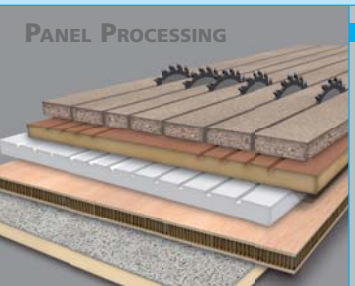
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in
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Paul
Maschinenfabrik GmbH & Co. KG

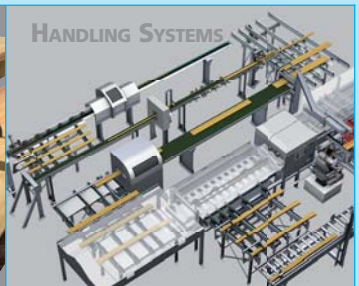


Circular Resaws/Ripsaws
Series S









FOR SAWMILLING APPLICATIONS

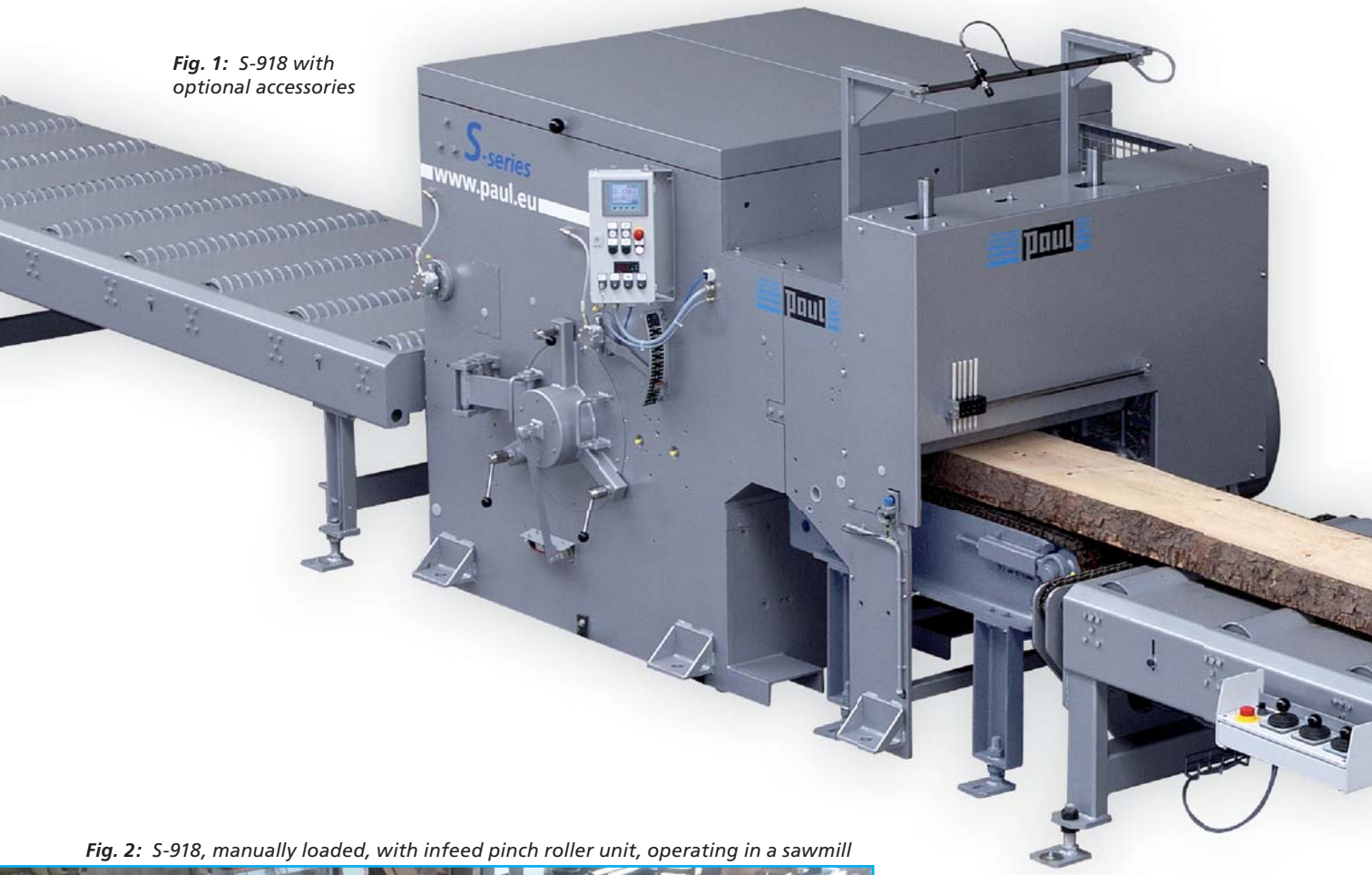


Fig. 1: *S-918 with optional accessories*

Fig. 2: *S-918, manually loaded, with infeed pinch roller unit, operating in a sawmill*



