WEKO's System…

WEKO-RFH.
MDF-/OSB- and particle board mat moistening.

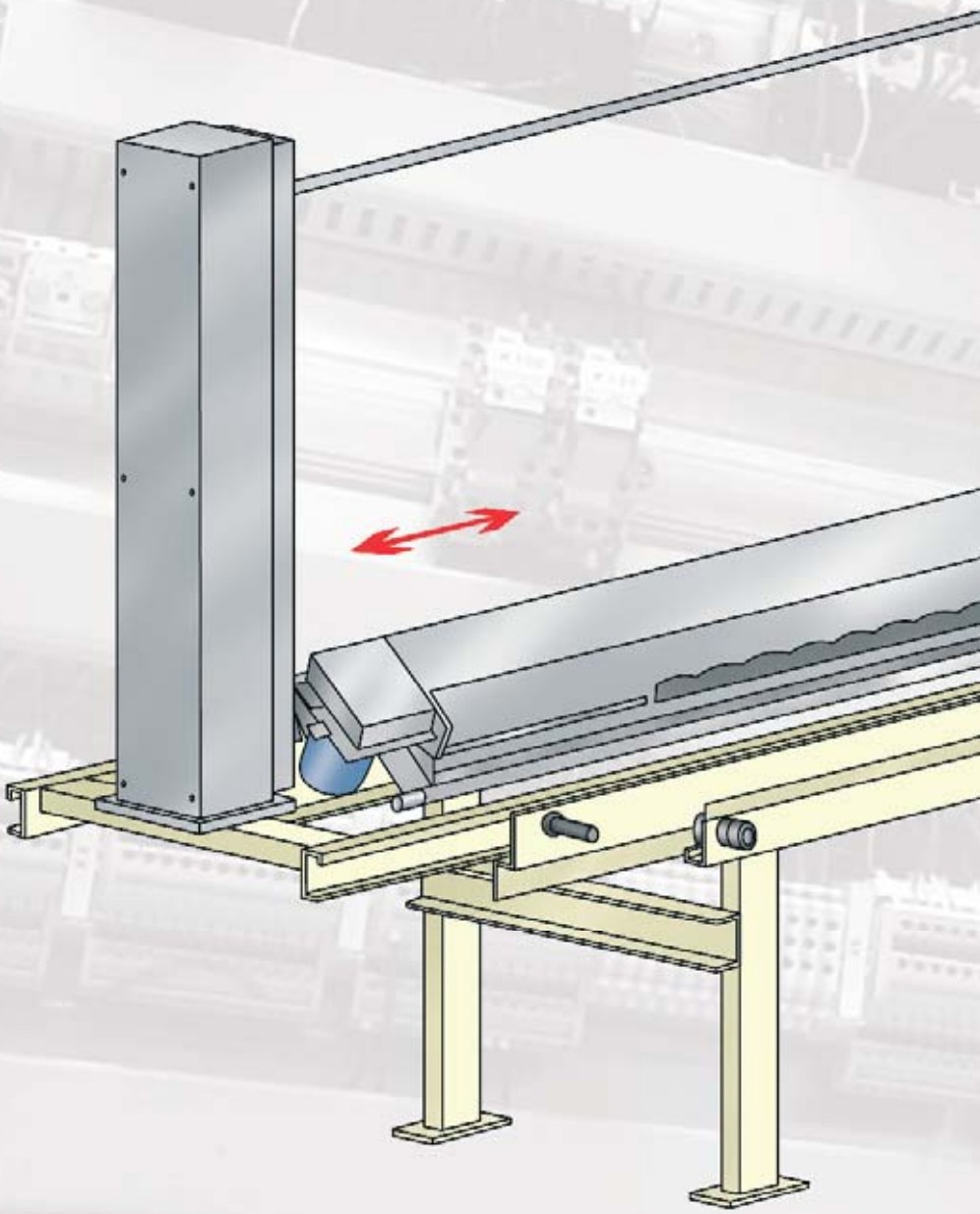
…is the proven solution for precise moistenin or particle mats and forming belts!

WEKO-RFH Compact trend

Principle of success

WEKO-RFH moistening systems are equipped with proven rotor technology. These systems are used successfully throughout the world in the MDF/OSB and particleboard industries, as well as in a wide variety of other industries. The WEKO damping system achieves remarkable consistency with rotors capable of spraying infinitely variable amounts of water or chemicals, such as release agents. The rotors produce a spray that forms a thin, seamless, and uniform line across the entire width of the fibre/particle mat or forming belt. Spray quantities are electronically adjusted to the machine/line speed. This unique spray method ensures a steady, even, reproducible application of liquid.

