

A member of TOPWERK

SR SCHINDLER

CATALOG

EQUIPMENT & SYSTEMS

EN

FROM FUNCTIONAL TO EXCEPTIONAL – CONCRETE BLOCKS IN PERFECTION



OUR PORTFOLIO

VALUE ADDING AND PACKING LINES
for pavers and slabs

COMPLETE PLANTS
for the Production,
Finishing and
Packaging
of Hermetic slabs

SPECIAL AND LABORATORY MACHINES
Stone calibrating machine
Laboratory press
Bilateral milling

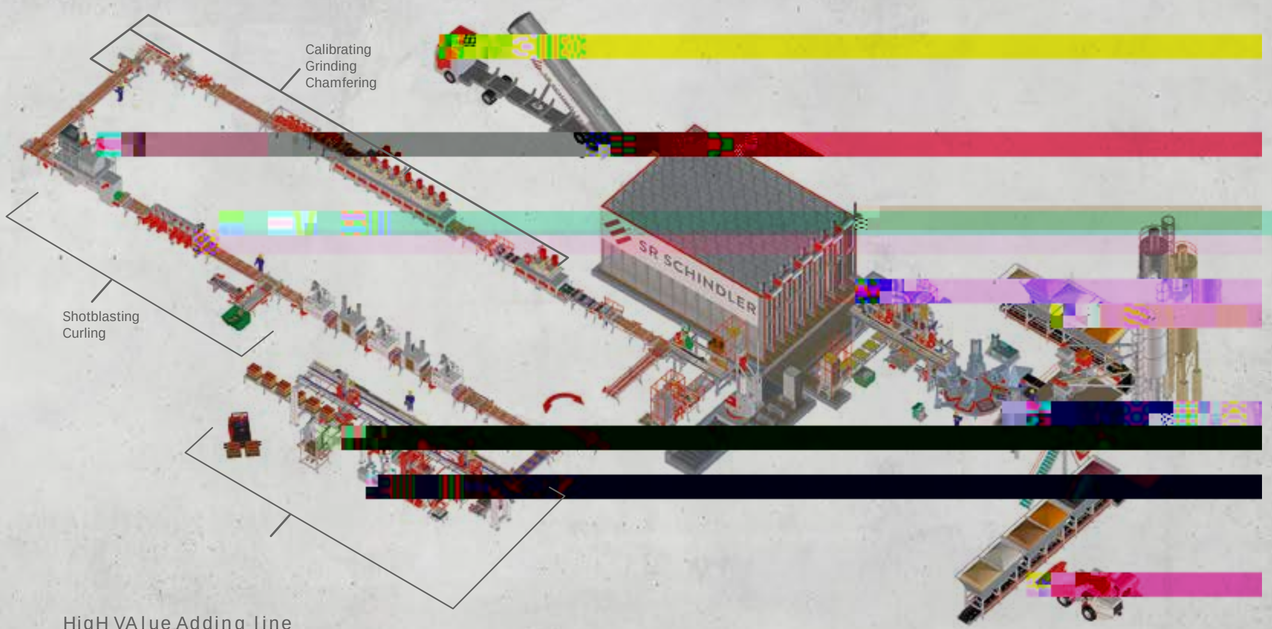
TOOLS

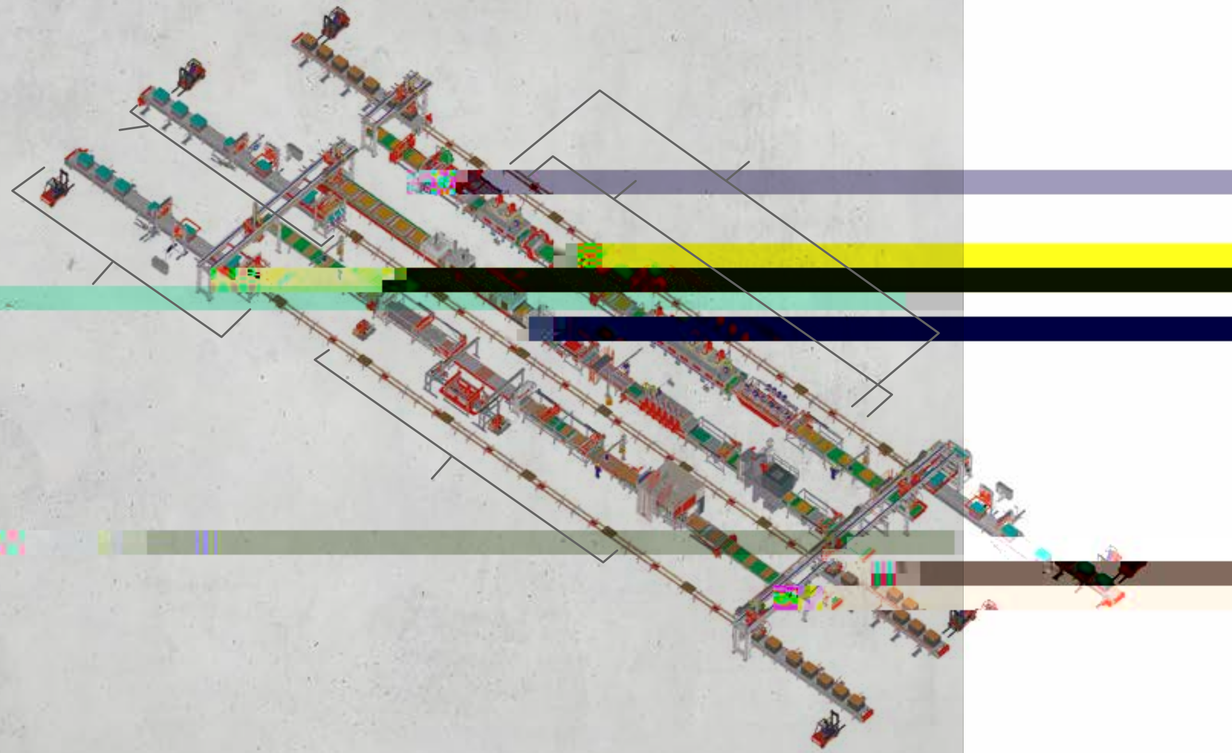
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Disclaimer

The information, product characteristics, and descriptions contained in this catalog are for informational purposes only. Variations in product features and required final results may occur. Actual results may vary depending on application, usage, and other factors. We make no representations or warranties regarding the accuracy or completeness of the information provided and do not guarantee specific outcomes. Please note that all products should be used according to their respective specifications and application guidelines.