The PAUL S-models are heavy, robust and powerful machines, designed for extremely heavy-duty work. Three basic models with opening widths of 906, 1206 and 1506 mm offer the optimum working width for any application.

The arrangement of the climbing top feed rollers and fixed bottom rollers ensures accurate guidance of the material being cut. The pressure applied by the top rollers is reinforced hydraulically.

The models in the S series, designed for manual or automatic loading, are suitable for a multitude of applications:

- as a circular resaw machine with a cutting height of 180 or 225 mm.
- as a circular edger or multirip saw for the processing of boards and planks.
- as a particularly powerful machine with a driving power of up to 250 kW.
- combined with an AB920 automatic infeed system for maximum productivity with minimum labour cost.



RIPPING PATTERNS

Fixed saw bush
Movable multi-saw bush

The S series can be equipped with a fixed or a movable saw blade configuration with up to four independently moving saw bushes.

On the fixed saw configuration the saw blades can be spaced at virtually any intervals on a long saw bush by using spacer rings.

On the movable saw configuration the outer movable saw bush and the fixed (zero line) saw bush are fitted with a variable number of saw blades depending on the application and usable clamping length concerned.
With an optional shifting device the fixed saw bush can be moved either out of the working area or inwards aligning a different saw on the fixed saw bush with the splitting wedge.
The movable saw bush is positioned hydraulically, electrically (for producing random widths only) or by a servomotor. Line lasers (option) are provided to indicate the saw blade positions on the workpiece.

In addition, the S series can be equipped with up to three movable single-saw bushes. The maximum saw bush spacings are mainly dependent on the usable saw bush clamping lengths and on the machine width.

The illustrations and tables shown are examples only. The PAUL team will be pleased to compile your specific saw bush configuration.

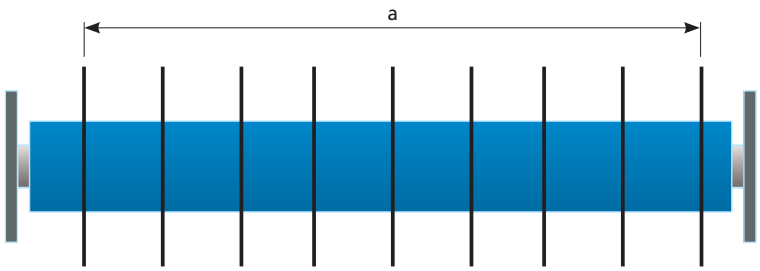


Fig. 3: Fixed saw configuration on a long saw bush

	S-918/S-922	S-1218/S-1222	S-1518/S-1522
Usable clamping length **a** (max.)	790 mm	1 000 mm	1 350 mm

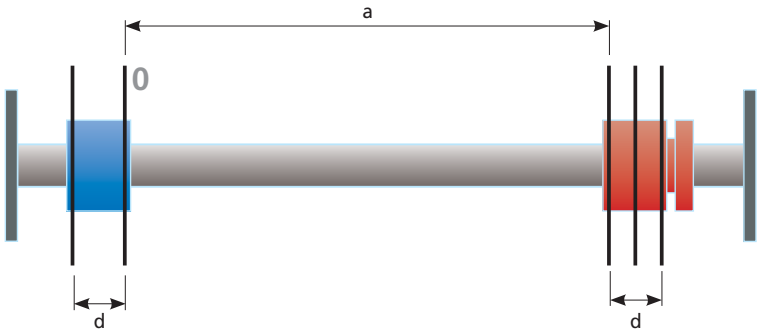


Fig. 4: Movable saw configuration with one fixed and one movable saw bush

	S-918/S-922	S-1218/S-1222	S-1518/S-1522
Moving range **a** (option)	45 (25) - 490 mm	45 (25) - 790 mm	45 (25) - 1 090 mm
Usable clamping length **d**	110 mm	110 mm	110 mm