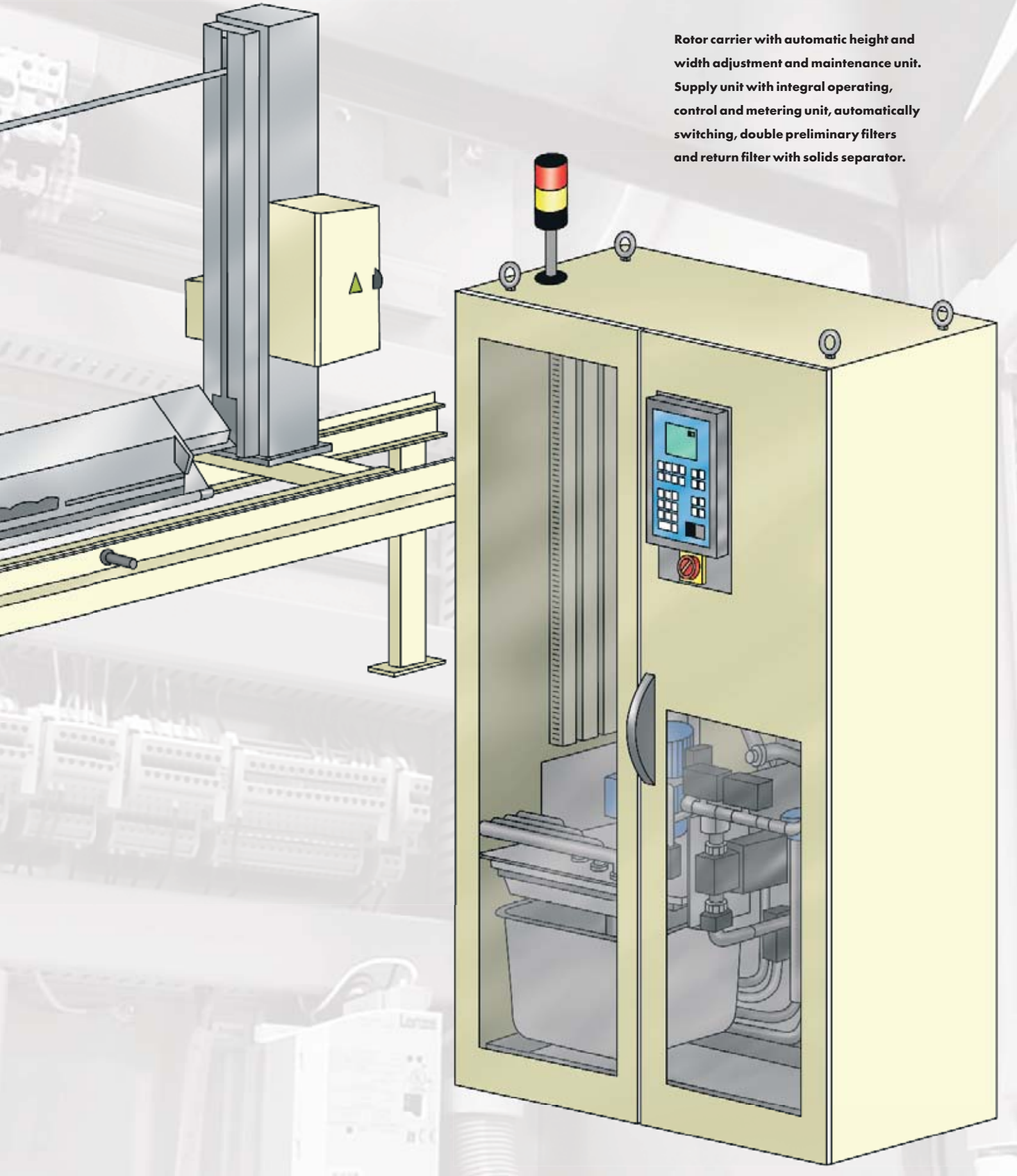
Mode of operation in the wood panel industry: spray pattern overlapping, 45° sloping downward



Technical Data

Application quantities	40 – 1000 ml/m/min
Motor power	220 – 600 V AC, 50/60 Hz
Submersible shaft pump	0,75 kW
Motor of rotor carrier	0,13 – 0,55 kW
Spray widths	560 bis 3 472 mm
Compressed air connection	5 bar
Water connection	4 bar

g of fibre –



Rotor carrier with automatic height and width adjustment and maintenance unit. Supply unit with integral operating, control and metering unit, automatically switching, double preliminary filters and return filter with solids separator.

