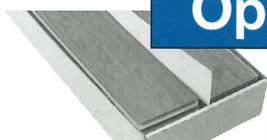
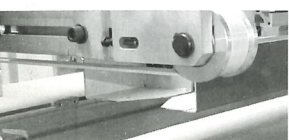


Packaging lines for flooring elements



flexible and cost-effective
Turning – Packaging – Palletizing

Optimat | profi line | power line



Efficiency along the line

Perfectly suited for changing dimensions

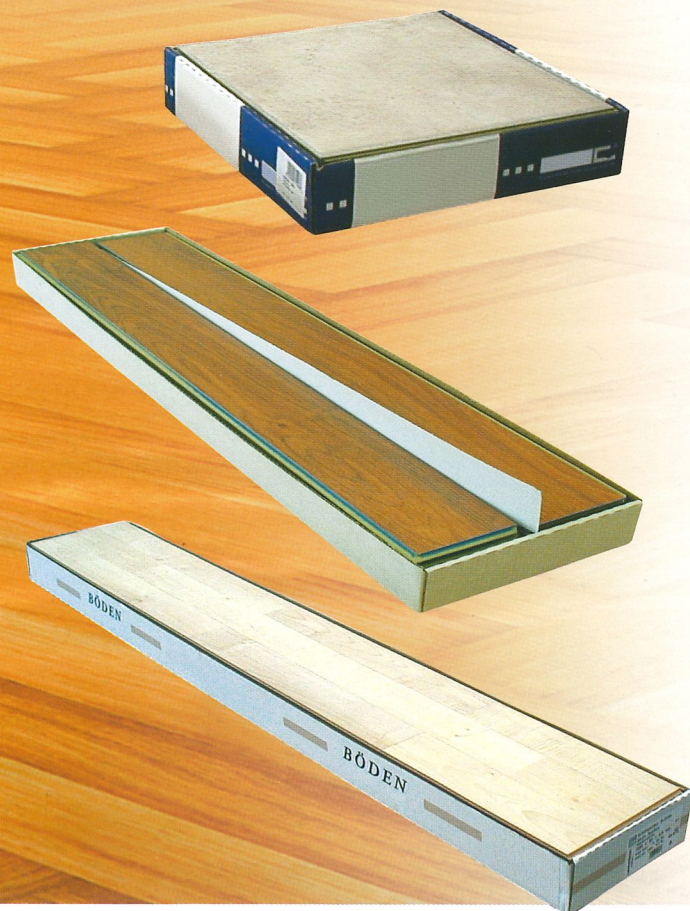
More and more, your markets demand special dimensions such as cottage floorboards, flagstone tiles or Bigfoot-

formats, besides the standard sizes. It is rare, however, that a line works at full capacity if elements of only one size are processed. Where's the problem? The installation components which we propose are par-

ticularly flexible. They are easily or automatically adjusted and are made to measure to accommodate changing dimensions.

Dimensions (Surface) of processed elements	
Length	380 to 1400 mm
Width	90 to 400 mm
Thickness	6 to 11 mm
Option:	Machine configurations covering only a limited range of dimensions

Dimensions of case stacks	
Basic height (idler conveyor for stacks)	300 mm (other heights on request)
Basic	EURO-pallet 1200 x 8900 x 150 mm (other dimensions on request)
Length	max. 1400 mm
Width	max. 900 mm
Effective stack height	max. 1050 mm



Turning panels

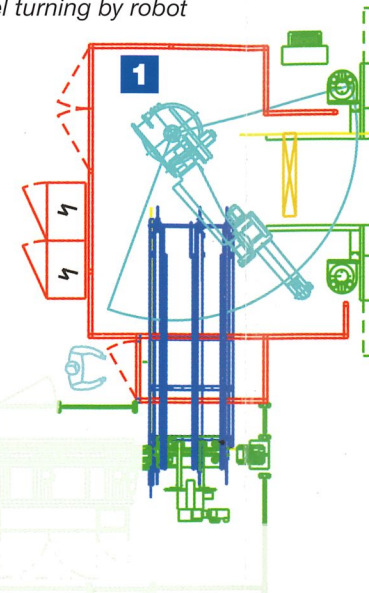
After lengthwise processing, the elements are gathered in stacks up to 160 mm high and transported onwards, for example by a hedgehog belt that can be used simultaneously as drying sector or buffer. A robot turns the elements around for the ensuing transverse processing.