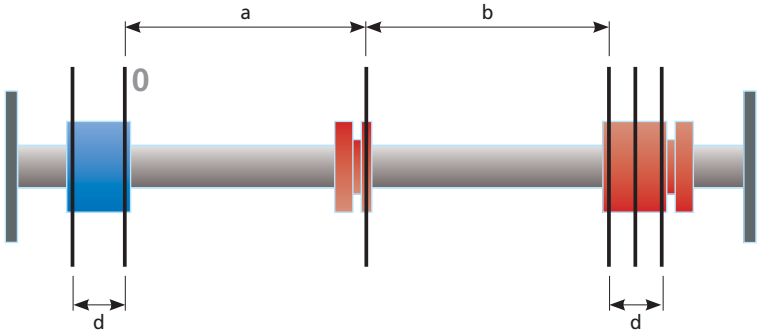


Fig. 5: Movable saw configuration with one fixed and two movable saw bushes

	S-918/S-922	S-1218/S-1222	S-1518/S-1522
Moving range **a** (option)	85 (75) - 440 mm	95 (85) - 730 mm	95 (85) - 1 030 mm
Moving range **b** (option)	45 (25) - 400 mm	55 (45) - 690 mm	55 (45) - 990 mm
Usable clamping length **d**	110 mm	110 mm	110 mm



Fig. 6: Possible ripping pattern

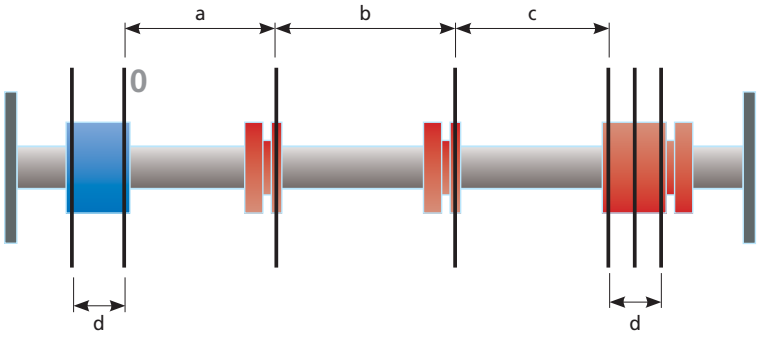


Fig. 7: Movable saw configuration with one fixed and three movable saw bushes

	S-918/S-922	S-1218/S-1222	S-1518/S-1522
Moving range **a** (option)	85 (75) - 350 mm	95 (85) - 650 mm	95 (85) - 950 mm
Moving range **b** (option)	85 (75) - 350 mm	70 - 630 mm	70 - 930 mm
Moving range **c** (option)	45 (25) - 310 mm	55 (45) - 610 mm	55 (45) - 910 mm
Usable clamping length **d**	110 mm	110 mm	110 mm

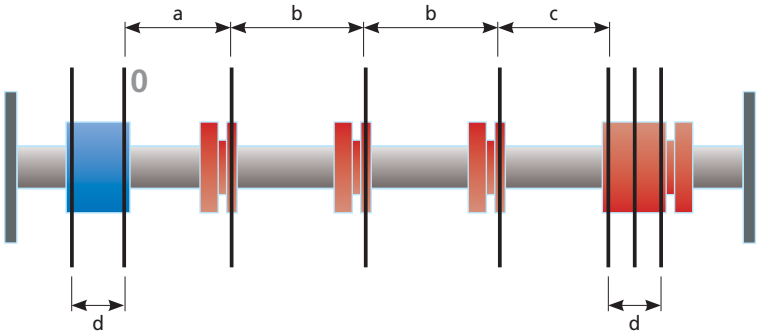


Fig. 8: Movable saw configuration with one fixed and four movable saw bushes

	S-918/S-922	S-1218/S-1222	S-1518/S-1522
Moving range **a** (option)	85 (75) - 260 mm	95 (85) - 580 mm	95 (85) - 880 mm
Moving range **b** (option)	85 (75) - 260 mm	70 - 550 mm	70 - 850 mm
Moving range **c** (option)	45 (25) - 220 mm	55 (45) - 540 mm	55 (45) - 840 mm
Usable clamping length **d**	110 mm	110 mm	110 mm

SERIES S IN DETAIL

- Saw positioning system in hydraulic, electrical stepless or servomotor-driven version
- Compact and modular design for customer-oriented requirements
- Robust, durable construction
- Simple tool change
- Feed rollers available in various designs depending on the requirements concerned
- Hydraulically adjustable top roller pressure
- Stepper-motor actuated line lasers for maximum operating convenience
- User-friendly, LINUX-based control system with graphic user interface (option)

