# Opti-Stack

**Automated Stacking Systems**

**Opti-Stack 3000 Vack**
**Opti-Stack 3000**
**Opti-Stack 6000 Vack**
**Opti-Stack 6000**

**Optimization of staff and wood resources**

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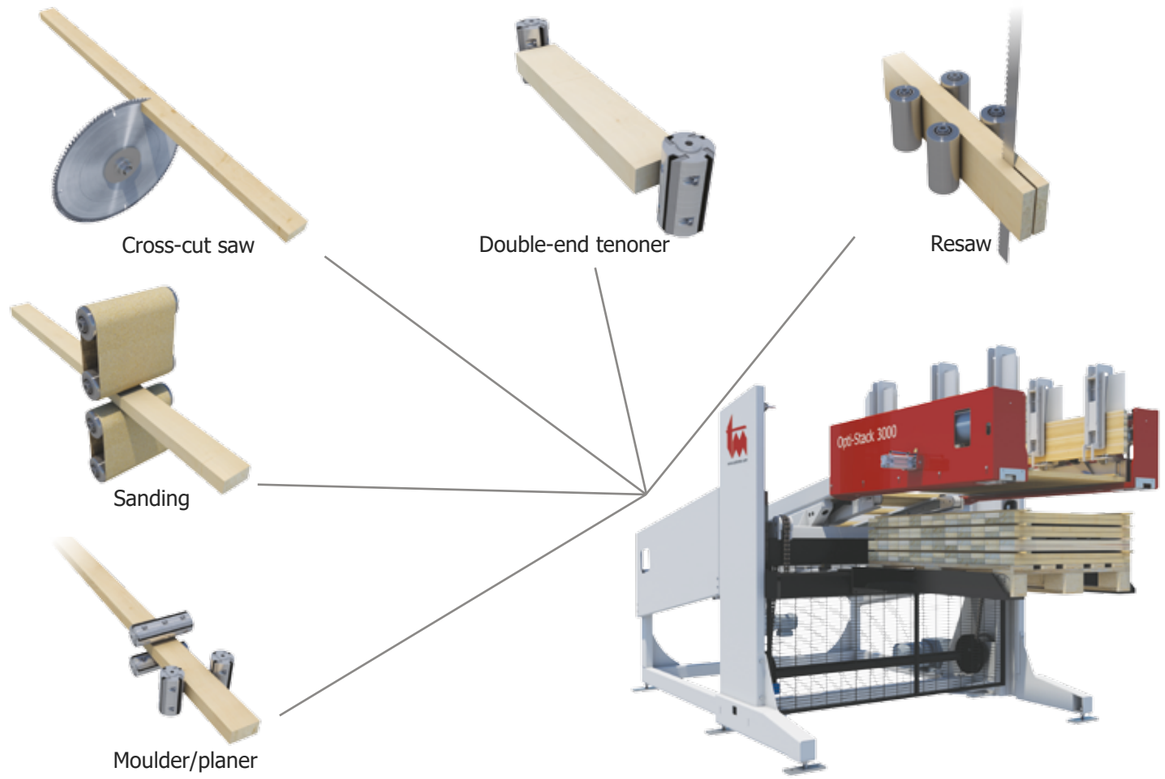
## Automated stacking systems

System TM offers a wide range of standard, well-proven automated handling systems for the automation of main machines such as:




The automated stacking systems are designed to dramatically increase the capacity of the main machine and to reduce labor costs. With System TM's Opti-Stack series we are able to advise you on - and supply - the right solution to fulfil your specific requirements and demands to obtain a more efficient and more profitable production.

The automated stacking system gives you full utilization of the capacity of your main machines and optimizes on your staff and wood resources.

**▶ Make a wise move**

**- let an Opti-Stack solution from System TM do all the hard and repetitive work!!**

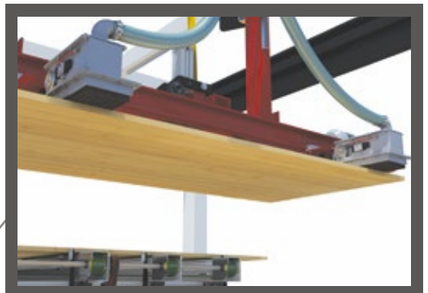
# Opti-Stack 3000 Vack

## Automated stacking system - Opti-Stack 3000 Vack

Opti-Stack 3000 Vack is a vacuum stacking unit which is able to stack complete or partial layers of workpieces after different main machines such as cross-cut saws, moulding machines, double-end tenoners, resaws and sanding machines.

