The innovative and highly efficient hardware drilling and screw driving station for frame hinges and pivots
- Work quickly and accurately – this machine enables an amazing productivity boost in window manufacturing
- Thanks to the easy handling and ergonomically designed work sequence, drilling, assembling, and screwing of the tilt/turn hinges can be performed by a single operator
- Due to the movable stop system, the time-consuming drilling of locating and screw holes with a template can be omitted
- The unit can be rotated by 90° for machining multi-sash frames
- The adjusting device can be positioned in the Y-direction using grid dimensions for drilling pivot bolts into multi-sash frames.
- The hinges and pivots are screwed to the closed frame by the vertical screwing feed unit which is manually moveable on moving carrier plates
- The unit is equipped with an automatic screw infeed, a screwdriver turbine for screwing self drilling screws, and a pneumatic screwing depth stop
- Pneumatic frame clamping and positioning device can be moved beyond table centre
- Frame rebate dimensions from 360 to 3,400 mm
- Two pneumatically lowerable rebate stops with revolver for up to four different frame depths
- Laser unit shows the screw driving position

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**Technical specifications**


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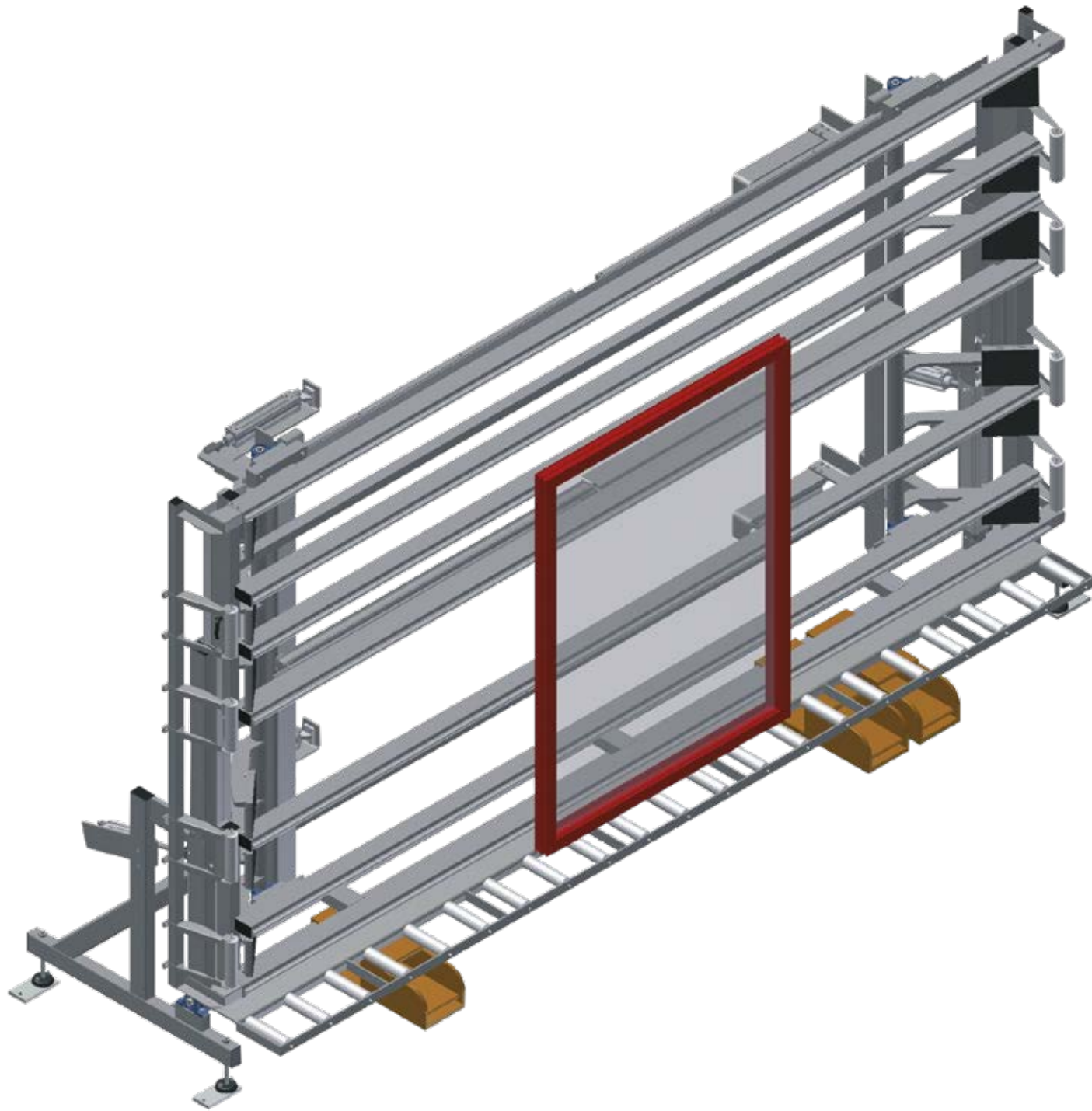
- Table length 4,040 mm
- Table width 1,700 mm
- Total length 4,220 mm
- Total width 2,010 mm
- Height 1,720 mm
- Table height adjustable 950 – 1,050 mm
- Frame dimension min. 560 x 200 mm
- Frame dimension max. 3,800 x 1,700 mm
- Profile height min. 54 mm
- Max. profile height 110 mm
- Weight 650 kg
- Compressed air supply 7 bar
- Air consumption:
  - Screw driving unit approx. 250 l/min.
  - Clamping unit approx. 40 l/min.
- Screw dimensions:
  - Head diameters 5.0–9.0 mm
  - Shank diameters 3.5–4.5 mm
  - Length approx. 10.0–35.0 mm
- Power supply 230/400 V, 3~, 50 Hz
- Motor power of 1.1 kW at 2,825 rpm