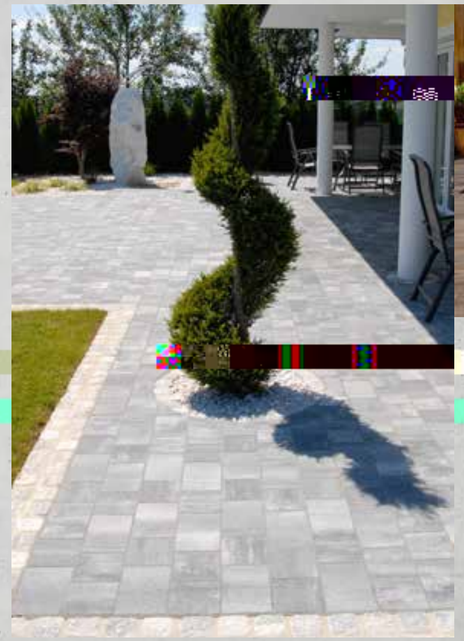


HigH VAlue Adding line

SLABS









EVERY STONE IS A STATEMENT

FINISHED PRODUCTS



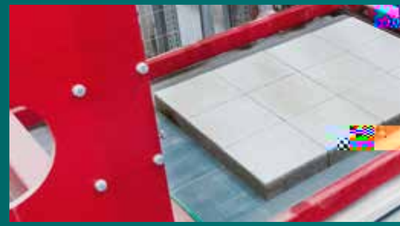










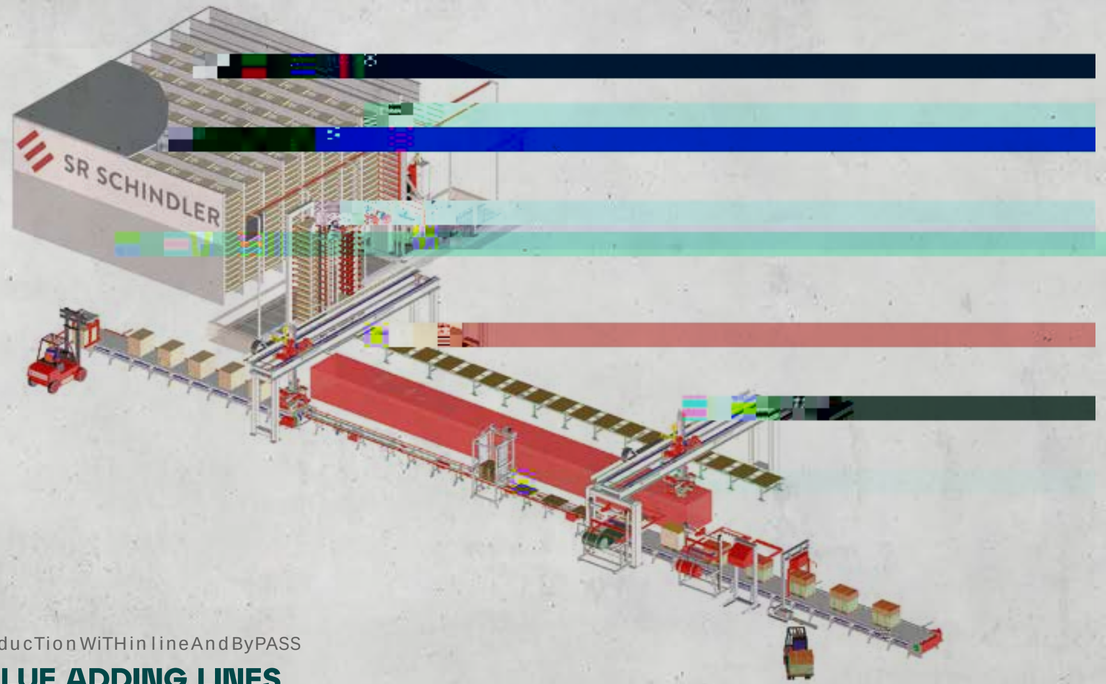


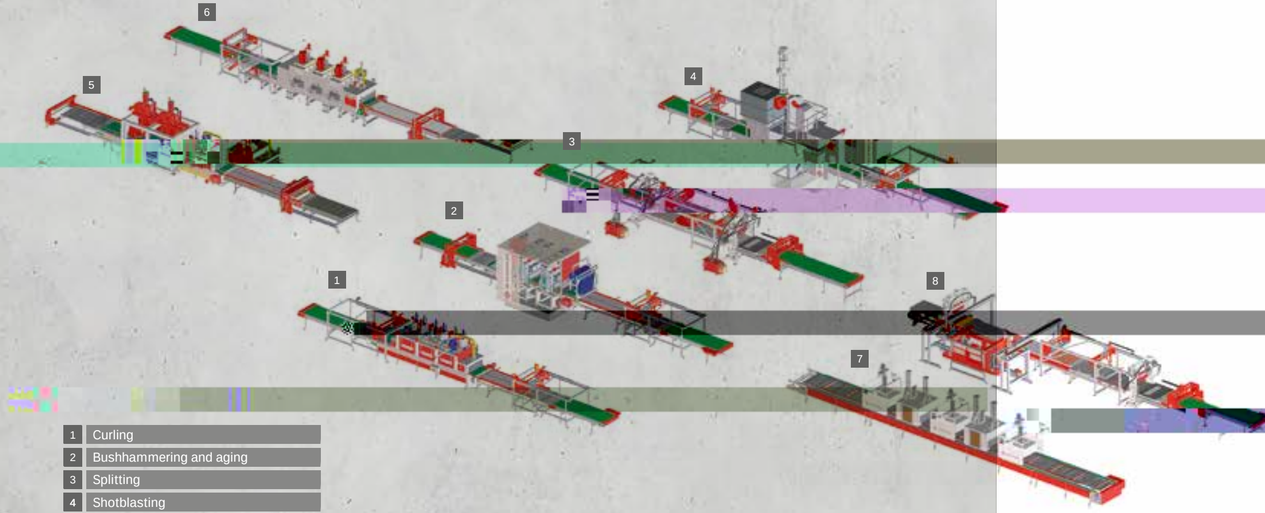
VALUE ADDING

STAnd-Alone
And
inline SoluTionS

1

PAge 12 – 71

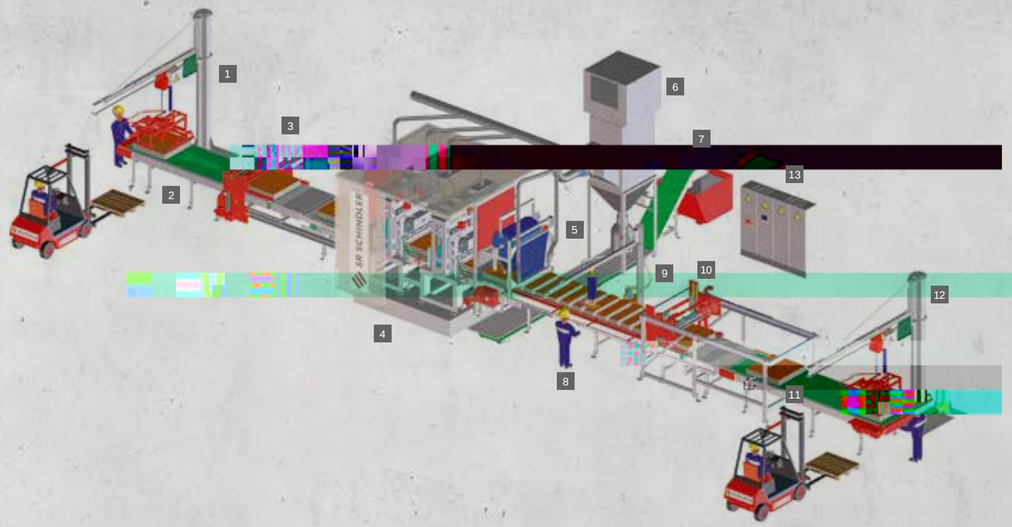




1	Curling
2	Bushhammering and aging
3	Splitting
4	Shotblasting
5	Profiling
6	Calibrating
7	CoatingÖitting

ProductionWiTHinlineAndByPASS

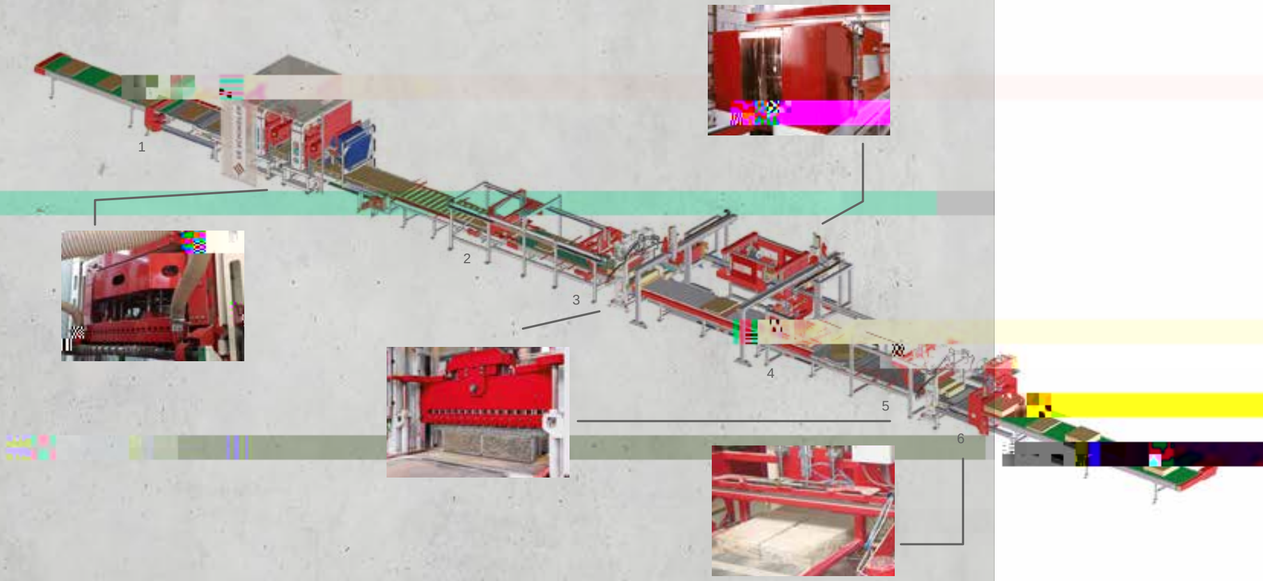
VALUE ADDING LINES



1	Crane with 4-sided clamp
2	Belt conveyor
3	Layer pusher with transfer table
4	Bushhammering and aging machine with 2 processing units
5	Foil dispenser
6	cartridge filter
7	Waste conveyor

Semi-AuTomATic line

BUSHHAMMERING / AGING



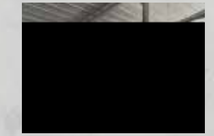
inline SoluTion

BUSHHAMMERING/AGING - SPLITTING - EDGE BREAKING

STAND – ALONE



Bushhammering/
aging machine



Shotblasting machine



Coating line



Curling machine

AuTomATic line

BUSHHAMMERING/AGING - SHOTBLASTING - CURLING - COATING

APPLICATION / FEATURES

BUSHHAMMERING AND AGING

of pavers, wall stones, block steps, pali-sades and wall covers. Machine equipped with 1–3 processing supports with 6 bars each with hammers and oscillation. Either bus-hhammers or aging hammers can be installed. Conveying belt in strengthened execution with anvils in the treatment areas. Foil dispenser can be integrated.

Due to layer-wise treatment of the face sides, sorting of products after treatment not necessary.

optionally available with cartridge or sinter-lamella filter.

optionally available with sound insulation.

Belt speed, processing frequency and oscillation are adjustable.

Available as stand-alone machine, integrated in a value adding line or as a bypass to the stone making machine.

Technical specifications*

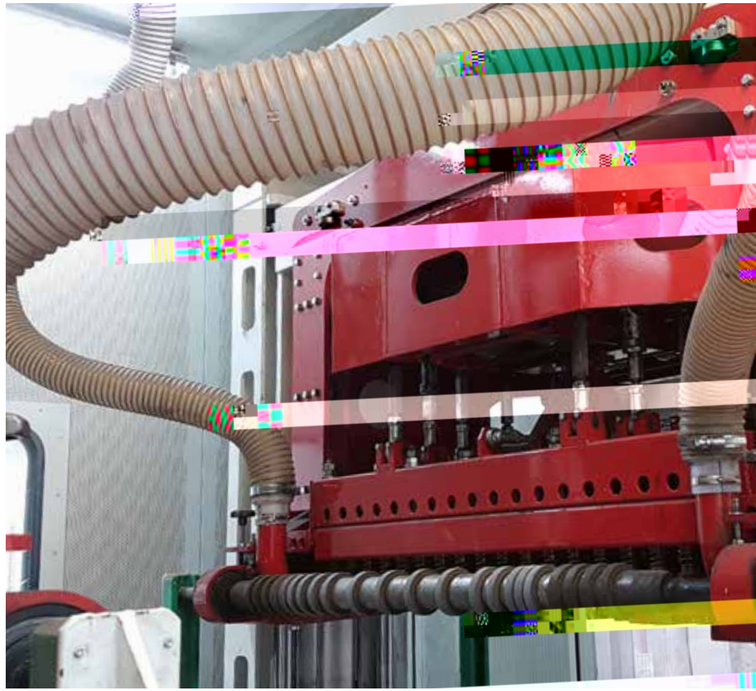
Belt speed:	0.8 – 8 m/min
Average processing speed:	approx. 2 – 6 lin. m/min (depending on number of support)

* depending on product characteristics and required final result

BENEFITS

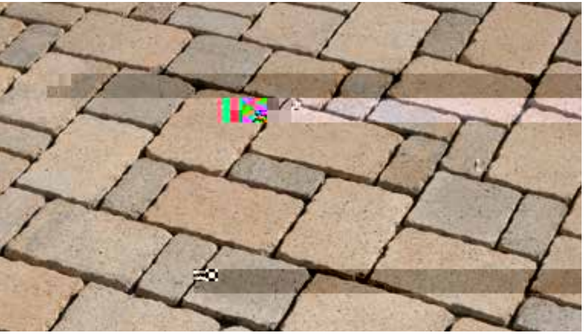
- Cost and time saving; Layer patterns remain untouched, no sorting required
- Durable machine due to stable and high-quality construction
- Cost and time saving due to simple tool exchange with supplied tool exchange carriage
- Cost saving due to reusing the dust (depending on the dust extraction used) as filler in the concrete mixture





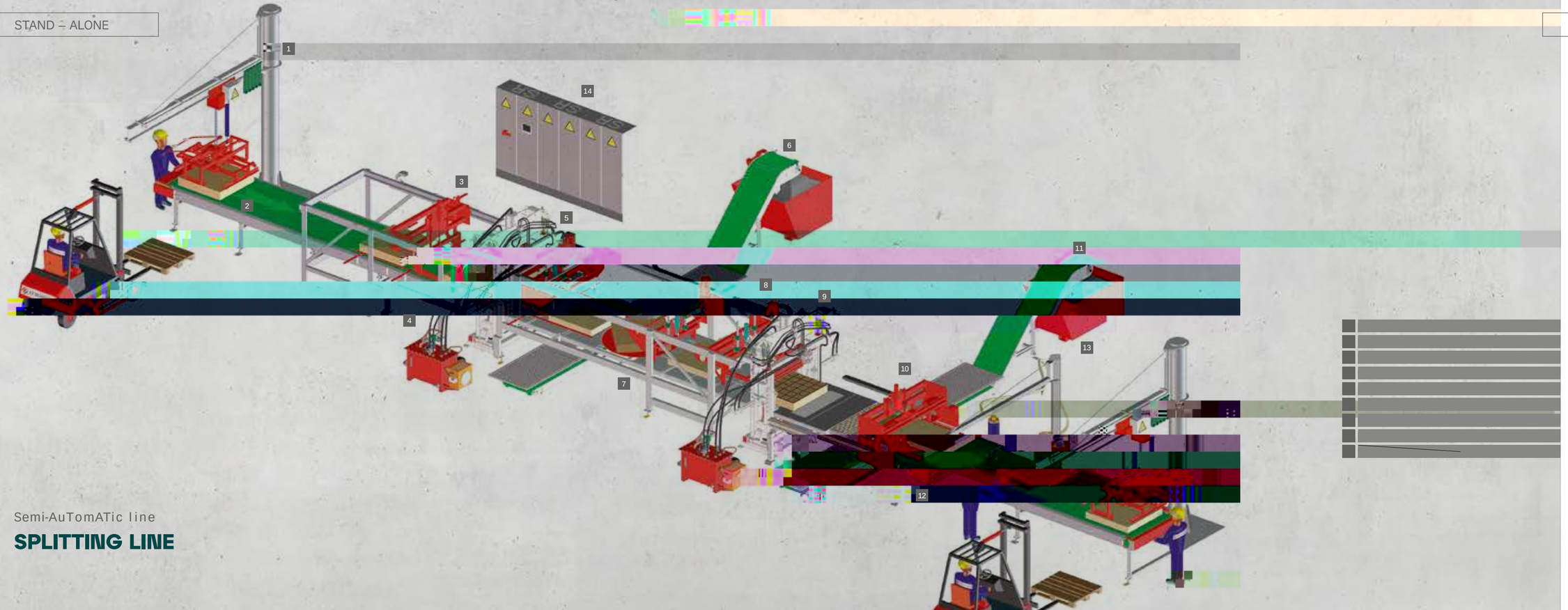








STAND – ALONE



Semi-AuTomATic line

SPLITTING LINE

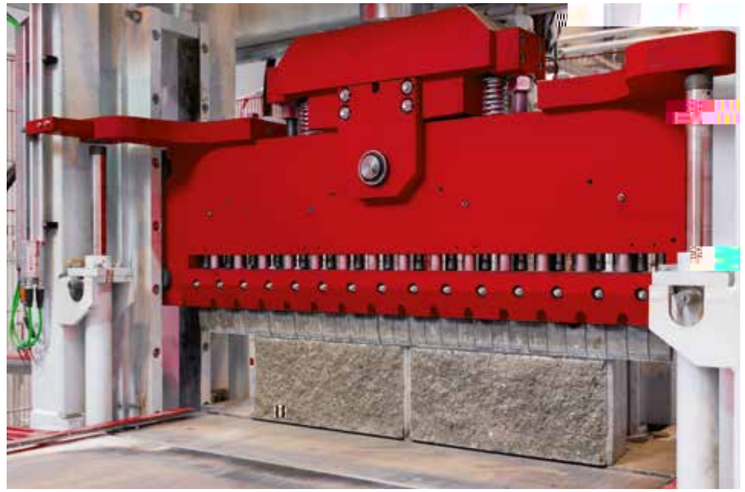
APPLICATION / FEATURES

SPLITTING

of block stones, wall stones, hollow block stones, palisades and block steps. Equipped with high-capacity hydraulics with pressure accumulator for fast cycles, controlled splitting patterns and a maximum splitting pressure of 120 t. Equipped with upper, lower and lateral knives. Upper cutter bar moveable for compensation of height differences and for hydraulic height adjustment of upper cutter bar.

Splitting line available with one or two splitting machines with 90° rotating table for longitudinal and traverse split. Precise product positioning under the splitting knife by means of electromotor with encoder for accurate splitting and less waste. Feeding technology with automatic waste fap. rearrangement, respectively formatting of split products that layers can be packed.

optionally executed for y-split or special split.
Can be combined with edge treatment machine for random chipping of edges and with bushhammering/aging machine.



Technical specifications *

Splitting cycle with
product transport
included: approx. 8 sec.

* depending on product characteristics and required final result and also on product size and splittings to be carried out









BENEFITS

- Durable machine due to stable and high-quality construction
- Low reject rate due to very high splitting accuracy (clean break edges, exact positioning)

TECHNICAL DATA

Product thickness: 50 - 350 mm
Working width: 800 mm / 1,200 mm

Model		800	1200
Splitting width		800 mm	1,200 mm
Passage width		900 mm	1,350 mm
Splitting height	with side knives	100 - 350 mm	100 - 350 mm
	without side knives	50 - 350 mm	50 - 350 mm
Passage height		410 mm	410 mm
Splitting pressure		80 t	120 t
Connected load		approx. 12 kW	approx. 13 kW

depending on the product characteristics, the required final result, as well as the product size and the necessary splitting processes.

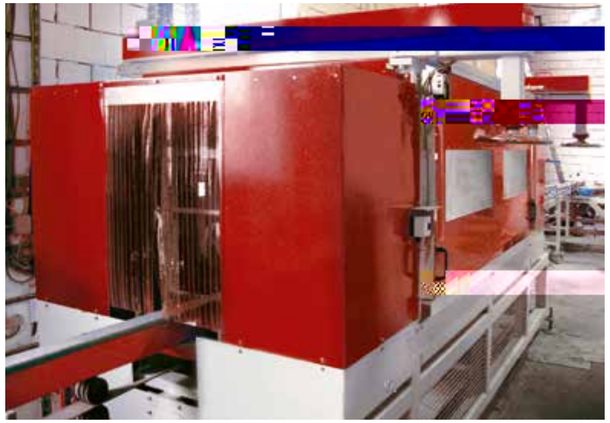
EDGE BREAKING

of block stones, wall stones, hollow block stones, palisades and block steps.

