EQUIPMENT AND MACHINERIES

Building materials and building ceramics

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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
- 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. The formats are clamped onto the two feed toothed belts from above during grinding. Lateral measuring rollers after each grinding unit ensure precise measurement of the formats and the wear of the diamond tool.
The reliable and permanent adherence to the tolerance, 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.

- Adjustable machine halves for grinding all formats. Special solutions are also offered.
- Extraction technology for safe removal of the sanding dust and a clean machine.
- Additional equipment: Air flushing or suction of the tool gaps. This system is adapted to the material and tool as required.
- The grinding wheel diameter of 1100mm for optimum cooling, longer use and tool life and unique sanding dust removal.
- The grinding tool holder and bearing for long tool life, smooth running and good surfaces.
- The optionally offered pre-grinding unit minimises tear-out on the underside.
- Optional recording and extraction of the sanded material.

Double-sided grinding machine Liner2010 3-stage

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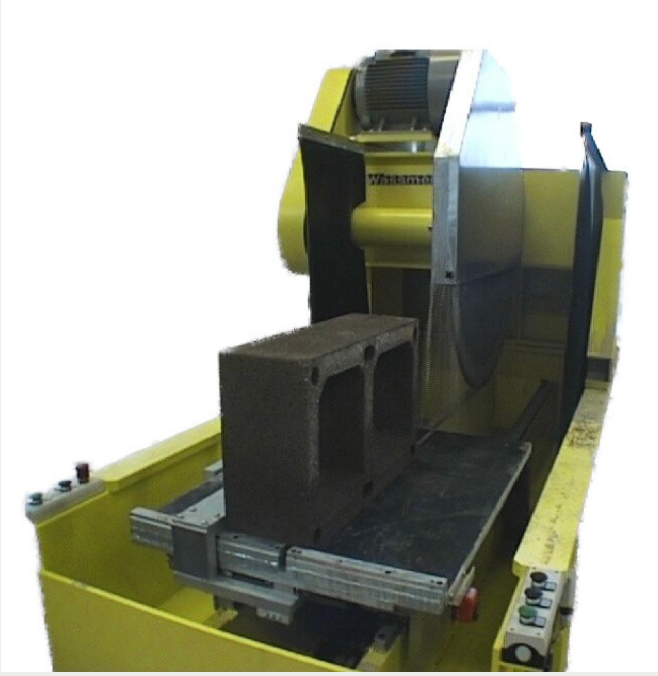
Sawing machine reversing operation

This saw is particularly suitable for the production of special formats, fitting blocks and small series.
All common materials in the construction industry such as bricks, sand-lime bricks, aerated concrete, concrete and cement-bonded masonry blocks can be processed quickly and precisely with this saw.
The workpieces are manually placed on the carriage, positioned with a motor-adjustable stop and pneumatically clamped.

The feed is motorised and can be regulated continuously from 0.5m/min to 5m/min.
The saw blade diameter is 1300mm with a drive power of 37 KW. Other performance data are also possible on request.