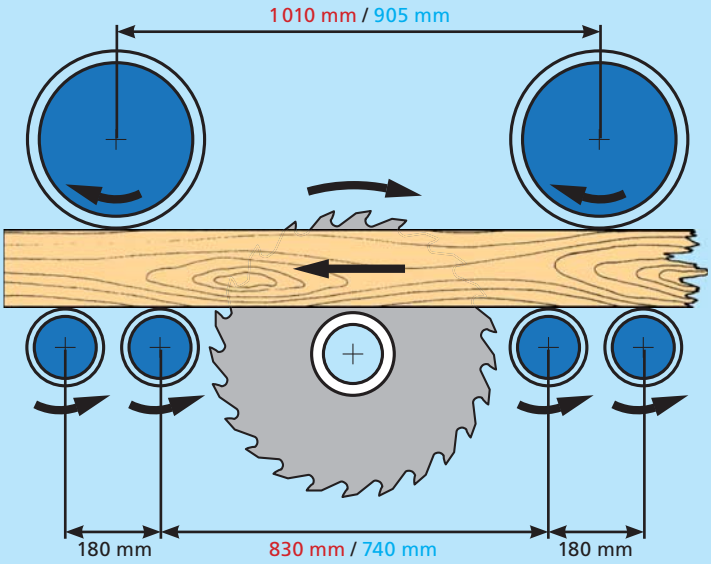


Fig. 9: *Anti-kickback device for increased safety*



Fig. 10: *Powerful motors for processing the workpieces*

Fig. 11: *Feed roller configuration*



225 mm cutting height
180 mm cutting height

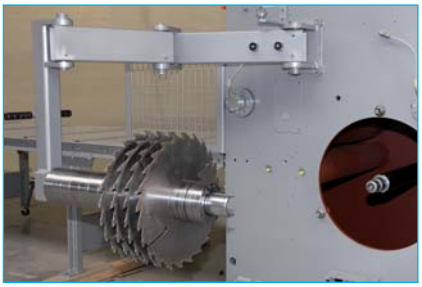


Fig. 12: *Extraction of the saw bushes onto a swivelling holder (option) for ease of tool change*

TECHNICAL DATA

			S-918	S-1218	S-1518	S-922	S-1222	S-1522
Cutting height (option)		[mm]	24 (18) - 180	24 (18) - 180	24 (18) - 180	24 (18) - 225	24 (18) - 225	24 (18) - 225
Opening width		[mm]	906	1206	1506	906	1206	1506
Min. workpiece length		[mm]	1100	1100	1100	1200	1200	1200
Driving power		[kW]	55 - 250	55 - 250	55 - 250	55 - 250	55 - 250	55 - 250
Feed speed		[m/min.]	5 - 75	5 - 75	5 - 75	5 - 75	5 - 75	5 - 75
Powered feed rollers			6	6	6	6	6	6
Speed of saw shaft		[rpm]	2500	2500	2500	2000	2000	2000
Sound pressure level [1]	at no-load	[dB(A)]	84	84	84	84	84	84
	in operation	[dB(A)]	89	89	89	89	89	89
Sound power level[2]	at no-load	[dB(A)]	100	100	100	100	100	100
	in operation	[dB(A)]	108	108	108	108	108	108
Saw blade diameter		[mm]	550	550	550	640	640	640
Movable saw bushes, max.			4	4	4	4	4	4
Movable splitting wedges, max.			2	2	2	2	2	2
Dimensions	L	[mm]	2200	2200	2200	2625	2625	2625
	W	[mm]	1750	2050	2350	1750	2050	2350
	H	[mm]	1735	1735	1735	1815	1815	1815
Weight[3]		[kg]	3200	4200	5200	3500	4500	5500

1) at the workplace, depending on tool and cutting parameters
2) depending on tool and cutting parameters
3) without motor, without saw positioning devices