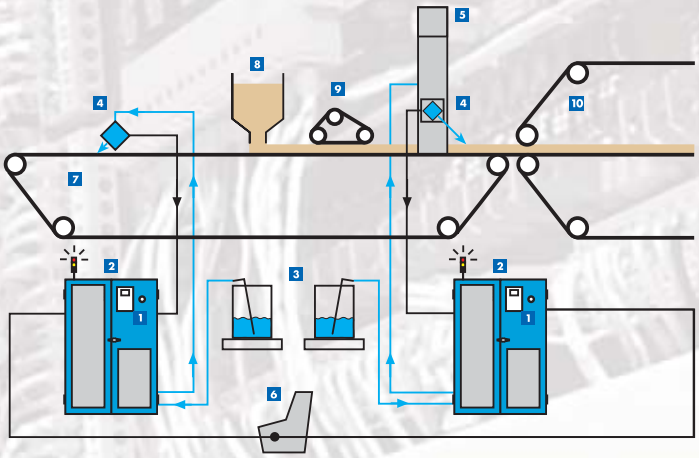
Straightforward integration and retrofitting in forming lines

An automatic or manual height and width adjuster is available as an option. This feature will keep the spraying distance or spraying pattern constant for fibre – or particle mats of different heights and widths.

Equipment set-up

The frequency-controlled, submersible shaft pump sends the liquid from the storage tank through the automatic-switching, double-preliminary filters into individual rotors that reside in the rotor carrier. The liquid flow-rate is electronically controlled. The rotors are driven at a constant speed and produce ultra-fine droplets of 30–70um. These droplets are sprayed contact-free onto the passing fibre/particle mat or belt. The remaining liquid is filtered through a return filter with solids separator returning cleanly to the storage tank. The rotor carrier is cleaned by the standard washing device using appropriate washing programs.

The supply tank is removable for cleaning purposes.



1 Control Unit
2 Supply Unit
3 Concentrate Container
4 Rotor Carrier
5 Height Adjuster
6 Control Station
7 Belt
8 Mat Forming
9 Pre-press
10 Press

Provides fault-free, 24-hour operation 365 days a year

Operational benefits

The newly developed Compact trend is based on experience gained from more than 200 systems that are successfully used in the panel-board industry. The Compact trend is particularly noted for its automated supply and return filter system and its integral washing program. The automated supply and return filter system exhibits outstanding performance. These features combine to create considerably longer maintenance intervals with no production interruptions; thus saving cost.

The automatically switching, double-preliminary filters make cleaning possible without interrupting production

The benefits speak for themselves

Reduction in press time

The precise application of liquid by the WEKO rotor system reduces the length of the curing process in the press as a result of the thermal energy produced in the form of steam. This reduction in press time enables production to increase up to 15 percent.

Reduction in sanding allowances

In addition to shortening heat transport to the middle of the board, the increased moisture level during steam molding also results in increased plasticization and therefore, compaction or higher density of the top layers. Surfaces become smoother, which means that sanding allowances and material costs are reduced.

Rotor carrier spraying the fibre mat for thin MDF boards

Maintenance unit with rotor carrier out of position

Maintenance unit with rotor carrier in position, spraying

Reduction in varnish consumption

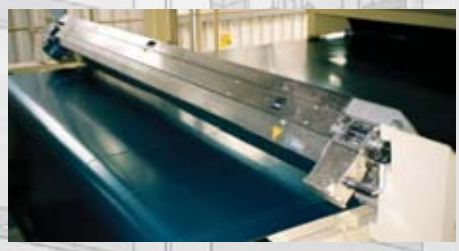
The improved surface quality results in considerable savings as the fibre/particle board absorbs less varnish.

Improvement in bending and delamination resistance

Resistance to bending and delamination is improved due to the increased bulk density of the top layers.

Prevention of forming belt adhesion

The addition of release and smoothing agents prevents adhesion to the forming belts, thus improving quality and productivity.



Rotor carrier for spraying the belt for particle boards prior to the forming station

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