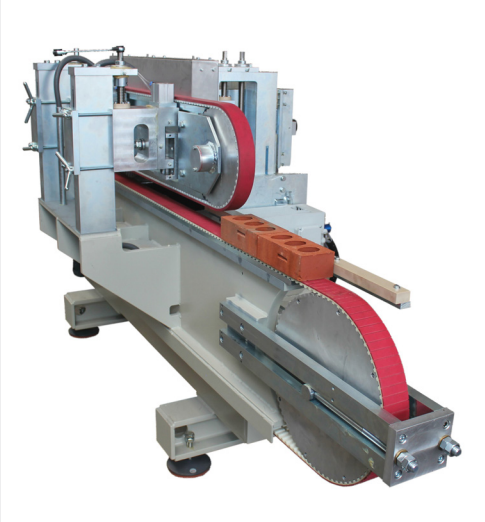
Sawing machine continuous operation

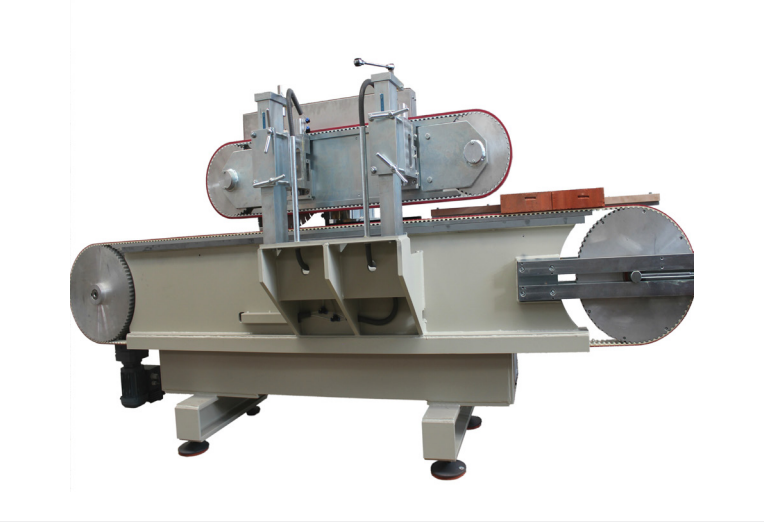
Two vertically adjustable slides are mounted on the side of the STS-03 D2 machine stand. The horizontal sawing unit is mounted on the first carriage, the second carriage carries the vertical sawing unit.
In this version, the height of the units is adjusted manually via screw spindles (automatic as an option).
A driven belt conveyor transports the stones through the machine. A pressure unit is mounted above the transport system to fix the workpieces during the sawing process. It can compensate for 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 at 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.

