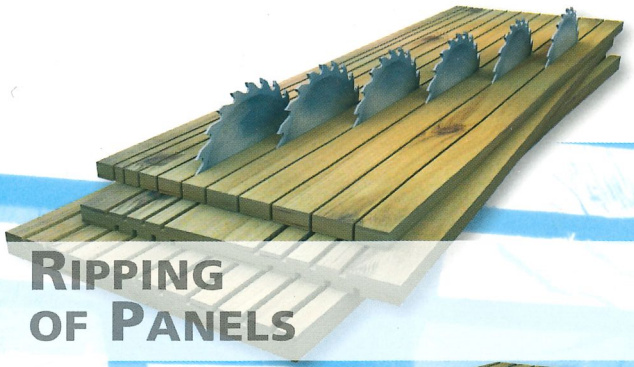
paul
Maschinenfabrik GmbH & Co. KG



Ripping of Panels

Edging and Ripping of Solid Wood

Optimized Cross-Cutting

made
in
Germany

Woodworking Machinery

Experience

Proven

Powerful

Reliable

Productivity

Durability

Robust

Powerful

Proven

Ease of maintenance

Reliable

Robust

Maschinenfabrik GmbH & Co. KG

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First company building and logo

Founded in 1925, PAUL has gained over 80 years of experience in the design and production of woodworking machinery and established itself as a market leader.

Historical letterhead of Max Paul

Machinery with an international reputation

In 1948 PAUL introduced the first double sided edger. The use of a welded steel frame construc

The range of machinery has been expanded and extended over the years and today PAUL is able to offer machinery and systems for both ripping and cross-cutting of solid wood and panels.

At the PAUL factory in Dürmentingen/Germany, on an area of 30,000 square meters, machines are constructed and assembled and Sales, Administration and Training facilities for some 40 apprentices are located. The total PAUL area covers over 160,000 square meters.

The in-house training is understood by us on the one hand as a sociopolitical responsibility and on the other hand it gives us a chance to recruit the highly qualified personnel we require for the production and assembly and all other divisions of our company.

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We manufacture high-quality, state-of the-art machines and systems and the demands we place on the qualification of our staff are accordingly high.

A thorough vocational training lays the foundations for a successful future

PAUL puts a very high priority on producing components in-house. In this way we keep the greatest possible control over the complete production process and thus ensure the high quality level of our machines and systems.

Multirip saw assembly department

EDGING RIPPING

Edging is PAUL's speciality. In 1948 with the development of the first double edger the beginning of woodworking machinery production for the sawmilling and secondary wood processing industries was marked.

Since the production of the model "KME 2" in the early 50's, PAUL has established a reputation as a competent and efficient woodworking machinery manufacturer.

Today over 7500 circular edgers made by PAUL are in use worldwide.

The Edgers/Ripsaws in brief:

- compact, enclosed construction
- robust, welded steel structure
- rigid, distortion-free frame
- all parts machined with the utmost precision on a machining center
- rotating shafts running in encapsulated, dust-proof ball bearings
- main shaft hard chrome-plated and carried in three bearings
- for motors up to 75 kW
- free space beneath the saw shaft and the bottom rollers
- proven thousands of times

Edged and ripped boards

Series KME 2 edger with laser guide light

The "classic" machines for the manual edging of boards and planks, and for lath cutting, are the circular edgers of the KME 2 and BM series. Available in 750 and 1000 mm opening widths (BM: only 750), they can cut up to 125 mm in height (BM: 160 mm).

In mechanical, partial or fully hydraulic configurations, with up to 4 independently movable saw bushes, driving power up to 75 kW and continuously variable feed rate, they are in use in practically every sawmill.

RESAWING

Resawing on the circular saw can result in up to 70% more output compared to the single frame saw operation. In addition a surface roughness of 60 micrometers and a very high dimensional accuracy can be achieved.

For the optimal utilization of the main machines in the sawmill, an efficient resaw is indispensable. The PAUL series S can cut up to 225 mm in height.