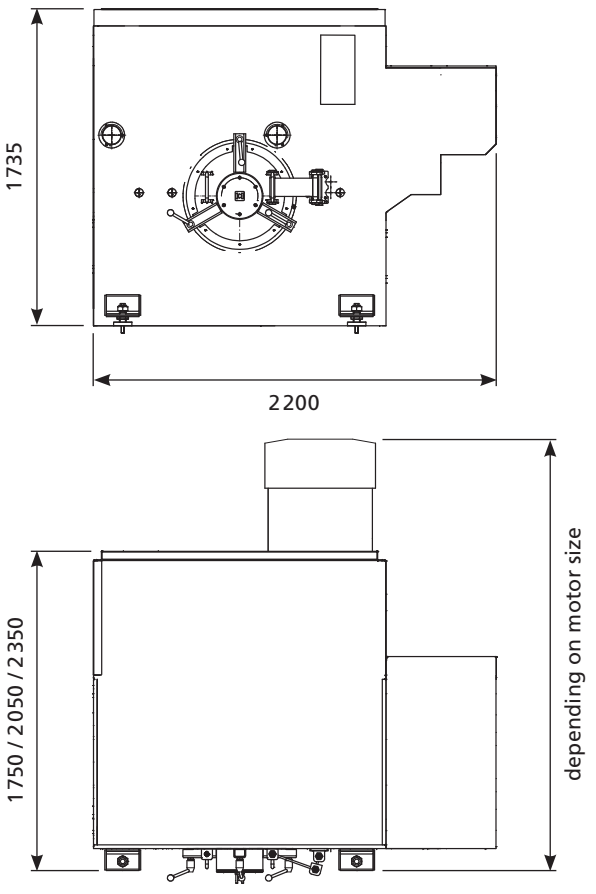


Abb. 13: Dimensions (mm) of a S-XX18, right-hand design

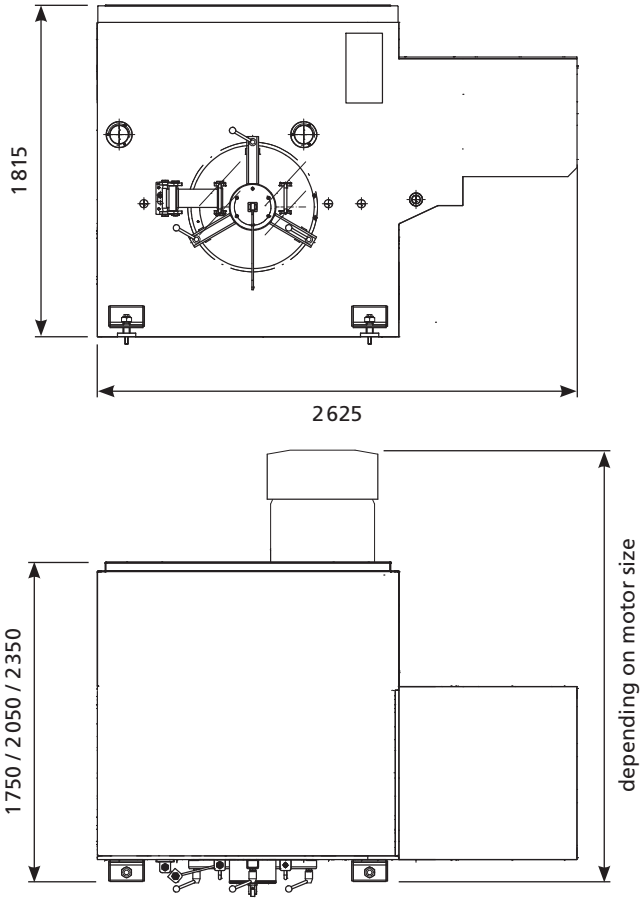


Abb. 14: Dimensions (mm) of a S-XX22, right-hand design

ACCESSORIES

INFEED SIDE

- Movable and fixed line lasers for ease of workpiece alignment
- Roller conveyors in various designs to facilitate easy and rapid alignment and loading
- Pinch roller units
- Buffer chain conveyors
- Alignment chains
- Destacking systems
- Semi and fully automatic feeding systems



Fig. 15: *Pinch roller unit*



Fig. 16: *Semi-automatic infeed system*

OUTFEED SIDE

- Slab extractors
- Slab cross-cut saws
- Automatic offcut separators
- Sawdust shakers
- Pinch roller units
- Spiral roller conveyors
- Cross transfer conveyors
- Powered / idle roller conveyors
- Chain conveyors