Your advantages are:

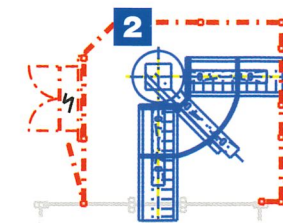
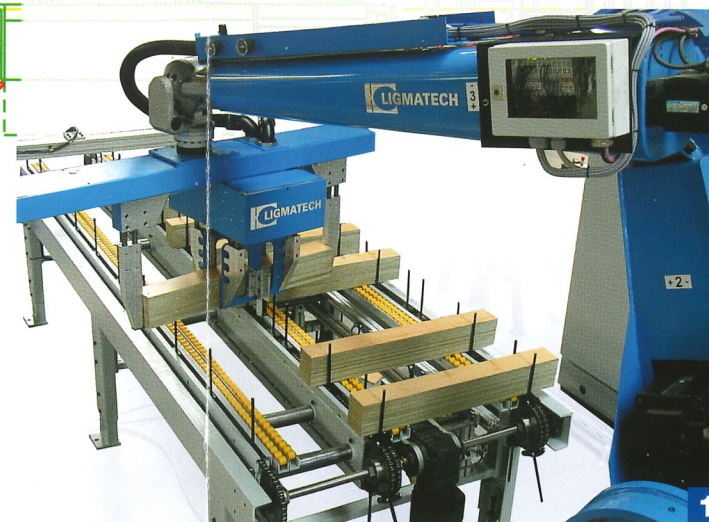
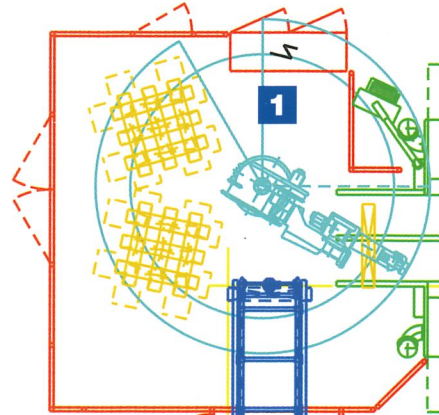
- Robust functioning with practically no wear
- Overall line may be designed to a mostly linear concept
- Different picking positions for the element stacks enable to relieve the lengthwise machine during feeding stops
- Individual stacks may be withdrawn and reinserted into the flow

- To make left or right panels, element stacks may be turned by 0° or 180° into the magazine of the transverse processing

Panel turning by robot

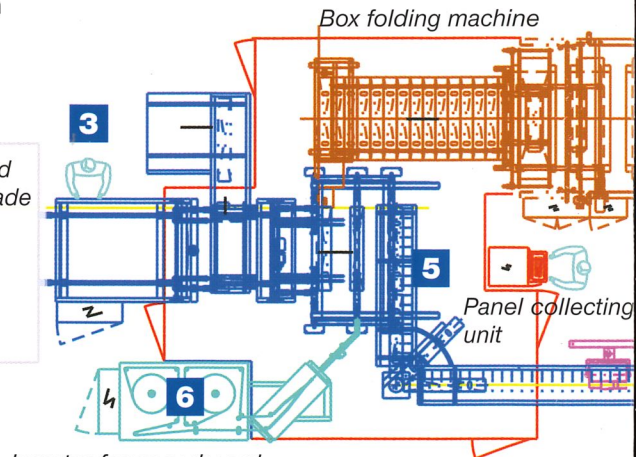


Panel turning by robot



Transportation and turning: 90° swivel to limit required space

Panel packaging



Inserter for paperboard slips for two packs of panels in one layer

Panel Packaging

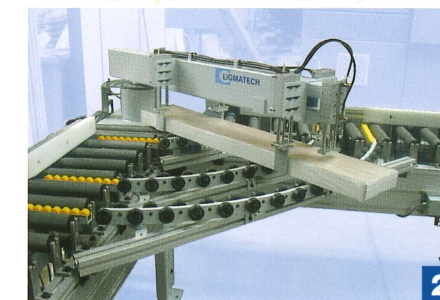
The elements exit the transverse processing one by one and pass through the following functional areas:

- Turning by 180°
- Cleaning on both sides
- Manual or automatic, camera-based control of pattern and bonding quality
- Rejection and stacking of flawed elements

Follows the packaging sequence itself:

- Automatic folding of the cases or trays
- Gathering of elements to form stacks and insertion into cases
- Printing and labeling
- Placing of instructions for use
- Shrink-film wrapping of the packages

Banderoles may be used instead of cases to fasten the element stacks. They may also be employed to separate two stacks within one case.



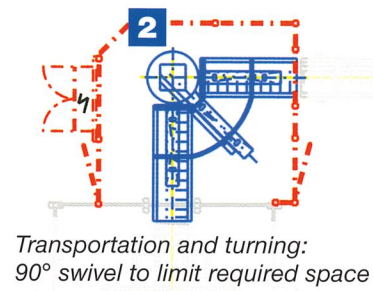
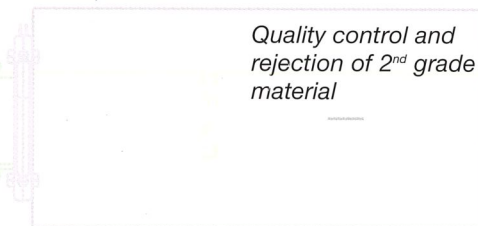
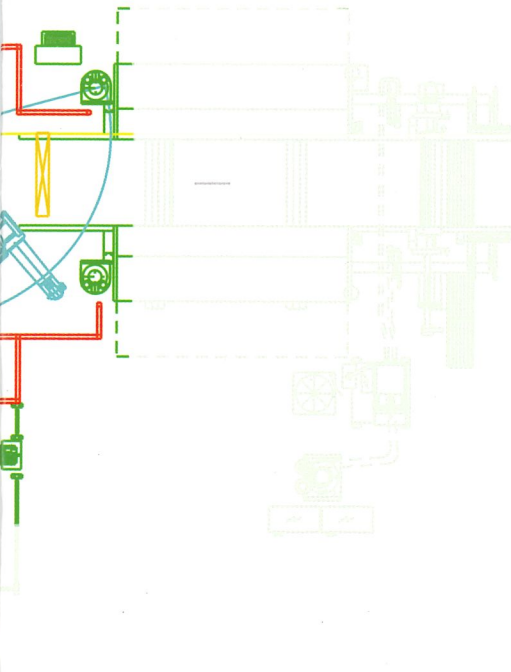
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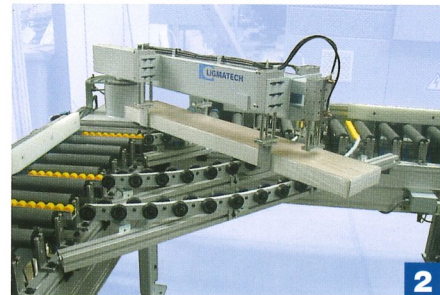
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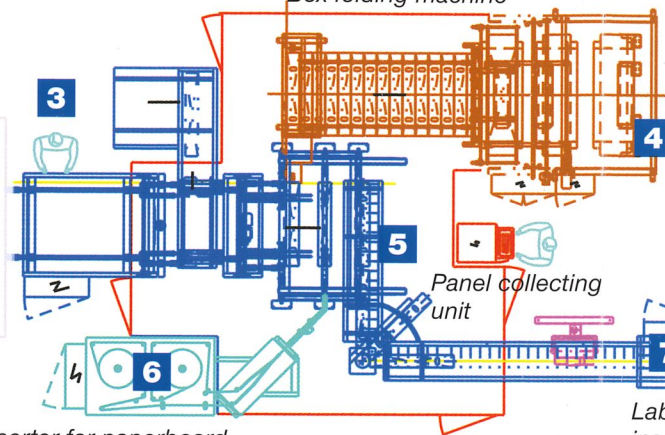