Model S 900

Ripped timber

Model S 900 with laser guide line equipment

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The climb-cutting machines of the S/GL series offer maximum working safety, high yield, smooth waste and edgings removal and guarantee an optimum guidance of the saw blade.

Thanks to the workpiece support in the sawing area a high dimensional accuracy is achieved. The offset-free cut surfaces produced on the S/GL eliminate the need for taking account of any planing allowance if planing is required after ripping.

Series S/GL climb-cutting machine

The reduced cutting pressure requires less power and helps to save energy.

Model S 1200 R

Since the early 60's the machine models of the "S" series have been field tested. With their heavy-duty and powerful construction they are suitable for both resawing and edging of exotic wood types.

Ripping of Panels & Solid Wood

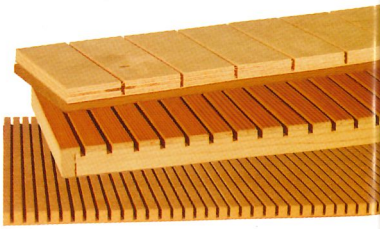
Since the early 50's edging and ripping of various panel types falls under the traditional applications of PAUL's circular saws. Our multi-rip saws with roller feed system are available with fixed or movable saw blade configuration for processing solid wood or panels various of materials up to 3000 mm in width.

Model K34 G / 3000

PAUL Multirip Saws are also suitable for grooving. A great variety of groove shapes and continuous or interrupted grooving is possible.

Ripping of solid wood

Ripping of panels



Grooving and profiling

K34 / K34 G

This type of machine is used in all areas of the woodworking industry: In sawmills and furniture factories, for production of parquetry, manufacturing of pallets, kitchen front panels, profile strips, glued up panels, door skins, laminated flooring, etc. They are also suitable for use in other industries, such as the plastics industry.

The fixed saw configuration is a characteristic of the multirip saws from the K34 / K34 G series.

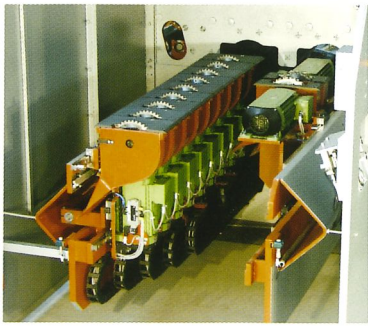
K34 M / K34 MV

The panel rip saws from the K34 M and K34 MV series are suitable for all common panel formats. By adding any number of saw modules, the panels can be ripped into any number of strips of whatever width.

PAUL use CCD cameras and image processing for fully automatic workpiece alignment.

K34 VARIO

The K34 VARIO series features independent saw heads arranged side by side that can be individually positioned via the CNC control with almost no interruption of the material flow.



Individually positioned saw heads of a K34 VARIO

PAUL offers complete rip and cross-cut systems

PAUL multirip saws are ideally suitable for incorporation into throughfeed panel sizing lines. They can be used for both longitudinal and transverse ripping operations. The feeding systems available range from the simple solution using an inclined roller conveyor with fence up to the fully automatic, highly efficient alignment station where each workpiece is aligned by means of cameras and image processing.

Cross-Cutting

Cost-effective starting solution

PAUL has been producing undercut cross-cut saws since the 60's. With 7 models, today's range is so diverse that there is a suitable machine for every application. They are available in cutting widths ranging from 400 to 1100 mm and cutting heights from 150 to 350 mm, in hydraulic and/or pneumatic design.

Universal application

The PAUL cross-cut saws are suitable for use in joinery and carpentry companies, sawmills, furniture factories, etc. Whether they are used in the production of cases, battens or pallets, for pre-cross-cutting in solid wood processing lines or cutting extremely heavy planks or round wood, the PAUL cross-cut saws leave nothing to be desired.

