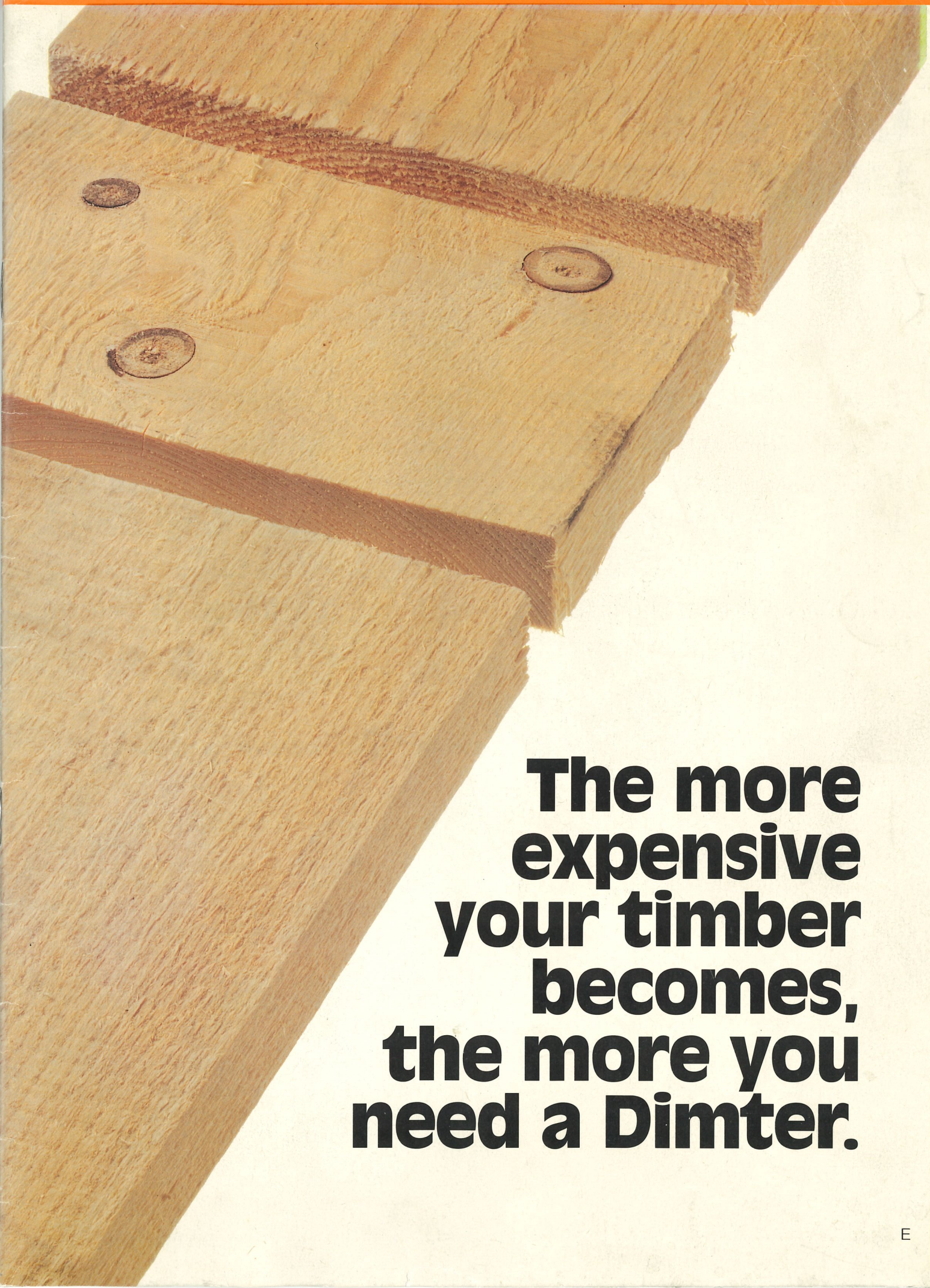
Dimter OptiCut Series 300



The more expensive your timber becomes, the more you need a Dimter.