The Opti-Stack 3000 Vack consist of two vacuum heads, suitable for stacking short workpieces from 380 – 2,500 mm (15”- 98”) at a capacity of up to 5 layers per minute by random or uniform lengths.
The vacuum head consist of check valves technology which automatically recognizes and closes the valves in areas without workpieces. This ensures lifting of complete layers of random lengths or widths without any adjustments of the vacuum heads.

By a modular design the Opti-Stack 3000 Vack stacking unit is suspended from a portal, enabling the stacking of layers to packs standing directly on the floor. Packs can easily and automatically be removed from the floor during operation - without stopping the main machinery.



*The foam of the vacuum head adjusts to the shape of the workpieces before lifting the layers. This minimizes false air and maximizes the lifting load.*

### Advantages

- Stacking from multiple destinations
- Stacking to multiple destinations
- Releases labor from hard and repetitive work
- Capacity increase of the main machines
- Gentle handling without damaging workpieces or layers
- Minimum space requirement
- Stacking of random lengths and widths

### Features

- Automatic placement of stabilizing sticks
- Automatic pack transport
- Feeding conveyor
- Customized features upon request

# Opti-Stack 3000

## Automated stacking system - Opti-Stack 3000

The Opti-Stack 3000 is a mechanical high-performance stacking system, designed to stack short workpieces from 380-2,500 mm (15" – 98"), at a capacity of up to 150 workpieces or 12 layers per minute by uniform lengths.

Based on a standard module, the stacker has a modular design that can be customized to meet your exact requirements for the stacking of workpieces after different main machines such as moulders, double-end tenoners, cross-cut saws and resaws.

*The mechanical stacking system can be equipped with optional features such as stick magazines, automatically placing sticks in between the layers when needed*

### Advantages

- High capacity
- Stacking of narrow workpieces
- Capacity increase of the main machines
- Releases labor from hard and repetitive work
- Gentle handling without damaging workpieces or layers
- Minimum space requirement

### Features

- Automatic placement of stabilizing or drying sticks
- Automatic pack transport
- Brick and zig-zag stacking
- Stacking of random widths
- Connecting belts to double-end tenoner
- Board turning device
- Customized features upon request