Fig. 17: *Slab extractor*

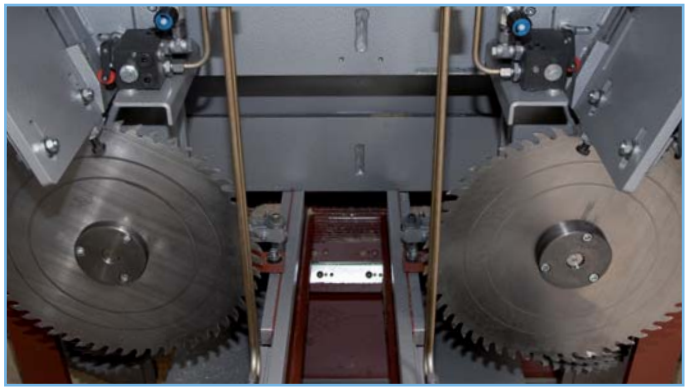


Fig. 18: *Slab cross-cut saw*

SAW BUSH POSITIONING

Version	Saw positioning	Operation
Electronic, servomotor driven	Programmable for • ripping patterns (with ripping pattern control) • fixed widths • centimeter increments • millimeter increments	• Ripping pattern control with industrial PC, monitor and keyboard
Electrical, stepless	electrical, for producing random widths only	Joystick
Fully hydraulic	hydraulic, centimeter increments	Actuating bar or joystick (option)

CONTROLS

PLC control (standard):

- Top roller adjustment, infinitely variable or in freely definable steps, with workpiece thickness recognition (option), also automatically
- Continuous and cyclic operation
- Clear, easy-to-read touch display showing the programmed values (workpiece thickness, feed speed)
- Clearing function
- etc.

MAXIRIP and OPTIRIP (both option) controls for maximization and optimization of timber yield:

- Programming of ripping patterns
- Programming of fixed widths
- Programming of fixed set-ups on multi-saw bushes
- Width optimization (in conjunction with width measurement)
- Diagnostic software
- Network capability
- Remote maintenance
- Yield statistics
- Scanner connection (option)
- Robust casing for arduous saw-milling applications
- Operating terminal freely movable on a cantilever arm
- Other options