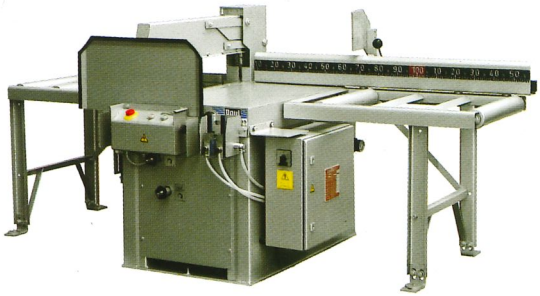
Flexible motorization

Most of the models are available with different motor powers. The power input required varies according to the machine version (pneumatic or hydraulic), nature of timber and usage of the machine.

Comprehensive accessories

PAUL offers a wide range of optional accessories to extend and complete the cross-cut saws and make them suitable for every application:

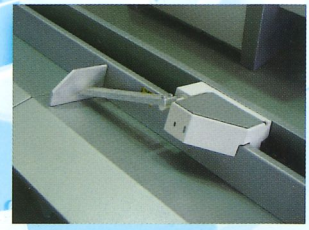
- Mechanical, pneumatic and electronic moving stops
- Roller tables with idle or powered rollers
- Scales, etc.



Model 15AOB extended by various accessories

The PAUL model Push_Cut_CX CNC Cross-Cut line features an automatic push-feed system.

It has been designed for universal use: Joiners, packaging and pallet manufacturers, window producers and other users work considerably more efficiently, safely and comfortably with a Push_Cut_CX than with a simple undercut or pendulum saw.

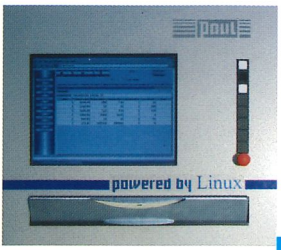


The push-feed system positions the timber very accurately.

Model Push_Cut_CX
CNC cross-cut system

The Push_Cut_CX is controlled from the same type of CNC control as used on the PAUL series 11 and C14: the MAXI 5.

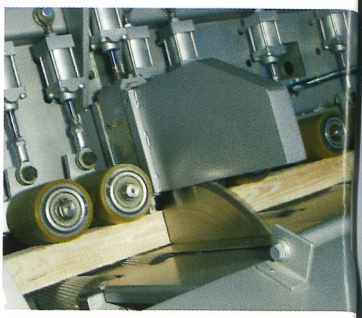
The MAXI 5 CNC control is available in two different versions: Basic or Premium. The Premium version is the flagship of the MAXI 5 generation of CNC controls. It offers exceptional possibilities of yield optimization as well as comprehensive production statistics and is designed for the control of sophisticated systems including automated handling equipment. The MAXI 5 generation of CNC controls is based on the LINUX operating system.



MAXI 5 Premium CNC control

Optimized Cross-Cutting

CNC-controlled cross-cut systems will significantly improve the efficiency of production. A considerably increased timber yield, shorter throughput times, less manpower result in a higher added value, less expenses and therefore more profit.

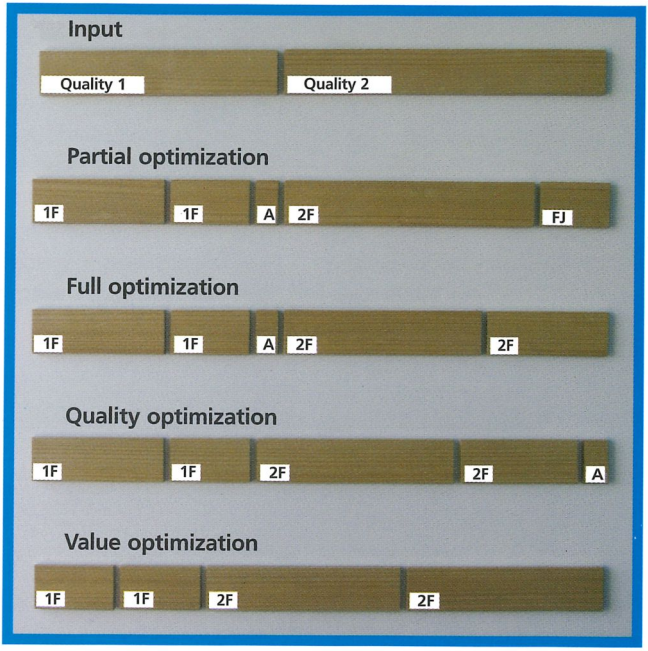


In 1976 PAUL was the first German manufacturer to build a computer-controlled optimizing cross-cut saw.