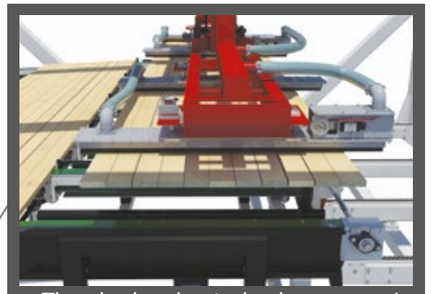
# Opti-Stack 6000 Vack

## Automated stacking system - Opti-Stack 6000 Vack

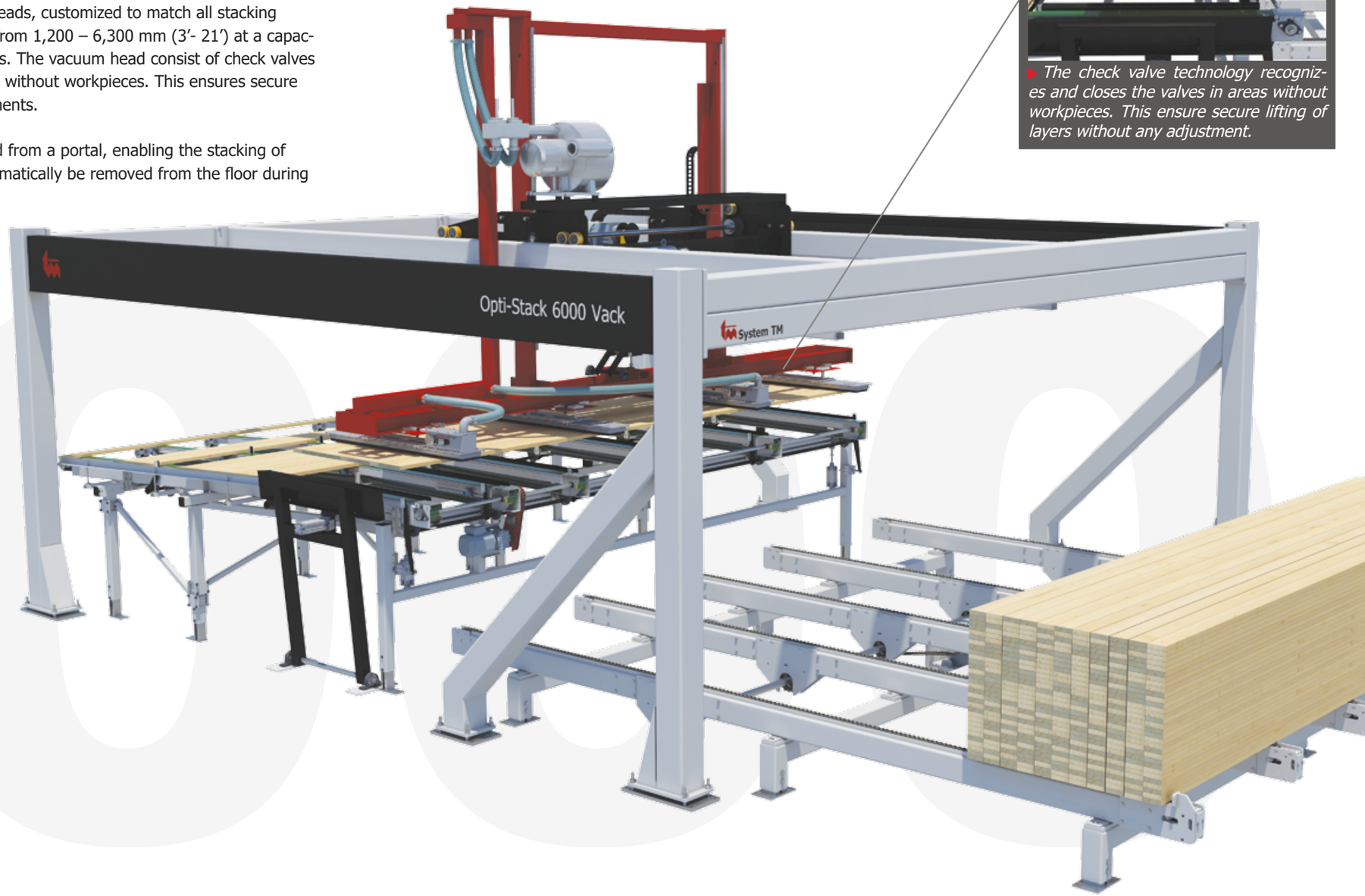
Opti-Stack 6000 Vack is a vacuum stacking unit which is able to stack complete or partial layers of workpieces from different main machines such as cross-cut saws, moulding machines, double-end tenoners, resaws and sanding machines.

The Opti-Stack 6000 Vack consists of an adjustable number of vacuum heads, customized to match all stacking requirements. The stacking unit is suitable for stacking long workpieces from 1,200 – 6,300 mm (3'- 21') at a capacity of up to 4 layers per minute, by random or uniform lengths and widths. The vacuum head consist of check valves technology which automatically recognizes and closes the valves in areas without workpieces. This ensures secure lifting of complete layers, random lengths or widths, without any adjustments.

By a modular design the Opti-Stack 6000 Vack stacking unit is suspended from a portal, enabling the stacking of layers into packs standing directly on the floor. Packs can easily and automatically be removed from the floor during operation - without stopping the main machinery.



*The check valve technology recognizes and closes the valves in areas without workpieces. This ensure secure lifting of layers without any adjustment.*




### Advantages

- Stacking from multiple destinations
- Stacking to multiple destinations
- Releases labor from hard and repetitive work
- Capacity increase of the main machines
- Gentle handling without damaging workpieces or layers
- Minimum space requirement
- Stacking of random lengths and widths

### Features

- Automatic placement of stabilizing sticks
- Automatic pack transport
- Feeding conveyor
- Customized features upon request

# Opti-Stack 6000

## Automated stacking system - Opti-Stack 6000

The Opti-Stack 6000 is designed to stack workpieces from different main machines such as for example cross-cut saws, moulding machines, resaws and rip saws.