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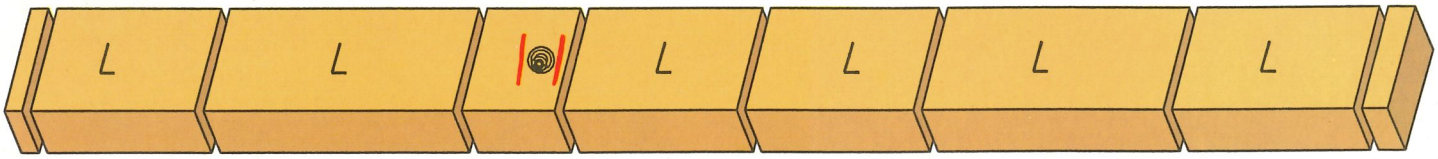
Cut your material costs. C
Get the Dimter optimizati
your company.

Nobody is perfect. Timber is no exception. Sometimes knots are welcome as a decorative element. Mostly they are annoying. They cost waste timber. Not only defects become waste, but also good pieces that do not find a place in the cutting list. You cannot afford this any longer.

You need a Dimter OptiCut. It identifies defects, cuts them off, measures lengths during the throughfeed, cuts good pieces to optimum lengths and minimizes remainders. It's up to you to decide what is the optimum. You can choose from six optimization criteria.



1) Minimizing waste

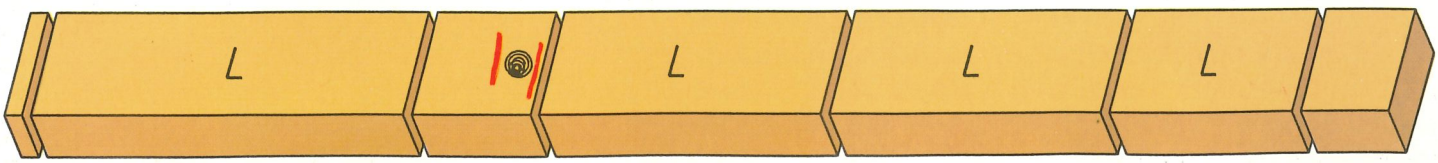
According to the cutting list entered, the Dimter OptiCut cuts the optimum combination of lengths with the lowest amount of waste from the good pieces.

Remaining good pieces smaller than the smallest fixed length can be used for finger-jointing by means of an additional function. Optimum timber yield!

2) Optimizing value

For each fixed length you enter a value, eg. the sales price. For each feasible combination of lengths with a change in quality the OptiCut adds up and compares the previous total value with another combination.

The length combination and/or quality combination with the highest value is transmitted to the cross-cut saw as the optimum cutting list. Return-orientated timber yield !



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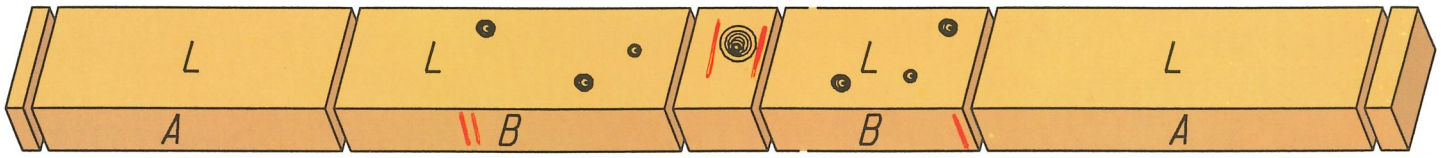


3) Optimizing quality.

In case of several timber qualities and different cutting lists per board the OptiCut can work according to the principle of interlocking. In case of a subsequent inferior quality - such as change from quality A to C - your OptiCut adds the waste A to the following C-length and works on the basis of this total length.

When changing from a lower to a higher quality - such as from C to B - it checks whether or not something should be taken out of the B-lengths in order to cut more valuable, longer fixed C-lengths.

Optimum yield of value by checking all combinations of interlocking in seconds.

6) Simulation program.

By this program you optimize your optimizing criteria. From your production you calculate the stored timber data with different criteria, such as different values, quality presets and more.

Thus you establish your optimum criteria or you are able to adjust your conditions to the new requirements.

4) Optimizing the number of workpieces.

Say the cutting list contains different quantities per length which are to be ready at the same time. Now the OptiCut computer automatically determines a value per length; by means of a formula it orientates itself towards the remaining quantity. Thus all the lengths of the piece list are worked off almost at the same time. No capital-intensive intermediate storage of fixed lengths and qualities!

5) Finger-jointing program

The value of the finger-jointing workpieces and/ or the costs for each finger-jointing operation are entered into the OptiCut computer. Then the saw either cuts a shorter fixed length plus the length of the finger-jointing workpiece or a longer fixed length plus waste, depending on the value. The finger-jointing line is applied value-optimized.

