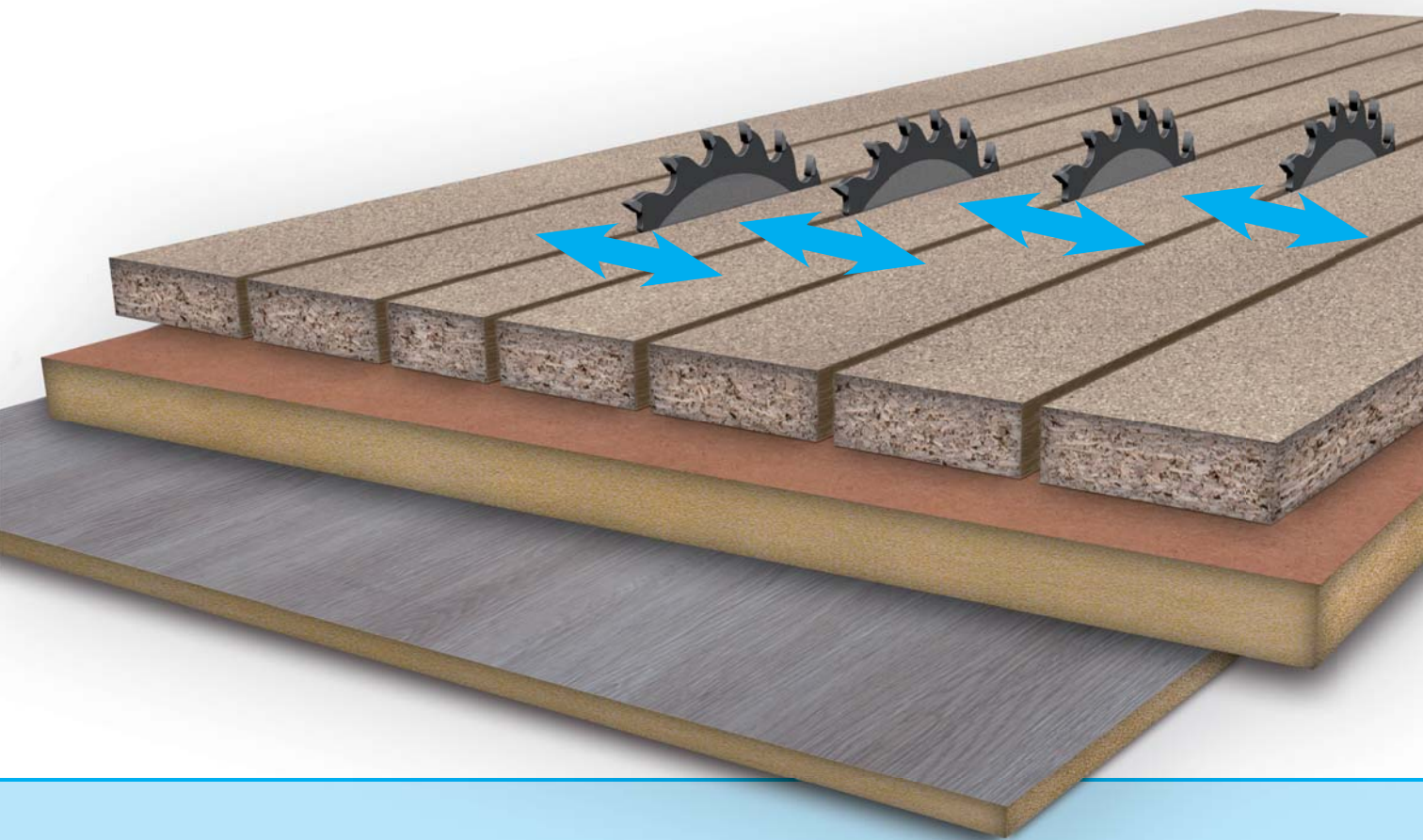
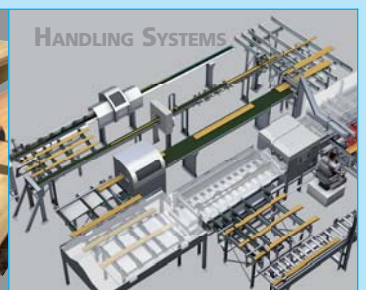
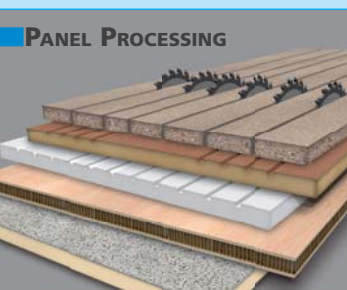