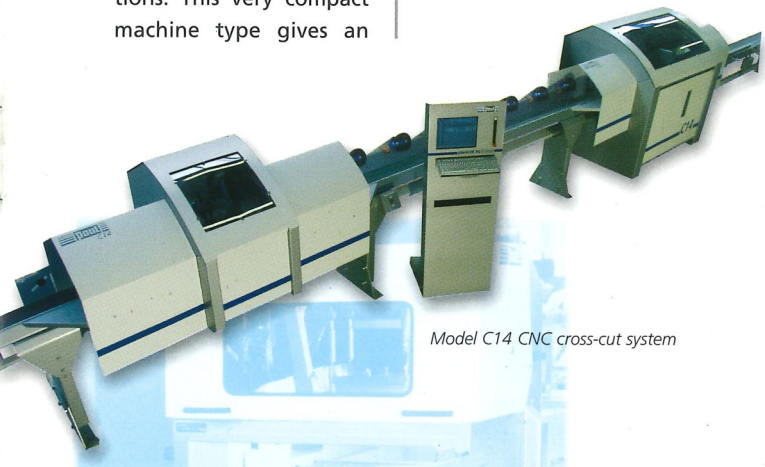
Optimizing strategies

The following optimizing strategies are available:

A = waste
1F = 1st quality fixed length
2F = 2nd quality fixed length
FJ = finger-joint length



The PAUL series 11 is designed for small to medium timber cross sections. This very compact machine type gives an accurate and clean cut at a very high cutting speed.

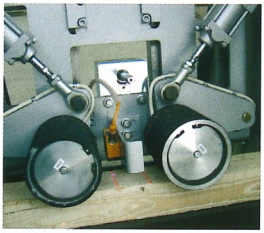


Model C14 CNC cross-cut system

The series C14 machines are ideal for large cross sections and for warped and cupped timber. They are extremely sturdy and feature a feed drive that achieves an outstanding acceleration value even with heavy timbers.

Model 18E Forte CNC cross-cut system

The series 18 models are suitable for cross-cutting waney-edged and heavy timbers. Defects are marked either with crayon lines or by laser. As in all CNC cross-cut systems, cross-cutting results are optimized by means of the MAXI control.



Crayon mark recognition in measuring station

Optimized Ripping & Cross-Cutting

A maximum utilization of the valuable raw wood material requires the implementation of a system that is perfectly suited to the conditions found at the plant.

PAUL is able to deliver a complete system of optimizing edgers/rip saws, cross-cutting saws and handling equipment as a one-supplier solution.

Maximum yield in edging and ripping is achieved with the automatic infeed system AB920.