RMZ 4000

## 11 | INSPECTION AND GLAZING UNITS

Quality inspection is an important step – not only in the production of plastic windows. That is why our inspection and glazing units have proven to be the perfect tool in terms of flexibility, robust construction and precision.



Product overview	Product	Page
Inspection and glazing unit	VE 3000   4000	80
Inspection and glazing unit	VE 3000/60	81



## 11 | INSPECTION AND GLAZING UNITS

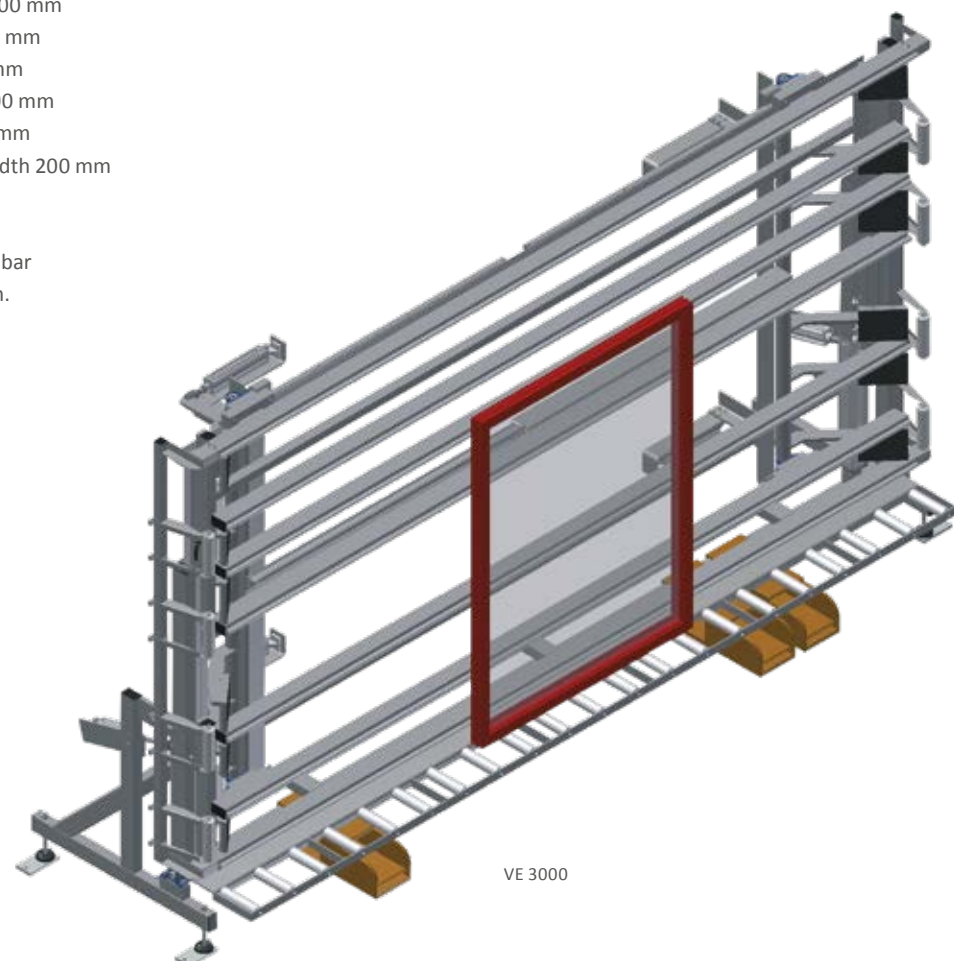
### Inspection and glazing unit VE 3000

Inspection and glazing unit for glazing and final inspection in individual and serial assembly line production

- Stable steel construction
- Quick and precise assembly of windows, doors and elements
- Precision ensured through parallel clamping bar pressing technique
- For glazing and functional checks
- For connecting frames and sashes
- Height continuously adjustable
- Two pressing bars which fold down and can be moved pneumatically
- Easy operation by means of foot switch
- 4-fold compressed air supply

#### Technical specifications

- Length 4,410 mm
- Width 1,180 mm
- Height 2,600 mm
- Max. clamping width 3,000 mm
- Min. clamping width 400 mm
- Height adjustment 500 mm
- Clamping bar height 2,300 mm
- Clamping bar width 120 mm
- Lower roller conveyor width 200 mm
- Weight 470 kg
- Load 200 kg
- Compressed air supply 7 bar
- Air consumption 35 l/min.



#### Options

- Lead-in rollers, cmpl., right
- Lead-in rollers, cmpl., left
- Profile protectors for support rollers
- Tilt adjustment of 0° – 8°

### Inspection and glazing unit VE 4000

See VE 3000, however:

- Max. clamping width 4,000 mm
- Length 5,440 mm
- Weight 580 kg

### Inspection and glazing unit VE 3000/60

Inspection and glazing unit for glazing and final inspection

- Stable steel construction
- Quick and precise assembly of windows, doors and elements
- Precision ensured through parallel clamping bar pressing technique
- For glazing and functional checks
- For connecting frames and sashes
- With manually operated pressing bars
- Opening for weatherboard
- Pneumatic centring
- Easy operation by means of foot switch
- Storage area for tools
- 4-fold compressed air supply

#### Technical specifications

- Length 3,050 mm
- Width 900 mm
- Height 2,600 mm
- Max. clamping width 2,800 mm
- Min. clamping width 390 mm
- Clamping bar height 2,300 mm
- Clamping bar width 100 mm
- Lower roller conveyor width 120 mm
- Weight 370 kg
- Load 150 kg
- Compressed air supply 7 bar
- Air consumption 35 l/min.



#### Optional

- Height adjustment VE 3000/60

## 12 | PRODUCTION PLANNING – OPTIMISED PRODUCTION PROCESSES

When selecting the ideal product, one of the most important things to consider is which machine(s) can be integrated most easily and economically into your existing production process.