The Opti-Stack 6000 is a high-performance mechanical stacking system and is designed to stack long workpieces from 1,200 – 6,300 mm (3'- 21'). The capacity of the Opti-Stack 6000 is up to 6 layers per minute by random or uniform lengths and widths. Packs can easily and automatically be replaced during operation - without stopping the main machinery.

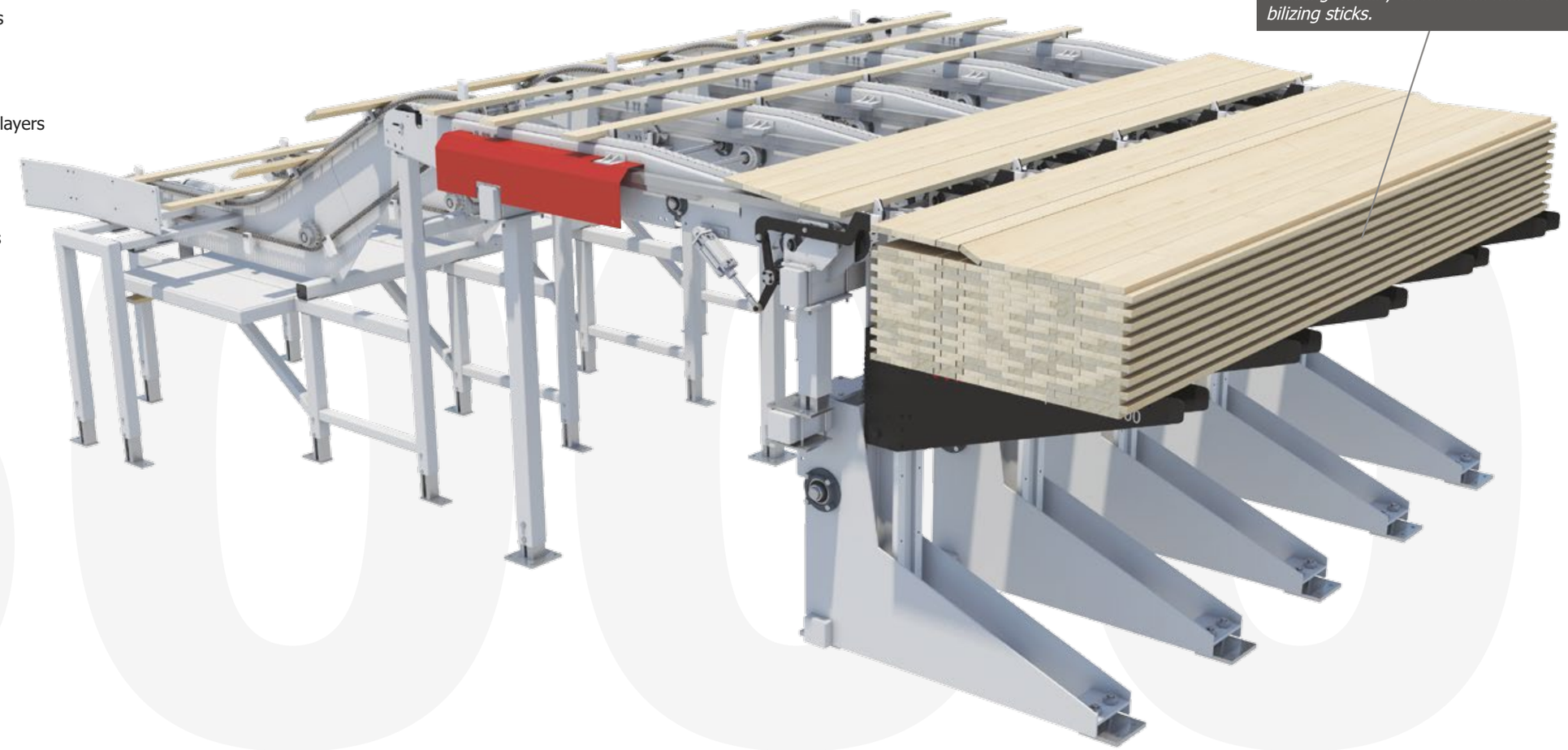
### Advantages

- High capacity
- Stacking of uniform or random lengths and widths
- Stacking of narrow workpieces
- Releases labor from hard and repetitive work
- Capacity increase of the main machines
- Gentle handling without damaging workpieces or layers

