The Complete Woodworking System



31/41



# The BF 5 31/41 Woodworking System

With over thirty years of experience in the manufacture of high-quality woodworking equipment, FELDER of Austria is pleased to present the new state-of-the-art in combination machinery! The result of intensive research to meet the needs of a broad range of users, the FELDER BF5 is today's standard of the woodworking industry and is designed to perform even the most exacting woodworking tasks.

The BF5 differs from all other combination machines by virtue of its enormous crosscutting capacity, oversize support surfaces, sophisticated design, massive cast construction, and many other features.

With a FELDER Woodworking System in your shop, you have:

Durable performance for decades to come Broad application potential Exceptional stability and precision

Shortest possible set-up times High detail capabilities

The above performance is accomplished through FELDER's unique design concepts, which include

- Completely stable, vibration-free construction through all cast components
- All cast structural and support components
- Low maintenance requirements through exclusive use of ball bearings "Seconds-only" changeover through FELDER's unique system concept
- High precision through the most modern manufacturing techniques and
- rigorous quality assurance
- Reduced shaper cutter costs through tilting spindle feature





#### Precision Jointing Fence

The high-precision jointing fence may be positioned anywhere along the end of the infeed table, and can be quied table, and can be quickly locked into any position. The fence is completely adjustable longitudinally and may be tilted to any position from 90° to 45°. A stop is provided at the 90° position.



#### Jointing and Surfacing

Safe, convenient jointing is made possible through the quick removal feature of the mortising table and its support.

Cutting depth is adjusted using a handwheel to infinitely variable dimensions between 0 and 5 mm (.20").

The outfeed table is similarly adjustable, permitting the creation of concave and convex edges as well as straight ones.

A convenient scale is provided to indicate cutting depth.

Should you need a longer jointer bed for precise work in long parts, the patented FELDER Table Extension System may be employed to increase your jointer table length by as much as 40", to over 90" total length!



0 to 95mm (3 ½ ").
Bevelled cuts in panels or other large workpieces are particularly simple and easy to accomplish without error through the precision-oriented design of the FELDER System.
The individual machines contained in your FELDER are driven by three separate motors. A fully electronic switching center consists of the following components:
Function selector switch · Two individual On/Off switches · Motor safety switch
Your BF5 System may also be equipped with an optional electronic brake system which will bring any of the FELDER machines to a stop within six seconds!
An electric safety plug is provided, allowing you to wire your three-phase line directly into your FELDER without difficulty.
Single-phase converters are readily available at considerable savings over standard single-phase design

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### Circular Sawing

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Precise ripping is made possible even on large workpieces through the high-precision rip fence, which
may be positioned for cutting widths from
0 to 830 mm. Unlike many other combination
machines, the FELDER does not contain a ripping
"blind spot". The rip fence is also infinitely adjustable
longitudinally, and can be laid flat for precise control
of narrow or thin workpieces (laminates), with a
working height of only 10mm (25/64").
The saw table may also be extended in any direction
using the patented FELDER Table Extension System,
with a potential table length of up to 1950 mm (76 3/4").





#### Heavy-duty Sliding Table

The FELDER Sliding Table runs in a specially-designed ball-bearing track, which assures a zero tolerance movement of the table. Integrated scrapers maintain a clean track for the bearings. Particularly attractive features of the sliding table include its all-cast construction and crosscutting capacity of up to 1,420 mm (56"). The precision crosscut and mitre fence may be utilized on this

sliding table either in front or behind the workpiece. In addition, the sliding table may be equipped with the optional patented FELDER Table Extension, to increase its support surface area to a maximum of 1250x890mm (49"x35").



#### Precision Crosscut and Mitre Fence

The precision crosscut and mitre fence may be positioned at any angle desired. The mm/inch scale allows a precise adjustment of the cutting length, utilizing the integrated magnifying lens. The repeat cut-off stop may be height adjusted as well, and can be moved out of the way if not

needed.
This high-precision fence may be used in front or behind the workpiece for maximum flexibility.



### Mortise and Tenoning Functions

The highly stable, ball bearing supported and precision ground shaper spindle will allow you to use

large and heavy cutting tools.

Mortise and tenon tasks may be easily performed using the sliding table and a special guard, thus affording you maximum precision, efficient operation, and, above all, accident-free performance.



## Tilting Shaper Spindle

To afford you drastic savings in shaper cutters, the FELDER System is equipped with a tilting spindle shaper, which allows positioning of your spindle anywhere from 90° to 45°. This provides optimum utilization of your FELDER System, even with only standard, inexpensive cutters.

The height of the shaper spindle is adjustable with a handwheel, and may be adjusted to a tolerance of .1 mm (.004").

The tilting arbor design and operation is like to that of the tilting arbor saw, including all-cast construction and complete adjustability.

The tilting arbor design and operation is like to that of the tilting arbor design and operation is like to that of the tilting arbor design. be completely removed with cutters in place. This also allows you a quick later return to your shaping function without needless readjustment.



The standard shaper table, 950 mm (37.4") long, may be extended using the patented FELDER Table Extension System to a maximum of 1950 mm (76.3"). of 1950 mm (76 3/4").