After splitting, the edges at the top, bottom and sides are sharp. In order to give the product a more natural appearance (similar to crushed natural stone), the edges are processed by means of rotating chains on the longitudinal edges at the top and bottom in a continuous process. Vertical processing with a second station in standstill mode.

Even or random edge breaking is possible. No contamination of product surface during treatment. Executed in modular design for treatment of 4/8/12 edges.

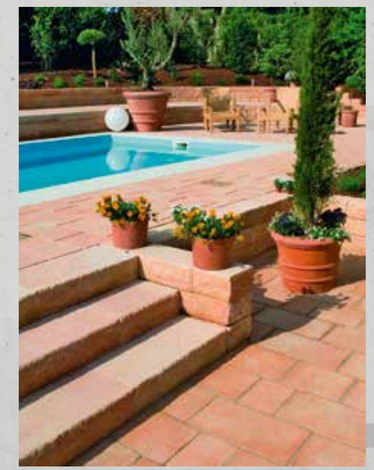
With cartridge filter or sinter-lamella filter.
filtered











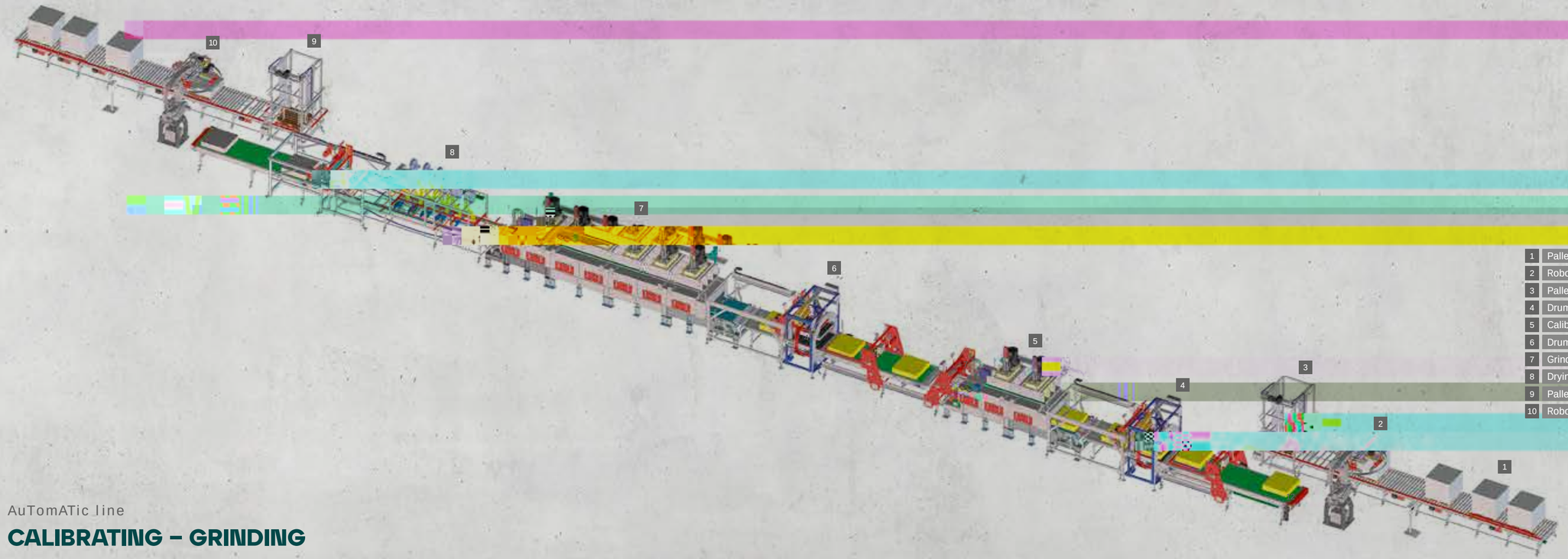


VALUE ADDING SYSTEMS

CALIBRATING
GRINDING
CHAMFERING



STAND – ALONE



1 Pallet loading system
2 Robot unpacker
3 Pallet magazine
4 Drum turning device
5 Calibrating machine
6 Drum turning devcie
7 Grinding machine
8 Drying track
9 Pallet magazine
10 Robot unloading system

AuTomATic line

CALIBRATING – GRINDING

APPLICATION / FEATURES

CALIBRATING

of pavers and slabs. milling off of fabrication tolerances (equalizing of height differences or conicity), respectively layer-wise milling of wall- and chimney stones unilateral or bilateral for mortar-free processing.

Treatment in dry or wet mode possible. Depending on customized requirements, the calibrating machines are available with up to 3 stations. Working widths 850 and 1,200 mm.

Machines equipped with lateral guidances with motor-driven adjustment available as an option. Solid tunnel type segment construction made of steel. Armoured bed made of grey cast iron with high-precision ground manganese hardened steel plates and multilayer armoured Siegling conveyor belt for planar and smooth transport of the products through the calibrating stations.

Technical specifications *

Belt speed: 0.5 – 5 m/min

Average processing speed

in wet mode: approx. 2 m/min – 2.5 m/min

in dry mode: approx. 1 m/min – 1.5 m/min

* depending on product characteristics and required final result







Calibrating stations equipped with milling diamonds. Milling diamonds installed on universal holding disc. Quick tool exchange via dovetail guidances.

Frequency-controlled main drives and vertical movement of every station. The machines are equipped with an independent control and operation panel with visualization. Processing parameters per product type can be saved.

Available as inline and off line machine.

BENEFITS

- High-quality, reproducible products due to planar and smooth belt transport
- Durable machine due to stable and high-quality construction
- High flexibility due to modular design (stations can be retrofitted) and universal holding disc for process engineering use
- Time saving and improved user comfort thanks to electric height adjustment
- Cost and space saving in dry treatment due to elimination of grinding water recycling (no water treatment) and special waste disposal
- Cost saving in dry treatment due to reusing the dust (depending on the dust extraction used) as filler in the concrete mixture

TECHNICAL DATA

Product thickness: 30 – 400 mm
Working width: 850 mm / 1,200 mm

Model	850	1200
1 station		
Length x width x height	3.9 x 2.2 x 3.3 m	5.4 x 2.8 x 3.6 m
Total connected load	up to 50 kW	up to 60 kW
Water consumption wet operation (without belt flushing)	up to 8 m^3/h	up to 10 m^3/h
Air consumption during dry operation	up to 6,000 m^3/h	up to 9,000 m^3/h
2 stations		
Length x width x height	5 x 2.2 x 3.3 m	6.8 x 2.8 x 3.6 m
Total connected load	up to 95 kW	up to 110 kW
Water consumption wet operation	up to 16 m^3/h	up to 20 m^3/h
Air consumption during dry operation	up to 12,000 m^3/h	up to 18,000 m^3/h
3 stations		
Length x width x height	6.1 x 1.9 x 3.3 m	8.3 x 2.8 x 3.5 m
Total connected load	up to 150 kW	up to 160 kW
Water consumption wet operation	up to 24 m^3/h	up to 30 m^3/h
Air consumption during dry operation	up to 18,000 m^3/h	up to 27,000 m^3/h

Wet operation: Recycling water – an additional 2 × 4 m^3/h of fresh water is required for belt washing.
Performance data depends on the product characteristics and the desired final result.

APPLICATION / FEATURES

GRINDING

of pavers and slabs. calibrating is a precondition for optimum grinding results. After calibration, products are ground in the grinding machine with up to 10 high-power stations. Depending on the number of grinding stations used, a surface appearance from rough to fne can be achieved.

Treatment in dry and wet mode possible. In wet treatment with 10 stations, a grinding degree of maximum 220 can be reached. Dry treatment is recommendable only for facemix with a hard stone ratio of max. 50%. Working widths 850 and 1,200 mm.

Technical specifications *

Belt speed: 0.5 – 5 m/min

Average processing speed

in wet mode: approx. 2 m/min – 2.5 m/min

in dry mode: approx. 1 m/min – 1.5 m/min

* depending on product characteristics and required fnal results



Solid tunnel type segment construction made of steel. Armoured bed made ofe ± ³ ᴺ] cast iron with high-precision ground manganese hardened steel plates and multilayer armoured conveyor belt for planar and smooth transport of the products through the stations. Every individualstation can be equipped with milling diamonds, smoothening or Ğ ˜ ᴀ l˜ ᴀ ✕] segments. All tools installed on universal holding discs. Quick tool exchange via dovetail guidances.



Frequency-controlled main drives and vertical movement of every station. Every station with contact pressure control. The machines are equipped with an independent control and operation panel with visualization. Processing parameters per product type can be saved. Can be combined with other value adding steps like chamfering, shotblasting, curling, coating and impregnation.

BENEFITS

- High-quality, reproducible products due to planar and smooth belt transport
- Durable machine due to stable and high-quality construction
- High fexi] ility due to modular design (statip p ï ᴎ ᴀ˜ ƀ disc for process engineering use
- Time saving and improved user comfort thanks to electric height adjustment and fully automated contact pressure control
- Cost saving in dry treatment due to reusing the dust (depending on th< ᴎ ɵ

(without belt fushing) up to 8 m

TECHNICAL DATA

Product thickness: 30 – 400 mm
Working width: 850 mm / 1,200 mm

	³	³/h
Air consumption during dry operation	up to 6,000 m³/h	up to 9,000 m³/h
2 stations		
Length x width x height	5 x 2.2 x 3.3 m	6.8 x 2.8 x 3.6 m
Total connected load	up to 95 kW	up to 110 kW
Water consumption wet operation	up to 16 m³/h	up to 20 m³/h
Air consumption during dry operation	bis zu 12,000 m³/h	up to 18,000 m³/h
4 stations		
Length x width x height	9.6 x 2.2 x 3.3 m	11 x 2.8 x 3.6 m
Total connected load	up to 185 kW	up to 210 kW
Water consumption wet operation	up to 24 m³/h	up to 30 m³/h
Air consumption during dry operation	up to 24,000 m³/h	up to 36,000 m³/h
6 stations		
Length x width x height	10.5 x 2.2 x 3.3 m	14 x 2.8 x 3.6 m
Total connected load	up to 275 kW	up to 310 kW
Water consumption wet operation	up to 32 m³/h	up to 40 m³/h
Air consumption during dry operation	up to 36,000 m³/h	up to 54,000 m³/h
8 stations		
Length x width x height	12 x 2.2 x 3.3 m	17 x 2.8 x 3.6 m
Total connected load	up to 365 kW	up to 410 kW
Water consumption wet operation	up to 48 m³/h	up to 60 m³/h
Air consumption during dry operation	up to 54,000 m³/h	up to 72,000 m³/h
10 stations		
Length x width x height	14.2 x 2.2 x 3.3 m	20 x 2.8 x 3.6 m
Total connected load	up to 455 kW	up to 510 kW
Water consumption wet operation	up to 80 m³/h	up to 100 m³/h
Air consumption during dry operation	up to 60,000 m³/h	up to 90,000 m³/h

Wet operation: recycling water. The last two stations use fresh water. An additional 2 x 4 m³/h of fresh water is required for belt fushing, depending on product characteristics and the required fnal result.