Dimter OptiCut 301, 302, 303 or 304. Just finance the saw with the costs for timber and labour it saves for you.

OptiCut 301: Cuts fixed lengths

For cutting fixed lengths exactly to the millimetre according to a preset number of workpieces. Programming by comfortable hand-held terminal.

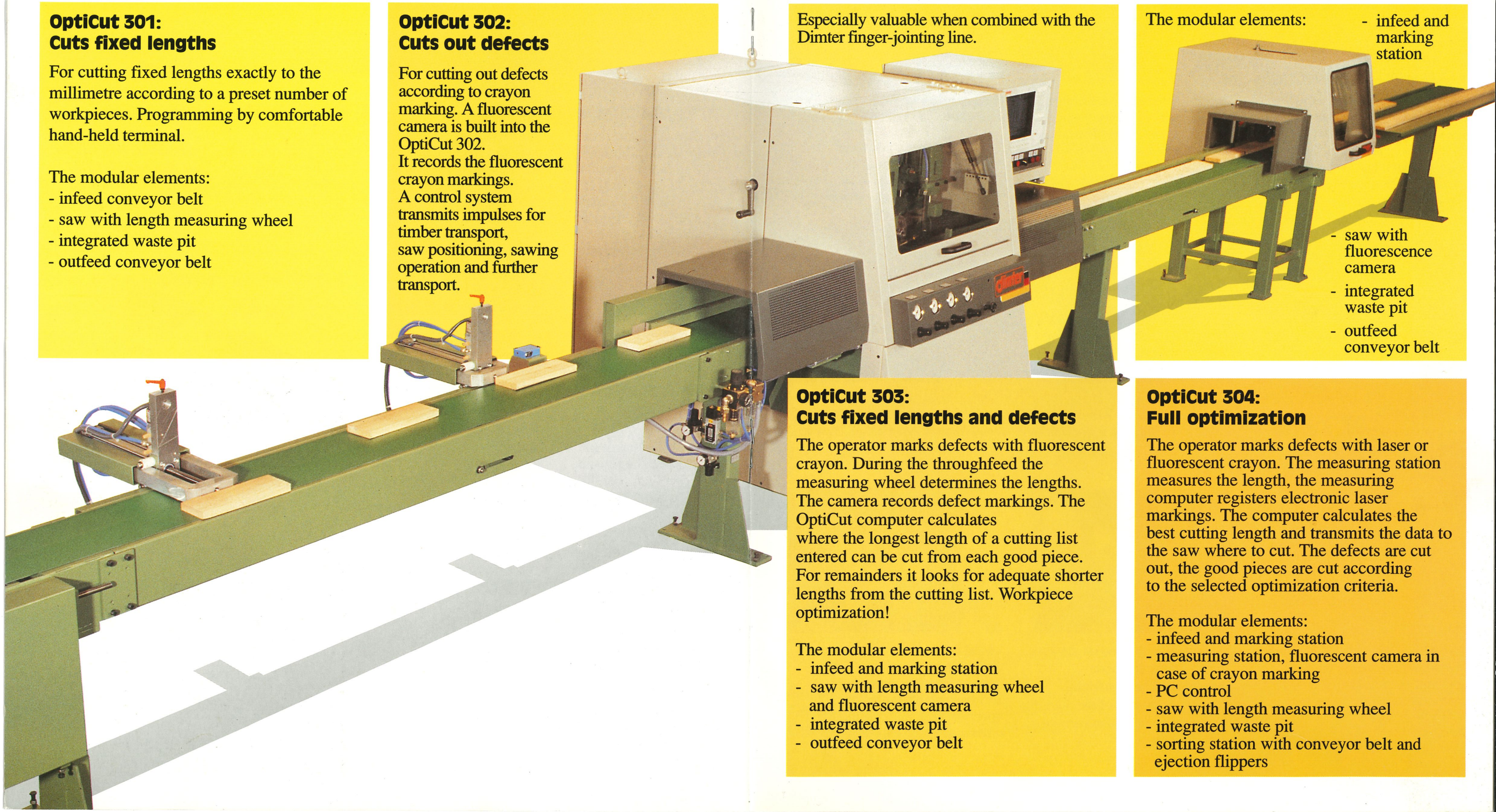
The modular elements:
- infeed conveyor belt
- saw with length measuring wheel
- integrated waste pit
- outfeed conveyor belt

OptiCut 302: Cuts out defects

For cutting out defects according to crayon marking. A fluorescent camera is built into the OptiCut 302.
It records the fluorescent crayon markings.
A control system transmits impulses for timber transport, saw positioning, sawing operation and further transport.