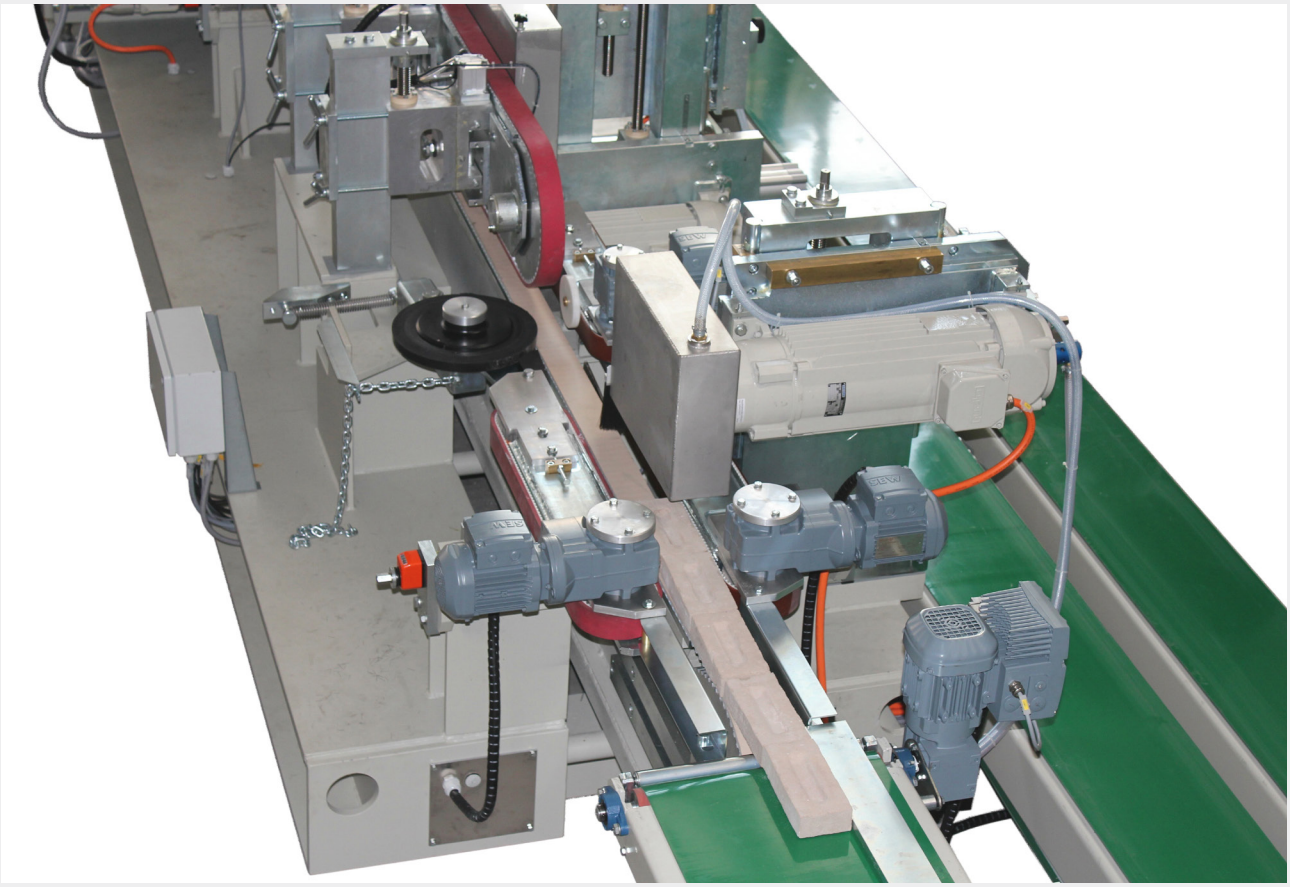
Single sided brick slip saw

Single sided brick slip saw and Double sided brick slip saw

The brick slips sawing machine has the proven double-shaft sawing technology for faster feed 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 types 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 sawing waste water flows off to the side of the conveyor belt, so that the brick slips are transported cleanly out of the plant.
The adjustment possibilities on these machines allow the sawing of common standard formats and most special formats. On request, a machine can be designed for special requirements.
Several machines can be installed one after the other or side by side to achieve the required capacity.
The machines can be extended with additional processing units, such as connectable grooving cutters, sanding units and/or profilers, so that all processing can be carried out in one pass.
The arrangement of the transport system is adapted to the needs of the customer and the local conditions in the respective factory.

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

Layer grinding on one side

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

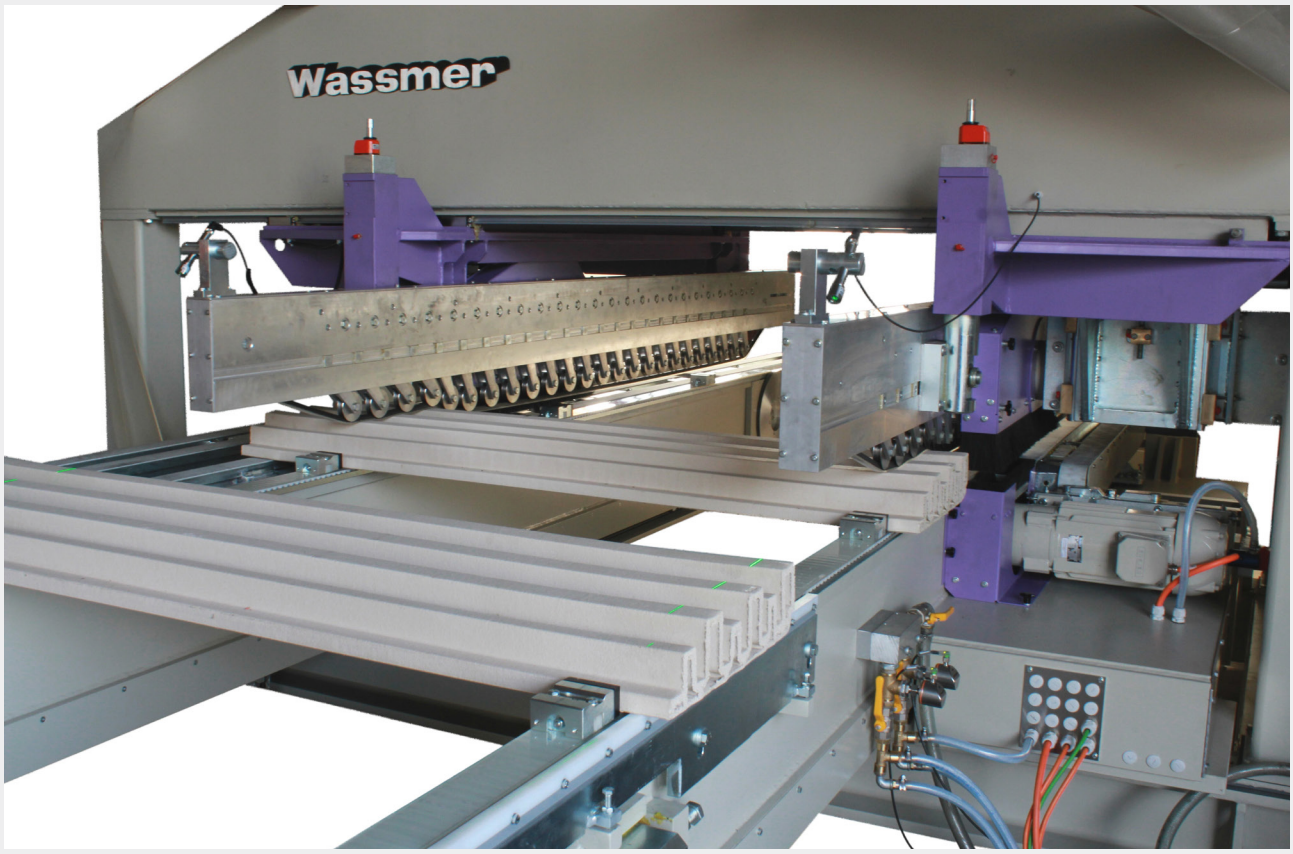
The quality of the grinded stones depends on the quality and tolerance of the board.
The unit is adapted according to the requirements