Fig. 19: *PLC control*



Fig. 20: *MAXIRIP operating terminal with touch panel and joystick*



CUSTOMIZED PACKAGE SOLUTIONS

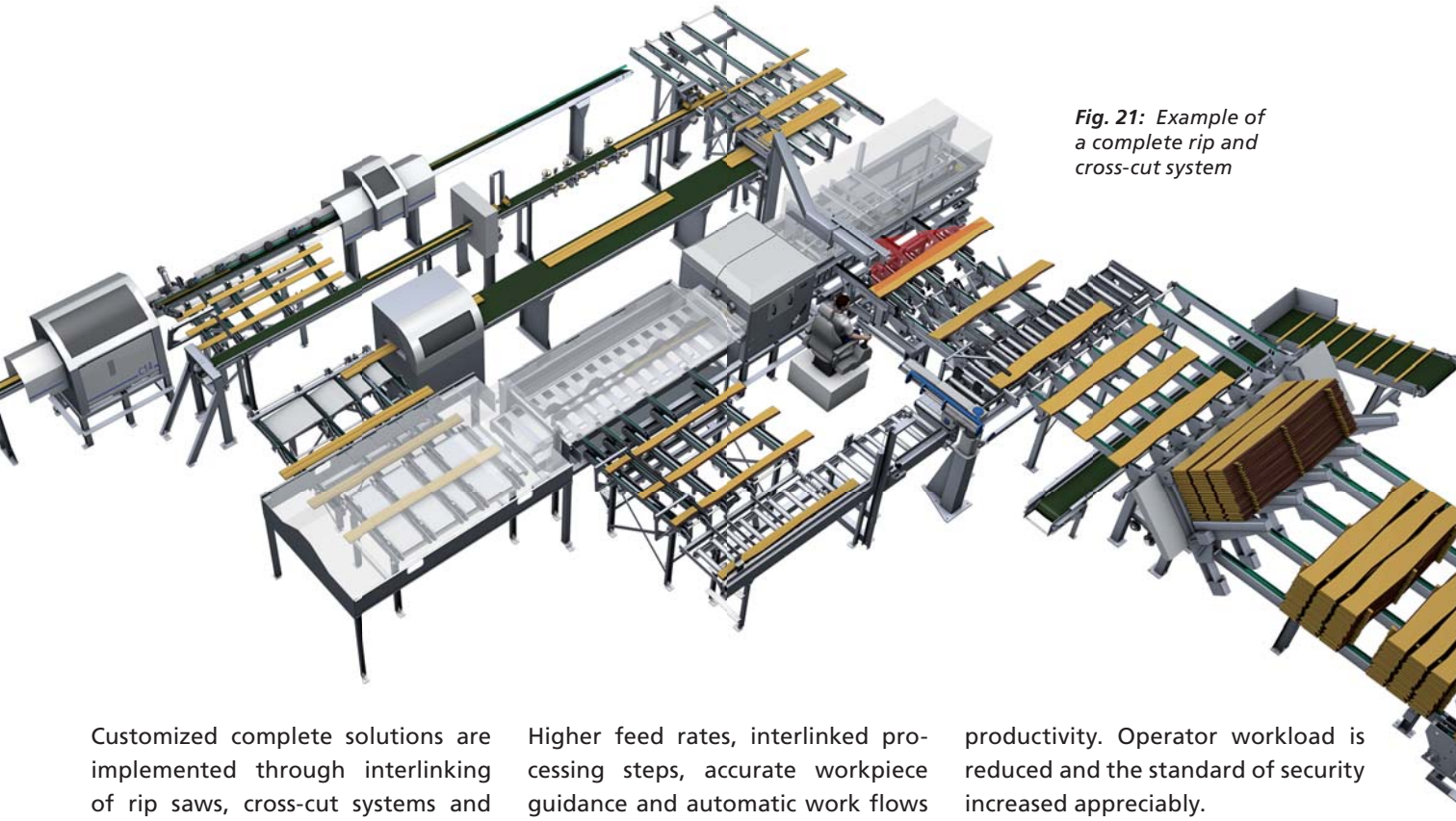
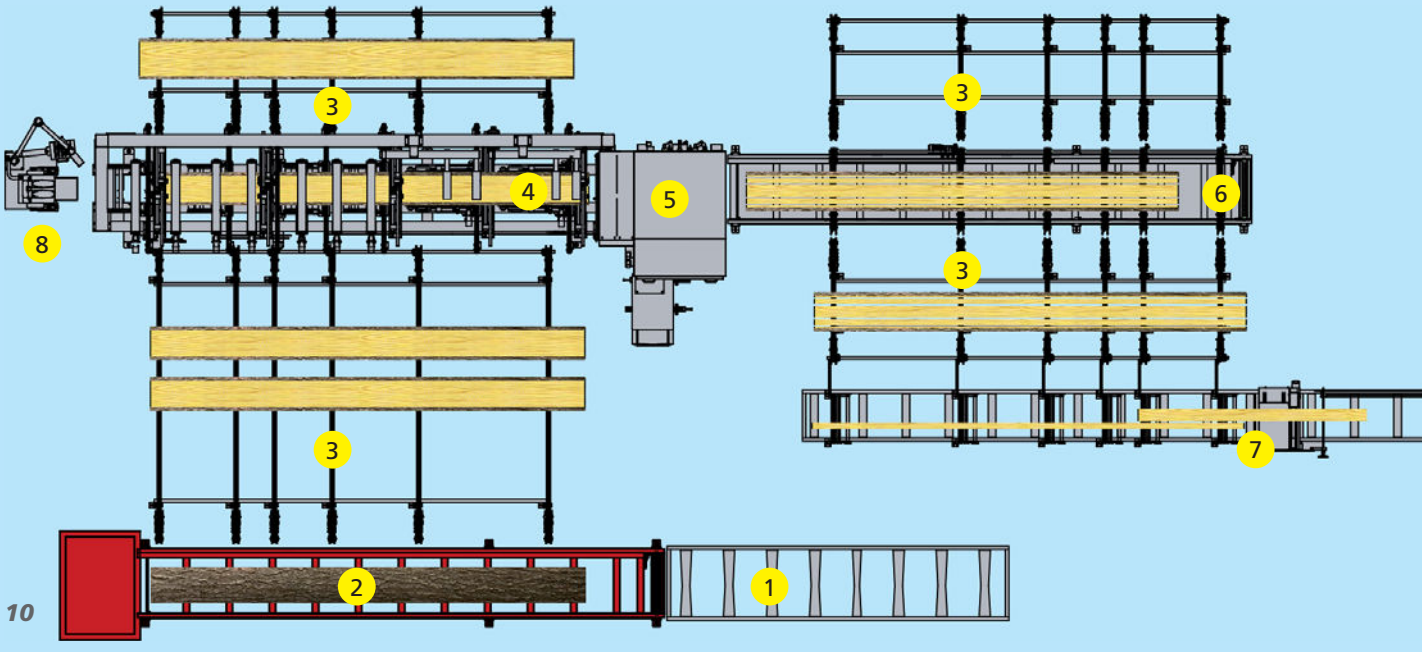


Fig. 21: Example of a complete rip and cross-cut system

Customized complete solutions are implemented through interlinking of rip saws, cross-cut systems and automated handling equipment. Higher feed rates, interlinked processing steps, accurate workpiece guidance and automatic work flows lead to a significant improvement in productivity. Operator workload is reduced and the standard of security increased appreciably.