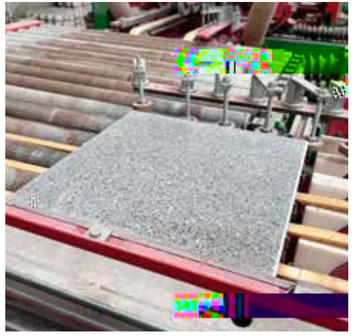
CHAMFERING

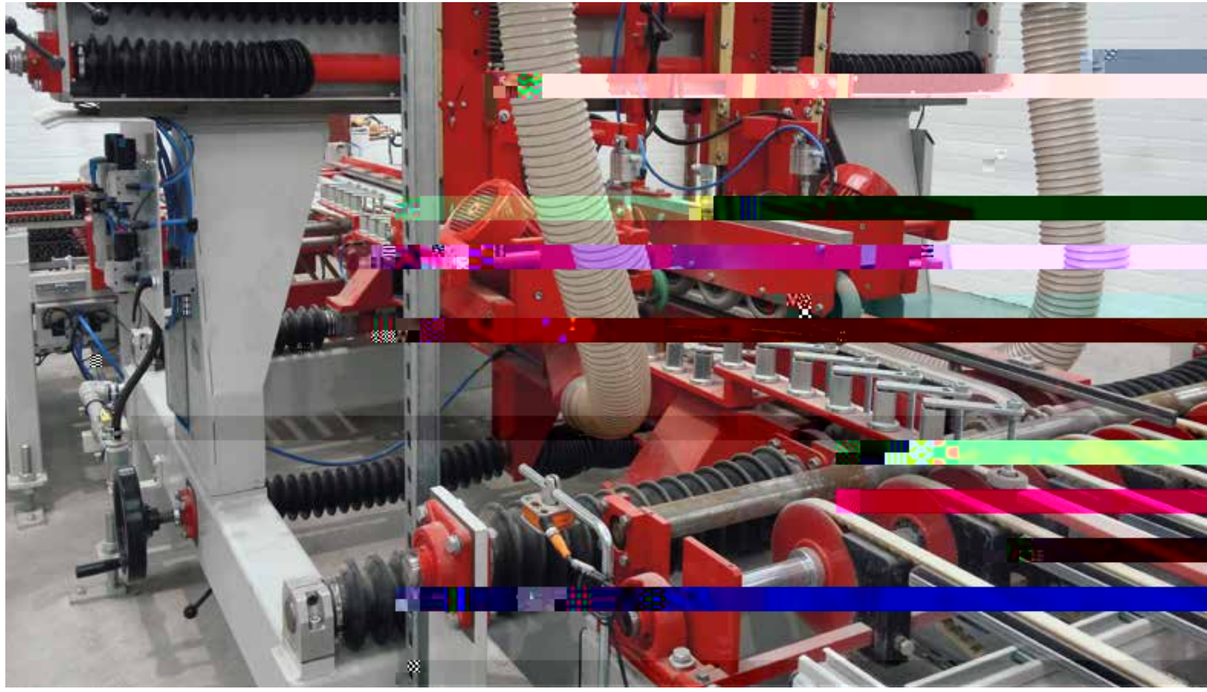
of pavers and slabs. c

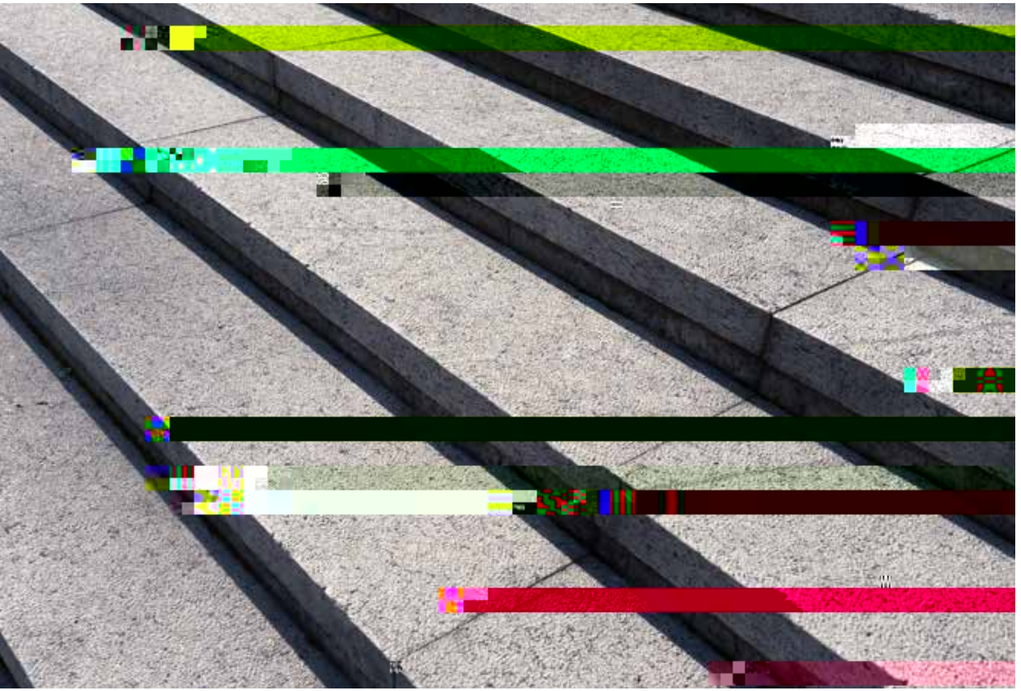
BENEFITS

- Consistently constant chamfer even with different product thicknesses due to pressure rollers
- Ideal laying and edge protection of products by partial milling off of spacers
- Cost and space saving in dry treatment due to elimination of grinding water recycling (no water treatment) and special waste disposal
- Cost saving in dry treatment due to reusing the dust (depending on the dust extraction used) as fller in the concrete mixture



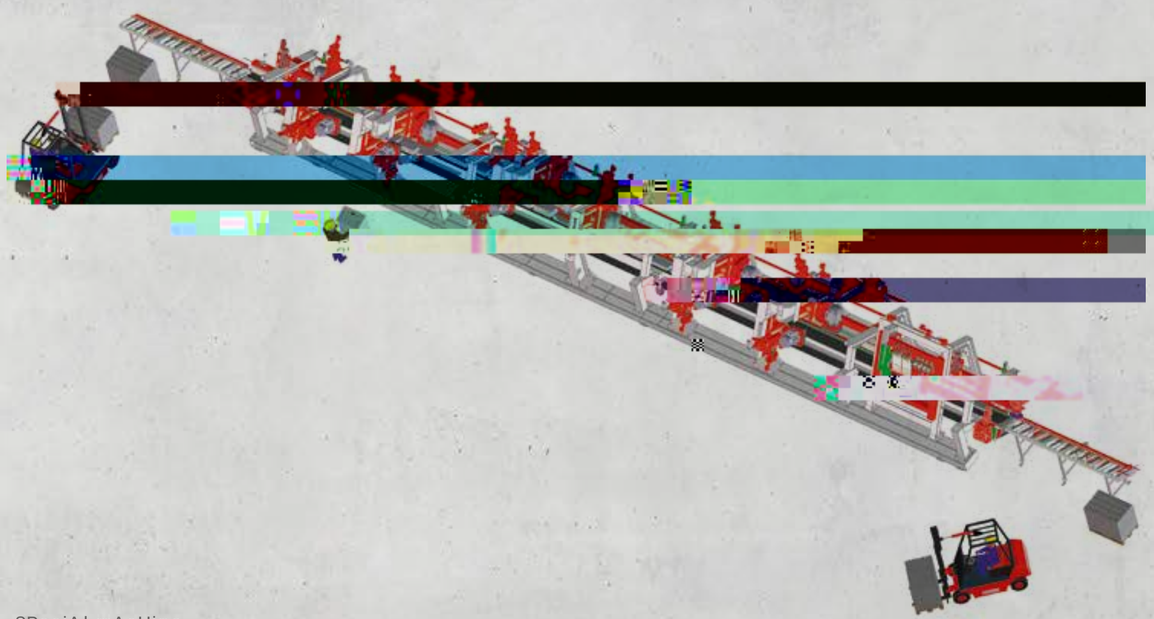






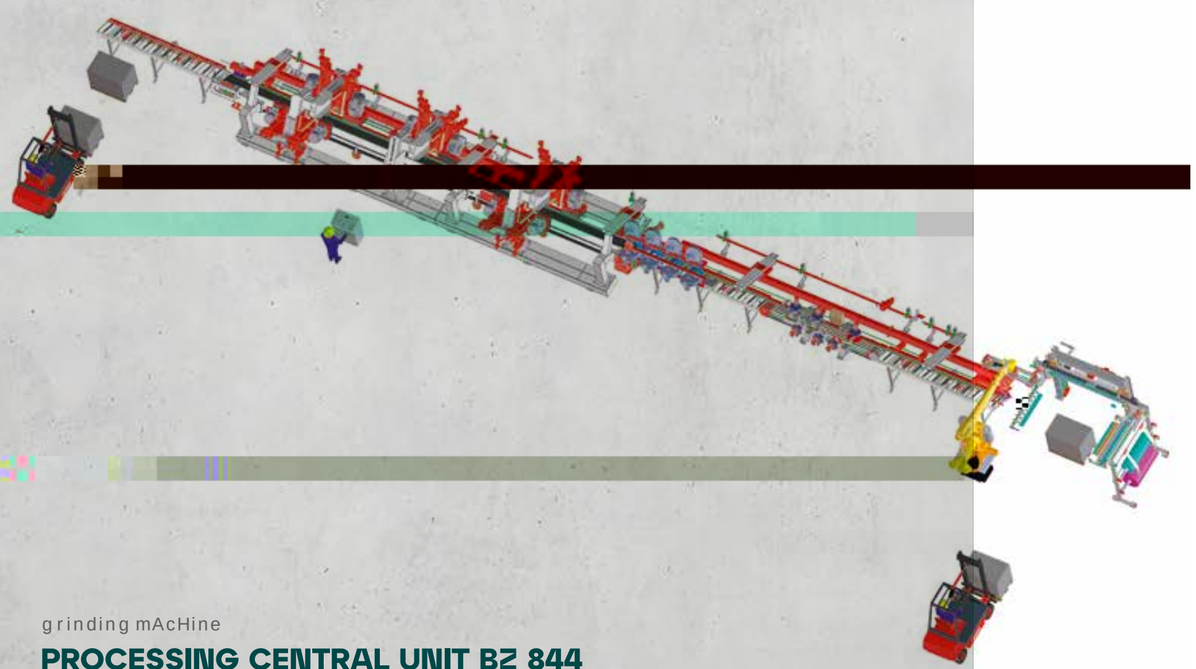
PROCESSING CENTRAL UNIT

CURBSTONES
BLOCK AND ANGULAR STEPS
CONTOURS



SPeciAl mAcHine

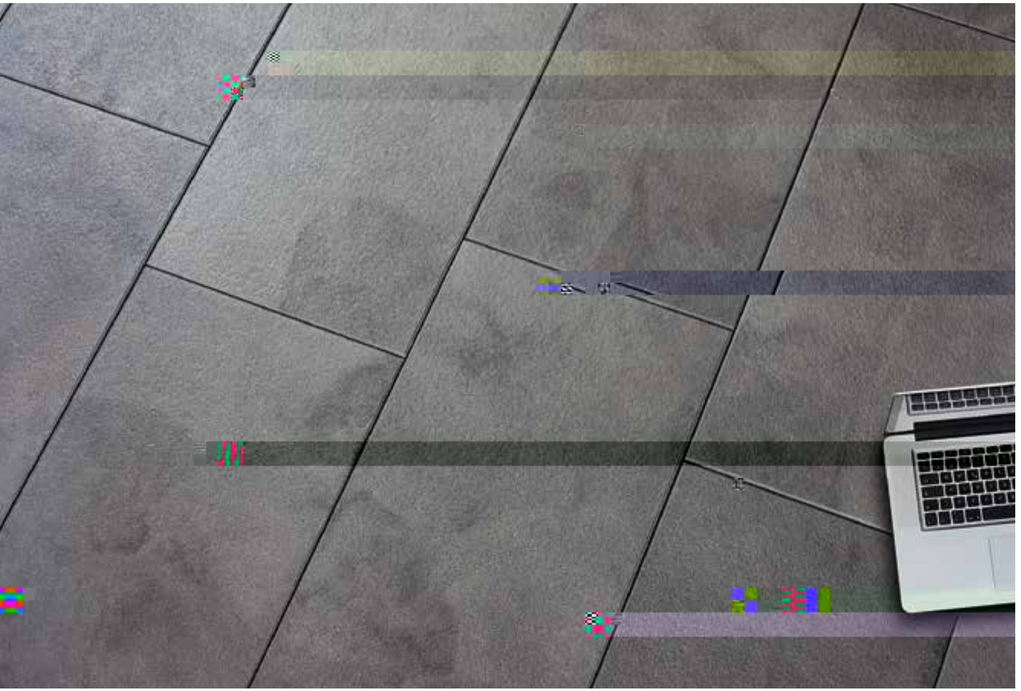
MODULAR MULTI-FORMAT – PROCESSING CENTRAL UNIT



grinding mAcHine

PROCESSING CENTRAL UNIT BZ 844

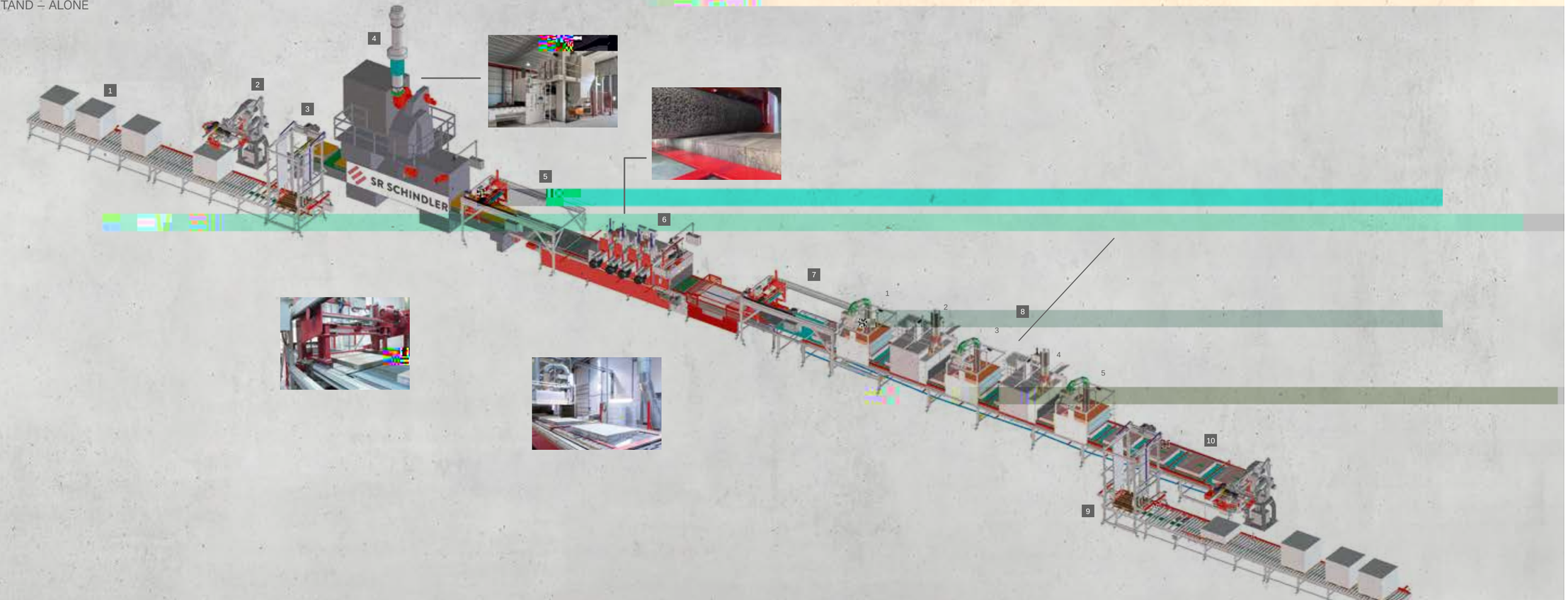


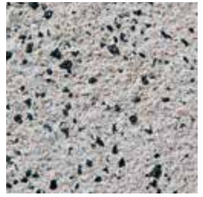


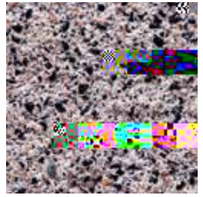
VALUE ADDING SYSTEMS

SHOTBLASTING
CURLING
COATING
PRINTING

STAND – ALONE











Technical specifications*

Belt speed:	2.5 – 11 m/min
Average processing speed:	approx. 5 lin. m/min

* depending on product characteristics and required final result

APPLICATION/FEATURES

CURLING

of pavers and slabs by means of rota-ting brushes. Paver layers and/or slabs are transported in endless row on a belt conveyor through the machine consisting of 2 tunnels. Each tunnel is equipped with 2 or 3 segments with 2 brushes each. Brushes have different brush strengths and are arranged in the machine from rough to fne. Brushes are arranged in inclined execution. Brushes 1, 3, 5 rotate in the opposite direction to brushes 2, 4, 6. This counter rotation and the mirror-inverted inclination avoid brush marks on the product surface.

