

PLANT AND MACHINES

Building materials and building ceramics

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Building materials and building ceramics

Processing machines and plants for bricks, roof tiles, clinker, cement-bonded formats, fibre cement boards, sand-lime bricks, aerated concrete ...

The machines can be designed for dry or wet operation, depending on the material.

Extensions, options:

- automatic loading and unloading systems, as well as integration into a complete plant
- Robotics
- Quality assurance
- Measurement
- Labelling, marking
- Dust extraction, water treatment
- Manual or automatic adjustment

DESIGN ACCORDING TO CUSTOMER REQUIREMENTS

All plants and machines are designed and manufactured according to the specified requirements of the customer and the product.





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Double sided grinding machine Liner2000 2-stage

The double-sided grinding machines for plane bricks consist of a machine bed and two centrically adjustable machine stands. During the grinding process the formats are clamped from above onto the two toothed feed-belts. Lateral measuring rollers after each grinding unit ensure precise measurement of the formats and wear-control on the diamond tools.

The reliable and continuous respect of the tolerances, as well as the automatic compensation of the tool wear through proven mechanical grinding tolerance regulation, are among the most important advantages of the Liner series. The pressure unit with roller lever system compensates height differences of up to more than 15mm in a short way.

- For all formats, upon request special solutions (sawing, bevelling)
- Dust extraction technology for safe removal of the grinding dust and a clean machine.
- Grinding wheel diameter of 1100mm for optimum cooling, longer machine and tool life and unique grinding dust evacuation.
- Heavy and powerful motors with special bearings designed for this grinding process

Automation, Robots, Handling

Complete handling including loading and unloading, palettizing, transferring, packing and integration into an existing plant are part of our goods and services.

Application of industry robots carrying special grippers for delicate product handling are also part of the know-how





Double-sided grinding machine Liner2010 3-stage





Sawing plant for fitting bricks

This plant is for fully automated sawing of height compensation bricks. All formats and materials.

- With pallet conveying, loading and unloading
- Manual loading is also possible
- Water treatment plant
- Linked to an existing line









Continuous sawing machine

Two vertically adjustable slides are mounted laterally on the STS-03 D2 machine stand. The horizontal sawing unit is mounted on the first carriage, the second carriage carries the vertical sawing unit. The present version has manual height setting of the saw units via screw spindles (automatic as an option). A driven belt conveyor moves the pieces through the machine. A pressure unit is installed over the transport system to clamp the workpieces during the sawing process. It can compensate height differences over a short distance and is manually adjustable in height. The pressure unit does not need its own drive. In the present design, the bricks are manually aligned to the adjustable stop at the machine infeed. At the machine outlet, the processed bricks are removed manually. As an extension, loading and unloading can be optionally automated. The machine can process wet or dry and is designed accordingly.



Brick slips and angles sawing lines



- **Dryer with IR-modules and fan blowers**
- Angles sawing line including palettizing robot
- Angles sawing line









Brick slip sawing machines

Single sided brick slip saw - double sided brick slip saw

The brick slips sawing machine features the proven double-shaft sawing technology for faster speed and better finish of the brick slips without tearing or broken corners. Even extremely hard clinkers can be processed with this technology. All clinker formats and qualities offered on the market can be sawn with these machines.

The width of the brick slips is ensured by adjusting the laterally driven conveyor belt. This adjustment is carried out before each sawing unit so that the brick slips width is maintained, regardless of the tolerance in the clinker width.

During the entire sawing process, the bricks are clamped from above by a pressure unit.

The cooling water with the saw mud flows off laterally to the conveyor belt, so that the brick slips are clean, when conveyed out of the plant.

The setting options on these machines allow the sawing of common standard formats and most special formats. Upon request, a machine can be designed for special requirements.

Several machines can be installed in a row or side by side to achieve the required capacity. The machines can be upgraded with additional processing units, such as selectable groove cutters, grinding units and/or profilers, so that all processing can be carried out in one pass.

The layout of the transport system is adapted to the customers' requirements and the on-site conditions in the respective factory.

The collecting of the bricks from pallets, the loading of the plant, the removal and palletisation of the finished pieces and waste removal can be partially or completely automated by the use of robots and conveyor belts.





One face layer grinding

This grinding machine is equipped with a horizontal grinding unit and processes the complete layer on the board. The machine is placed over the existing conveyor. The board with the layer to be ground is clamped laterally and the grinding unit moves transversally over it.

The quality of the finished blocks depends on the quality and tolerance of the board. Each plant is designed according to customer requirements.