Transportation and turning: 90° swivel to limit required space

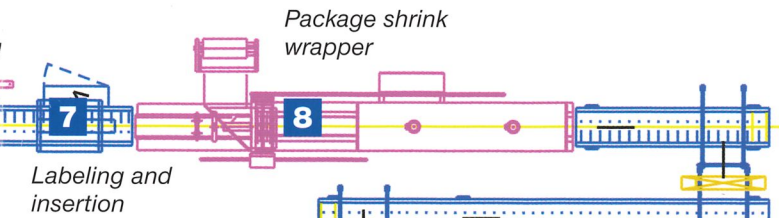
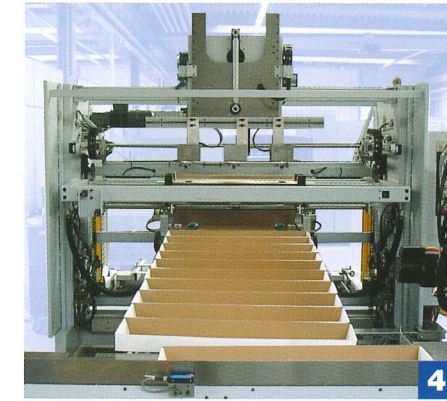


Panel packaging

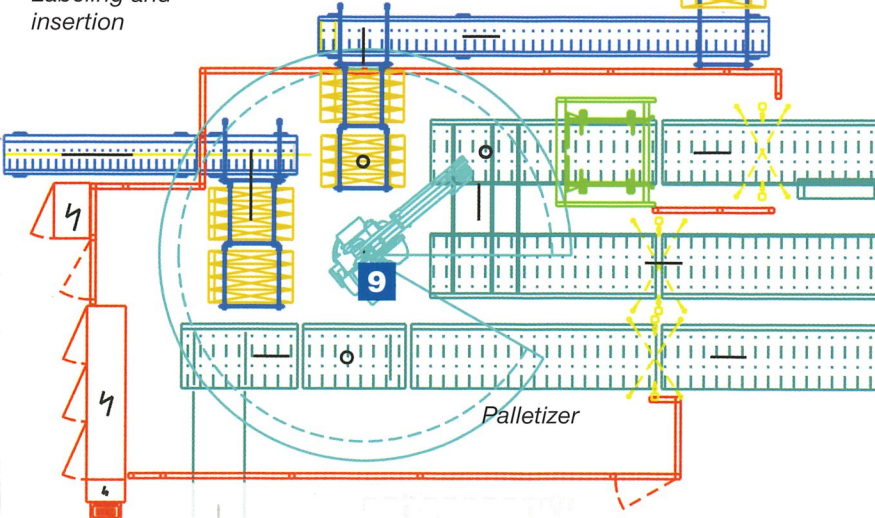
Box folding machine



Inserter for paperboard slips for two packs of panels in one layer



Package shrink wrapper



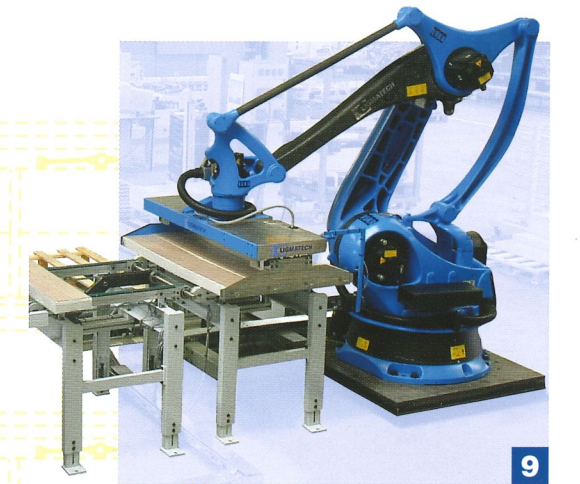
Palletizer



Package Palletizing

The shrink-wrapped packages are collected by layers, disposed at the picking position and stacked by a gripper. Using a robot has major advantages versus traditional solutions:

- Robust functioning with practically no wear
- Manifold design possibilities for the packaging sector with 4 or 6 axes
- Cost reduction by saving installation components and personnel
- Feeding empty pallets; placing intermediate layers or cover sheets with a vacuum pad
- Superior performance and flexibility allow the use of one palletizer robot for two flooring lines. Its adjustable transverse grip can place different-sized layers of cases on various pallets



Panel Packaging

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9

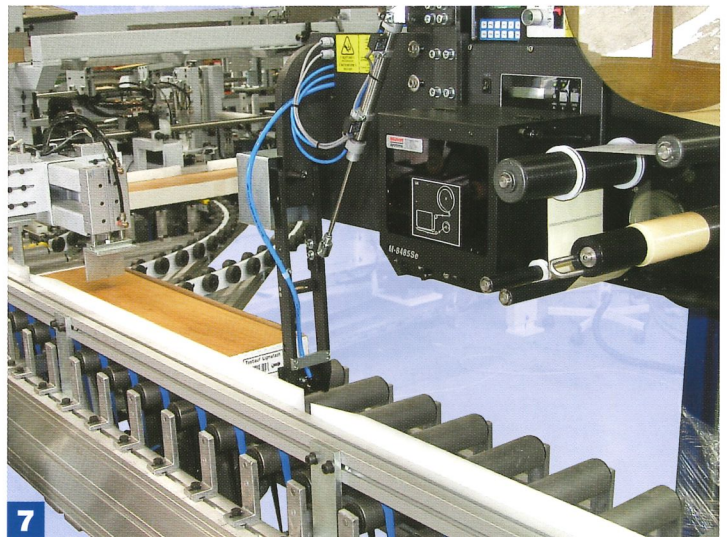
Palletizer

Additional components increase efficiency

Clever options proposed by competent partners

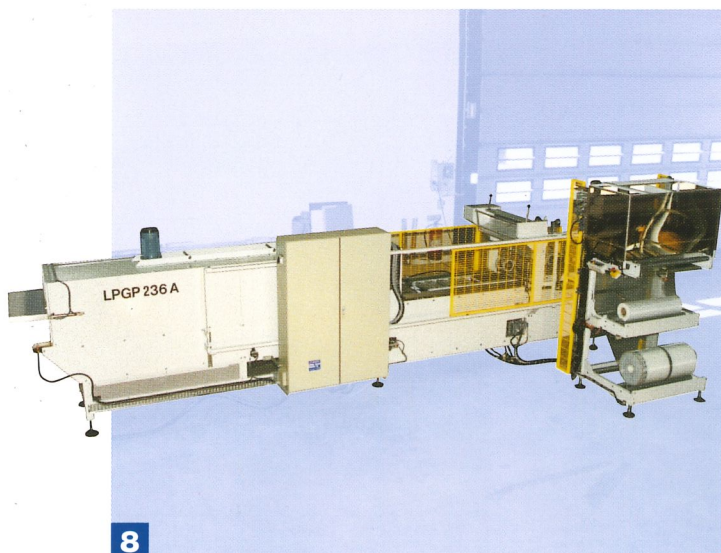
Ligmatech provides your entire installation, end to end. That's why we offer you machines and installation components that are suitable complements for your packaging line. If we do not make the component ourselves, we recommend state-of-the-art solutions of experienced and reliable systems' providers:

- cleaning machines
- Label printing and fixing
- Shrink film wrapping of packages
- Stretch film wrapping of package stacks



7

label printer



8

Shrink film panel wrapper



turning device



Member of the Homag Group

System supplier for

- Return systems
- Assembly technology
- Packaging technology
- Robot technology



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