Layer grinding on both sides

Cement-bound masonry units are surface-ground on one or both sides on this plant. The plant is adapted to the conditions in the customer‘s factory.
As a self-sufficient solution, the plant is located in a separate place or building. Integration into an existing production plant is also possible.

In the case of the stand-alone solution, the system is loaded with loaded pallets and these are automatically unloaded layer by layer and transported through the grinding process. The pallets are transported around the system parallel to the grinding process and are loaded with the ground layers.
In this case, the system grinds on both sides. The layer is first completely grinded over from one side with a tool, then the complete layer is turned and transported 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-sided and two-sided systems. The difference is mainly in the achievable tolerance.
Both the single machine and the grinding system integrated into the production are manufactured for one-sided or two-sided grinding according to the customer‘s wishes.



Sawing machines Facade panels

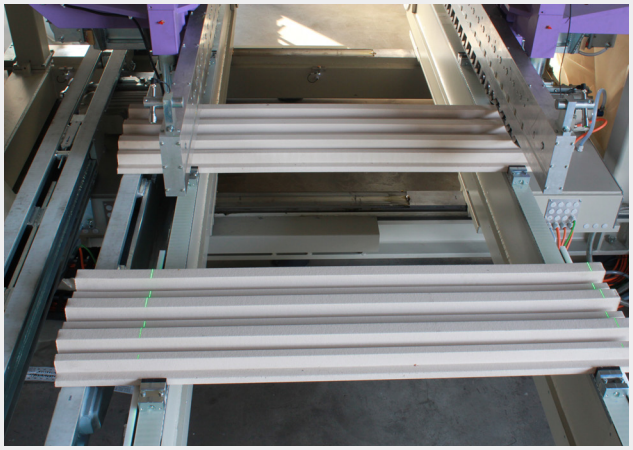
The demands on the cutting quality of machines and systems for cutting facade panels to length are constantly increasing. In order to meet the demand for possibilities for fast, tear-free, precise and flexible cutting to length and calibrating of façade panels, Wassmer has developed this system.