■ made
■ in
■ Germany

Paul
Maschinenfabrik GmbH & Co. KG



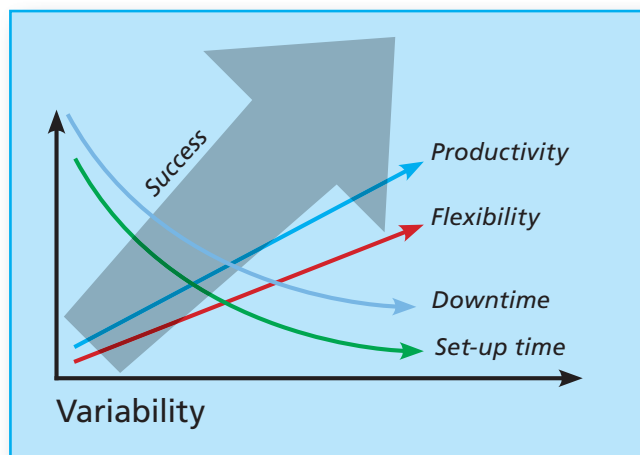
Variable Multirip Circular Saws K34VARIO & K34M



VARIABLE MULTIRIP CIRCULAR SAWS FROM PAUL

▶ OPTIMAL FOR LOT-SIZE ONE PRODUCTION

With its variable K34VARIO and K34M throughfeed multirip saws PAUL offers the optimal ripping solution for small-lot or made-to-order productions requiring frequently changing ripping patterns. PAUL provides the optimum machine concept configured to suit specific requirements. Each saw blade is driven by its own motor allowing rapid positioning via the specifically developed MAXI 7 control to virtually any width required. Time-consuming set-up operations are now a thing of the past.



The potential applications are just as versatile as the machines themselves. Wherever selective panel ripping is required, these machines are the right choice. They are available in opening widths ranging from 800 to 3000 mm. The number of tools provided is suited to customers' needs.

PAUL Multirip Circular Saws are equipped with protection hoods ensuring maximum safety at work as well as minimum sound and noise emission values.

