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ALTENDORF®

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15 ELMO

THE LEGEND

It was invented by Wilhelm Altendorf in 1906 – and is now used by well over 130 000 customers world-wide. The story of the Altendorf sliding table saw is one of unparalleled success. Anyone who has worked with an Altendorf will enthuse about it, telling you they won't use any other saw. The Altendorf has many imitators, but none match up to the original. In 103 years, these inspirational saws have become legend.



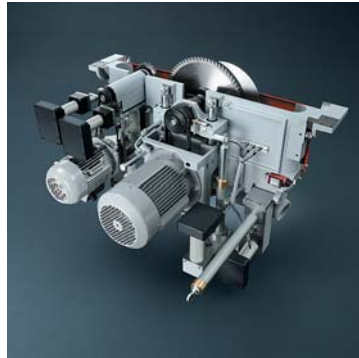
POWER

Within each and every Altendorf, both visible and invisible forces are at work. The pure mechanical engineering and dynamic design are clearly visible. These machines' overall performance is less visible, but always in evidence. It results from Altendorf engineers' and employees' inventive approach, experience and passion. They imbue their machines with these strengths, as users the whole world over now know. These strengths bring with them a great feeling of trust: Because it's an Altendorf.



A firm foundation is all-important.

■ **Machine frame:** The new generation of saws has the most torsion-resistant machine frame Altendorf have ever built. The new frame design means even smoother running and stability. The machine frame is fully enclosed.



■ **Saw unit:** The Altendorf saw unit is the engineering heart of all our saws. It is a powerhouse produced with the latest manufacturing technology. The saw shaft runs incredibly smoothly: this is because it is electronically balanced as a fully assembled unit, and extensive use is made of cast components. The high-precision vertical movement of the unit is linear with maintenance-free guide bearings. The robust tilt quadrants incorporate the traditional Altendorf tongue and groove connection system, which allows the whole unit to tilt easily and precisely to exactly the correct angle. See page 47 for more details.



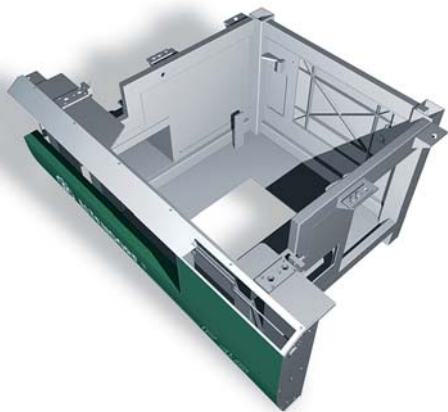
■ **Crosscut-mitre fence:** This patented Altendorf fence, with integral length compensation, can cut both square cuts and mitre cuts. The measuring scales are sloped towards the operator for easy visibility. The two solid, no-play flip stops move smoothly and can be set anywhere along the fence section for measurements up to around 1 700 mm. For larger dimensions up to 3 500 mm, the outer stop docks into the roller-stabilized telescopic extension. This extension is equipped with integral support wings for narrow unstable workpieces. See page 50 for more details.



■ **Extraction hood:** The new extraction hood is technically state-of-the-art and has been praised in all its aspects by independent test bodies, in particular for its optimized airflow. The hood uses a parallelogram mechanism for easy vertical adjustment, and can also be swung out of the way of the cutting line from the operator position. Switching between wide and narrow hoods doesn't involve a complete hood change, just a straightforward switch of the relevant half, which locks and unlocks in one simple click. The new hood will allow cutting heights of up to 200 mm (without scoring unit).



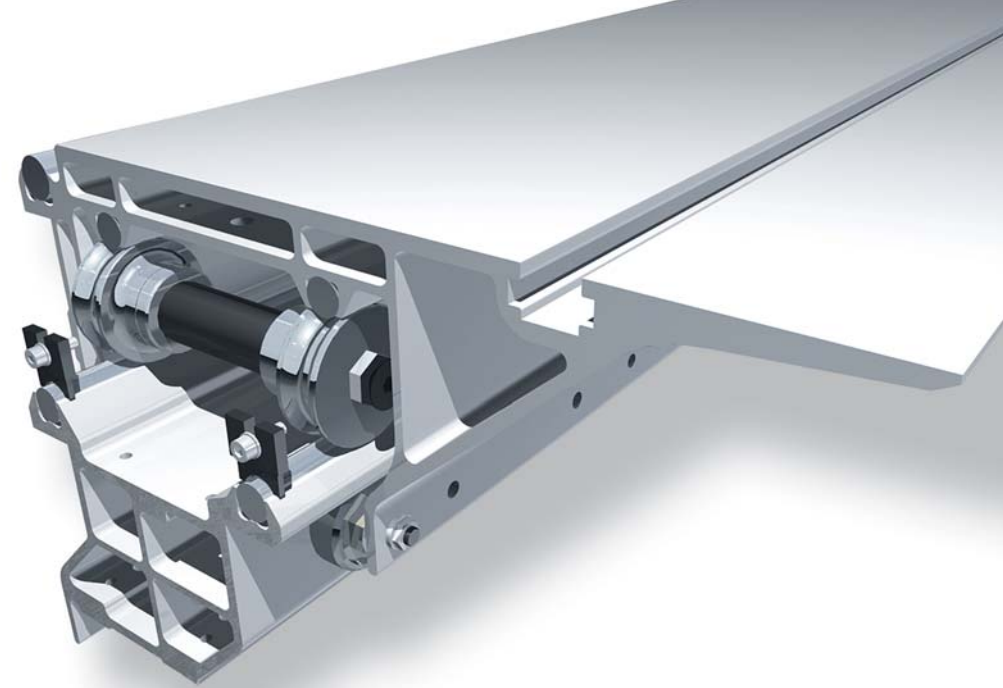
■ **Rip fence with fine adjustment:** Setting the fence is easy; the precision fine adjustment makes for great accuracy. The hard chrome-plated round bar ensures the fence moves smoothly. If you need to divide large panels, you can swing the rip fence away under the level of the machine table. See page 54 for more details.



The Altendorf sliding table: Smooth running and precise guiding.



■ **Sliding table:** The Altendorf sliding table is renowned for its smooth and exact running. This is one of the hallmarks of an Altendorf, and it all comes down to design: the table runs on large dumbbell rollers sandwiched between hard chromed guide bars, guaranteeing absolute precision. The system's large rollers ensure smooth action, meaning the table takes less effort to move and glides as securely as if it were on rails. This quality running will endure decades of heavy load bearing in the constant presence of dust and chips, and it needs virtually no maintenance. Each time the table moves, the brush fitted to the upper part automatically cleans the round guide bars. The system operates without any lubrication. The table's hollow multi-chamber aluminium extrusion guarantees optimal torsion resistance and rigidity. See page 48 for more details.



■ **The principle of the sliding table:** Wilhelm Altendorf discovered that the only way to achieve an absolutely straight edge, which in turn is required as a reference edge for precise rip and crosscutting, was to guide a static workpiece through the rotating saw blade by holding it firmly on a moving support. To begin with, Wilhelm Altendorf used a wooden push slide system to guide the workpiece. In the 1930s, Altendorf developed the double roller carriage. Since the development of the aluminium sliding table in the 1950s we know of no better system than the double roller carriage in terms of smooth running, precision, torsion-resistance and low maintenance. Over 130 000 users worldwide agree with us.



10 F 45

A new generation of Altendorfs –
the legend lives on!



*The F45:
Striking design and user friendliness in
one. The large colour LCD display on the
control panel is immediately noticeable.*



*The F45 ELMO:
Elegance and confidence. Setting a new
standard for convenience, ergonomics
and productivity.*

THE F45

- Equipment Overview
- Options Pack F 45 I
- Options Pack F 45 II
- Options Pack F 45 III





THE F45

▣ **The F45** is a gem of modern industrial design. Its sleek external profile reflects real inner quality and a new dimension in user friendliness: the intelligent, absolutely precise electronic controls, which are now an integral part of every Altendorf. On top of that, the F45 has a large colour LCD screen on which all settings are displayed. This is true intelligent design, outside and in.