Especially valuable when combined with the Dimter finger-jointing line.

The modular elements:
- infeed and marking station
- saw with fluorescence camera
- integrated waste pit
- outfeed conveyor belt



OptiCut 303: Cuts fixed lengths and defects

The operator marks defects with fluorescent crayon. During the throughfeed the measuring wheel determines the lengths. The camera records defect markings. The OptiCut computer calculates where the longest length of a cutting list entered can be cut from each good piece. For remainders it looks for adequate shorter lengths from the cutting list. Workpiece optimization!

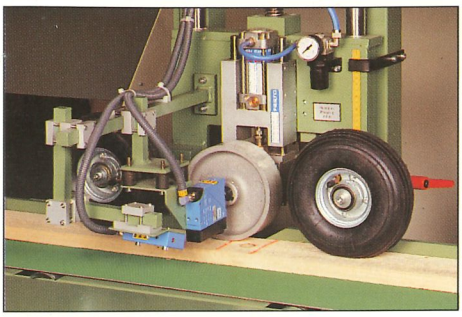
The modular elements:
- infeed and marking station
- saw with length measuring wheel and fluorescent camera
- integrated waste pit
- outfeed conveyor belt

OptiCut 304: Full optimization

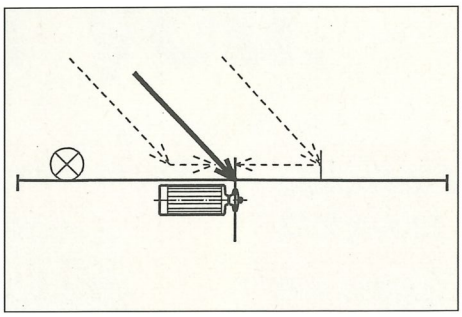
The operator marks defects with laser or fluorescent crayon. The measuring station measures the length, the measuring computer registers electronic laser markings. The computer calculates the best cutting length and transmits the data to the saw where to cut. The defects are cut out, the good pieces are cut according to the selected optimization criteria.

The modular elements:
- infeed and marking station
- measuring station, fluorescent camera in case of crayon marking
- PC control
- saw with length measuring wheel
- integrated waste pit
- sorting station with conveyor belt and ejection flippers

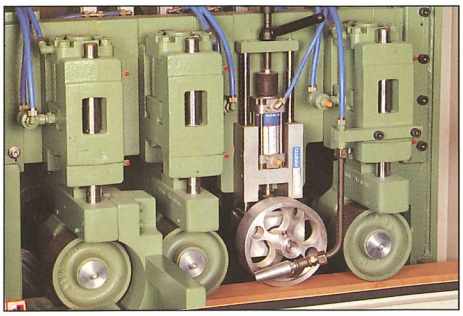
Dimter-System: Clear.



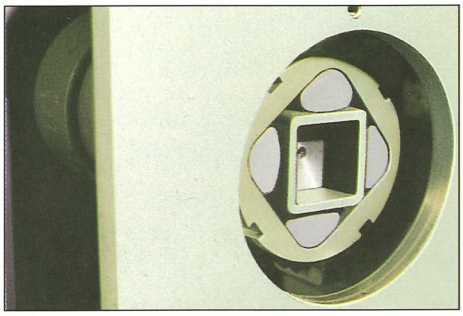
Even if there is slip between timber and infeed, no length inaccuracy will occur as the length measurement is done by an independant measuring wheel free of slips. Precision under all circumstances!



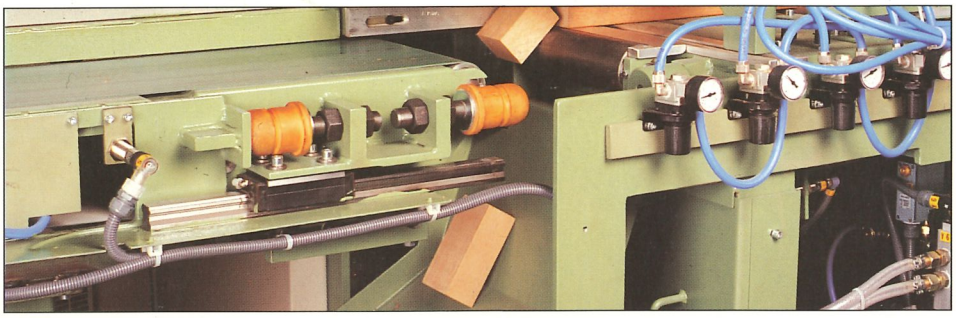
The cutting position is constantly electronically supervised and adjusted, if necessary. This avoids adding up of cutting errors at the end of the board.