#### **Boring**

A dual-jaw boring chuck, housed for safety in a specially-designed cover allows you a cutter diameter capacity from 0 to 16 mm (5½"). The chuck may be set to operate in either a left-hand or righthand rotation for additional flexibility. It is also possible to use larger diameter cutters as long as their base diameter does not exceed 16 mm. The boring table is supported on prismatic ball bearings for zero tolerance operation, and is operated with a single lever for maximum comfort and control. Even large workpieces can be comfortably worked by tilting up the jointer infeed table and covering the planer cutterhead during your boring operation. The absence of any obstructions on the outboard side of your table ensures the ability to work with even the largest workpieces without modification of your machine. Boring length and depth are set using end stops, and the boring height is adjusted via a handwheel. Special synthetic scrapers keep your operating tracks clean and free of dust and foreign material. The cast construction of the FELDER boring/mortising table assures you the highest degree of precision and warp-free performance, even under maximum loading. The table may also be easily removed for greater convenience of jointing and planing operations, simply by loosening two quick-release levers. A dual-jaw boring chuck, housed for safety in a specially-desi-

Technical Data	BF5 31	BF 5 41
lointer/Planer		
lointing/Planing Width	310 mm (12")	410 mm (16")
Planing Thickness Minimum – Maximum	3-200 mm (1/8-77/8")	3-200 mm (1/8-77/8")
Total Length of Jointing Tables	1300 mm (51 ")	1500 mm (59")
Cutterhead Diameter	86 mm (3 <sup>3</sup> / <sub>8</sub> ")	86 mm (3 <sup>3</sup> / <sub>8</sub> ")
Number of Knives (U.S. Version)	3	3
RPM	5,000	5,000
Maximum Cutting Depth	5 mm ( <sup>3</sup> / <sub>16</sub> ")	5 mm ( <sup>3</sup> / <sub>16</sub> ")
Automatic Feed Rate	7.5 m/minute (24.5 ft/min.)	7.5 m/minute (24.5 ft/min.)
Table Saw		
Arbor Diameter	30 mm	30 mm
RPM	4800	4800
Blade Diameter Minimum – Maximum	150-300 mm (6"-12")	150-300 mm (6"-12")
Cutting Depth – Maximum	95 mm (3 <sup>3</sup> / <sub>4</sub> ")	95 mm (3 <sup>3</sup> / <sub>4</sub> ")
Tilt Range	90° to 45°	90° to 45°
Cutting Width (Min. to Max.) Infinitely Variable	0 to 830 (1180 mm) [30 (46.5")]	0 to 930 (1430 mm) [36 (56")]
Shaper		
Spindle Diameter	30 mm or 1 <sup>1</sup> / <sub>4</sub> "	30 mm or 1 <sup>1</sup> / <sub>4</sub> "
RPM	3800, 6100, 7800	3800, 6100, 7800
Maximum Cutter Diameter	270 mm (10.6")	270 mm (10.6")
Shaper Spindle Tilt	90°-45°	90°-45
Table Saw/Shaper Table Surface Area	950 x 460 mm (37.4"x 18.1")	950 x 460 mm (37.4"x 18.1
Sliding table		
Sliding Table Cutting Length	1150 mm (45 <sup>1</sup> / <sub>4</sub> ")	1420 mm (55 <sup>7</sup> / <sub>8</sub> ")
Total Surface Area with Extensions, Max.	950 x 750 mm (37.4 "x 30.3")	1220 x 750 mm (37.4 "x 30.3")
Electricals		
Number of Motors	3	3
Motor Power	3 x 220 V, 2,2 KW (3 HP), 60 Hz, IP 54	3 x 220 V, 2,2 KW (3 HP), 60 Hz, IP 54
Optional Motor Power, Single Phase	2.0 KW (2.8 HP)	2.0 KW (2.8 HP)
Optional Motor Power	3 KW (4 HP) U.S. Version	3 KW (4 HP) U.S. Version
Boring Chuck		
Dual-jaw, Four-point Contact Design with dual-rotation Capacity Range	0—16 mm ( <sup>5</sup> / <sub>8</sub> ")	0—16 mm ( <sup>5</sup> / <sub>8</sub> ")
Mortising/Boring Table		
Single Lever Operation, All-Ball Bearing		42.5.111
Boring Length Maximum	220 mm (8 <sup>5</sup> / <sub>8</sub> ")	220 mm (8 <sup>5</sup> / <sub>8</sub> ")
Boring Depth Maximum	150 mm (5 <sup>7</sup> / <sub>8</sub> ")	150 mm (5 <sup>7</sup> / <sub>8</sub> ")
Boring Height, Maximum	120 mm (4 <sup>3</sup> / <sub>4</sub> ")	120 mm (4 <sup>3</sup> / <sub>4</sub> ")
Dimensions and Weights		
Total Height	830 mm (33")	830 mm (33")
Transport Width, Maximum	830 mm (33")	830 mm (33")
Net Weight	610 Kg (1350 lbs)	790 Kg (1740 lbs)
Gross Weight	650 Kg (1430 lbs)	830 Kg (1830 lbs)
Packing Crate Dimensions		
Length	1450 mm (57")	1450 mm (57")
Width	1130 mm (44 ½")	1130 mm (44 ½")
Height	1050 mm (41 ½")	1050 mm (41 ½")

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# Felder in Action!



Edge Sanding • For profile sanding of curved or straight edges, your FELDER Shaper can become a drum sander.



Shaping Profiles • Using profiles cutters, you are able to produce frame corner joints quikly and easely.



Profile Shaping • With optional shaper rings, profile cuts may be applied to curved as well as straight workpieces with even cutting depths throughout.



Raised Panels • Panel raising can be accomplished quickly and easily by using standard shaper cutters for low tooling costs.



Thickness Sanding • To sand frames, mouldings, or boards to a particular thickness, the sanding plate may be attached to your shaper spindle.



**Trimming Rail** • This option allows straightline ripping of boards and panels in sizes up to 2500 mm (981/<sub>2</sub>").



## The Manufacturing Program



Konzeption: VIDEOGRAPHIC, Innsbruck



Produced by FELDER Austria Telex 05-33903