 ALTENDORF®



84.3 mm
22.5°
1048.8 mm
Scorer
(preset)
4000

7 8 9
4 5 6
1 2 3
0 CE





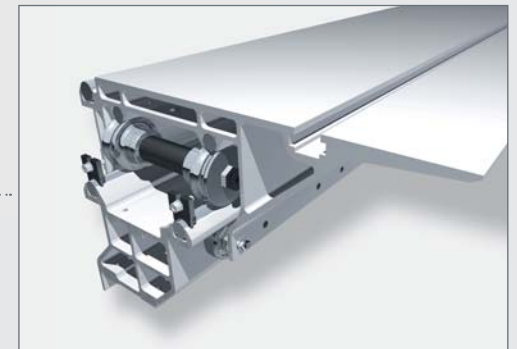
Extraction hood



Rip fence



Crosscut-mitre fence



Sliding table



Flexibility – F 45 available as individual modules.

■ **The Altendorf F 45 system** permits the modular configuration of many different options. That’s how you build your own, individual machine – tailored to fit your practical requirements. To make your choice easier, we have put together three practical, user-focused options packs. All other options can be individually combined with the basic machine and the options packs. You will also be able to upgrade your original equipment for a long time to come, wherever the technology permits. As the systems have a lifespan of over 20 years, this is an important factor to consider in your procurement.

EQUIPMENT FOR THE F 45	PAGE	STANDARD EQUIPMENT FOR THE F 45	OPTIONS PACK F 45 I	OPTIONS PACK F 45 II	OPTIONS PACK F 45 III
Motorised rise/fall and tilt control for main saw blade	26/27	■	■	■	■
F 45 screen controls	26/27	■	■	■	■
Eye-level operating panel with clipboard	25, 26				■
Sliding table 3 000 mm	9, 48	■	■	■	■
Rip fence, manual setting with fine adjustment, cutting width 1 000 mm	8	■			
Rip fence, manual adjustment with DIGIT X/digital display, cutting width 1 000 mm	21, 54		■		
Rip fence, motorised adjustment, cutting width 1 000 mm	23, 25, 54			■	■
Crosscut-mitre fence, manual adjustment with length compensation, crosscuts to 3 500 mm	8, 50	■	■	■	■
5.5 kW (7.5 HP) drive rating with three speeds, 3/4/5 000 rpm., manually adjusted	47	■			
VARIO 5.5 kW (7.5 HP) drive rating with infinitely variable speed adjustment between 2 000 and 6 000 rpm.	21, 23, 25, 46		■	■	■
On/off switches on sliding table	21, 23, 48		■	■	
Quick change system for the main saw blade		■	■	■	■
Max. cutting height 200 mm, max. saw blade diameter 550 mm	8, 61	■	■	■	■
840 mm table extension, anodized aluminium	55	■	■	■	■
USB interface for data transfer	26/27	■	■	■	■
Machine diagnostics and operating hours counter	26/27	■	■	■	■





Options pack F 45 I: Combining convenience and safety.

■ **The Altendorf F45** can get even easier to use. All you have to do is add a few simple options. This package includes a **VARIO drive**, which can be set to any speed between 2000 and 6000 rpm. and thus freely adjusted to suit your materials. This extends the useful life of the saw blades. The rotational speed is displayed digitally on the colour LCD screen which forms part of the central control unit. The **DIGIT X** digital display on the rip fence increases its precision. The fence is fitted with fine adjustment to ensure setting to within +/- 1/10 mm. Anyone who regularly cuts large panels will learn to love the **on/off switches on the sliding table**. The operating panel on the machine frame has been completely redesigned. The height, tilt angle and speed settings are now displayed even more clearly on a large high-contrast colour LCD screen.



This model is fitted with a VARIO drive, a DIGIT X cutting width display on the rip fence and on/off switches on the sliding table itself.

F 45 I

OPTIONS PACK F 45 I	PAGE	STANDARD EQUIPMENT FOR THE F45	OPTIONS PACK F45 I
Motorised rise/fall and tilt control for main saw blade	26/27	■	■
F45 screen controls on machine frame	26/27	■	■
Sliding table 3000 mm	9, 48	■	■
Rip fence, manual adjustment with Digit X/digital display, cutting width 1000 mm	54		■
Crosscut-mitre fence, manual adjustment with length compensation, crosscuts to 3500 mm	8, 50	■	■
VARIO drive with 5.5 kW (7.5 HP) drive rating with infinitely variable speed adjustment between 2000 and 6000 rpm.	46		■
On/off switches on sliding table	48		■
Quick change system for the main saw blade		■	■
Max. cutting height 200 mm, max. saw blade diameter 550 mm	8, 61	■	■
840 mm table extension, anodized aluminium	55	■	■
USB interface for data transfer	26/27	■	■
Machine diagnostics and operating hours counter	26/27	■	■





Options pack F 45 II: Motorised settings save time.

■ **The motorised rip fence** is the highlight of this package. Since the rip fence is controlled directly from the central operating position, there's no need to run round to the other side of the machine and back – so it saves you time. Enter the cutting width using the keypad on the control panel on the machine frame, press the start button, and the rip fence will set itself automatically to within +/- 1/10 mm (absolutely accurate – no need to check again). The **VARIO drive** is also very user-friendly. Using a keypad from the same operating position, you can choose any speed between 2 000 and 6 000 rpm. The colour LCD screen clearly displays the settings chosen. And just so you can size large panels in greater safety and comfort, **on/off switches** have been fitted to the **sliding table**.



This model is fitted with a motorised rip fence, the VARIO drive and on/off switches on the sliding table itself.

OPTIONS PACK F 45 II	PAGE	STANDARD EQUIPMENT FOR THE F45	OPTIONS PACK F45 II
Motorised rise/fall and tilt control for main saw blade	26/27	■	■
F45 screen controls on machine frame	26/27	■	■
Sliding table 3 000 mm	9, 48	■	■
Rip fence, motorised adjustment, cutting width 1 000 mm	54		■
Crosscut-mitre fence, manual adjustment with length compensation, crosscuts to 3 500 mm	8, 50	■	■
VARIO drive with 5.5 kW (7.5 HP) drive rating with infinitely variable speed adjustment between 2 000 and 6 000 rpm.	46		■
On/off switches on sliding table	48		■
Quick change system for the main saw blade		■	■
Max. cutting height 200 mm, max. saw blade diameter 550 mm	8, 61	■	■
840 mm table extension, anodized aluminium	55	■	■
USB interface for data transfer	26/27	■	■
Machine diagnostics and operating hours counter	26/27	■	■

F 45 II





Options pack F 45 III: See eye to eye with your control panel.

■ The **F 45 III** is controlled from an **eye-level operating panel** which allows the user an easy overview of all settings. The panel can be adjusted ergonomically to suit the user, moving both vertically and horizontally. The practical clipboard can be fixed to either the left or the right of the operating panel. The **motorised rip fence** is operated via a keypad from this eye-level panel. The dimensions appear on the large colour screen. This fence saves you running round to the other side of the machine and back to change the settings. The **VARIO drive** is particularly good for obtaining the optimal cutting speed setting for your material. The infinitely variable speed control is operated via a keypad, and the settings are displayed clearly on the LCD screen. The VARIO drive means there's no need to move the drive belt to change the speed, and also reduces tool sharpening costs dramatically.



An eye-level operating panel allows the user to achieve optimum, ergonomic control of the VARIO drive and the motorised rip fence.

OPTIONS PACK F 45 III	PAGE	STANDARD EQUIPMENT FOR THE F45	OPTIONS PACK F45 III
Motorised rise/fall and tilt control for main saw blade	26/27	■	■
F45 screen controls	26/27	■	■
Eye-level operating panel with clipboard	25, 26		■
Sliding table 3 000 mm	9, 48	■	■
Rip fence, motorised adjustment, cutting width 1 000 mm	54		■
Crosscut-mitre fence, manual adjustment with length compensation, crosscuts to 3 500 mm	8, 50	■	■
VARIO drive with 5.5 kW (7.5 HP) drive rating with infinitely variable speed adjustment between 2 000 and 6 000 rpm.	46		■
Quick change system for the main saw blade		■	■
Max. cutting height 200 mm, max. saw blade diameter 550 mm	8, 61	■	■
840 mm table extension, anodized aluminium	55	■	■
USB interface for data transfer	26/27	■	■
Machine diagnostics and operating hours counter	26/27	■	■

F 45 III



Intelligent control – exact cuts.



■ This generation of machinery incorporates **the most advanced controls ever offered** in a standard Altendorf, resulting in new standards of user-friendliness, simplicity, safety and ergonomics. All settings are easy to read in the large 90 mm colour LCD display. The green function keys call up the height and tilt of the saw blade, as well as, depending on configuration, scorer, motorised rip fence and VARIO variable drive speed options. New values are entered using the white input keys.