Curling is particularly well suited for textured products but gives also slight shine and a tangibly smooth and silky surface to roughly ground and/or shot-blasted products. By removal of surplus cement, the aggregates are carved out and polished.

This makes the product surfaces dirt- and moisture-repellent and non-slip.

Treatment in dry mode. Deliverable with cartridge or sinter-lamella filter. Available working widths 850 and 1,200 mm. Curling incl. intensive cleaning is essential for the following coating process.

Frequency-controlled main drives and vertical movement. With contact pressure control. The machines are equipped with an independent control and operation panel with visualization. All processing parameters can be saved for every individual product type.

Available as o f ine machine, integrated in value adding lines or as a bypass of the stone making machine. Can be combined with rough grinding, shotblasting, aging, impregnation and coating.





TECHNICAL DATA

Product thickness: 20 – 350 mm
Working width:

Model	850	1200
Length	approx. 7,500 mm	approx. 8,000 mm
Width	approx. 2,500 mm	approx. 2,800 mm
Height	approx. 3,000 mm	approx. 3,200 mm
Total connected load (2-/4-/6-times)	35 / 68 / 100 kW	50 / 95 / 140 kW
Exhaust air (2-/4-/6-times)	4.,500 / 6,000 / 9,600 m^3/h	6,000 / 9,600 / 12,000 m^3/h

BENEFITS

- Cost saving due to individual replace-ment of worn brush segments
- Durable machine due to stable and highquality construction
- Time saving and ease of use due to fullyautomated contact pressure control
- Easy training of the operating personnel due to simple operation
- Cost and space saving due to elimination of water recycling (no water treat-ment) and special waste disposal
- Cost saving due to reusing the dust (depending on the dust extraction used) as filler in the concrete mixture





APPLICATION/FEATURES

COATING

of pavers (layer-wise impregnation or coating) respectively slabs (row-wise impregnation or coating), for optimal protection. Variants available from pure laying protection to long lasting coating. The diverse coating processes upgrade the products optically, protect them from environmental impacts and make clean-ing easier.

In standard execution provided with infrared preheating station, spraying device for primer, infrared heating station, spraying device for sealing agent and infrared heating station. optionally, additional ir and/or uV stations can be integrated. Suitable for all current impregnation and sealing agents and for 1-and 2-component coating. Appli-cation by spraying, rolling with or without UV-curing. Infrared, paternoster or storage rack drying depending on chemical and spatial requirements.

Motorized adjustment of the height of all heating and spraying stations, spraying nozzles operate with low pressure system, thus low atomized spray. Quan-tity to be sprayed adjustable, spraying nozzles horizontally adjustable for ideal application of sealing agents. Automatic cleaning of nozzles upon long standstill avoids jamming. Spray heads are cleaned with water by means of diaphragm valve, outer and inner nozzles separately switchable.

Every spraying station has its own electric control and touch panel. Adjustable max. spraying time, power-on and power-off delay. After sealing, the products can be packed immediately.

Technical specifications*

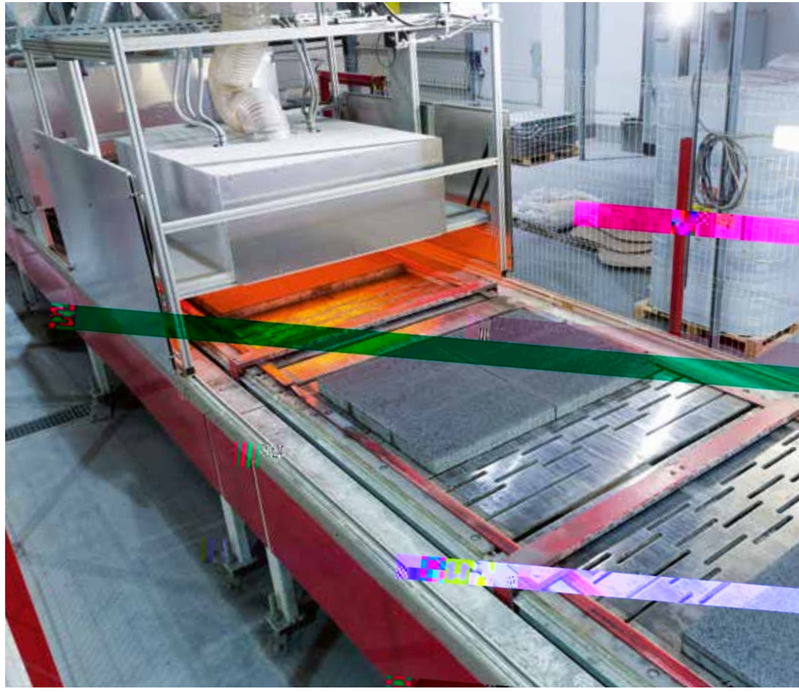
Belt speed:	1 – 10 m/min
Average processing speed:	approx. 4 – 5 lin. m/min

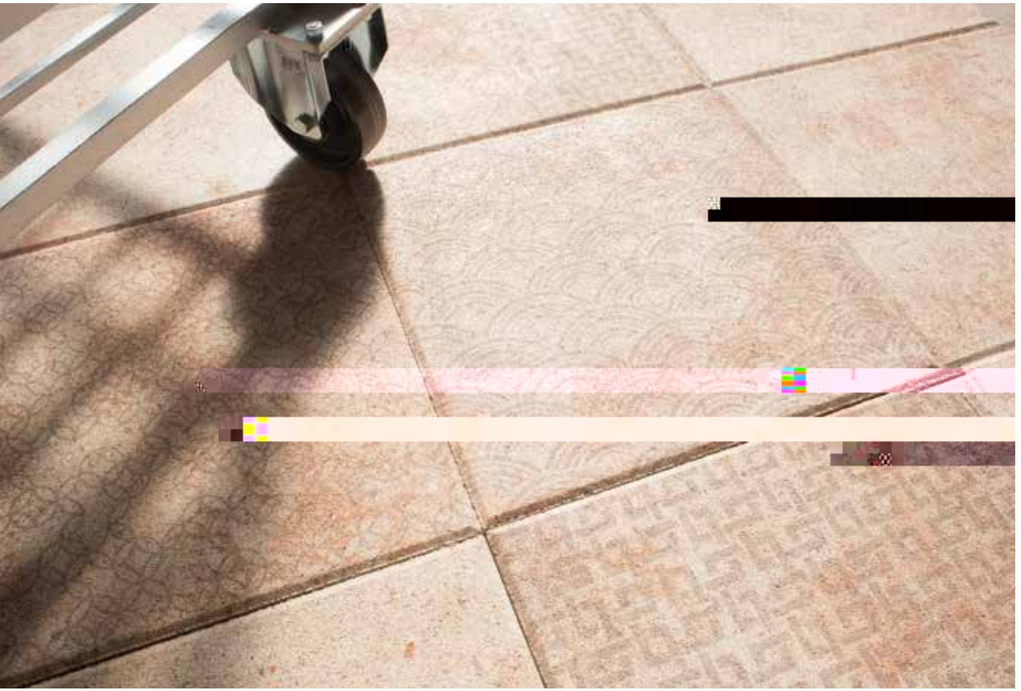
* depending on product characteristics and required final result





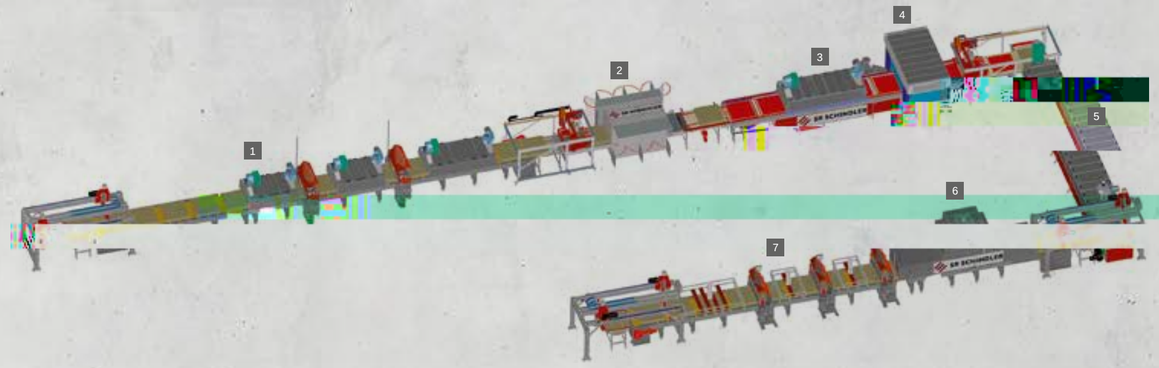






PRINTING

DESIGN WITHOUT LIMITS



5 Drying tunnel

approx. 12m long for complete drying of water-/ solvent-based coatings

6 Air jet drying unit

Evaporation of condensation water caused by IR drying

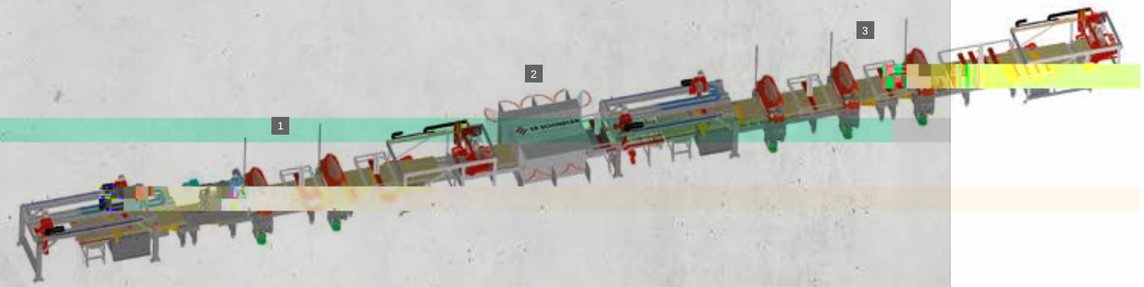
7 Coating line III

3x roller application machine & 3x UV cure unit for

inline SoluTion

IR PRINTING LINE

INLINE SOLUTION



inline SoluTion

UV PRINTING LINE

APPLICATION/FEATURES

PRINTING LINE

Through the use of inkjet technology, concrete slabs can be individually designed, combining the robustness of concrete with nearly limitless creative freedom. This opens up versatile possibilities for modern architecture and design projects. decoratively printed concrete fnds applications in various areas, such as fooring and wall cladding. Its resistance to weather conditions and low maintenance requirements make it an ideal material for demanding construction projects.

Before printing, special surface preparation is required to ensure optimal adhesion of the colors. Specifcally developed primers enhance print quality and provide a uniform appearance. Furthermore, the inks used must demonstrate high resistance to environmental infuences, especially on porous substrates like cement.

Choosing the right coating is crucial for a long-lasting, brilliant color result. Specifcally tailored protective layers optimize color adhesion, enhance color reproduction, and ensure long-lasting performance of the printed concrete surfaces.







AdVAnTAgeS

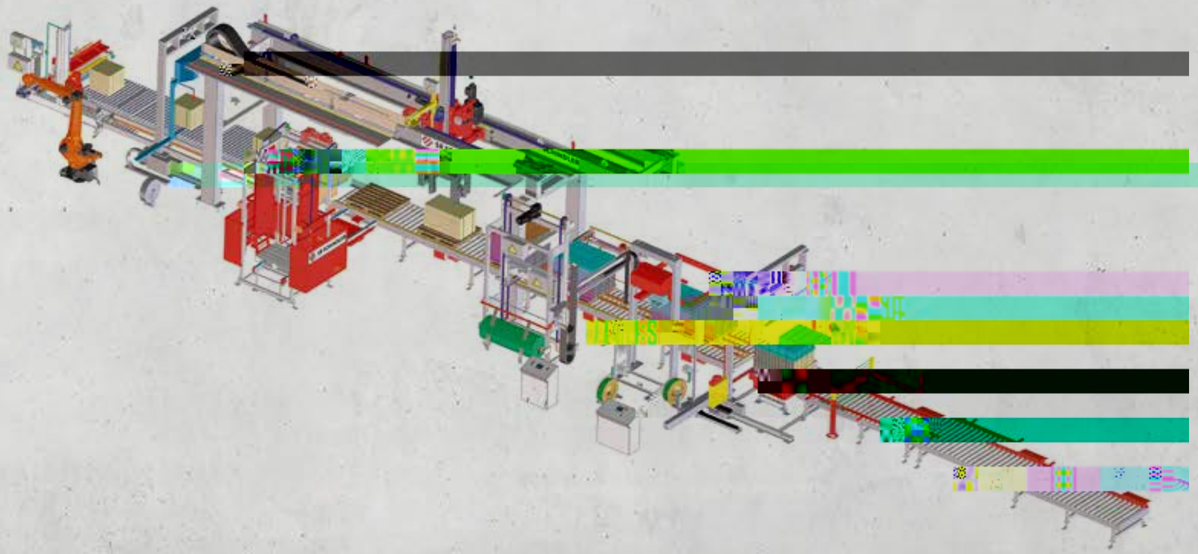
- Printing on tiles and pavers possible
- Storage of one product type only with solid standard surface
- No use of white cement necessary
- UV-consistent colour
- Different appearances without use of textured matrices (also 3D)
- Different motifs possible
- Flexible response to varying customer expectations
- Printed products can be put together to big motifs / patterns / pictures
- Easy cleaning of untextured products
- Fast change of printing motifs by means of software
- Surface abrasion resistant due to special sealer applied
- Can be integrated in existing coating lines
- Also for printing of facades available