Non-contact board measurement

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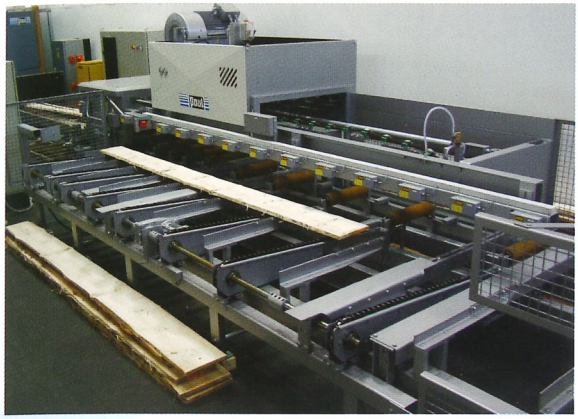
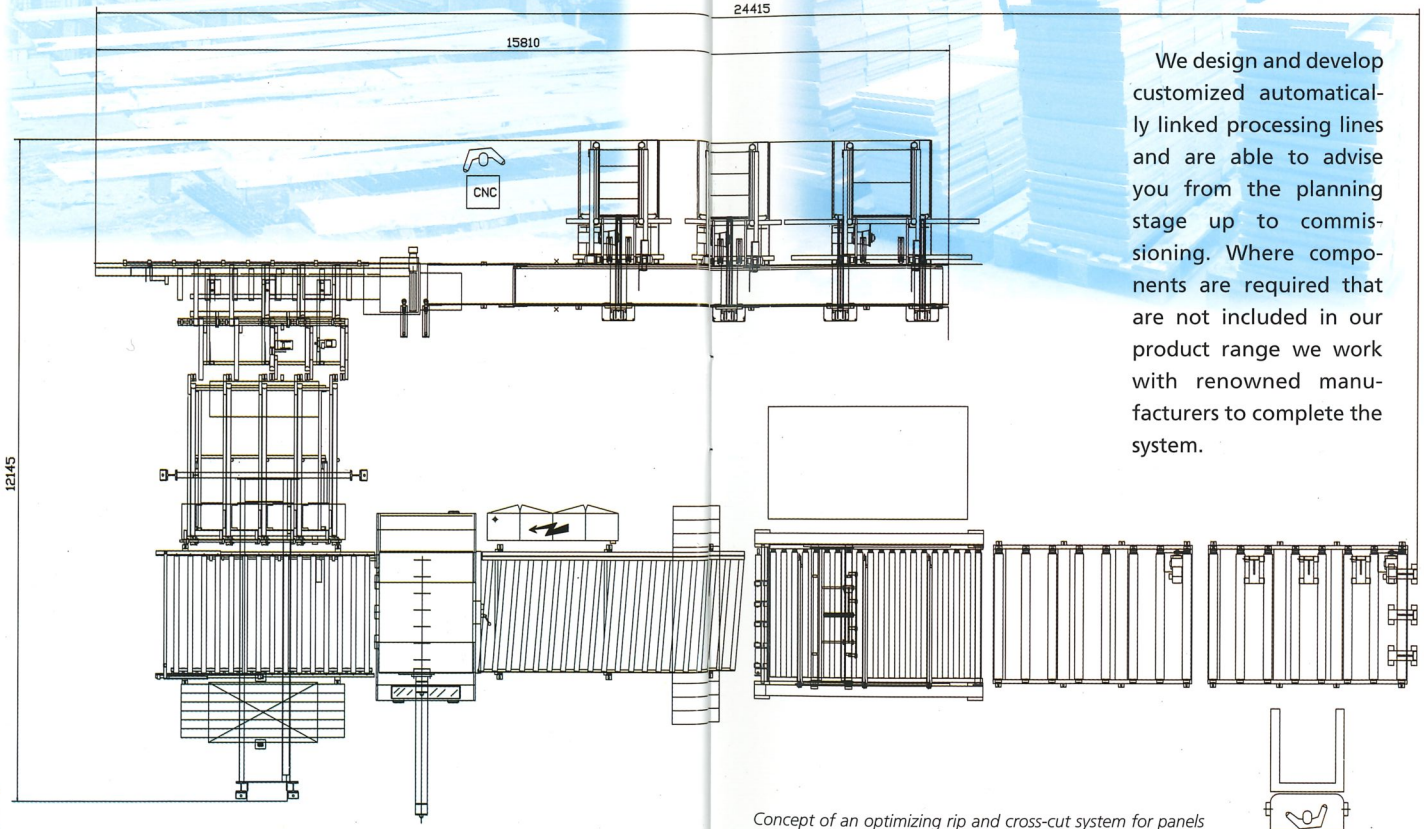


Automatic infeed system AB 920



Concept of an optimizing rip and cross-cut system for panels

We design and develop customized automatically linked processing lines and are able to advise you from the planning stage up to commissioning. Where components are required that are not included in our product range we work with renowned manufacturers to complete the system.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