■ **Control of the axes** and other functions is possible either via numerical input or via continuous precision control using the +/- keys. The control unit can store up to 20 set-ups, making it easier to repeat a cut and helping to eliminate user errors. A touch of a button calls up the previous set-up from the memory, and another puts it into effect. When the saw blade tilts, the cutting height is corrected automatically.



■ **For safety's sake**, the F45 has a self-diagnosis facility which displays potential faults immediately on the display in detail. The USB interface enables you to store machine data on a USB stick and also provides quick and easy access for software updates.



The **outer dimension function** makes it possible to size workpieces with angle cuts on one or both sides. The display shows the dimension to be set on the crosscut fence taking into account the thickness of the workpiece and the tilt angle.



Groove function: Once the groove parameters have been entered, the rip fence is automatically positioned step by step to realise the groove.



The **bevel rip function** allows precise final sizing of long rip cuts with the saw blade at an angle. To achieve this, the following parameters must be input first: workpiece thickness, saw blade kerf and the required oversize.

CONTROL FUNCTIONS AVAILABLE:

- Input of height and tilt parameters for main saw blade via keypad (CNC controlled)
- Digital cutting height display
- Digital tilt angle display
- Digital rotational speed display
- Continuous precision axis control using +/- keys
- Easy axis calibration
- Machine self-diagnosis
- Operating hours counter
- USB interface
- Last set-up recall from the buffer memory
- Program menu with language selection, switching between mm and inches, 20 storable set-ups
- Outer dimension function
- Dimension correction for the rip fence when saw blade is tilted

Optional:

- Motorised rip fence control incorporating the following functions: grooving, incremental dimensions and bevel rip
- Motorised adjustment of the scoring unit
- Infinitely variable speed adjustment (VARIO)

PRACTICAL TIPS: F 45 CONTROL SYSTEM



THE F45

- Equipment Overview
- F45 ELMO III
- F45 ELMO IV

ELMO





 ALTENDORF®

F45_{ELMO}

F45 ELMO

▣ **The F45 ELMO:** Outstanding elegance and seductive ergonomics distinguish the new F45 ELMO. The aesthetically pleasing touch sensitive user interface helps the operator with clever solutions to cutting problems. The new F45 ELMO offers an impressive array of intelligent features, all of which contribute to higher efficiency and thus greater profitability for the owner.



415.0

2110.0

22.50°

40.0

30.0°

560.0

Extras

4200
[1/min]

Menu

T

Back

Prog

ELMO

10

10

10

10

ALTENDORF

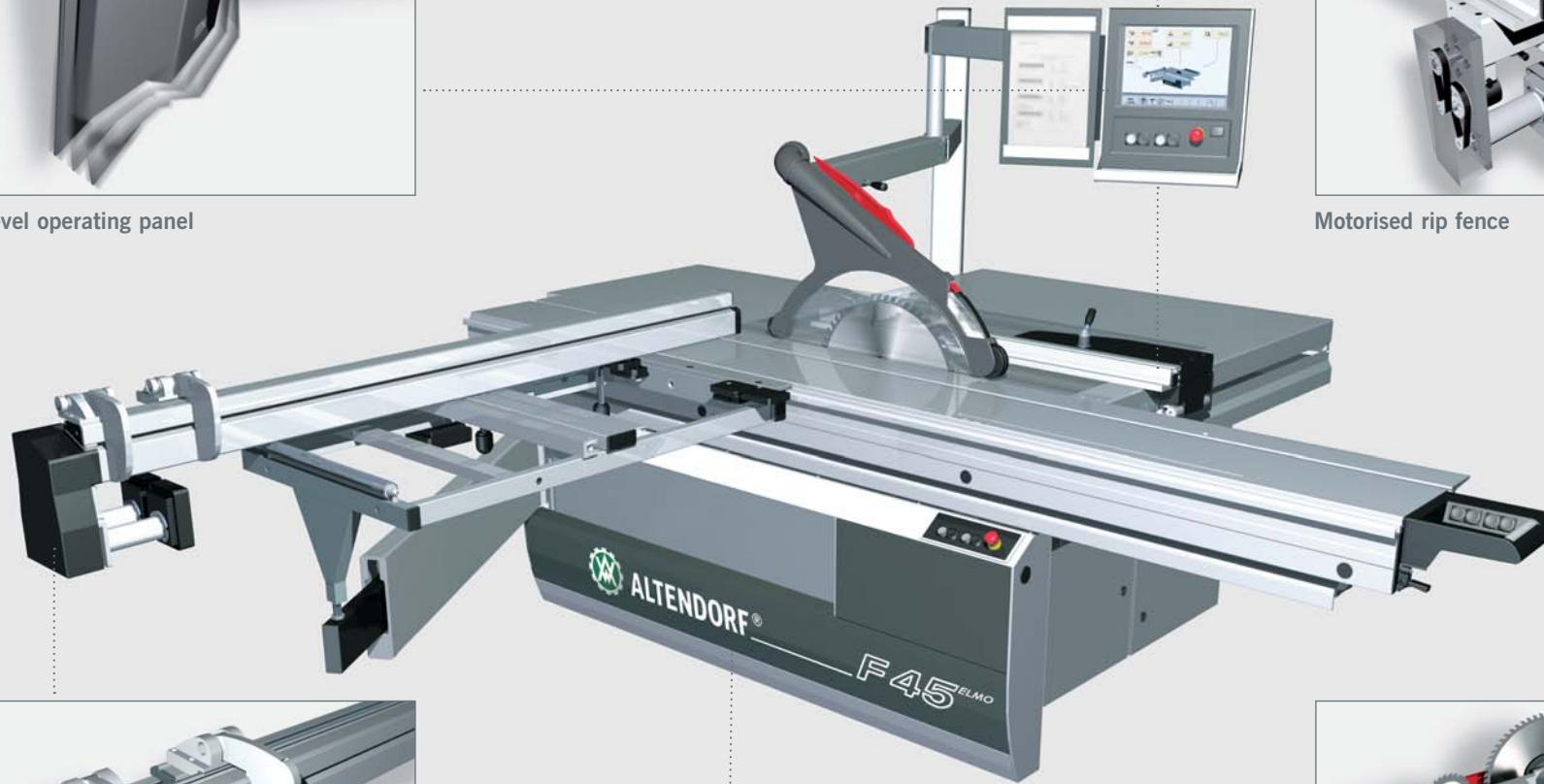




Eye-level operating panel



Motorised rip fence



Motorised crosscut-mitre fence



Saw unit



The F 45 ELMO – An intelligent modular system.

■ The F 45 ELMO has been fundamentally redesigned. The result is a high-tech modular system, which handles even the most challenging technical requirements of the saw user. Operating the F 45 ELMO is very straightforward thanks to the low-reflection 12" colour LCD display with touch screen and the intuitive graphical user prompting system. The display shows 90% of the applications, thus cutting down on time spent navigating. The USB port makes it possible to upload, download and backup data. The F 45 ELMO IV also comes equipped with a crosscut fence with motorised flip stop adjustment. A crosscut-mitre fence with motorised flip stop adjustment and integral length compensation is available as an option. The F 45 ELMO legend is reborn!

EQUIPMENT FOR THE F 45 ELMO		F 45 ELMO III	F 45 ELMO IV
	PAGE		
Motorised rise/fall and tilt control for main saw blade	40/41	■	■
F 45 ELMO screen controls with touch screen	37, 39, 40	■	■
Eye-level operating panel with clipboard	37, 39, 40	■	■
Sliding table 3 000 mm	9, 48	■	■
Rip fence, motorised adjustment, cutting width 1 000 mm	37, 39, 40, 54	■	■
Crosscut-mitre fence, manual adjustment with length compensation, crosscuts to 3 500 mm	8, 37, 50	■	
Crosscut fence with fixed 90° angle, motorised adjustment of flip stops, crosscuts to 3 500 mm	39		■
Crosscut-mitre fence, motorised adjustment of flip stops, manual angle adjustment with length compensation, crosscuts to 3 500 mm (optional)	39, 40, 50		□
VARIO drive with 5.5 kW (7.5 HP) drive rating and infinitely variable speed adjustment between 2 000 and 6 000 rpm.	37, 39, 46	■	■
Preparation for scoring unit retrofit	37, 39, 46	■	■
Quick change system for the main saw blade		■	■
Max. cutting height 200 mm, max. saw blade diameter 550 mm	8, 61	■	■
840 mm table extension, anodized aluminium	55	■	■
USB interface for data and program transfer	40/41	■	■
Machine diagnostics and operating hours counter	40/41	■	■





F 45 ELMO III: Diversity and functionality.