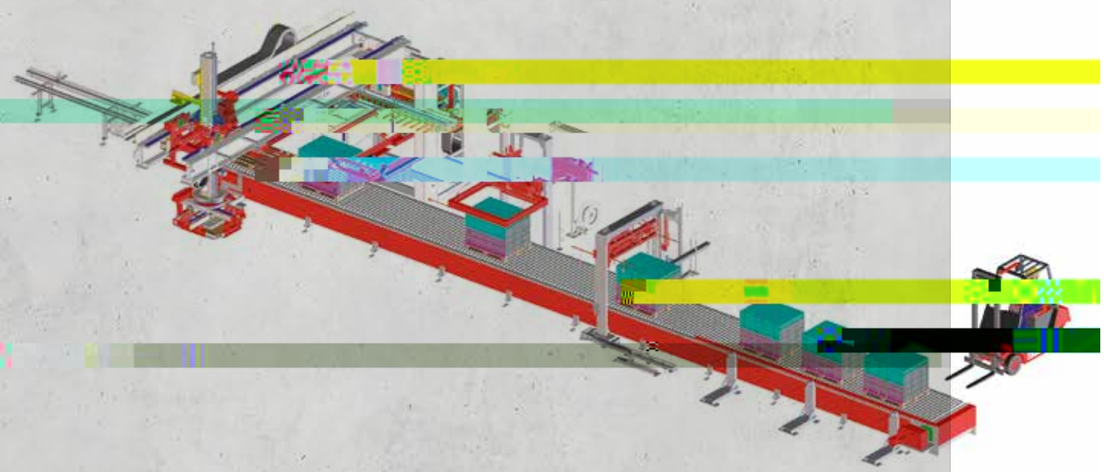


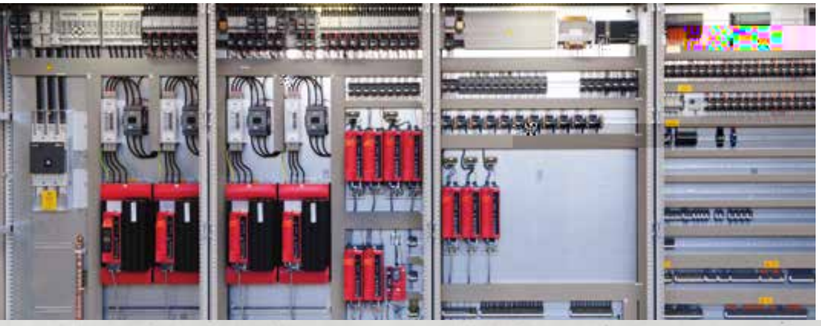


HANDLING & PACKING SYSTEMS

HANDLING
PACKING
CONTROL TECHNOLOGY







EVERYTHING UNDER CONTROL

CONTROL AND VISUALIZATION

The highly flexible control technology by SR SCHINDLER enables you to increase the efficiency of your production plant. With the SR SCHINDLER control systems, the focus is on simplified operation, reduction of operation costs and increase in quality.

SIEMENS SIMATIC S7-150

CONTROL

Modular system for plant engineering, i.e. separation of the entire system and processing machines into individual controllers and decentralized i/o interfaces, for maximum flexibility and scalability, as well as efficient procedures at commissioning

PROFINET

COMMUNICATION

- The entire system is consistently interlinked via Profinet, from the cPus & Hmi devices to decentralized input/output modules, converters, sensors and actuators
- iWLAn for mobile Hmi devices. Wireless operating devices enable local adjustments and operator actions
- Profinet/Profsafe for safety-related communication and connection of safety technology
- Ensuring of remote maintenance at all levels via consistently interlinked plant components
- Complete integration of robot controls and third-party manufacturers in the overall plant control

CONTROL TECHNOLOGY

BENEFITS

- Cost saving due to high degree of automation and low personnel costs
- greater profit margin due to higher productivity and increased efficiency
- Cost saving by reducing the error rate
- High plant availability due to minimized set-up times using servo drives and due to easy operation using system-specific and clear 3d visualization
- High adaptability, e.g. for the production of new product formats, due to in-house electrical development and software programming
- Guaranteed future security due to the latest control and bus systems

VISUALIZATION

OPERATION AND MONITORING SYSTEMS

SimATic panel Pc as touch screen and wireless operating devices

- Central recipe administration
- operation and monitoring via plant-specific 3D-visualization
- Continuous production data acquisition

FREE CUSTOMIZATION

MOTORS, SERVO DRIVES AND FREQUENCY CONVERTERS

- Free adaptation of the plant parameters to different products, thus no adjustment of sensors, but only loading of parameters necessary
- Servo drives and frequency converters from SEW

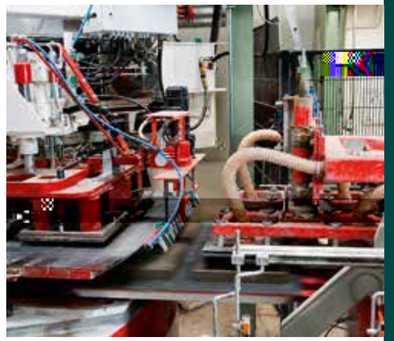
SIEMENS S7 F-CPU

SAFETY TECHNOLOGY

- High level Siemens S7 F-CPU for safety programming
- Decentralized fail-safe input/output modules via Profsafe
- overall visualization of safety technology for fast error detection and overview



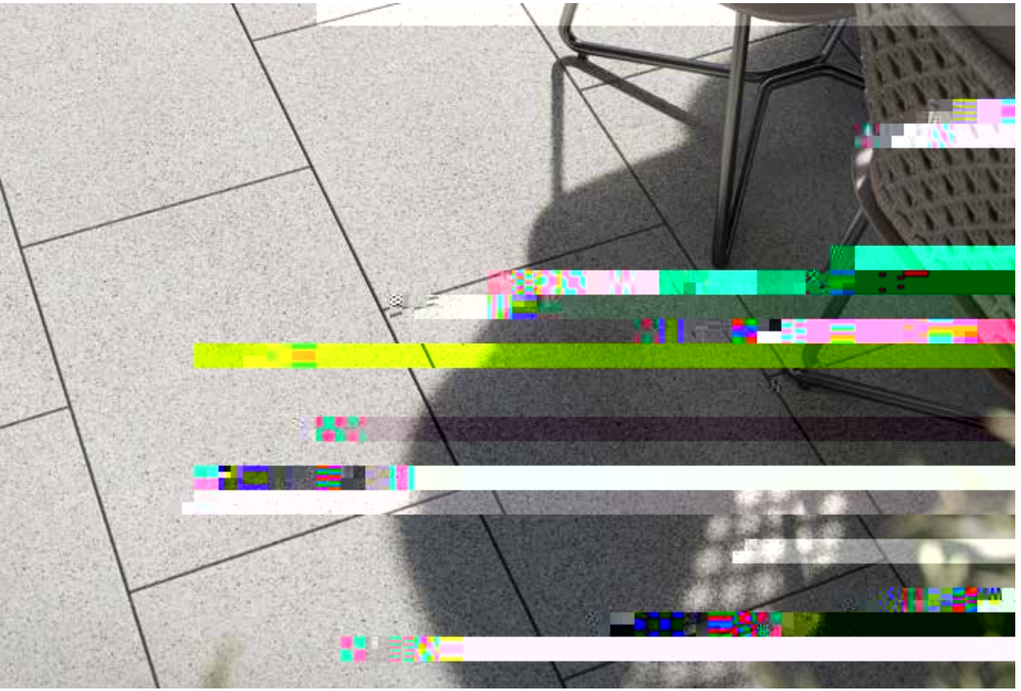






HERMETIC PRESS 2

PAge 72 – 103



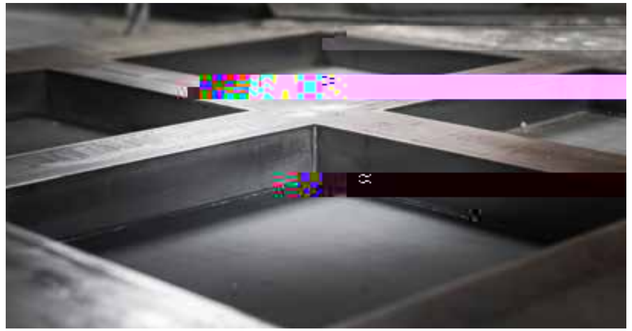
HERMETIC PRESS

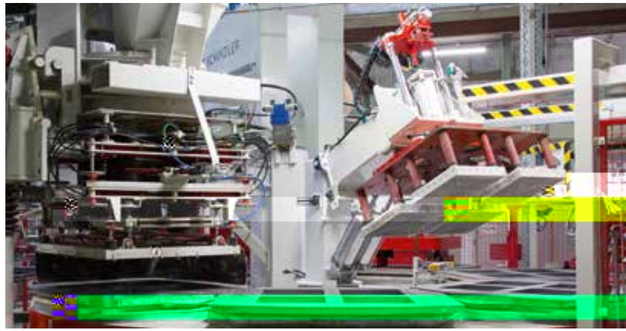
FOR SINGLE AND DOUBLE LAYER SLABS





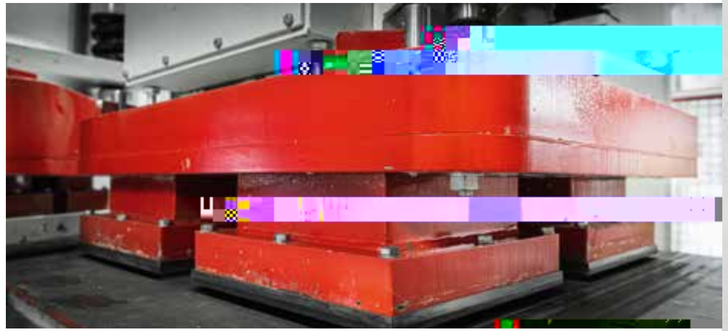

SR SCHINDLER







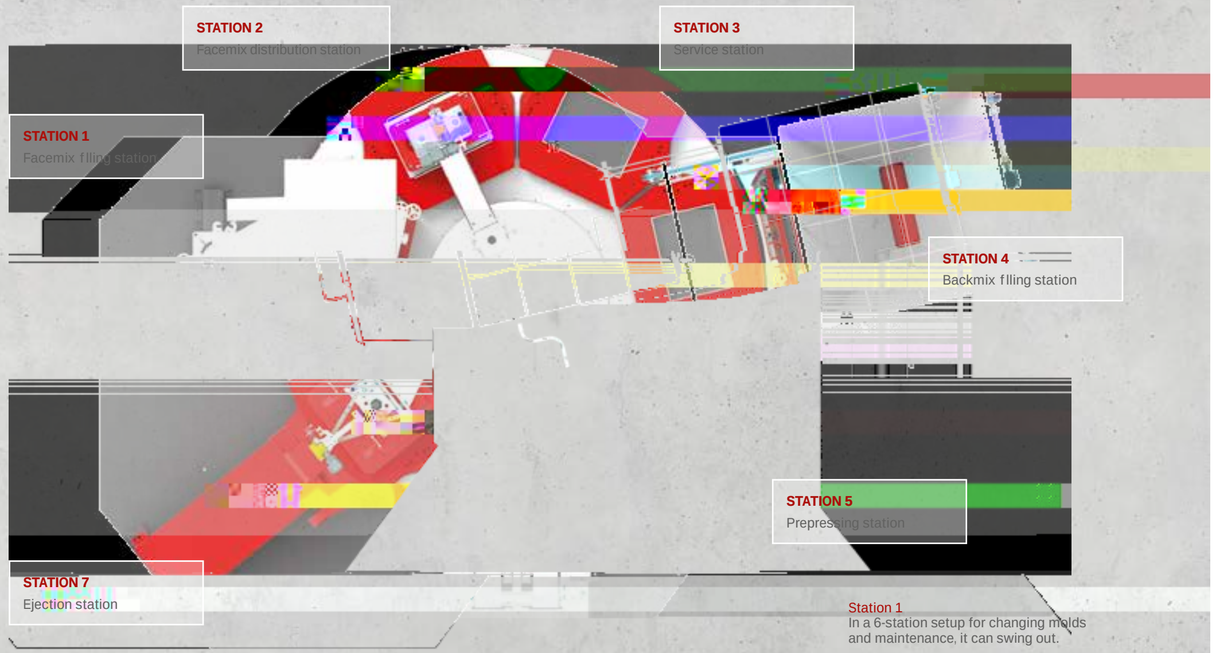




TECHNICAL DATA

Press	UNI 600/7	UNI 1200/7	UNI 1200/6	UNI 1200 plus/6
Number of stations	7	7	6	6
Max. slab formats 1-fold [mm]	600 x 600 mm	(1,000 x 1,000 mm when using 3 molds) 800 x 800 mm 900 x 600 mm 1,000 x 500 mm	1,000 x 1,000 mm	1,000 x 1,000 mm 1,200 x 800 mm
Max. slab formats 2-fold	600 x 400 mm	500 x 500 mm	500 x 500 mm	600 x 600 mm
Max. slab formats 4-fold	300 x 300 mm	400 x 400 mm	450 x 450 mm	450 x 450 mm
Turntable diameter	3,900 mm	4,700 mm	4,700 mm	4,700 mm
Distance mold frame lifting cylinder	1,090 mm	1,275 mm	1,275 mm	1,475 mm
Min. slab thickness*	Depending on slab size, up to format 400 x 400 min. 35 mm, for bigger formats individual according material propertie.			
Max. slab thickness	80 mm	100 mm	100 mm	100 mm
Max. pressure of main press-station	600 t	1,200 t	1,200 t	1,200 t
Power consumption	68 kW	95 kW	95 kW	95 kW

Performance data depending on product characteristics and required final result
* In the case of a two-layer process



Station 1
In a 6-station setup for changing molds and maintenance, it can swing out.

Station 3
Also mold change in a 7-station setup, but not needed in a 6-station setup.