### Features

- Automatic placement of stabilizing or drying sticks
- Automatic pack transport
- Reject gate
- Brick stacking
- Stacking of random lengths and widths
- Board turning device
- Customized features upon request

*The mechanical stacking system can be equipped with optional features such as brick stacking, ensuring a very high stacking stability without the need of stabilizing sticks.*



# Opti-Stack solution

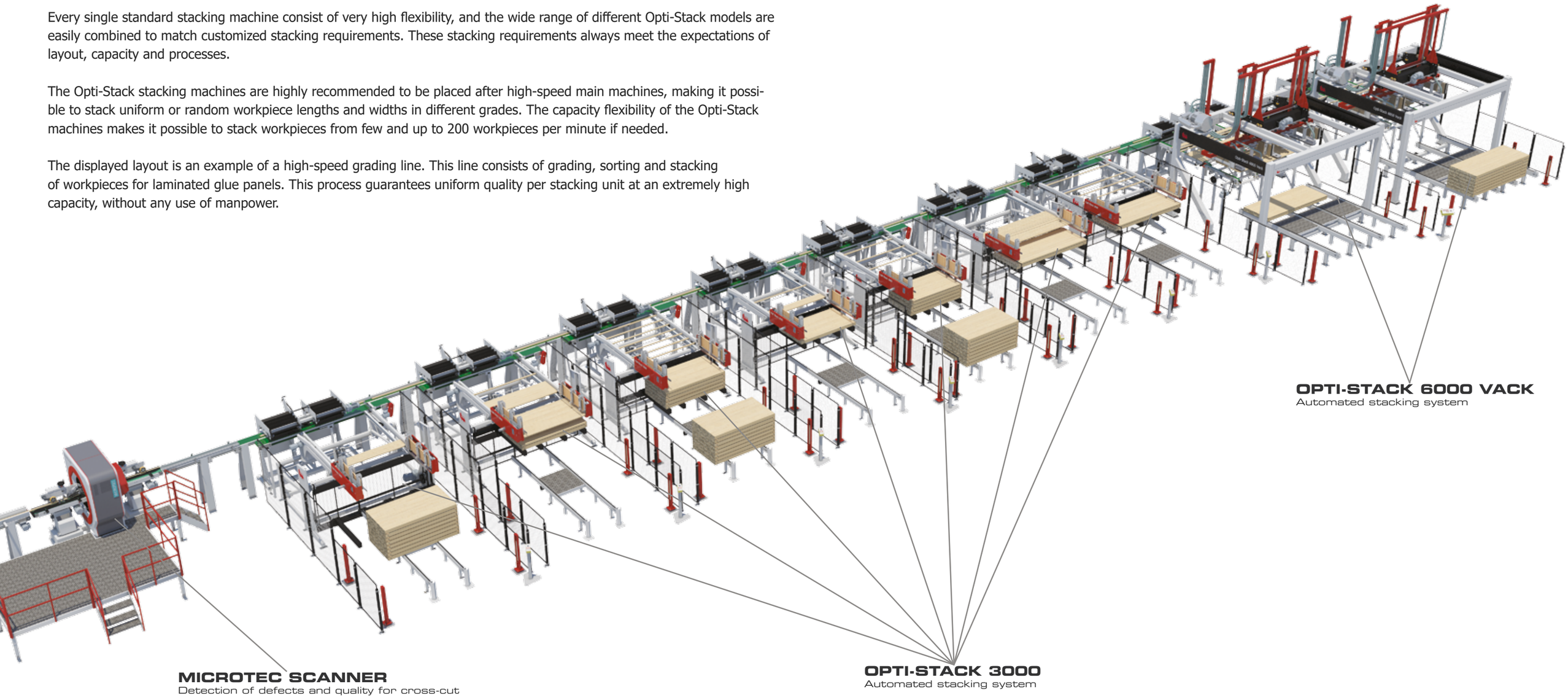
## Automated stacking solution

The standard Opti-Stack stacking machines from System TM are unique with their high degree of flexibility and many combination opportunities.