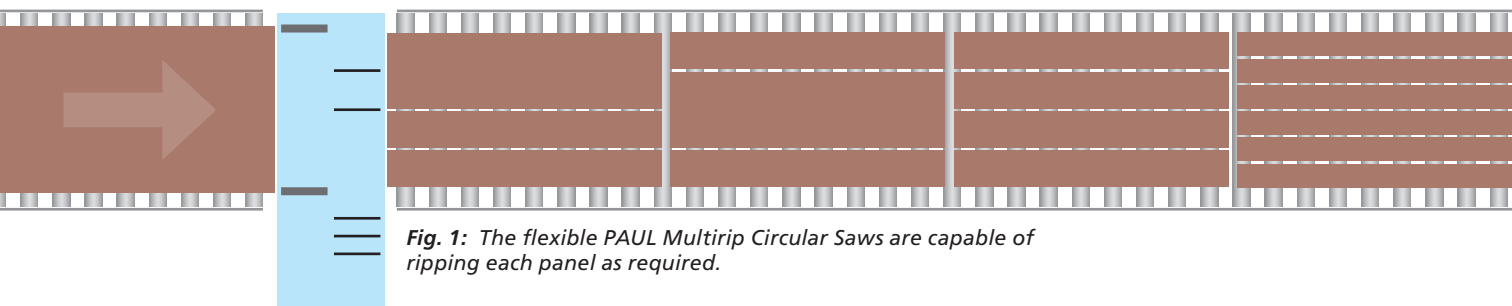
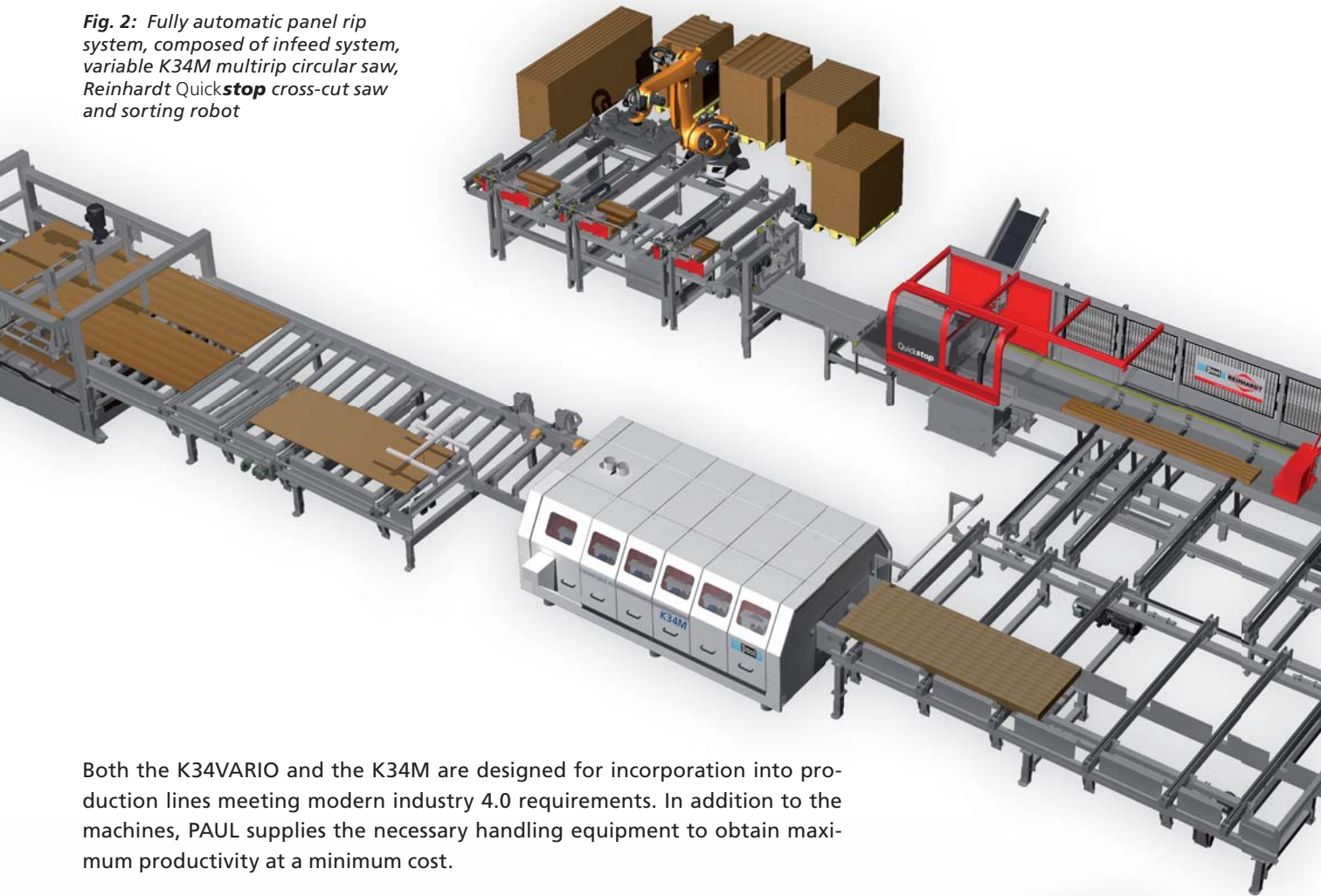


Fig. 1: The flexible PAUL Multirip Circular Saws are capable of ripping each panel as required.