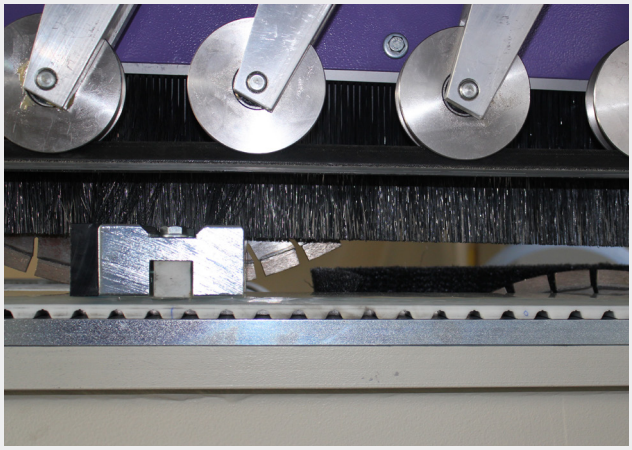
The panels are transported through the machine on a cam transport chain with adjustable cams.
This ensures exact angularity. Pressure units clamp the façade panels during processing.
Double-shaft sawing ensures the highest quality of saw cuts, high productivity and - depending on the material - few to 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 200mm to over 2.000mm are possible.

The basic equipment consists of a pre-sawing unit and a main sawing unit. Free aggregate places 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, mitre right/left adjustable, rebate right/left adjustable, chamfering of the panels right/left/up/down.

Examples of machines





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).
In total, this plant includes 4 grippers for the handling of the blocks.
All transfer units are controlled by servo motors.

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

Gripper 1 removes the blocks as 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.

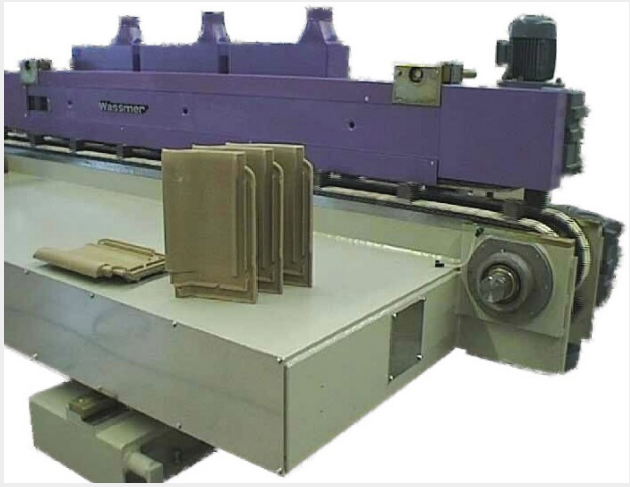
The layout of the system is tailored to the space available in the customer‘s plant. Consideration for existing plants and the best possible design of the material flow play a major role here.

Cassette and roof tile processing

When processing roof tiles, the face side is milled in a defined manner when dry. This ensures that the tiles can be fired standing up in U-cassettes without the treated visible surfaces of the roof tiles touching each other and showing damage on the visible surface after firing. Firing the roof tiles in a standing position saves a lot of space and optimises the heat flow.