Every single standard stacking machine consist of very high flexibility, and the wide range of different Opti-Stack models are easily combined to match customized stacking requirements. These stacking requirements always meet the expectations of layout, capacity and processes.

The Opti-Stack stacking machines are highly recommended to be placed after high-speed main machines, making it possible to stack uniform or random workpiece lengths and widths in different grades. The capacity flexibility of the Opti-Stack machines makes it possible to stack workpieces from few and up to 200 workpieces per minute if needed.

The displayed layout is an example of a high-speed grading line. This line consists of grading, sorting and stacking of workpieces for laminated glue panels. This process guarantees uniform quality per stacking unit at an extremely high capacity, without any use of manpower.



# Technical data

## Overview of the data for Opti-Stack series

| | Opti-Stack 3000 Vack | Opti-Stack 3000 | Opti-Stack 6000 Vack | Opti-Stack 6000 |
|---|---|---|---|---|
| Board length | 380 - 2,500 mm<br>(15″- 98″) | 380 - 2,500 mm<br>(15″- 98″) | 1,200 - 6,300 mm<br>(3´- 21´) | 1,200 - 6,300 mm<br>(3´- 21´) |
| Board width | 63 - 1,225 mm<br>(2.5″ - 48″) | 50 - 200 mm<br>(2″ - 8″) | 63 - 1,225 mm<br>(2.5″ - 48″) | 50 - 300 mm<br>(2″ - 12″) |
| Board thickness | 15 - 50 mm<br>(0.6″ - 2″) | 15 - 75 mm<br>(0.5″ - 3″) | 15 - 50 mm<br>(0.5″ - 2″) | 15 - 100 mm<br>(0.5″ - 4″) |
| Number of vacuum head | 2 | None | 4 | None |
| Random length | Yes | No | Yes | Yes |
| Maximum length variation | 30 % | +/- 5 mm<br>(0.25″) | 30 % | 30 % |
| Maximum work-piece weight | Depends on board dimension | 12 kg<br>(26.5 lb) | Depends on board dimension | 40 kg<br>(88 lb) |
| Maximum layer weigth | 100 kg<br>(220.5 lb) | 80 kg<br>(176 lb) | 200 kg<br>(441 lb) | 300 kg<br>(661 lb) |
| Maximum pack heigth | 1,225 mm incl. pallet<br>(48″) | 1,225 mm incl. pallet<br>(48″) | 1,225 mm incl. pallet<br>(48″) | 1,225 mm incl. pallet<br>(48″) |
| Maximum pack width | 1,225 mm<br>(48″) | 1,225 mm<br>(48″) | 1,225 mm<br>(48″) | 1,225 mm<br>(48″) |
| Maximum pack weight | | 1,500 kg<br>(3,307 lb) | | 4,000 kg<br>(8,818 lb) |
| Capacity | 5 layers per minute | 150 workpieces or 12 layers per minute | 4 layers per minute | 6 layers per minute |
| Optional capacity | 8 layers per minute | None | 8 layers per minute | 10 layers per minute |

**All of the above data can be customized upon request**

# Additional products

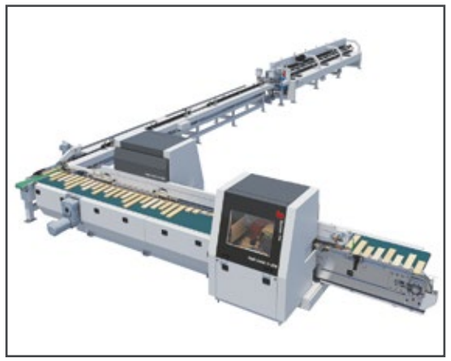
## System TM A/S

All products and system solutions from System TM can be equipped with an automatic handling or scanning system for best lumber utilization and capacity, with a minimum use of labor power.

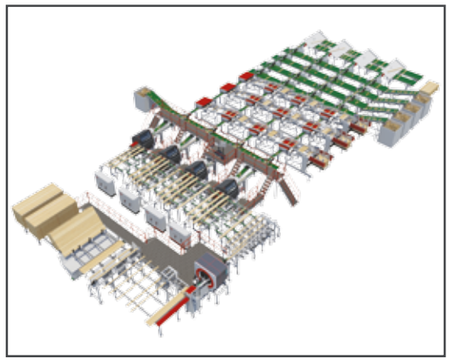
In order to meet all customer demands, our range of material handling systems consist of both standard and fully customized system solutions.

