Wood Technology

GRENZEBACH


GRENZEBACH BSH

Dryers – Equipment – Machinery

Grenzebach has created a strong group of companies with production facilities in Germany, North America, and China and a global distribution network to rely on.

Grenzebach Maschinenbau GmbH is a family-owned company and the market leader worldwide in the field of handling equipment for the flat glass industry. Grenzebach also produces and designs equipment for the building materials industry. The company's efforts in this field of activity are geared towards providing an increasing number of turnkey solutions for its international customers.

Grenzebach BSH GmbH, located in Bad Hersfeld, Germany, plans, builds and supplies systems and plants for various industries. Proven know-how, advanced technologies and 125 years of experience are characteristic of Grenzebach BSH's technical and technological competence and top performance both at home and abroad.

Relying on extensive research and development and a wealth of experience from practical applications, Grenzebach BSH builds sophisticated plants, systems and components. Our products are state of the art. They stand out for their superior technical standard, quality and availability, a long service life and optimum efficiency.

Grenzebach BSH's prime objective is to provide its customers with system components and industrial plants that are safe, reliable and environmentally acceptable.

Wood is a material that must constantly meet new requirements. BSH has accepted this challenge and thus acquired a high level of competence and expertise in this field over many years.

Our wood processing technology division offers a full range of machines and equipment: veneer production systems, veneer dryers, veneer slicers; rotary slicers; plants for the production of hardboard, softboard, wood-chip cement boards and building boards; plywood mills; peeling and slicing lines; wide planers.

Roller Dryer
Thermojet®novaroll

Based on the experience of over 4000 veneer dryers installed since 1919, Grenzebach BSH presents after several phases of development the new generation of Roller dryers, the Thermojet®novaroll

Special features are:
the optimized Thermojet® air guidance system, special climate control and profile over the dryer length, long lasting door seals and bushings, oval heat exchangers, easy to clean and to service, with movable steps, individual drives of decks, preheating system for fresh air to avoid resinification in the dryer.

Modern infeeds including non-stops, discharge systems, novascan scanning, stacking and grading lines to increase productivity and quality supplement our range of dryers.

Working widths of standard dryers are up to 6500 mm with different numbers of decks including combinations of roller and screen dryers.

Veneer Grading Line

novascan

Novascan is valuates veneers at high speed for grading and clipping lines: Helpful for ISO9000 interests. Helps plywood producers to meet their high quality requirements. Constant high precision of grading and stacking results due to no tiredness of sorting staff. Higher transport speeds. Greater number of ranking levels in quality. Optimization of grading rules for more efficiency in production. Data provision makes statistical evaluation of process and line supervision possible.

Comprehensive process data analysis for grade distribution and veneer sheet width trending. Novascan Grade Scanner is suitable for the automatic grading of dry veneer sheets in a vacuum stacking device. Detecting of knots, cracks, holes, blackening and discoloration. The computer of the veneer scanner gives the signal to the stacker PLC and the scanned veneer sheet goes directly after scanning to the corresponding stacking bin.

Automatic Stacker with special tooth belt for precise stacking quality allows very long stackers with unlimited number of stacking bins. Modular design takes all veneer sizes in the market. Connection to first-in/first-out grade storage area.

Drying with belts
Thermojet® novascreen

These dryers with belts provide excellent drying quality for veneers and increased economy.

All thickness ranges of peeled veneers are carefully transported and dried in continuous webs in formats and strips.

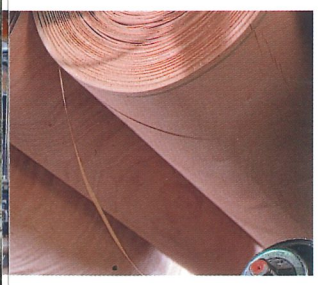
The dryers fulfil all desired requirements in their modular design (2 m sections).