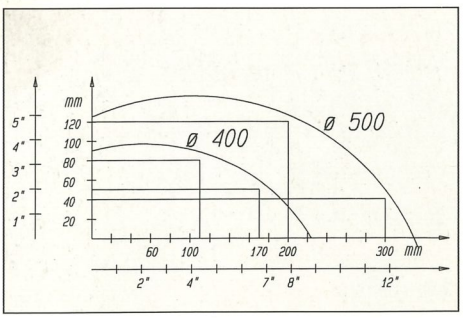
Feed only driven from above! This guarantees safe transport even of cambered boards.



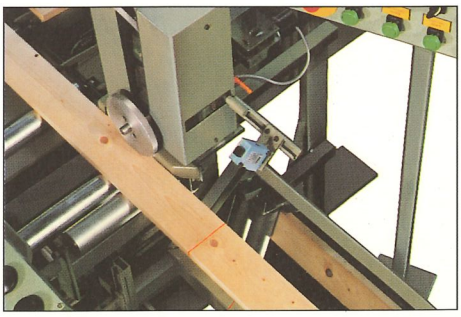
For the up-and-down movement the saw support is equipped with a torsion absorber. This makes the OptiCut work quietly, fast and with less wear and tear. Dimter patent!



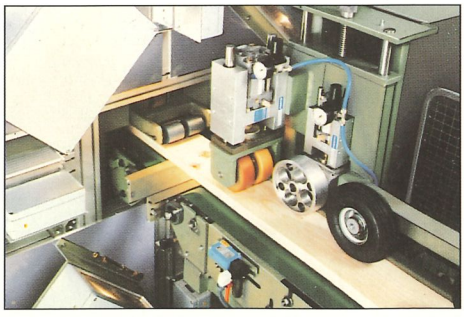
In the OptiCut an automatic separating shaft is integrated in close distance to the saw. Waste and good pieces are separated with 100% security. No piece of waste can find its way into the assorted good pieces. Dimter patent!



The cutting diagram for big timber cross-sections. Width up to 300 mm, thickness up to 120 mm, maximum cross-sections of 300 x 40 or 200 x 120 mm. At a saw diameter of 500 mm.

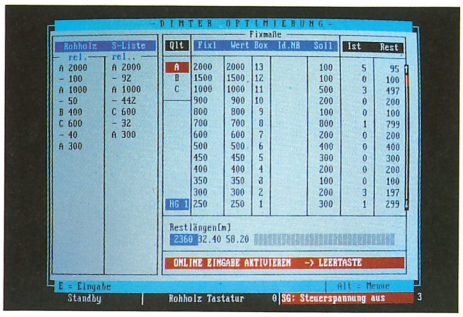


In addition to the crayon marking, Dimter offers the more sophisticated laser marking. Precise positioning of the marking. Saving space up to a maximum infeed length.

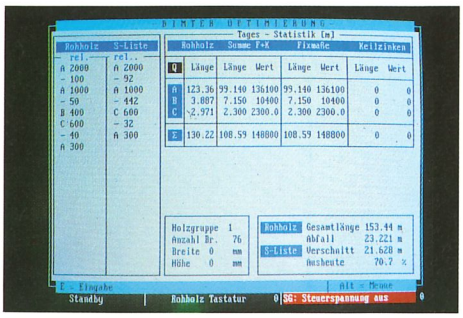


Visual defect detection and their definition by means of a line camera. The Dimter-scanner DiScan replaces the marking operator. With multiple quality criteria and high capacity.

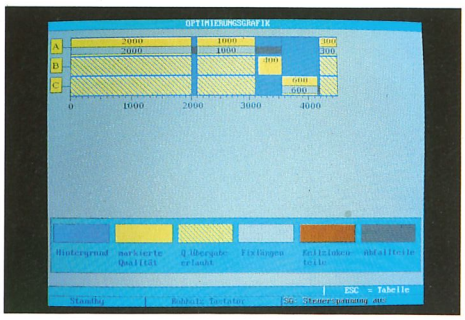
Own software: Optimum.