CUSTOMIZED PACKAGE SOLUTIONS

Fig. 2: Fully automatic panel rip system, composed of infeed system, variable K34M multirip circular saw, Reinhardt Quickstop cross-cut saw and sorting robot



Both the K34VARIO and the K34M are designed for incorporation into production lines meeting modern industry 4.0 requirements. In addition to the machines, PAUL supplies the necessary handling equipment to obtain maximum productivity at a minimum cost.

The systems can be controlled directly at the machine via a modern touch screen user interface or optionally connected to a master computer. Line signals are easily and reliably exchanged via a bus system. Network capability allowing remote maintenance and minimizing downtimes in production is also a matter of course on the MAXI 7 control.



Fig. 3: Modern control with touch screen interface

K34VARIO

Sawing and hogging from the bottom against the feed is a basic construction principle that is common to most PAUL multirip circular saws and has also been adopted on the variable K34VARIO panel rip saw.



Fig. 4: K34VARIO with 1500 mm opening width

▶ PROVEN FEED TECHNIQUE

The roller feed system which has been proven on well over thousand occasions ensures accurate and controlled panel throughfeed.

▶ FLEXIBLE TOOL HEADS

Each saw blade is driven by a separate, vertically arranged motor of up to 10 kW. Additional lateral hogger units with horizontal motors and a driving power of up to 20 kW are available as an option. The saw/hogger heads are arranged in two lines one after the other. This permits narrow strip widths and edge hogging on both sides at varying numbers of strips.

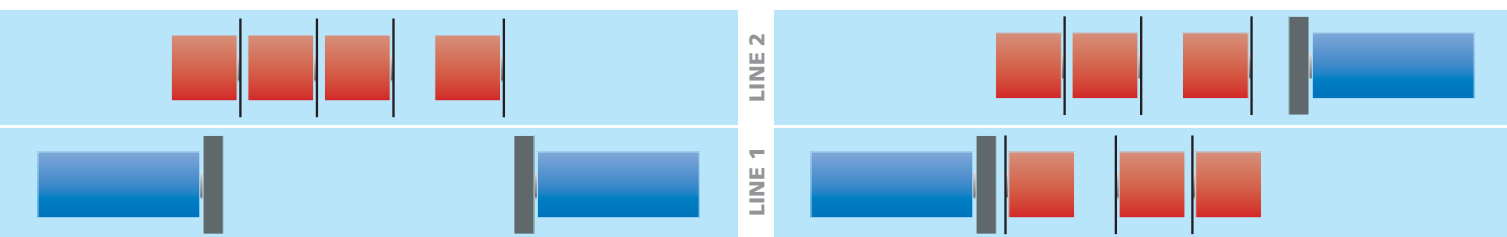


Fig. 5: Two ripping pattern examples on the K34VARIO



EASE OF HANDLING

For the convenient tool change and easy accessibility for inspection work, the tool heads are moved to a parking position outside the working area on the operating side. Quick tool change is ensured by a patented quick clamping device and quick-release lock on the dust extraction hoods.



OPTIMIZED SAWDUST DISPOSAL

Dust extraction hoods with optimized flow properties perfectly surrounding the tools provide for concentrated sawdust collection.



Fig. 6: Saw heads in parking position



TECHNICAL DATA

		K34VARIO							
Nominal opening widths	[mm]	800	1200	1500	1800	2200	2600	3000	
Max. workpiece thickness	[mm]	55							
Min. workpiece length	[mm]	460							
Min. strip width	[mm]	185 (95)							
Max. saw blade diameter ¹⁾	[mm]	270							
Max. feed speed ²⁾	[m/min]	85							
Sound pressure level ³⁾ no load/operation	[dB(A)]	75/82							
Sound power level ⁴⁾ no load/operation	[dB(A)]	91/98							
Dimensions									
Working height	[mm]	1100							
Length	[mm]	1813							
Height	[mm]	1930							
Width ⁵⁾	[mm]	4300	4700	5000	5300	5700	6100	6500	
Weight ⁶⁾	[kg]	6000	8000	10000	12000	14000	16000	18000	