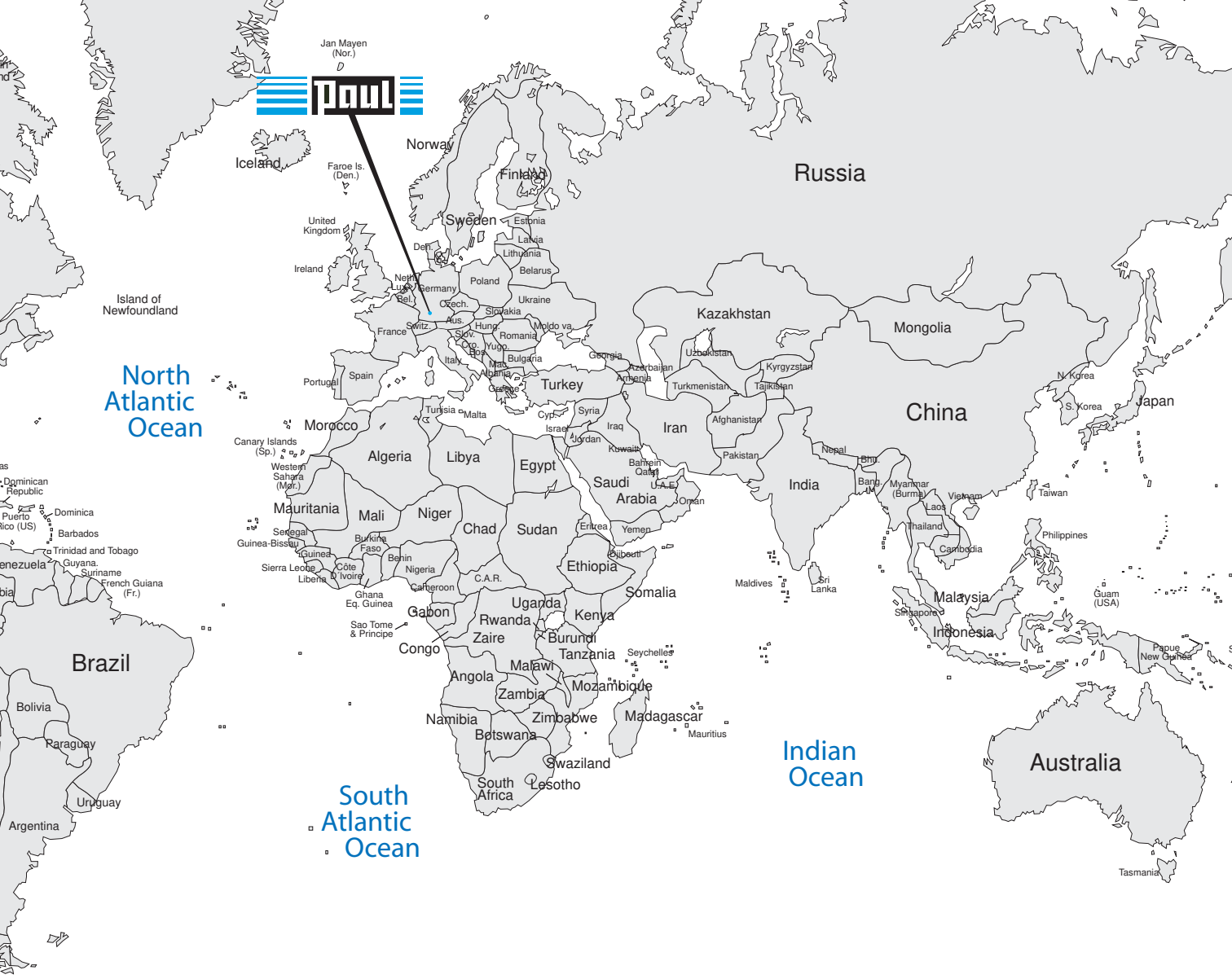
1. Roller table
2. Horizontal bandsaw
3. Chain conveyor
4. SAB semi automatc infeed system
5. S-1518 circular resaw/ripsaw
6. Cross-transfer conveyor
7. 27AO cross-cut saw
8. Operating terminal



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