■ The **F 45 ELMO III** offers a diverse range of practical application programs to simplify the execution of both daily operations and special cutting requirements. Operation is via a **12" touch screen**. Just key in the dimensions, press the start key and the **motorised rip fence** will move, at 250 mm/sec., to precisely the set value within a tolerance of +/- 1/10 mm. The infinitely variable 2000–6000 rpm. **VARIO drive** rounds off the package of quality and efficiency.



The F 45 ELMO III is ideal, with a large 12" touch screen to run the whole machine and its comprehensive range of programs.

EQUIPMENT FOR THE F 45 ELMO III	PAGE	STANDARD EQUIPMENT FOR THE F 45	F 45 ELMO III
Motorised rise/fall and tilt control for main saw blade	40/41	■	■
F 45 ELMO screen controls with touch screen	40/41		■
Eye-level operating panel with clipboard	40		■
Sliding table 3000 mm	9,48	■	■
Rip fence, motorised adjustment, cutting width 1000 mm	40,54		■
Crosscut-mitre fence, manual adjustment with length compensation, crosscuts to 3500 mm	8,50	■	■
VARIO drive with 5.5 kW (7.5 HP) drive rating and infinitely variable speed adjustment between 2000 and 6000 rpm.	46		■
Preparation for scoring unit retrofit	46		■
Quick change system for the main saw blade		■	■
Max. cutting height 200 mm, max. saw blade diameter 550 mm	8,61	■	■
840 mm table extension, anodized aluminium	55	■	■
USB interface for data and program transfer	40/41	■	■
Machine diagnostics and operating hours counter	40/41	■	■

F 45 ELMO III





F 45 ELMO IV: High-level CNC technology.

■ The **F 45 ELMO IV** is the pinnacle of the Altendorf sliding table saw range. It has four axes – height, tilt, **rip fence and crosscut fence**. These can be controlled via the ELMO 12" touch screen controls and the comprehensive range of programmes. The display depicts 90% of all applications. A crosscut-mitre fence with automatic length compensation, two motorised flip stops and manual angle adjustment is available as an option. Switching between front and rear positions on the cross slide can be achieved without lifting the fence. The mitre angle can be adjusted by up to 47° in either position and is displayed in digital form on the screen, to an accuracy of 1/100°. The **VARIO drive** for infinitely variable speed adjustment (between 2 000 and 6 000 rpm.) forms an integral part of the machine. And the interface package option means the F 45 ELMO can be networked.



The F 45 ELMO IV is simplicity itself to work with: The 12" touch screen controls all processes, the rip and crosscut fence are both motorised and the VARIO drive provides infinitely variable speed adjustment.

EQUIPMENT FOR THE F 45 ELMO IV	PAGE	STANDARD EQUIPMENT FOR THE F45	F 45 ELMO IV
Motorised rise/fall and tilt control for main saw blade	40/41	■	■
F 45 ELMO screen controls with touch screen	40/41		■
Eye-level operating panel with clipboard	40		■
Sliding table 3 000 mm	9, 48	■	■
Rip fence, motorised adjustment, cutting width 1 000 mm	40, 54		■
Crosscut fence with fixed 90° angle, motorised adjustment of flip stops, crosscuts to 3 500 mm			■
Crosscut-mitre fence, motorised adjustment of flip stops, manual angle adjustment with length compensation, crosscuts to 3 500 mm (optional)	50		□
VARIO drive with 5.5 kW (7.5 HP) drive rating with infinitely variable speed adjustment between 2 000 and 6 000 rpm.	46		■
Preparation for scoring unit retrofit	46		■
Quick change system for the main saw blade		■	■
Max. cutting height 200 mm, max. saw blade diameter 550 mm	8, 61	■	■
840 mm table extension, anodized aluminium	55	■	■
USB interface for data and program transfer	40/41	■	■
Machine diagnostics and operating hours counter	40/41	■	■

F 45 ELMO IV



Simple controls for efficient cutting.

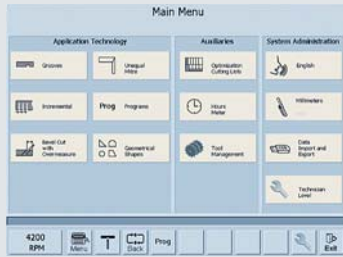
■ **The F45 ELMO touch screen control** reacts to light pressure from the user's fingers and its large 12" size makes it easy to read. At any one time, only the information required to perform the next operating step is displayed. This means targeted work and fast, error free entry.

A swift glance at the screen shows the position of the fences and other settings. In the centre of the screen is an icon for the machine, while the axis positions are shown grouped around the machine to give an easy overview. Touching a parameter displayed on the screen opens the window for entering values. Positioning can then begin with a touch of the Start key. Self-explanatory symbols provide a reliable guide to the comprehensive range of functions available. The practical help function reacts to unexpected inputs and shows means of troubleshooting.

Even difficult cuts are made easier and more exact than ever. The F45 ELMO IV's optional crosscut-mitre fence can be adjusted manually by up to 47°. The new control unit measures the mitre angle to within $\pm 1/100^\circ$, calculates the length compensation and positions the flip stops when the Start button is pressed (hold-to-run function). This means you can make mitre cuts to the inside or outside dimension and cut compound mitres in a single operation.

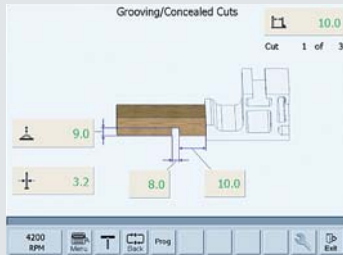
For speed when it comes to frequently-used functions, the lower part of the screen has a toolbar giving direct access without having to trawl through the menu. In order to optimize the individual steps needed in your particular work, some of these fields can be customized (desktop function). All the other functions are arranged in three easily identifiable groups on the main menu, which you can access via the menu key. Data and software updates can be uploaded to the control unit from a USB stick.





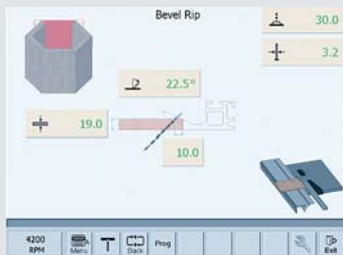
Menu:

The user is able to view all principal and additional functions at once.



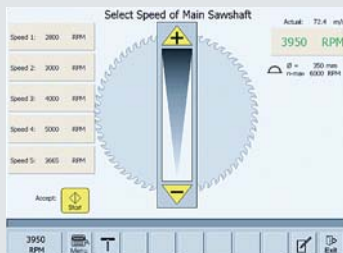
Groove function:

Once the groove parameters have been entered, the rip fence is automatically positioned step by step to realise the groove.



Bevel rip function:

The required finished size is achieved by cutting away the excess once the angle of the edge and workpiece thickness have been entered.



Rotational speed menu:

The F 45 ELMO control unit provides infinitely variable rotational speed selection, displays the cutting speed and enables the user to store frequently used rotational speeds.

F 45 ELMO CONTROL FUNCTIONS AVAILABLE:

- Motorised rise and fall and tilt of the saw blade
- Motorised rip fence setting
- Automatic correction of the outer dimension on the rip fence
- F 45 ELMO IV:
 - Automatic correction of the outer dimension on the crosscut fence
 - Motorised control of the flip stops
 - Automatic positioning of the flip stops with length compensation simplifies the cutting of compound mitres
 - Motorised control of the crosscut-mitre fence (optional): Mitre angle displayed to within 1/100°, range: up to 47°, two independently adjustable flip stops
- Automatic cutting width correction on motorised fences when saw blade tilted
- Traverse speed of axes 250 mm/sec.
- Stores up to 600 set-ups
- Machine diagnostics
- Job time recording and operating hours counter
- Calculator function, with results transferred to the relevant axis
- Interface for connecting to a PC, for example to allow running of optimisation programmes (optional)
- Tool management
- Infinitely variable speed selection (VARIO)

APPLICATIONS:

- Incremental dimensions
- Grooving
- Bevel rip with oversize
- Mitre joints between pieces of different widths
- Cutting sequences
- Geometric shapes

PRACTICAL TIPS:
F 45 ELMO CONTROL SYSTEM

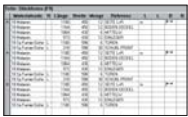
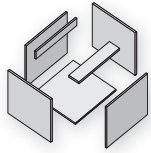




Cut optimisation software with link to the saw.