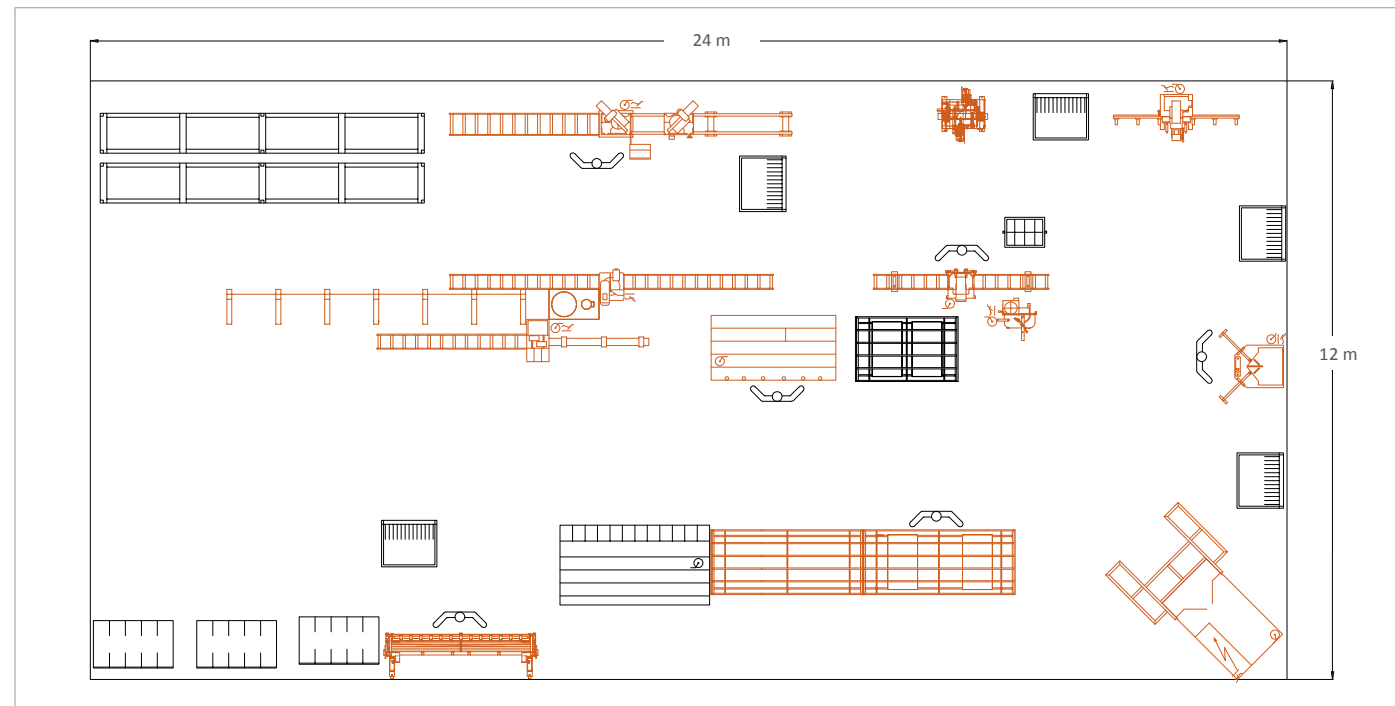
We offer you comprehensive solutions combined with international experience. Whether you are engaged in series or job production, we can always assist you in setting up suitable production structures.

Together, we will examine your shop or production facility, analyse your environment and assist you in the subsequent design or optimisation based on the results. Short paths, material supply and material flow are only a few of the characteristics of