All at one glance: cutting list with values and quantities, timber qualities for each timber cross-section, length and value for the finger-jointing pieces, list of measurements and cutting list of each processed board.



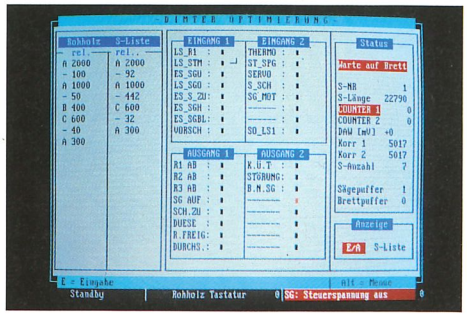
Production statistics of the ingoing and finished material according to qualities and their shares in percent. For fixed lengths, defects, finger-jointing lengths and waste. In linear, square, and cubic metres.



Graphical illustration of the measuring and cutting lists of each processed board.

Technical data of the Dimter computer:

Type:	IBM compatible PC - industrial standard
Operating system:	MS-DOS 6.2
Processor:	INTEL 80286, 80386 or 80486
Main memory:	up to 4 MB
Hard disk:	from 40 MB
Interfaces:	2 x RS 232, 1 x Centronics Parallel
Communication:	VME-Bus
Additional processors:	a. Measuring station, storage and processing of ingoing measurements. b. Feed, saw. Slowing down - accelerating. c. Ejector of the sorting station.
User guide:	German, English, French



PC-controlled illustration of the status-quo-situation of the line allowing the most simple fault diagnosis and supervision.

Technical data of the saw:

Sawblade diameter	400 mm
Speed	4,100 r.p.m.
Feed speed	170 (230) m/min
Drive saw motor	5.5 kW
Servo drive	4.5 (7.5) kW
Slowing down, cutting and accelerating	0.5 - 1 sec.
Cutting accuracy	min. 0.8 mm max. 1.5 mm
Operating air pressure	6 - 8 bar
Exhaust diameter	1 x 125 mm
Exhaust speed	30 m/sec.

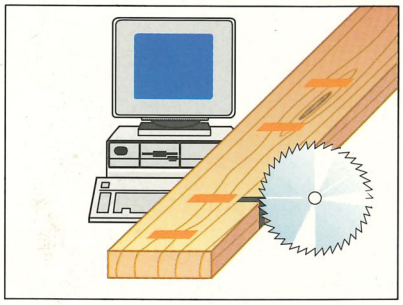
Timber dimensions of the standard saw:

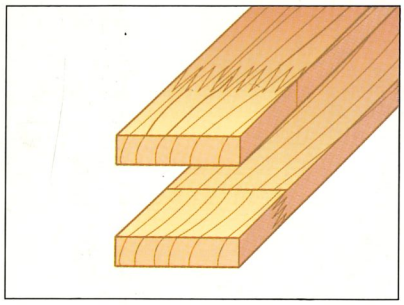
Width	40 - 200 mm
Thickness	15 - 80 mm
Cross section max.	200 x 25 mm
or	170 x 50 mm
or	80 x 80 mm

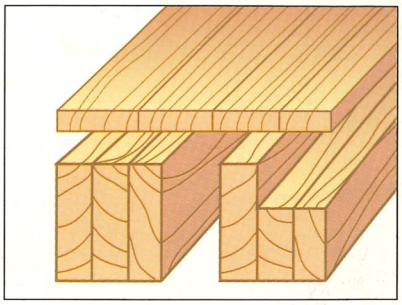
You need a Dimter.

Faster. Better. Dimter.

Automatic surface detection, optimizing cross-cut saws, finger-jointing lines, gluing lines, service, consulting, after-sales service.







Dimter offers machinery for the optimum yield from the individual machine to the production line built to customer specifications. Contact us or pay us a visit. We are at your service. Whether in Illertissen or at the many wood industry exhibitions all over the world.

You need a Dimter. Convince yourself. Call us.

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Dimter GmbH Maschinenfabrik
Rudolf-Diesel-Strasse 14-16, D-89257 Illertissen
Postfach 1061, D-89251 Illertissen
Telephone: +49 73 03/15-0, Telefax +49 7303/ 15-199
Federal Republic of Germany