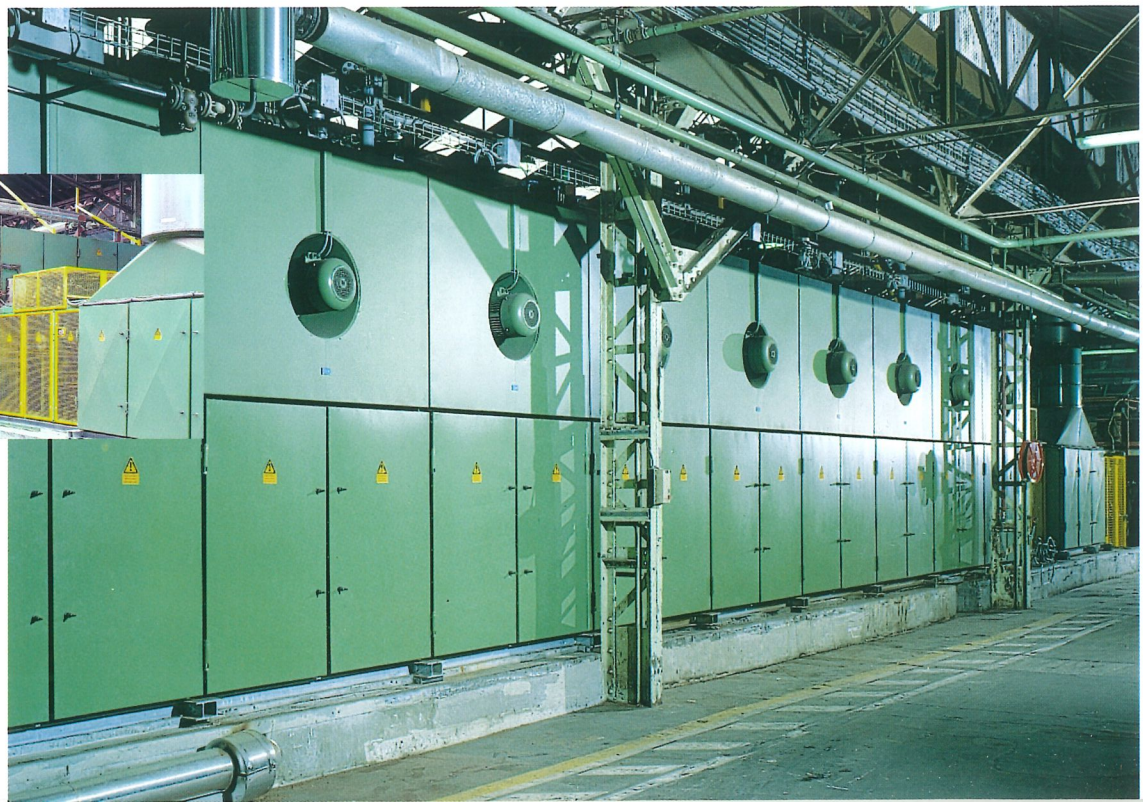
The drying process can be automated using modern design and electronic control systems. Drying is no longer left to chance.

Special characteristics are the optimized Thermojet® air guide, aerodynamically adjusted axial fans and heating registers with oval gilled pipes which are utilized according to the respective needs.

The objective of the drying process is the production of veneers with closely toleranced final moisture.

By dividing the dryer into shut-off zones it is possible to safely adjust temperature, humidity and air velocity so that a process similar to natural drying is possible.





Press Dryer for veneer sizes

Thermojet® novapress

Developing new technologies in consistent steps, following the rules of natural drying conditions and the demands in today´s market, we have come up with our latest innovation: The press drying concept for peeled veneer sizes to ensure

- flatness
  resulting in lower laid up piles
- less glue consumption
- smoothness
  allowing much better handling for clipping, splicing and lay-up

We always collect and incorporate in our dryer technology new ideas and results regarding such important things as the design of the drying path, tracking control, combined with all the main accessory elements, efficient air distribution and heat transfer, optimum drying climate etc. With our experience from 25 years of press drying technology and more than 80 years in the veneer business we respond to the market needs.

Press drying of green cut sizes at a transfer speed of up to 220 ft/min (67m/min).

This is where the future lies – Peeled veneer at its best

Vertical slicer
novaslice

Through extensive co-operation with the veneer industry, we have now – after the upwards cutting vertical slicer SM 400 for 4.0 m cutting length – also successfully introduced the SM 520 for 5.2 m cutting length.

Both machines work with a maximum output of 90 sheets per minute and provide the same productivity and veneer quality.

Machine elements, hydraulics and drive for this somewhat wider machine have been reinforced. This more stable design is also the base for the worldwide fastest vertical slicer novaslice with 4.0 m cutting length and a maximum output of 105 sheets per minute.

The cutting on the upward stroke avoids turning the veneers during offbearing. Discharge and stacking are gentler, and a higher productivity can be achieved while reducing the physical effort for the operators.