an optimised production process. Other factors are covered by our broad product portfolio ranging from work tables to profile machining centres and on to glass handling systems, including sorting, for effective production planning.

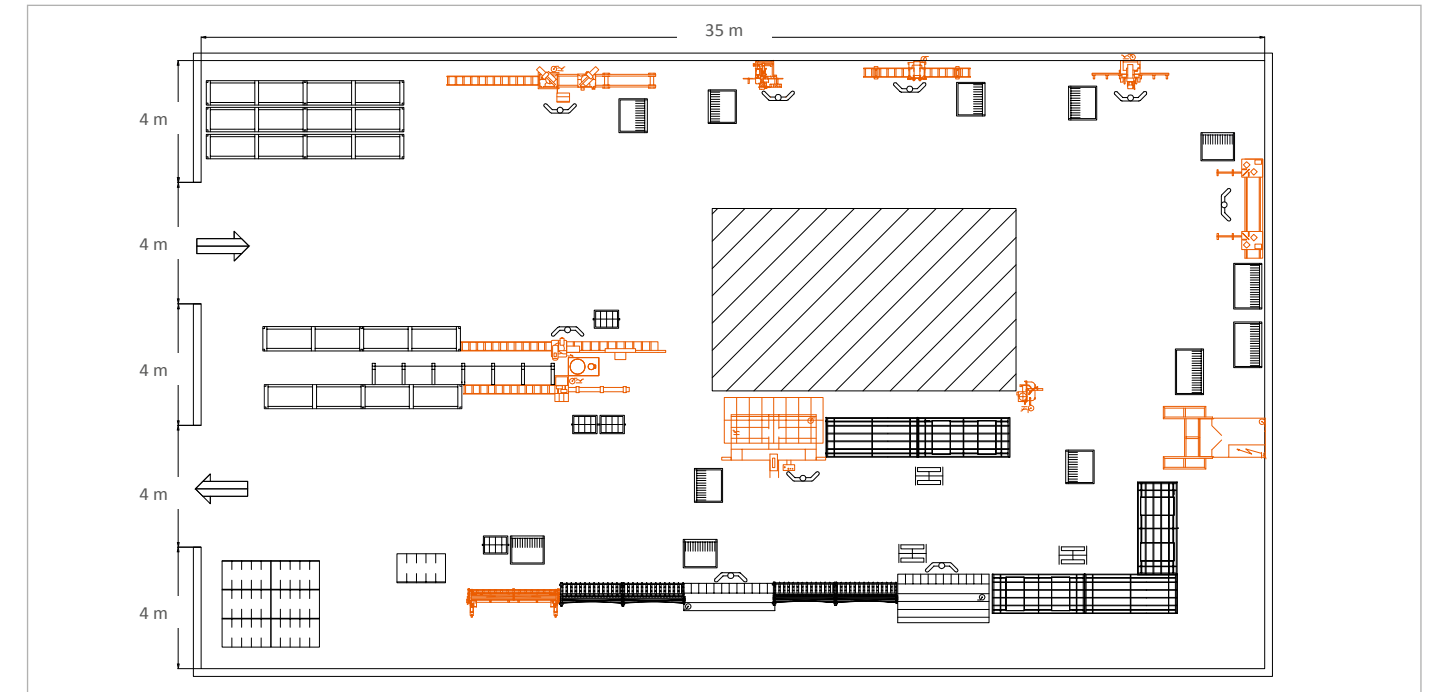
Everything we provide is perfectly compatible – and you can have it all from a single source. This is a foundational element for the economic longevity of your company, whether for new planning or for change processes.