Two faces layer grinding

In this plant one or two faces of cement-bonded masonry blocks are surface-ground. Each plant is adapted to the on-site conditions in the customer's factory.

As independent offline solution, the plant is located in a separate place or building. It is also possible to integrate this plant into an existing production plant.

In the case of the stand-alone solution, the system is fed with full pallets which are automatically unloaded layer by layer. The layers are conveyed through the grinding process. While grinding, the empty pallets are moved to the exit side, where they will be reloaded with the finished products.

The shown system grinds two faces. After grinding the first face of the layer completely, the entire layer s tilted over and conveyed through the second grinding unit.

As an option, the first station of the line can be equipped with two grinding units to achieve a faster processing speed.

Basically, a differentiation is made between one-face and two-faces systems. The difference is mainly in the achievable tolerance.

Both the single machine as well as the integrated online grinding system are manufactured for one-face or two-faces grinding according to the customer's preference.













Sawing machines for Facade panels

Customers demand always increasing cutting quality from façade panel cross cutting machines. In order to meet the demand for possibilities for fast, tear-free, precise and flexible cutting to length and calibrating of façade panels, Wassmer has developed this system.

The panels are conveyed through the machine by a cam transport chain with adjustable cams, which ensures exact angularity. Pressure units clamp the façade panels during processing. Double-shaft sawing ensures the highest saw cuts quality, high productivity and – depending on the material – few to no tear-outs.

The systems are built in different versions tailored to the customers' requirements. They differ in the respective working width, the number of processing units and the desired degree of automation. Widths from 200 mm to over 2.000 mm are possible.

The basic equipment consists of a pre-sawing unit and a main sawing unit. Free aggregate spaces on the machine stand allow upgrades at a later date.

The largest special version delivered so far is a system with pre-sawing, main sawing, adjustable mitre cut right/left, adjustable rebate right/left, chamfering of the panels right/left/top/bottom..





Machine examples







Aerated concrete, gas concrete plants

With this plant, aerated concrete blocks are unloaded from the hardening grid and palletised. The plant palletises 100 pallets per hour (weight per pallet approx. 1,500 kg). This plant includes a total of 4 grippers for block handling. All transfer units are driven by servo motors.

Part of the system is also a milling machine that mills grip pockets into the blocks.

Gripper 1 removes the blocks in a row from the grate, gripper 2 turns the rows vertically for processing in the milling station, gripper 3 unloads the milling station and gripper 4 palletises the finished blocks.

Heavy-duty design of the grippers with servo motors and ball screws for exact positioning and adjustable holding force.

The layout of the system is tailored to the available space in the customer's plant. Consideration for existing plants and the best possible design of the material flow play a major role here.











Cassette and roof tile machining

When processing roof tiles, the face side is milled in a defined manner after drying. This ensures that the tiles can be fired standing upright in U-cassettes without contact between the visible surfaces of the roof tiles. No damage occurs to the visible surface while firing. Firing the roof tiles in an upright position saves a lot of space and optimises the heat flow.

The unit is equipped with 2, 3 or more aggregates depending on the desired feed rate.



The machining of H-cassettes applies when the roof tile designs change in a way that the existing cassette can only continue to be used if it is modified. Thanks to the shown machines, this modification is achieved on the one hand by milling and on the other hand by drilling. These small changes to the cassettes lead to considerable cost savings for the customers. The machines are solidly built, reliable and easy to operate.





Grinding machines for clinker bricks





Grinding plant for clinker bricks

In this line facing bricks are ground on both setting sides, provided with two saw grooves and ground to length. The finished product is quickly and easily used for drywall facades and walls.

Due to the perfect processing quality, neither glue nor mortar is necessary. A new jointless look is created. Thanks to this idea, modern façades can be designed without changing "only the colour or the surface texture".

Machine 1 of the plant is equipped with two grinding units and two sawing units. Here, the setting sides are ground and the grooves are sawn. The machine bed is already prepared for the installation of further aggregates in order to be able to increase the capacity in the future or to add further machining operations.

On machine 2, the length of the stone is ground with 2 grinding aggregates. The plant is fed by hand and unloaded again by hand after machine 2. The two machines and the transport system are located in a soundproof cabin. All grinding units are dry working and dust is evacuated. When working special materials, the sawing units' can be upgraded with a spray device for tools cooling.





Notes



Notes



Overview of info material:

- Single sided grinding machines
- Two-sided and three-sided grinding machines
- CNC-controlled machines
- Sawing machines

- Drilling machines
- Complete refractory systems, technical ceramics
- Complete systems for graphite machining
- Plants for building materials and ceramics
- Lamination machines





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