■ **Cut optimisation:** With Altendorf cut optimisation hard wired from your PC to the sliding table saw, you can automate the generation of your cutting lists and their subsequent execution. After the planning and design stage and the production of a cutting list, the software calculates an optimised cutting plan. This is then transferred to the sliding table saw using a bar code reader. From this point on, all that is required is a press of the “start” button and the axes move cut for cut into the programmed positions. The system saves an enormous amount of time, optimises raw material usage and practically rules out errors.



powered by **ARDIS**

■ The benefits of Altendorf cut optimisation:

1. Everything runs automatically: Scan the barcode and the cutting list is transferred online from your PC. With the press of a button the axes position automatically under CNC control. **2. One press of the button is enough:** Key the “start” button and the next set up is executed automatically. Manual entries are a thing of the past. Errors are eliminated. **3. Easiest operation:** Graphic displays guide the operator. Each cutting sequence is clearly displayed step by step. For more information on Altendorf cut optimisation packs, contact your dealer or Altendorf directly.

PACK 1: A 45-OPTI

■ Optimisation + interface pack:

With the ARDIS optimisation programme, an optimised cutting list is prepared for the complete job. It is transferred to the Altendorf sliding table saw by bar code scan. Now all that is required is the press of the “start” button to execute the sequence of cuts. N.B. you can order just the Altendorf interface kit if you want to connect to other optimisation programmes.

PACK 2: OPTION-S

■ Optimisation of pre-sized strips:

This module optimises panel sizing. Each job is subdivided into initial oversized strips with final dimension cutting. With this option, each strip receives a separate job code with information for the subsequent final sizing operation. The appropriate cutting plan is downloaded to the sliding table saw by barcode scan.

PACK 3: A4 LABEL

■ Label printing on A4 sheets:

This module prints parts labels onto A4 sheets at the PC. On each sheet there are 16 labels representing the cut sequence. The labels record the following information: initial and final dimension of the workpiece, workpiece ID, comments, job number and a graphic representation. If further operations are envisaged, such as mitre/bevel cuts or grooving, an additional barcode is provided to call up these operations.

PACK 4: ONLINE LABEL

■ Automatic printing of labels at the sliding table saw:

This software module prints parts labels directly at the saw, as soon as the relevant part has been cut. The label printer must be connected to the PC, which communicates with the saw via the interface pack. The printer and the physical connection to the PC are not included.



OPTIONS

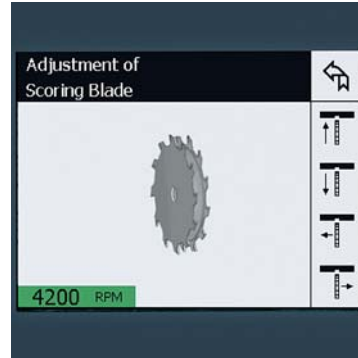
Practical, flexible combinations: An Altendorf is there to help you work as effectively as possible. And the best way to do that is to configure the machine so that it corresponds to your individual needs. Altendorf have applied their more than 100 years of experience to create the machines and accessories which really match up to their customers' wishes. Today's user can choose from a large range of options, many of which are patented, so they are only available to Altendorf users. Your individual Altendorf awaits you!



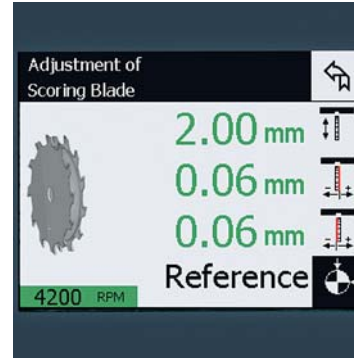
The right configuration for the materials you cut.



■ **RAPIDO scoring tool:** A scorer prevents chipping out on the underside of laminated panels. The RAPIDO scoring system makes it easier and quicker to adjust the cutting width to match that of the main blade. How quick? About three minutes, max! Compared to working with shims, where you have to take the blade off the machine to alter its width, the RAPIDO saves at least ten minutes, as the blade stays on the machine during adjustment. Adjustment is continuous so the RAPIDO can be fine-tuned to match any main blade. Adjustment range: 2.8–3.8 mm.



■ **Motorised adjustment of the 2-axis scorer:** The vertical and lateral settings of the Altendorf scoring saw are motorised and can be adjusted while the saw is running. Simple menu guidance on the display positions the scorer within seconds. The last scoring height used is always stored. When the scoring blade is switched on, the scorer moves to the height stored. When either the main or scoring blade is switched off, the scorer moves back under the table.



■ **RAPIDO Plus:** This three-axis scoring system provides independent motorised adjustment of the cutting height and the left and right sides of the scoring saw blade. All settings can be activated via the keypad while the machine is running and are shown on screen. The scoring system automatically drops below the table when not in use and resumes its working position when switched on again. An additional reference position can also be stored. Changing saw blades is quick, easy and safe. The first set of saw blades is supplied with your machine.

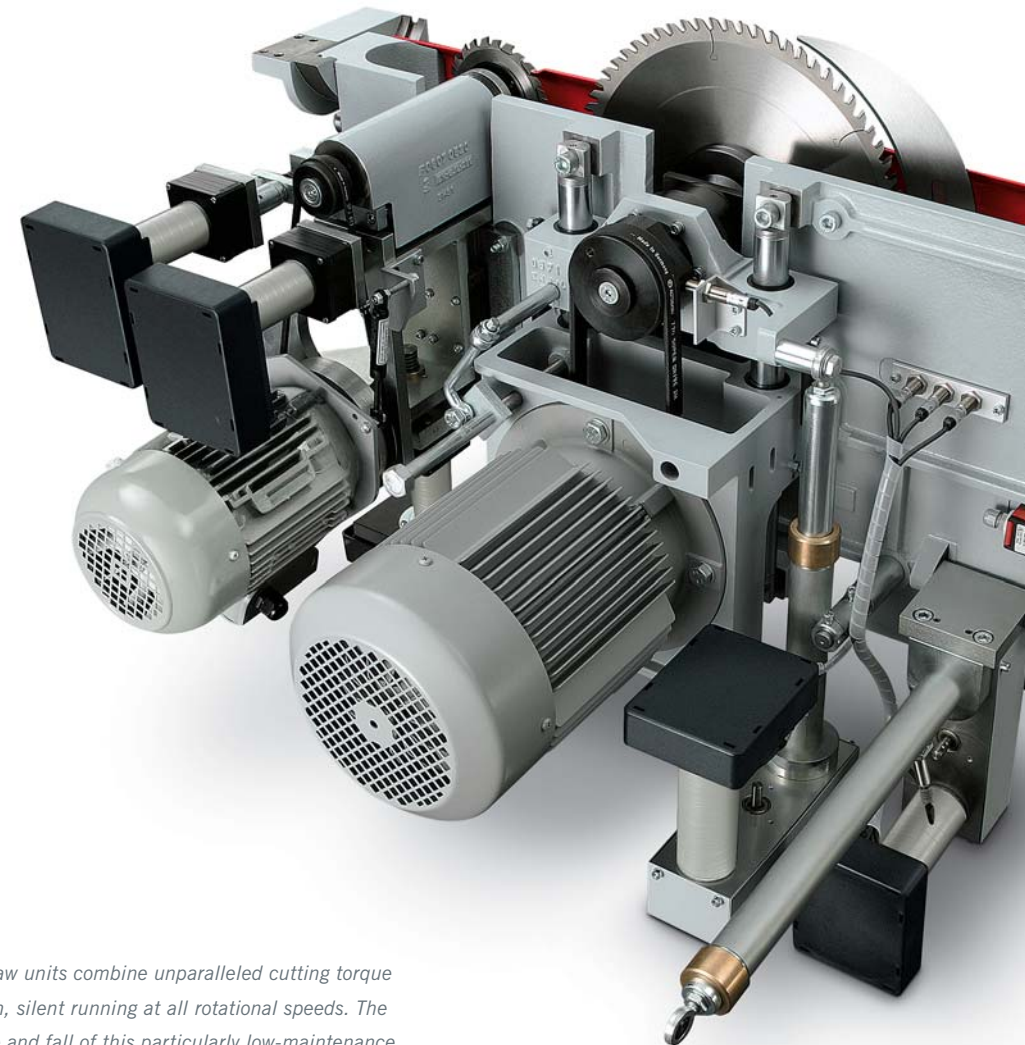


■ **VARIO drive:** VARIO offers infinitely variable rotational speed setting between 2 000 and 6 000 rpm., so the cutting speed can be matched precisely to the material to be cut. Altendorf's VARIO drive concept offers users a solution for wood, plastic and non-ferrous metals applications that outperforms conventional three-phase motors in a whole series of ways. Cutting performance, for example, is much enhanced: above 3 000 rpm. users can expect performance similar to that of a conventionally driven 11 kW motor. The VARIO is very user-friendly too: frequently-used speeds can be stored and recalled, for example, making it possible to adapt the rotational and cutting speeds to suit the application and the geometry of the workpiece for truly optimal results.