- optimal access for maintenance, mould exchange and operation due to 6- or 7-station concept
- Improved accessibility through portal design
- optimized cycle times via servo-controlled turntable drive
- Protection of the drive unit against contamination by capsuled turntable execution and good accessTtunit aviathe dpss t



STATION 1

FACEMIX FILLING STATION

Volumetric face mix dosing and filling of mold. 2 dosing systems available.

TUBE DOSER

good emptying and accurate filling of the doser via intermadiate silo. conveying the facemix by means of mixer blades into the outlet. Simultaneously, prevention of build-up and segregation of the material.

Via outlet spouts, the material is filled into the dosing tubes with clamping jaws. Adjustment of the facemix volume by manually adjusting the distance between the clamps. good emptying and accurate mould filling by means of tube vibration.

After dosing and completion of turntable positioning, the lower clamping jaw is opened to fll the mould

EQUIPMENT

- Mixer in material container. Container partially lined with Hardox wear plates
- 8 dosing tubes equipped with 2 pneumatic clamping devices
- Quick-release closures for changing the dosing tubes
- Filling level sensor for automatic demand for refilling of facemix



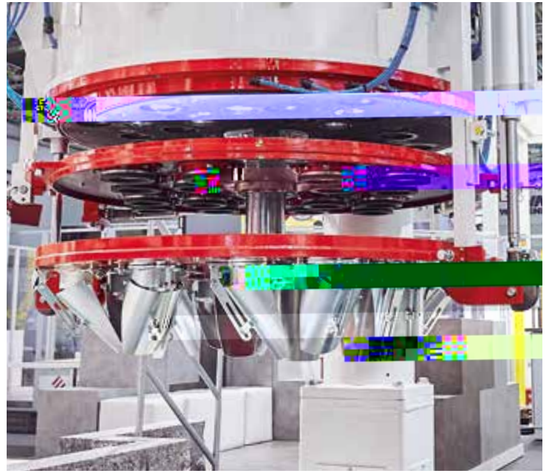
DISC DOSER

The desired facemix quantity is filled in the dosing bush via congruently aligned openings in the upper and middle dosing discs.The turntable is turned and the mould is placed under the doser. The middle disc is turned so that the openings of the middle and lower discs are congruently aligned. The mould is filled.

The middle disc is turned back for a new filling process. new and innovative turning and lifting devices for swinging the doser away from the press for cleaning when changing colors and/or recipes.

EQUIPMENT

- Planetary mixer and material container with hydraulically operated and pneumatically supported ejector, synchronized with the press. With double rotary mix ¡ ŷ ɔ ᵀ] dos] я d] я flqnd



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OPTIONAL

DOSER - QUICK EXCHANGE SYSTEM

EQUIPMENT

- Required cleaning of the doser separately from the press e.g. at color and/or recipe change
- Transport and safe exchange by means of a forklift through integrated receiving pockets
- Easier exchange by means of mechanical quick-release devices for the frame as well as quick-release systems for pneumatics, hydraulics and electrics
- Cleaning of the doser away from the press at an easily accessible working height

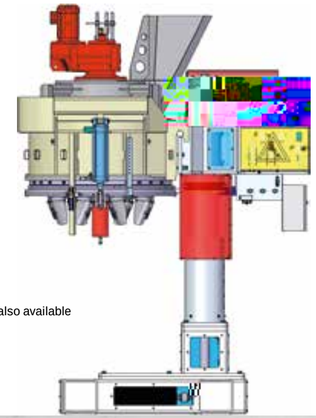




COMPARISON OF DOSER TYPES



8-fold tube doser



16-hole disc doser
10- and 12-hole dosers also available

Type	8-fold tube doser	16-hole disc doser
Dosing accuracy / reproducibility	+	+ +
Cleaning	+ +	+
Adjustment at format exchange (filling volume)	+ +	+ +
Flexibility with different mould frames	+	+ +
Use of coloring machine	+ +	+ +
Use of marbling machine	+	+ +
Wear	+	+
Cycle times	+ +	+ +

+ well suitable ++ highly suitable

STATION 2 & 3

FACEMIX DISTRIBUTION STATION AND SERVICE STATION

For optimum distribution of different facemix recipes, the following systems are available:

- Plastic stamps with different millings (adapted to concrete)
- Gratings
- Vulcanized facemix distribution plates

AdVAnTAgeS FAcemiX diSTriBuTion STATion

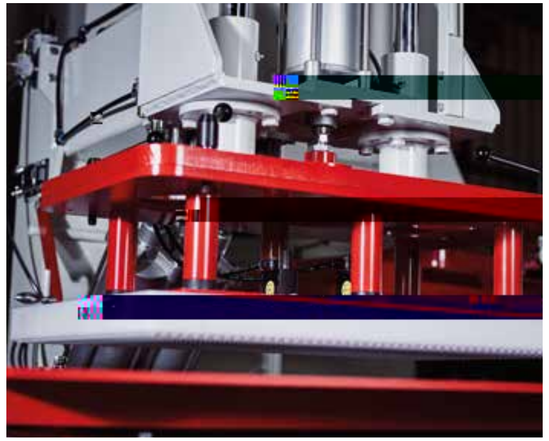
- Precise distribution of the facemix
- Support for material de-aeration
- Prevention of pore formation

optional: patented servo-assisted immersion depth adjustment

Electronic adjustment of the immersion depth of the facemix distributor during operation for quick adaptation to different material conditions

	Plastic stamp	Grating	Vulcanized
Distribution of the facemix	+ +	+ +	+
Cleaning	+ +	+	+
Homogeneous surface	+ +	+ +	+
Non-stick propertie	+ +	+ +	+ +

+ well suitable ++ highly suitable



AdVAnTAgeS SerVice STATion

- Easy and quick mould exchange
- If required, this station can be used as second facemix distribution station
- Monitoring of facemix distribution during ongoing production
- For mould exchange, cleaning and control of mould frames. Here as well as at station 1 and 2, vibration in stop-and-go mode is possible.



EQUIPMENT

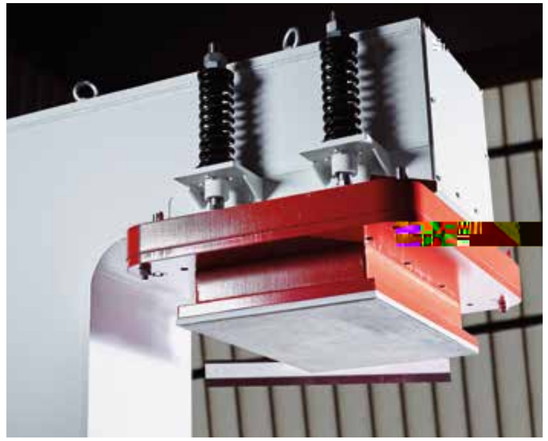
- Mobile group consisting of material silo, conveyor belt and filling pocket
- Mobile group with adjustable forward and reverse speed
- Material silo with level sensor for communication with the mixing plant
- Frequency-controlled belt conveyor drive unit, for take-out of the material from the material silo and for loading the filling pocket

STATION 5

PREPRESSING STATION

PrePreSSing STATion

- Reduction of required main press time
- Available in 6 and 7 Stations



STATION 6

MAIN PRESSING STATION

For final compaction of the product.

- Stepless adjustment of the required pressing pressure and pressing profile depending on the size and thickness of the product and the materials used, up to 1,200 tons
- Automatic shutdown of the pressing
- Force when the required force is reached
- Independent Pre-press Stap5B490004004800490054004900520n8 Tdull w5400 ex-0.4(change betwe09 facemix1 Tfback1mix1 Tf-1t6op1 -dumple-0.0((w8-400)9T1923 -8MCTjE-0.6(iej

Optional

FAulTy PreSSing PreVenTion SySTemS

Faulty pressing detection via position measuring system. Depending on the inclination of the material, the pressing process will be interrupted automatically.



STATION 7

EJECTION STATION

For ejection of green slabs from the press onto the slab depositing carriage.
2 ejection systems available.

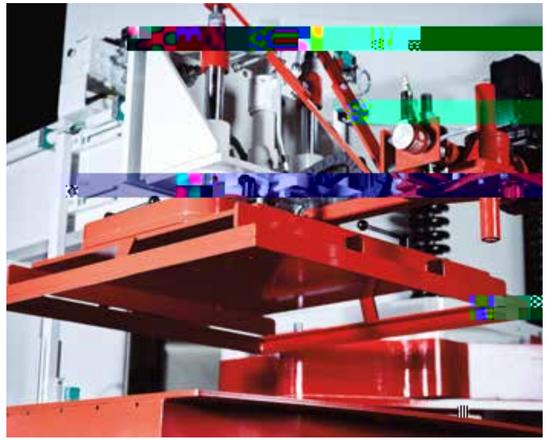
mecHAnicAl ejecTion SySTem

- Mould lifts
- Slab carriage moves below the mould
- Ejector pushes the slab out of the mould onto the carriage

Optional

VAcuum-SuPPorTed ejecTion SySTem

- Depending on format and slab thickness, a vacuum-supported ejection system is necessary
- Ejector lowers towards the slab
- Mould moves upwards
- Vacuum is switched on
- Slab is lifted by ejector so that carriage can move below the product
- Slab is deposited by ejector on the carriage



SlAB dePoSiTing cArriAge

It is used to remove the green products from the press and for transfer to green slab turning device or direct pickup by means of slab transfer device of fat depositing device-wet side.

- Fully automated
- Fully capsulated

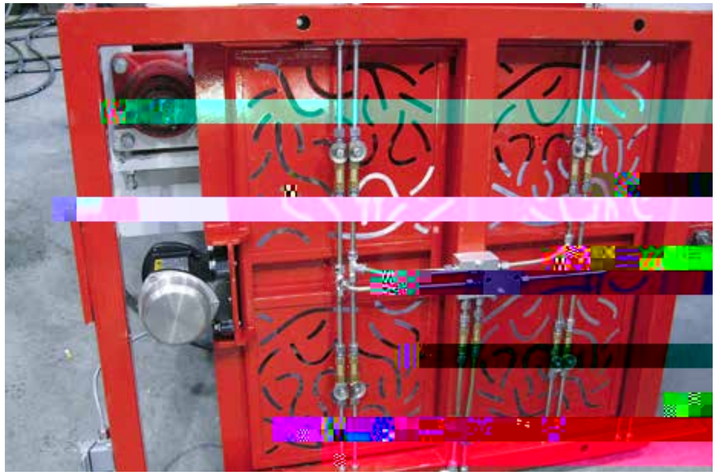


MARBLING AND COLORING MACHINE

- Independently mobile equipment for marbling and/or coloring the slabs
- Can be mounted on hermetic turntable presses
- With 1 or 2 color containers for liquid color, with stirring device
- With separate control

AdVAnTAgeS

- Easy to install
- Extension of the product portfolio



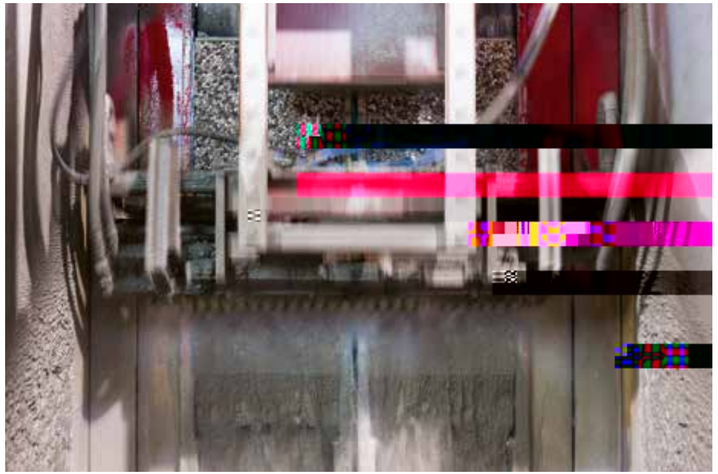


DIRECT WASHING MACHINE

- For washing of green slabs in press cycle as bypass turntable version or as a small-footprint inline version which can be activated optionally
- World first 4-fold 40 cm/40 cm and 50 cm/50 cm in press cycle, 2-fold 60 cm/40 cm, etc.
- With high-performance water jets and rinsing device for brilliant colors without cement film
- Slab thickness 40 mm – 100 mm
- Smooth clamping of products

EQUIPMENT

- Solid frame in sturdy tubular steel construction
- Lifting unit
- Support arm
- Washing frame
- Washing nozzle holder with corresponding piping and pump
- Turning, swivelling and lifting drives with servo motor for exact positioning









FLAT dePoSiTing deVice

WET SIDE

conSiSTing oF:

- Pallet tower intake (empty steel pallets) by fnger car or forklift
- Pallet singulation
- Green slab depositing
- optional direct washing of slabs via bypass or inline
- Stacking of loaded pallets
- Pallet tower take-off by fnger car or forklift

FLAT dePoSiTing deVice

DRY SIDE

conSiSTing oF:

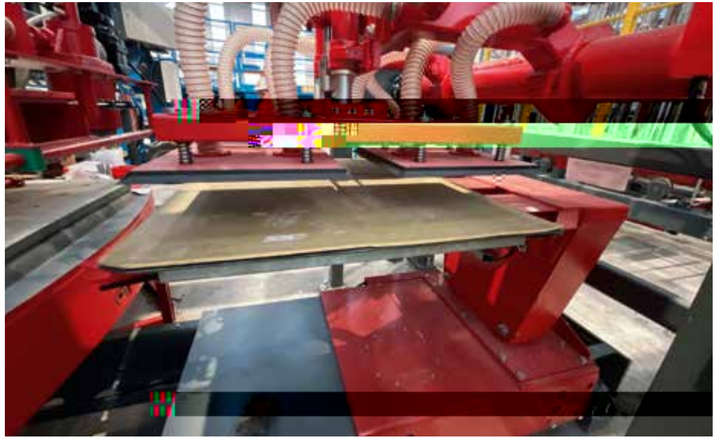
- Pallet tower intake (loaded steel pallets) by fnger car or forklift
- Pallet singulation
- Take-off of the cured slabs and handover to the value adding line or packing line
- Fully automatic pallet cleaning and pallet oiling
- Stacking of loaded or empty pallets
- Pallet tower take-off by fnger car or forklift