During standard operation, the flitch table can hold two split backs, one arranged above the other. Optionally, two flitches arranged side by side can also be handled by the machine.

Press Dryers

Thermojet® novapress Thermojet® compact Thermojet® midi

Based on the experience of over 4000 veneer dryers installed since 1919, Grenzebach-BSH introduced in 1984 the press dryer technology for simultaneous drying and smoothing of veneers. After several phases of development the new generation of press dryers, the Thermojet® novapress, is now presented.

Following a pre-drying phase, the veneer is guided by means of a press roller group at the end of the dryer at high, controlled humidity. This results in smooth and flexible veneers.

Special features of this new generation are: the optimized Thermojet® air guidance, the use of large press rollers and the concave belt controls and foreignobject controls to protect the valuable rustproof belts that are driven individually and directly by the large rollers. No chains and oil lubrication points. Easy to clean due to smooth bottoms.

Various options for automation and control are available. The option of guiding veneer through the dryer at an angle also further reduces the formation of folds and waves in wood with defects of growth.

Modern infeed and discharge systems to increase productivity supplement our range of dryers.

The versions Thermojet® compact and Thermojet® midi provide press dryers designed for the processing of ultra-thin veneers and root veneers, respectively that are designed for low throughput.

Rotary Slicer
novaround

The rotary veneer slicer (half-round) cutting on the upstroke discharges the veneer sheets from the slicer with the "right" side up, i.e. they do not have to be turned over for stacking. This increases the output while reducing the physical effort for the operating staff.

The product is exposed to less stain during offbearing and stacking. This reduces the reject rate.

Conveying the sheets with the buckling side facing upwards is easier both in the outfeed facility and any downstream conveying systems.

The entire outfeed area is clearly visible, there are no top belts on the vacuum table. In case of any defects, such as notches in the knife, proper action can be taken immediately to prevent waste.

The stay-log rests on amply dimensioned shafts. It is equipped with a hydraulic clamping system, new large swing-out dogs, flitch detection system, slanting mechanism, ejector device and a chamfering unit.

Wide planing machines

Wood has always been a well liked, environmentally compatible material for buildings, furniture and other items of all kinds.

In the recent years, wood has found an even wider range of uses as a result of the introduction of up-to-date techniques.

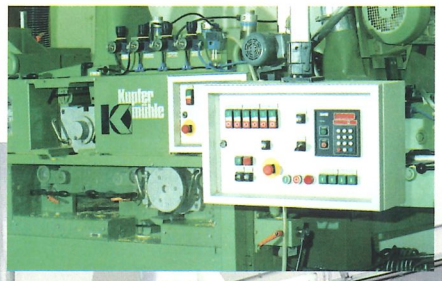
Wood is an attractive natural material but where its visual appeal is important it needs to be treated by suitable methods so that it will be look its best.

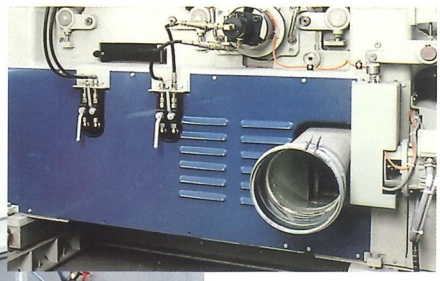
One of the most important stages in wood finishing is shaping and improvement of surface finish by planing. KUPFERMÜHLE has been designing and building the machines required for this purpose for more than 50 years.

Working in close touch with users and with the support of in-house research and development facilities, KUPFERMÜHLE set the standards for high-performance planing machines.

All over the world, thousands of satisfied customers value our expert advice, our thoroughgoing quality control, and our exemplary standards of servicing, which is why they continue to place their trust in us.

Finally, we have machines to handle not just wood, but plastics, boards of mineral fibre, rigid expanded plastics and similar materials.





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Our Range of Products for the Veneer and Plywood Industry:

- Roller dryers
- Continuous veneer dryers
- Belt dryers
- Press dryers for sliced veneers
- Press dryers for LVL veneers
- Infeed and outfeed systems
- Sorting and stacking systems
- Veneer slicers
- Sliced-veneer production lines
- Peeled-veneer production lines
- Blockboard and plywood mills
- Grading lines
- Rotary slicers
- Wide planing machines

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