You can find all of the elumatec operating and assembly equipment in our separate catalogue, “Assembly and logistics”.

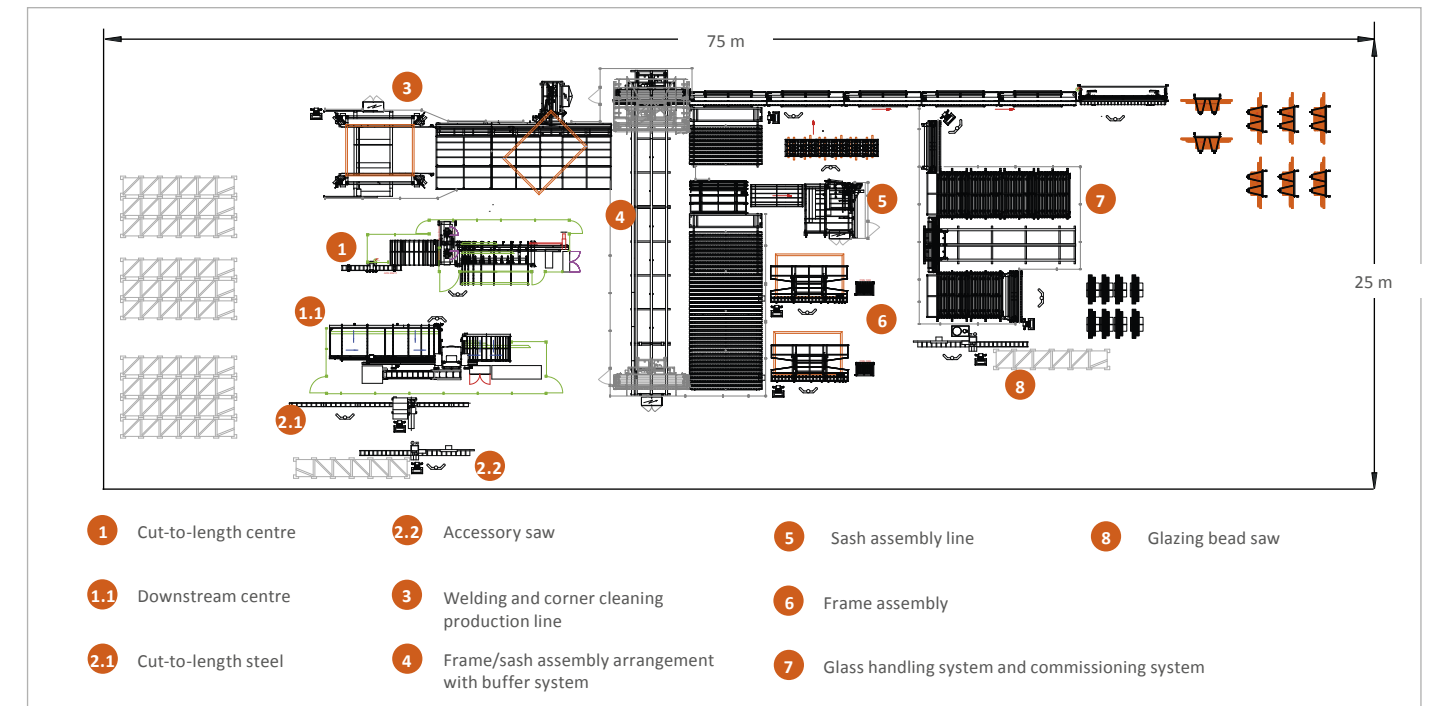
### 30 windows and doors in eight hours



### 60 windows and doors in eight hours



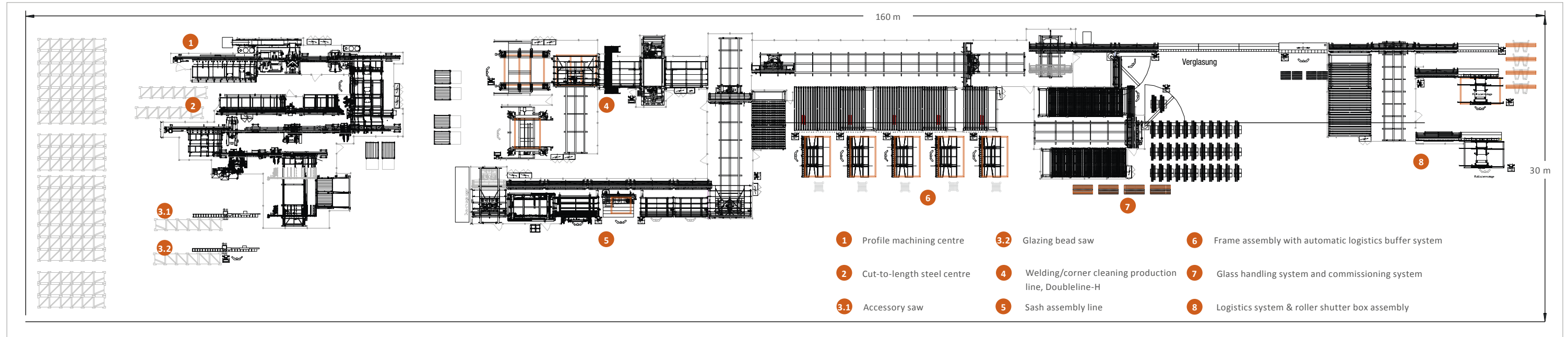
### 100 – 120 windows and doors in eight hours