GREEN SLAB TURNING DEVICE

conSiSTing oF:

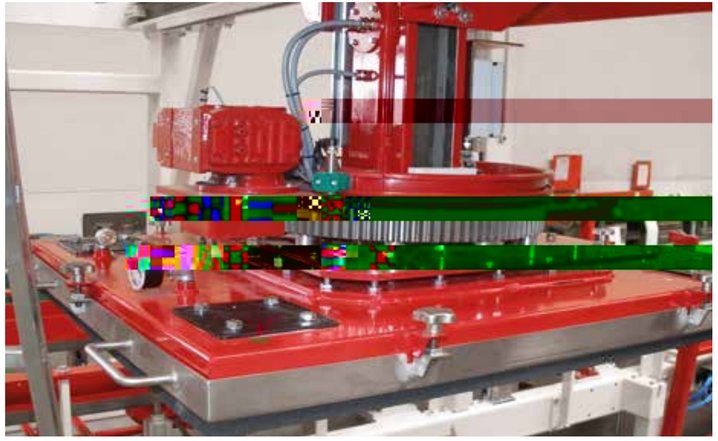
- To remove the slabs from the slab depositing carriage by means of a vacuum lifter, for 180° turning and for delivery to the slab transfer device of the fat depositing device-wet side
- Consisting of a solid frame, servo-motor turning arm and a lifting unit with interchangeable suction units depending on the slab formats
- Quick adjustment to product height by servomotor lifting movement of the suction frame



SLAB TRANSFER DEVICES

conSiSTing oF:

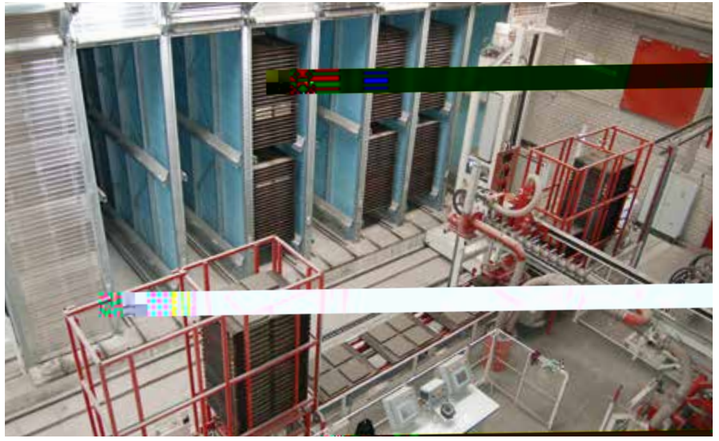
- Slab transfer device-wet side picks up the products from the carriage or from the green slab turning device and passes them to the following fat depositing device-wet side
- Universal slab transfer device-dry side takes the products from the fat depositing device-dry side and passes them to the value adding line or packing line
- Consist of electrically driven horizontal slides, lifting mast and turning device and format-dependent suction units on the wet side and a universal vacuum suction plate for all formats on the dry side, with vacuum generator
- Travel, lifting and rotary drives designed as servomotors



FINGERCAR

consiSTing oF:

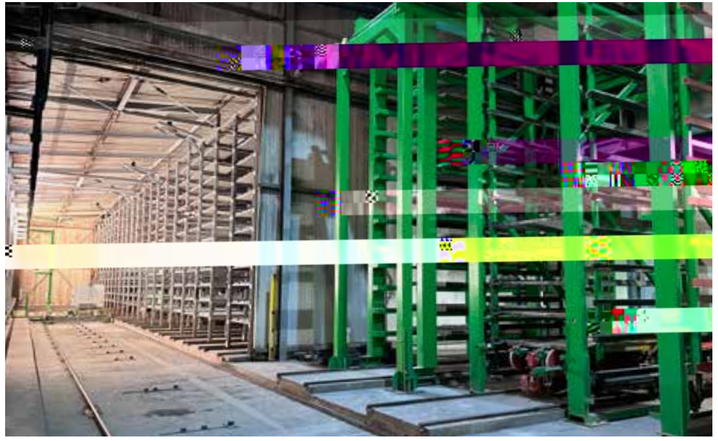
- For transporting the filled pallet stacks with green slabs to the shelf spaces, the empty pallet stack to the fat depositing device-wet side and the pallet stack with cured slabs to the fat depositing device-dry side, and for transporting the empty pallets from there to the press or shelf
- Fully automatic, including control. The system is designed so that two pallet stacks can be positioned one above the other in the shelf spaces
- Upper carriage designed with 180° turning device so that the loading and unloading positions can be opposite to each other



CURING CHAMBER

consiSTing oF:

- To shorten the curing time and reduce the required number of pallets
- Further increase in product quality (reduction of efflorescence)
- In galvanized steel version
- Available as a large-chamber or single-chamber system including empty chambers
- Complete system insulated and equipped with roller gates
- Various systems can be used to optimize the curing process.



Specific heat

- By heat of hydration during curing of concrete

Vaporization

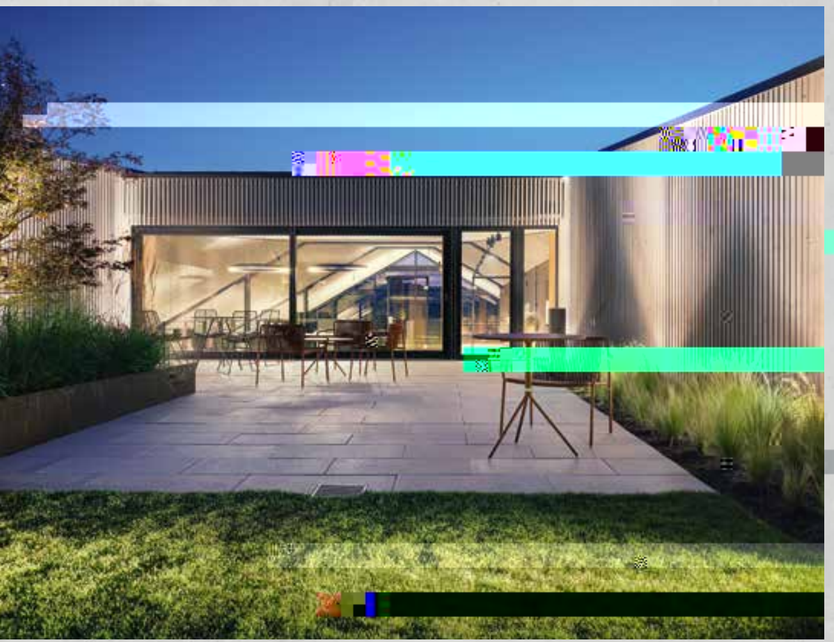
- Steam within a few seconds
- High efficiency
- Low emissions
- Low space requirement

Moisturization system

- No moisture formation due to standing fog
- Less water consumption
- Low energy consumption

For all curing processes, air circulation systems are advantageous for uniform temperature and moisture distribution inside the chamber.

- Air circulation systems
- For even distribution of air within the chambers
- Extraction of the chamber air to dry the chamber
- Direction of the chamber air after the curing process into a new chamber for preheating. Savings of around 20% of the heating costs.







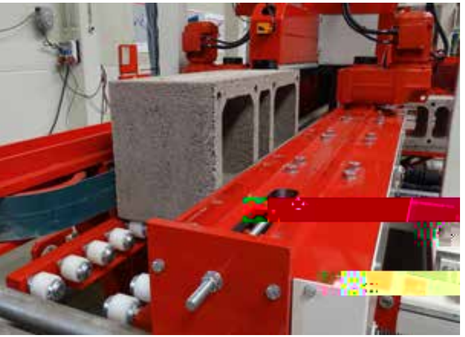
EVERY SLAB MAKES STATEMENT

FINISHED PRODUCTS















SPECIAL SOLUTIONS 3

PAge 106 – 113



SPECIAL AND LABORATORY MACHINES

APPLICATION / FEATURES

STONE CALIBRATING MACHINE









APPLICATION / FEATURES

LABORATORY PRESS









APPLICATION / FEATURES

BILATERAL MILLING

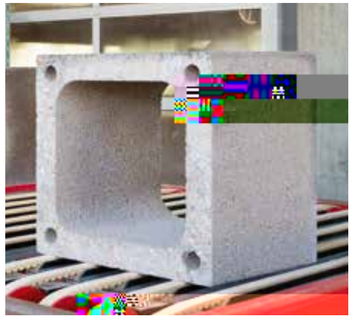
of wall- and chimney stones. Bilateral milling and calibrating for mortar-free processing of wall- and chimney stones running one after the other.

At the infeed of the machine, adjustable, synchro-nously running lateral guidances installed. Product clamping from above by means of special, height adjustable pressure rollers.

Basic equipment with a milling support each right and left, in moveable execution for adaption to individual product width. Additional milling and chamfering supports can be installed subsequently. Treatment in dry mode. Available with cartridge filter or sinter-lamella filter.

BENEFITS

- High-quality, reproducible products due to high-grade, zero-backlash linear units for positioning the milling supports
- Cost and space saving due to elimination of grinding water recycling (no water treatment) and special waste disposal
- Cost saving with reusing the dust (depending on the dust extraction used) as filler in the concrete mixture





Technical specifications *

Average processing speed

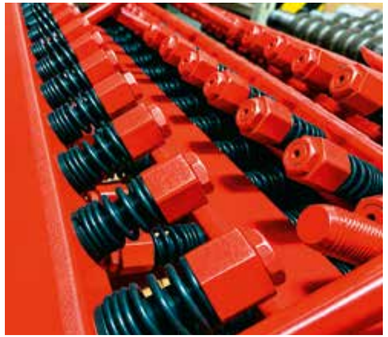
for concrete: approx. 2 – 4 lin. m/min

for lightweight concrete: approx. 2 – 12 lin. m/min

* depending on product characteristics and required final result







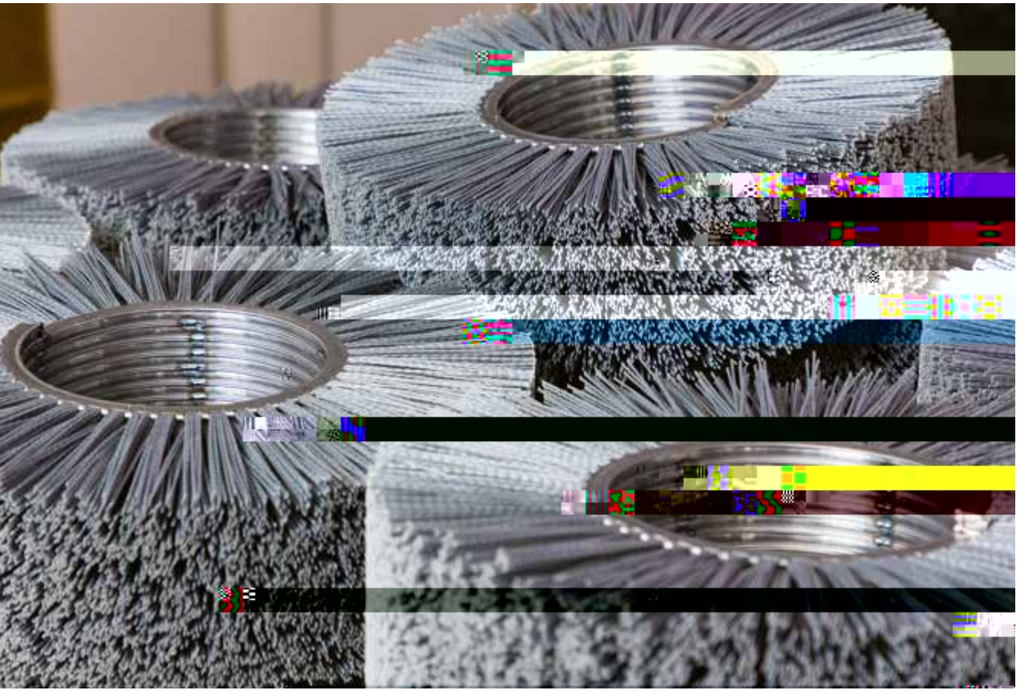




TOOLS

4

PAge 114 – 123





TOOLS

Tools

CALIBRATING AND GRINDING SEGMENTS

For the calibrating and grinding processes, we supply diamonded and grinding segments optimized especially for our machines. The steel universal holding disc enables a quick exchange of the segments. With us, you have the choice: Whether for dry mode or for use with cooling water, both for a working width of 850 mm or for 1,200 mm.

Contact us so that we can coordinate with you the optimal setting for your application

BENEFITS

- Cost saving due to the individual coordination of the abrasives to the respective application
- Cost and time saving due to higher grinding speeds with the use of high-quality, easy-to-cut diamonded and grinding segments













Tools

BRUSHES

Curling the surfaces of pavers or slabs will improve the look and feel of your products. For this purpose, we provide long-lasting brushes „Made in Germany“ in various degrees of hardness and grain sizes, so that you can vary the finishes of your products in conjunction with our curling machine.

our innovative system of composite brush segments allows you to replace individual worn segments depending on the production portfolio of your concrete products. The brush segments are easy to handle and can be exchanged quickly in conjunction with the machine shaft which is easy to remove for tooling.





BENEFITS

- optimized setup times for tool exchange thanks to segmented brushes
- Easy handling without crane, forklift, exchange carriage or similar equipment
- High individuality due to extensive tool portfolio
- Long service life guaranteed by highquality tools





Tools

HAMMER

With the different head shapes and the parameters that can be set on our machines, the hammers developed and produced by us to bushhammer and age your products enable a wide range of different surface and edge treatments.

Worn tools can be retreaded by us. So, you save money without any compromise to the manufacturer quality.



BENEFITS

- We make your products distinguishable
- By using different tools, the production of a wide and visibly different product portfolio is possible
- Cost control retreading of the tools and quick tool exchange