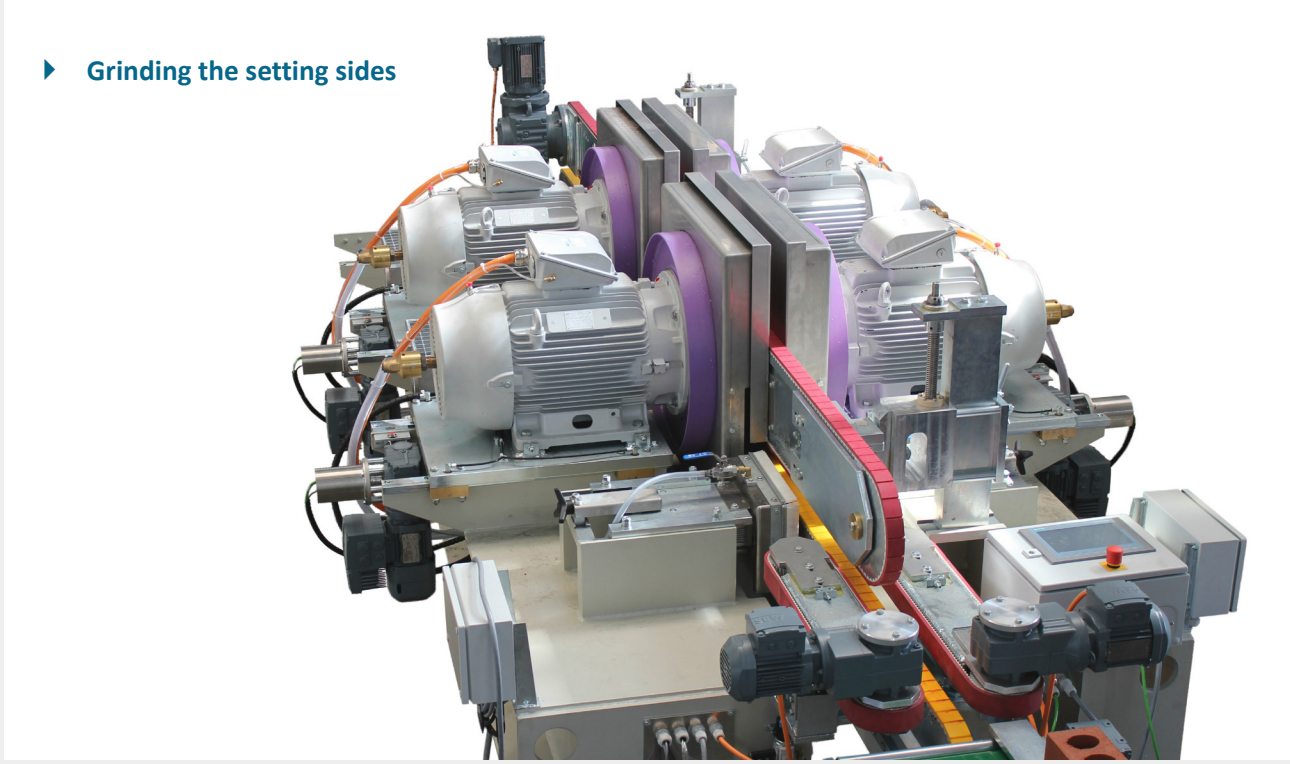
The unit is equipped with 2, 3 or more aggregates depending on the desired feed rate.

The machining of H-cassettes is used when the roof tile changes in such a way that the existing cassette can only continue to be used if it is modified. Thanks to the machines shown, 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.



Length grinding

Grinding machines for clinker bricks



Grinding the setting sides

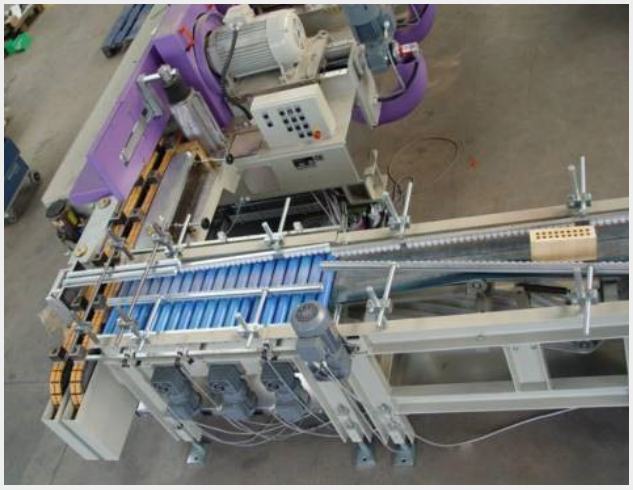
Grinding plant for clinker bricks

With this machine, facing bricks are grinded on both setting sides, provided with two saw grooves and grinded to length. The end product is used to drywall facades and walls quickly and easily.

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 set 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 grinded with 2 grinding aggregates. The plant is loaded 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 machined and exhausted. On the sawing units, it is also possible to support the cooling of the tools with a spraying device for special materials.



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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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