Silence is power.

■ **Our recommendation:** If you want to be able to match the cutting speed optimally to different materials, you need look no further than the VARIO drive, which provides infinitely variable speed adjustment between 2 000 and 6 000 rpm. The drive will save you money on saw blade maintenance and replacement procurement costs and reduce your setup times. It can be adjusted while the motor is running and frequently-used speeds can be stored and recalled as required.



	STANDARD EQUIP- MENT FOR THE F 45	OPTIONS PACKS F 45 I – III	F 45 ELMO III AND IV
DRIVE RATING AND ROTATIONAL SPEED			
5.5 kW (7.5 HP)			
· three-speeds, manually adjusted 3/4/5 000 rpm.	■		
· VARIO/infinitely variable speed adjustment 2 000 – 6 000 rpm.	□	■	■
7.5 kW (10 HP)			
· three-speeds, manually adjusted 3/4/5 000 rpm.	□	□	□
11 kW (15 HP)			
· three-speeds, manually adjusted 3/4/5 000 rpm.	□	□	□
ENERGY SAVING PACKAGE			
To reduce the electricity usage of the machine incl. automatic switch off	□	□	□

■ Supplied as standard

□ Optional extra

Altendorf saw units combine unparalleled cutting torque with smooth, silent running at all rotational speeds. The vertical rise and fall of this particularly low-maintenance saw unit uses high-precision maintenance-free linear motion guide bearings and very robust tilt quadrants.



Renowned for smooth running and precision.



■ **Sliding table:** The Altendorf sliding table is renowned for its smooth, precise running. The large double rollers guide the moving table with absolute precision between the top and bottom hardened steel guide bars. The table requires little force to move. The sliding table will work for decades without any complications, requiring little maintenance and no lubrication. The hollow multi-chamber design gives great torsion resistance and rigidity.



■ **On/off switches on sliding table:** The practical option. The on/off switches are always right where you need them, at the end of the sliding table. The four keys switch both the main and scoring blades on and off. This option allows you to load a large workpiece before switching the machine on, thus improving safety and convenience. The keys can be operated without you having to switch specially between the machine operating panel and the sliding table switches.



■ **TIP-SERVO-DRIVE:** Electric servo assisted drive for the sliding table. This unique optional extra is designed to take the strain off the operator's body, especially the back. The motorised drive of the sliding table makes it supremely easy to move even the heaviest of workpieces back and forward during cutting, while the electronic sensor control handle responds to the slightest touch (max. 1 kp). You can move the sliding table along the entire length of the cut in both directions of travel with full servo support and you can vary the speed as you wish by varying your hand pressure. The control handle can be positioned anywhere on the sliding table. The result: you can walk upright and fully relaxed during the entire cutting operation. TIP-SERVO-DRIVE is not available for the F45 ELMO IV and cannot be used in combination with the on/off switches on sliding table or vacuum clamping in sliding table options.

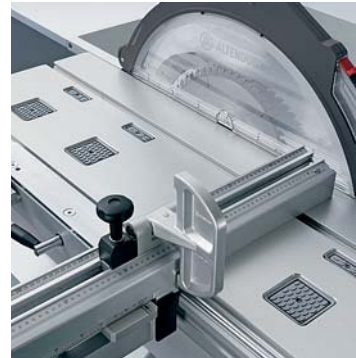


SLIDING TABLE	F 45
Table length 2 250 mm	<input type="checkbox"/>
Table length 3 000 mm	<input checked="" type="checkbox"/>
Table length 3 200 mm	<input type="checkbox"/>
Table length 3 400 mm	<input type="checkbox"/>
Table length 3 800 mm	<input type="checkbox"/>
Table length 4 300 mm	<input type="checkbox"/>
Table length 5 000 mm	<input type="checkbox"/>

■ Supplied as standard

Optional extra

Get a grip on your workpiece: Vacuum clamping in the sliding table from Altendorf.



■ **Design principles of the Altendorf vacuum clamping system:** Anyone who regularly works with large panels and other awkward workpieces will appreciate the value of an effective method of clamping the workpiece to the sliding table. Altendorf is the first to apply proven vacuum clamping technology to sliding table saws. The system, which is integrated into the sliding table itself, has at its heart a powerful vacuum pump that generates a vacuum via suction pods arranged in the sliding table. The system's ability to fix the material in place securely on the sliding table is particularly valuable when making less straightforward cuts such as angles, long mitres and cuts to an outside dimension. Reliable vacuum clamping creates optimal conditions for ultra-precise cutting results.

■ **Vacuum clamping:** The various suction pod sectors positioned along the length of the sliding table can be activated individually at the touch of a button, allowing the vacuum to be matched optimally to each workpiece. Panels of wood, plastic and non-ferrous metals can all be retained securely on the sliding table: the only requirement is that the surface of the workpiece be sufficiently smooth that the suction pad can develop a vacuum. Another touch of a button is all it takes to release the workpiece. Vacuum clamping improves reliability, precision and convenience and helps to eliminate manual operating errors.



Improved crosscutting and mitre cutting.



■ **Crosscut-mitre fence (standard equipment):** This fence simplifies crosscuts and mitre cuts because it does both. Switching between front and rear positions on the cross slide can be achieved without lifting the fence. In either position, the mitre angle can be adjusted by up to 49° using a scale. Even when the fence is angled, a large supporting surface area is available for workpieces.



■ **Integral length compensation (standard equipment):** When cutting mitres, length compensation means measurements to the stops are accurate whatever the angle. Simply slide the fence to the desired angle, line up the pointer with the same angle on the length compensation scale, then set the flip stop to the length required.



■ **DIGIT L and DIGIT LD crosscut-mitre fences:** For 1/10 mm accuracy when setting the length dimension. The display shows all stop settings applied. The central measuring and display unit calibrates the entire system in one operation. High-capacity batteries and a charger are included. The DIGIT LD also displays the angle digitally, allowing precise adjustment to $\pm 1/100^\circ$. The length dimension is calculated automatically as a function of the mitre angle, so test cuts are unnecessary.



■ **Motorised crosscut-mitre fence:** This fence for the ELMO IV features automatic length compensation and two motorised flip stops. Switching between front and rear positions on the cross slide can be achieved without lifting the fence. The mitre angle can be adjusted manually by up to 47°. The control unit measures the mitre angle to within $\pm 1/100^\circ$, calculates the length compensation and positions the flip stops when the Start button is pressed (hold-to-run function). This means you can make mitre cuts to the inside or outside dimension and cut compound mitres in a single operation. The new F45 ELMO control unit with touch screen makes even difficult cuts easier and more precise than ever.





▣ **PALIN:** Long narrow workpieces can be cut parallel or into a conical shape with absolute accuracy using the PALIN fence. As the fence itself is flush with the sliding table in the vertical plane and the workpiece is laid sideways against the stop, there is no reduction in cutting length and workpieces of differing lengths can be cut without moving the fence up and down the sliding table. With the measuring system removed, the fence acts as an additional workpiece support. Also available in digital form as PALIN D. The photo shows PALIN D with a DIGIT L crosscut-mitre fence.



▣ **DUPLEX double-sided mitre fence:** DUPLEX fences make it possible to cut any angle between 0 and 90° very quickly and exactly. At 45°, the mitre can be cut on both sides of the workpiece without having to adjust the fence. The dimensions are set using a magnifying glass, measuring scale and length compensation scale. All varieties of DUPLEX can be positioned anywhere along the length of the sliding table.