1) Saw blade diameter depending on the type of tools used – consultation with tool supplier recommended

2) selection of range on inquiry

3) at the workplace, depending on tool and cutting parameters

4) depending on tool and cutting parameters

5) subject to technical modifications

6) depending on customer-specific configuration

K34M & K34MV



Fig. 7: K34M with 1800 mm opening width ripping particle and MDF panels

The K34M also operating from the bottom against the feed is of modular construction where any number of saw modules can be combined one after the other so that even very narrow strips can be produced.

Each module is fitted with a maximum of two tool heads and each of them is provided with its own driving motor of up to 20 kW.

▶ MAXIMUM CUTTING QUALITY BY SCORING

The K34MV features special saw heads that are fitted with a separately driven upstream scoring saw rotating with the feed. This ensures chip-free finished cuts even on coated panels.

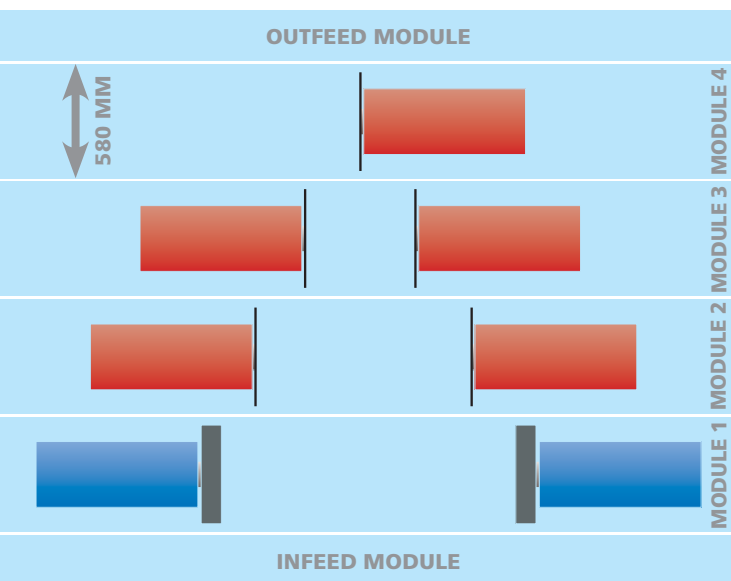


Fig. 8: Example of a ripping pattern on a K34M

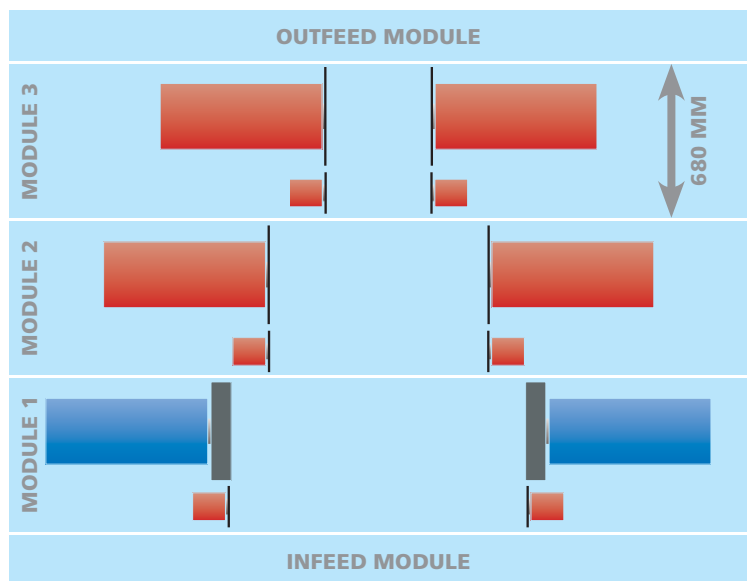


Fig. 9: Example of a ripping pattern on a K34MV with scoring saws

▶ SIMPLE TOOL CHANGE

When necessary, all tool heads move to an ergonomic tool changing position outside the working area allowing convenient access.