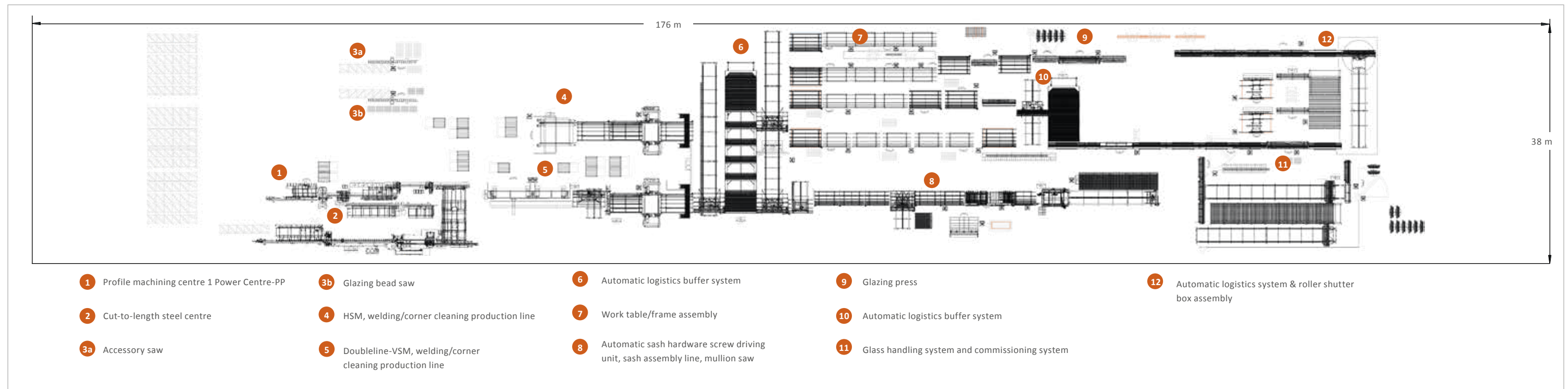


## 12 | PRODUCTION PLANNING – OPTIMISED PRODUCTION PROCESSES

200 windows and doors in eight hours



300 windows and doors in eight hours



## 13 | SOFTWARE

### eluCad software from elusoft

#### elusoft GmbH – Solutions for intelligent and economical profile machining

elusoft GmbH develops software solutions which allow you to create machining programs for elumatec profile machining centres quickly and easily. Among these is “eluCad”, a software package for profile machining that has proven itself in practice and is used worldwide in many different industry sectors. The range of services elusoft offers includes support, seminars and production consulting. elusoft GmbH is a subsidiary of elumatec AG.

eluCad makes it easy to program profile machining centres. This user-friendly software is designed so that the user does not have to program using ISO code directly – all that is required is the entry of the data in a logically structured graphic user interface. Operating the program is intuitive, can be customised and is characterised by practical functionality. A 3D view provides a clear overview by displaying the designed parts realistically on the screen. A collision check prevents expensive machine crashes and associated down times. New tools can be created quickly and easily in the software.

elusoft’s range includes software products such as Bar Machining, Clamp Management and interfaces as well as supplementary software modules. The spectrum of services includes: Support by experienced application engineers, seminars on the eluCad profile machining software and the supplementary modules, product consulting on the customer’s premises, the development of specialised production software or special solutions, the integration of optional features on the machine, support with problematic jobs, ISO-code training, start-up of programs and monitoring the quality of the milling and routing results. See [www.elusoft.de](http://www.elusoft.de) for more information.