▣ **DUPLEX D:** The DUPLEX D functions in exactly the same way as the standard DUPLEX with the addition of a digital angle display which operates to an accuracy of within 1/100°.



▣ **DUPLEX DD:** An exclusive Altendorf development, the DUPLEX DD has been patented worldwide. The high precision DUPLEX DD electronics incorporate automatic length compensation and calculate the distance to the stops as a function of the angle on both sides of the fence and display both figures digitally. Checking of measurements, complicated calculations and test cuts are all unnecessary.

DOUBLE-SIDED MITRE FENCES	CROSSCUT STOPS TO
DUPLEX , settings via measuring scale	1 350 mm
with longer fence	2 150 mm
DUPLEX D , with digital angle setting	1 350 mm
with longer fence with longer fence	2 150 mm
DUPLEX DD , with digital angle and length setting	1 350 mm
with longer fence	2 150 mm



The Altendorf parallelogram cross slide.



■ **Design principles of the Altendorf parallelogram cross slide:** The quality of the guidance systems guarantees the accuracy of the new parallelogram cross slide. Wearproof needle bearings ensure precision of both linear measurement and angle. The integrated linear guide unit is responsible for the incredible ease of operation of the system, resulting in fast set up times and ergonomic efficiency. Moving the fence from front to back positions requires the simple release of two easily accessible clamping knobs. This precise and ergonomic design results in accuracy, which is both fast to achieve and perfectly reproducible.



■ **Parallelogram cross slide PQS:** Altendorf set new standards for ease of operation and accuracy with the new rotating parallelogram cross slide. With its built-in linear guide unit and robust design, the system is error and wear free. The rigid 90° locking mechanism ensures an absolute return to the right angle position of the fence. The fence can be angled by up to 47° from both front and back positions and the angle is shown to an accuracy of 1/100° in the integrated digital display. Length compensation for the stops is read off a built-in scale. Standard capacity to the outer stop: 3 500 mm, or 3 150 mm with DIGIT L or DIGIT LD.



■ **PQS with DIGIT L:** Developed specifically for the new parallelogram cross slide, this crosscut-mitre fence shows the distance to all stops digitally in the new LCD display, which has a screen size of 90 mm (diagonal). Length compensation is straightforward once the fence has been set to the required angle. The fine adjustment of the distance to the stops is accurate to 1/10 mm and the angle is shown just as with the standard parallelogram cross slide. Coupled with the new fast clamping for the fence, this reduces set up time to an absolute minimum. The new high-capacity batteries can be recharged very quickly using the integral charger provided.



■ **PQS with DIGIT LD:** The DIGIT LD shows the angle in the new LCD display as well as providing all of the functions of the DIGIT L. The angle can be set precisely with an accuracy of $\pm 1/100^\circ$. The length compensation is factored in directly when the distance to the stops is displayed.





Precision cutting to the right of the saw blade.



■ **DIGIT X:** A digital cutting width display for the rip fence with manual fine adjustment. This electronic measuring system guarantees rapid, precise adjustment of the rip fence. DIGIT X also offers repeat accuracy: the fence can be moved and then returned to exactly where it was previously. The correction of the rip fence dimension when the saw blade is tilted, is shown digitally on the machine control unit's LCD display. The system is immune to both wear and dust. Dimensions are corrected automatically when the fence is changed from the upright or the flat position.



■ **Motorised rip fence:** The motorised rip fence has a traverse speed of 250 mm/sec. and an accuracy of $\pm 1/10$ mm. The high precision five-point recirculating ball spindle system needs little maintenance and, along with the motor, is well protected by its integration into the aluminium profile. The fence automatically recognizes the position it's in, especially when it reaches the danger area around the saw blade. It has an emergency cut-out to prevent the risk of crushing. The dimensions are corrected automatically when the fence is changed from the upright or the flat position, or the saw blade tilted.



Cross slide extension:

The cross slide extension provides an additional supporting surface when crosscutting large or long workpieces.



Additional cross slide:

The additional cross slide supports large and/or heavy panels, thus ensuring precise cutting.



STEG:

The STEG second support makes the user's job easier when it comes to sizing large panels.



Infed support table:

The infed support table is useful when trimming long, narrow workpieces.

**PRACTICAL TIPS:
SUPPORTING WORKPIECES.**





Workpieces securely supported.



■ **Cross slide extension:** Can be pulled out by up to 700 mm. F45 ELMO IV model is 650 mm and cannot be extended further.



■ **Additional cross slide:** For particularly large workpieces weighing up to 250 kg. The flip stops drop away under the support area of the cross slide.



■ **STEG – second support on the sliding table:** Enlarges support area (width: 400 mm) for wider workpieces.



■ **Infeed support table:** An additional workpiece support for long, narrow workpieces. Positioned in front of the machine table, it can be swung away and lowered.

TABLE EXTENSIONS	
positioned behind the machine table, anodized aluminium	F45
840 mm	■
1 200 mm	□
1 600 mm with floor support	□
2 000 mm with floor support	□

CUTTING WIDTHS TO RIP FENCE	
Table extension, anodized aluminum	F45
800 mm	□
1 000 mm	■
1 300 mm	□
1 600 mm	□

- Supplied as standard
- Optional extra



Greater safety, greater convenience.



■ **Quick-action pneumatic clamp:** Ensures the workpiece is securely supported on the sliding table. Activated by radio remote control, the quick-action clamp exerts a clamping force of up to 1 000 N. The workpiece is held rock solid against the crosscut fence. Workpieces up to 90 mm or between 80 and 170 mm thick can be attached in this way. Available with one or two clamping units.



■ **Manual quick-action clamp:** This is the alternative to the pneumatic clamp. The manual clamp can be easily positioned on the sliding table and is equally easy to fix. The workpiece is then firmly secured on the table and held firmly against the crosscut fence. This provides extra safety at very little extra cost.



■ **Pneumatic pressure beam:** Comes in two pieces, which can be controlled separately. This secures workpieces up to 80 mm thick. It is especially useful for long, thin materials such as veneer.

PNEUMATIC PRESSURE BEAM

Clamping height 80 mm, pneumatic connection to be provided by customer (6 bar)

TABLE LENGTH	CLAMPING LENGTH
2 250 mm	1 975 mm
3 000 mm	2 725 mm
3 200 mm	2 925 mm
3 400 mm	3 125 mm
3 800 mm	3 525 mm



■ **Laser cutting line marker:** Shows the cutting line clearly for all cutting lengths, which is useful when trimming or cutting marked jobs, e.g. steps. Saves time and materials.



■ **Coolant spray device:** A spray device is recommended for plastics with a low melting point and for certain light metal alloys. Thousands of Altendorf sliding table saws have already been at work for years in the plastics and metal processing industries. An Altendorf will cut non-ferrous metals and plastics cleanly, with sharp contours, to within a tenth of a millimetre.



Perfect cutting results, and not just for wood: With the F45 and F45 ELMO, you can handle a wide range of materials apart from wood, for example non-ferrous metals and various plastics. And there is no better evidence than the thousands of Altendorf sliding table saws in use in metal- and plastics-processing businesses right across the world.