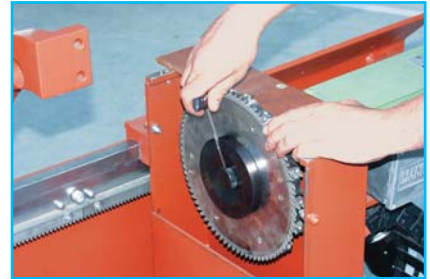


Fig. 10: Tool change

▶ OPTIMIZED SAWDUST DISPOSAL

Dust extraction hoods with optimized flow properties perfectly surrounding the tools provide for concentrated sawdust collection.



Fig. 11: Saw heads

▶ TECHNICAL DATA

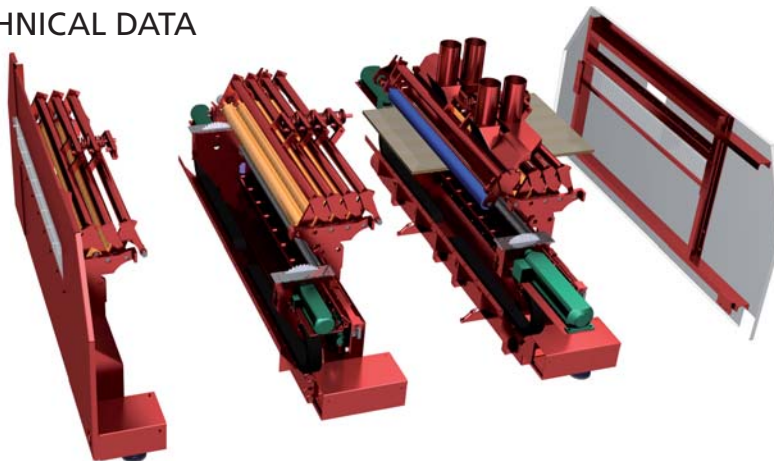


Fig. 12: View of the individual modules

		K34M					K34MV		
Nominal opening widths ¹⁾	[mm]	800	1200	1500	1800	2200	2600	3000	
Max. workpiece thickness	[mm]	80					80		
Min. workpiece length	[mm]	580					690		
Max. saw blade diameter	[mm]	300					90/300		
Max. feed speed	[m/min]	85					85		
Sound pressure level ²⁾ no load/operation	[dB(A)]	75/82					75/82		
Sound power level ³⁾ no load/operation	[dB(A)]	91/98					91/98		
Dimensions									
Working height	[mm]	1000					1000		
Length/module	[mm]	580					680		
Height	[mm]	1620					1620		
Width	[mm]	2110	2510	2810	3110	3510	3910	4310	
Weight	[kg]	acc. to configuration					acc. to configuration		

1) The actual throughfeed width depends on the type of tools used. Information on inquiry.

2) at the workplace, depending on tool and cutting parameters

3) depending on tool and cutting parameters

OPTIONS

▶ BRUSH ROLLER FOR CLEAN SURFACES

Coarse chips or contamination after the cutting operation are removed by an optional horsehair brush roller. This preliminary cleaning of the workpieces increases the process reliability of any downstream work steps.

Fig. 13: Brush roller



▶ FEED ROLLERS

One of the reasons for the multitude of applications offered by the K34 series is their feed system that is available with feed rollers in various designs (e.g. knurled, fluted or plastic-coated) to provide a tailor-made solution to any requirement.

Fig. 14: Feed rollers in various designs



▶ MASTER COMPUTER CONNECTION AND INDUSTRY 4.0

All machine functions are convenient to control via an intelligent control system. Apart from a particularly user-friendly 17" touch screen display, the control offers a simple way to exchange line signals via a bus system. Thanks to the connection to the Internet it is possible to monitor all functions via the remote maintenance feature. In addition, all PAUL control systems are ready to meet industry 4.0 requirements.

INDUSTRY 4.0
made by PAUL