### Opti-Feed
**Automated feeding systems**

### Opti-Kap
**Optimizing cross-cut saws**



### Opti-Joint
**Automated finger jointing systems**



### Opti-Solution
**Customized system solutions**

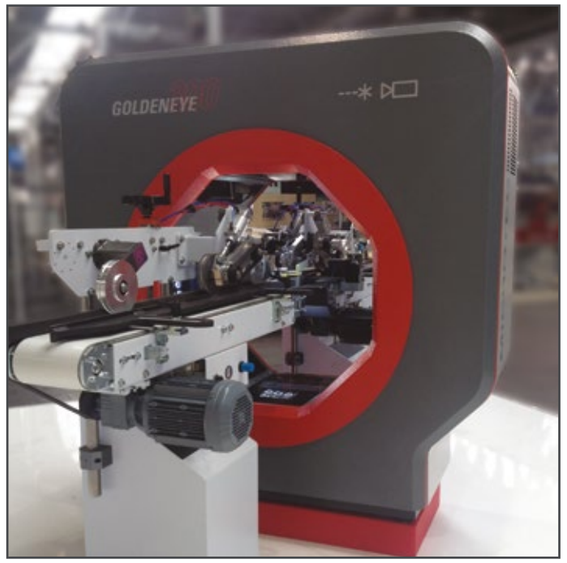
## MiCROTEC

All products and system solutions from System TM can be equipped with an automatic scanning system for best lumber utilization and production optimization.

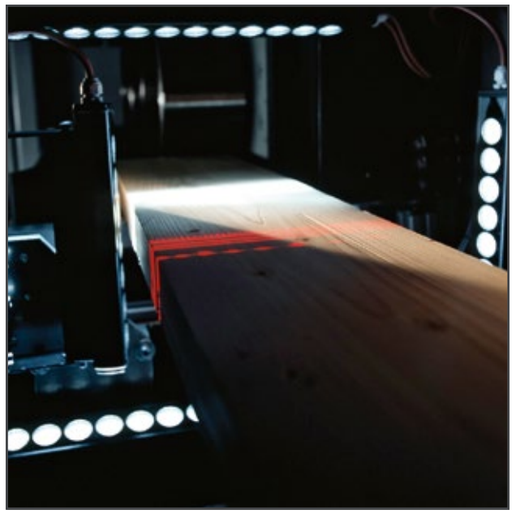
The scanner partner of System TM is a technology leader within the scanning industry. Their scanners are extremely reliable and accurate when recognizing wood defects in order to automate, streamline and optimize your production.

The identification of the characteristics of the lumber, is based on a Multi-Sensor scanning technology that recognizes knots, cracks, pitch pockets, holes, stains, wanes and other board defects as well as their location. With unheard precision, and at a very high speed, the sensors scan the boards for the best possible lumber utilization.

A product or system solution from System TM, combined with today's scanning technology and optimizing software, ensure the best production optimization, at an unbeatable high capacity.




*The Microtec Multi-Sensor Scanner Goldeneye 300 series*



*The multi sensor scanning technology scan the workpieces for best wood utilization.*

# System TM service

## Optimal performance with a strong service- and support team

System TM service is a key strategic business unit. The service department focuses on providing you with service and support and we continuously develop our services to meet your requirements.

System TM service offers you services to ensure uninterrupted operation, with the best possible productivity and utilization. Systematic maintenance minimizes production downtimes, and ensures smooth operation with minimum risk of unexpected events.

System TM service is a team of professionally educated, trained and experienced service engineers and technicians ready to provide full technical support and services. With more than 40 years of experience designing, building, integrating and maintaining automated wood material handling systems, System TM is highly qualified to offer total service and support.

## This includes:

- Service and maintenance contracts
- Customized kit for each customer to provide a succesful start
- Modification, upgrading and extension of existing machines, controls and software
- Relocation, renovation, installation and start-up of machine installations
- Production and system analysis and optimization
- Staff/operator education on how to handle and maintain the machines
- Advisory and consultancy service
- Spare parts and enhancements
- Warranty
- Helpdesk and Online telephone support - 24 hours worldwide

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**Optimization of staff and wood resources**