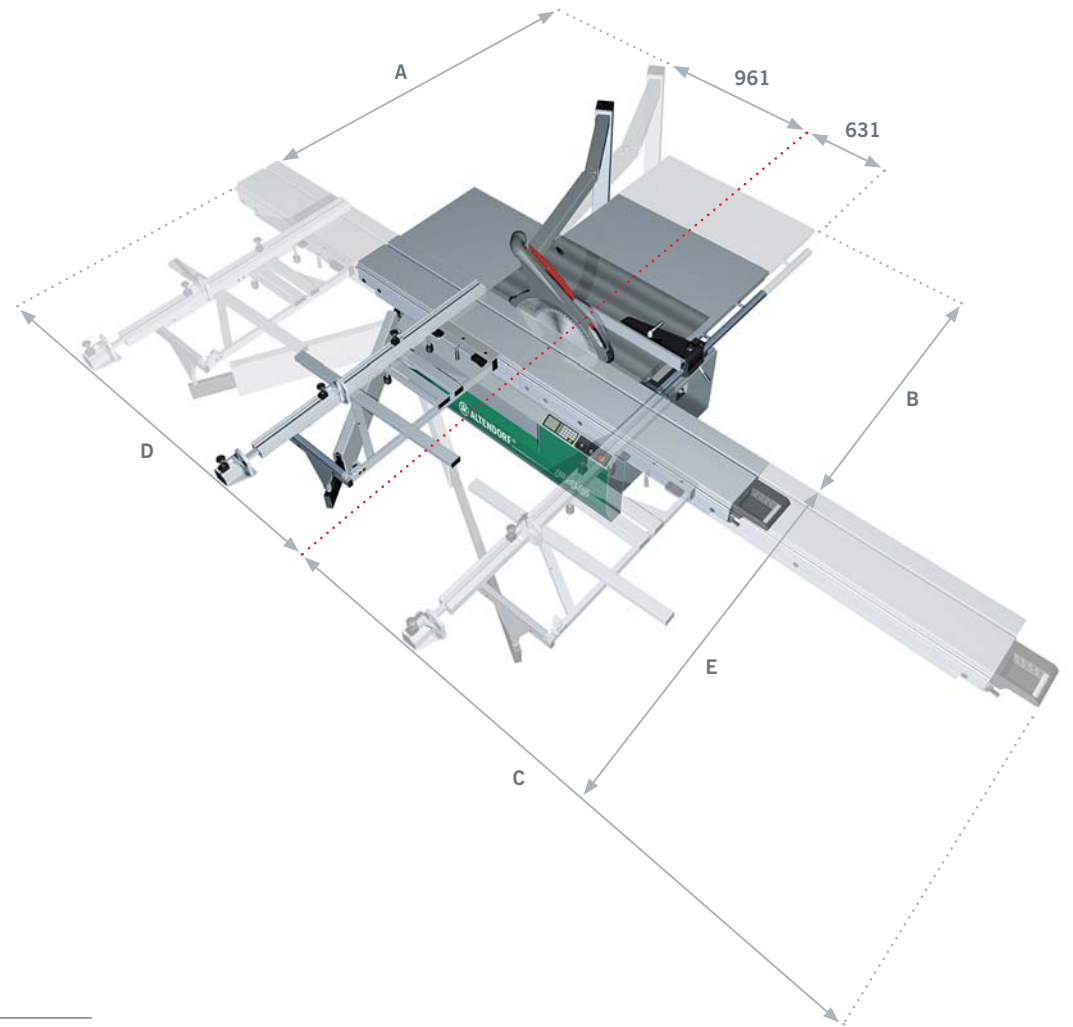
DATA



It's decision time: Now you know all about your new Altendorf. You know what possibilities the Altendorf has to offer. You know which configuration suits your work best. You know if you need a traditional F45 or whether an F45 ELMO with three or four motorised axes would be more appropriate. But you still need one key piece of information before you can make the final decision, namely: Will the new Altendorf fit into your workshop?



■ **An Altendorf needs space:** Your new Altendorf will have a long life of precision cutting and high productivity. But you will need to give it room to develop its full potential. The key parameters for the amount of space required are as follows: On the left is the crosscut fence, which can extend up to 3 670 mm when the outer flip stop is at its maximum. The space required on the right-hand side will be determined by your decision regarding cutting width to the rip fence (between 800 and 1 600 mm). Thirdly, the length of the sliding table will determine the space you will need to leave clear to accommodate its travel to the front and back of the machine.



Space requirements

YOUR F 45'S SPACE REQUIREMENTS ARE AS BELOW:

A	Cutting width + 330 mm	
B	Cutting width + 310 mm	with manual adjustment and DIGIT X
	Cutting width + 400 mm	for F 45 ELMO III and F 45 ELMO IV
C	Sliding table length + 360 mm	
D	Sliding table length + 290 mm	
E	Crosscut-mitre fence	1 970 – max. 3 680 mm
	Crosscut-mitre fence with DIGIT L	1 970 – max. 3 430 mm
	Crosscut-mitre fence F 45 ELMO IV	2 130 – max. 3 670 mm
	Crosscut fence up to 3 200 mm	1 800 – max. 3 330 mm
Machine weight 870–1 170 kg depending on configuration		
Table height 910 mm		



All machines illustrated are CE models.

Some illustrations of machines depict special equipment that is not included in the basic price.

Right of technical modification reserved.

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Order number K 9690.0509

05/2009



SLIDING TABLE CUTTING LENGTHS

Maximum cutting lengths when using clamping shoe or crosscut fence. Not in conjunction with crosscut fence, stops to 2 500 mm.

Table length (mm)	2 250	3 000	3 200	3 400	3 800	4 300	5 000
Cutting length (mm) with or without scoring saw blade	2 155	2 905	3 105	3 305	3 705	3 870 (4 205) ¹⁾	3 870 (4 905) ¹⁾
Cutting length (mm) for F 45 ELMO IV with or without scoring saw blade	2 100	2 850	3 050	3 250	3 650	—	—
TIP-SERVO-DRIVE							
Cutting length (mm) without scoring saw blade	1 840	2 590	2 790	2 990	3 390	3 870	3 870 (4 570) ¹⁾
Cutting length (mm) with scoring saw blade	1 725	2 475	2 675	2 875	3 275	3 775	3 775 (4 475) ¹⁾

DEPTH OF CUT

WITHOUT SCORING UNIT								
Saw Blade Diameter (mm)	250	300	315	350	400	450	500	550
Depth of cut vertical (mm)	0–50	0–75	0–82	0–100	25–125	50–150	75–175	100–200
Depth of cut at 45° (mm)	0–33	0–50	0–56	0–70	17–87	34–105	52–123	70–141
WITH SCORING UNIT								
Saw Blade Diameter (mm)	250	300	315	350	400	450 ²⁾	500 ²⁾	—
Depth of cut vertical (mm)	0–50	0–75	0–82	0–100	0–125	25–150	50–175	—
Depth of cut at 45° (mm)	0–33	0–50	0–56	0–70	0–87	16–105	34–123	—

ELECTRICAL POWER REQUIREMENTS ³⁾

Motor (kW)	5.5	7.5	11	VARIO
Voltage (V)	380–420	380–420	380–400	380–400
Frequency (Hz)	50	50	50	50
Current (A) without/with scorer	11.5 / 13.5	15.5 / 17.5	22.5 / 24.5	11.0 / 13.0
Fuses/circuit breakers (A)	25	25	35	35

DUST EXTRACTION CONNECTIONS

Top connection:	∅ = 80 mm
Bottom connection:	∅ = 120 mm
Pressure drop:	1 500 Pa with a total connection diameter, ∅ = 140 mm
Minimum air requirement:	V _{min} = 1 150 m ³ /h at 20 m/sec.

¹⁾ Possible cutting lengths without use of the crosscut fence and cross slide. Cutting lengths refer to mechanical travel, i.e. from end stop to end stop on the sliding table. ²⁾ If a scoring unit is fitted, the scoring saw blade, incl. front and back flanges, or RAPIDO must be removed. ³⁾ The cross section of the mains cable depends on the machine's distance from the power source and must be determined by a qualified electrician (Power drop in the input cable ≤ 3%). For VARIO machines: RCD protection type B, all current (AC/DC) sensitive. The minimum cross section of the mains cable for machines with VARIO motor is 4x4 mm². Please contact your Altendorf sales partner if your power supply does not match the requirements shown.



*Altendorf's headquarters in Minden, Germany, with the service and sales centre in the foreground.
360° panorama of the Altendorf showroom including display space and museum.*



The home of the saw.

■ **Over the course of its history**, Altendorf has only really moved homes once, namely in 1919, when Wilhelm Altendorf relocated operations from Berlin to his home town of Minden. Altendorf did move on one other occasion, but this was within the town boundaries. Since then, the existing production and administrative facilities have been remodelled and extended several times. The company's anniversary year saw the most notable expansion, with the inauguration of the new training and sales building in March 2006. Within these walls, Altendorf's leading-edge industrial design documents the company's determination and ability to face future challenges. The ground floor accommodates not only exhibition space featuring the latest Altendorf machines, but also a museum section devoted to the development of the "Altendorf System" sliding table saw. The layout is arranged in such a way that every visitor passes through this large exhibition area upon entering the building. The upper part of the building houses the company's training school, which is accommodated in tuition rooms equipped with the latest facilities. The school instructs more than 1 000 people in the use of our saws every year.

Minden remains the home of the world's most famous sliding table saw. Here is where we devise our new solutions, develop innovations and plan our appearances on the international stage. Minden is where the heart of Altendorf lies, although we have built up a global presence over the years with many subsidiaries who market our products. We have been manufacturing machines for regional markets in Qinhuangdao, China, since 1995, and in Blumenau, Brazil, since 2007.



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