#### Support by experienced application engineers

The greatest advantage of a business relationship with elusoft is the team that stands behind the products: Experienced practitioners that stand out due to their creativity, know-how and passion for the development of targeted solutions. These characteristics have enabled the team to take and maintain a leading role in what they do best. The constantly changing variety of products our customers offer requires continuous innovation and adaptability on the part of elusoft. The team is both ready and able to meet this challenge.




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#### Address

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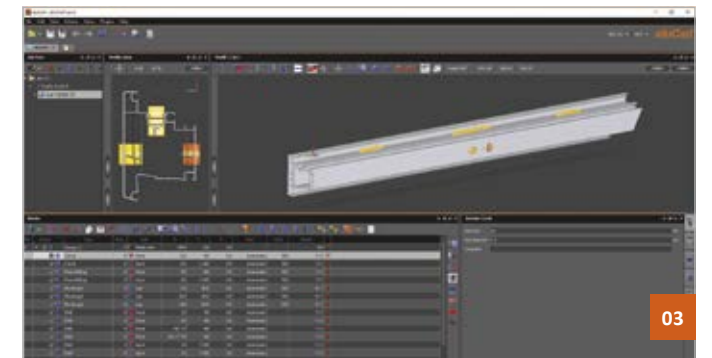
elusoft GmbH  
 Breitwasenring 4  
 D-72135 Dettenhausen  
 Phone +49 7157 526 65 00  
 Fax +49 7157 526 65 26  
 E-mail: [info@elusoft.de](mailto:info@elusoft.de)  
[www.elusoft.de](http://www.elusoft.de)

#### eluCad in the PVC sector

Data records for the processing of plastic profiles and reinforcing steel used in windows and doors can easily be created and stored in a profile database. Individual machining tasks or groups of machining tasks can quickly be set up as macros, providing a clear overview. eluCad takes data from the upstream window production programs and then creates the required machining program. If a company has several profile processing machines or pass-through centres in their machine pool, eluCad provides the appropriate machining program for the selected target machine.



- 01 The elusoft headquarters are in Dettenhausen near Stuttgart.
- 02 Lock machining: Macros can be created easily in eluCad
- 03 Intuitive operation, clear presentation, customisable to your needs. Profiles and machining programs can be created quickly and easily with eluCad.









**elumatec AG**

Pinacher Straße 61  
75417 Mühlacker  
Germany

Phone +49 7041 14-0  
Fax +49 7041 14-280  
mail@elumatec.com  
www.elumatec.com

