We put concrete into shape

EN

A member of TOPWERK

H SS GROUP

CONCRETE BLOCK AND PAVER MACHINE

OUR COMPANY

MIXERS, HANDLING SYSTEMS, CONCRETE BLOCK AND PAVER MACHINES, AND PACKAGING LINES

Our passion is developing technically superior machines for the production, processing, and handling of high-quality concrete products — and we have been doing so since 1948.

As a driver of new sustainable innovations and with a distinctive team spirit in an international environment, we continuously expand HESS GROUP's leading market position.

As part of the TOPWERK GROUP, HESS GROUP is represented worldwide. With eight international TOPWERK locations and a global network of representatives, HESS GROUP offers optimal service to its customers.

OUR

VALUES

It is our endeavor to discover and create new market needs in close collaboration with our customers. For this, we develop solutions that make us and our customers innovative pioneers in the concrete block and paver industry.

Product

Each of our products is developed specifically according to our customers' needs. Our concrete block and paver plants are characterized by their durability and reliability and can be upgraded with the latest technology even after years.

Customers

Our customers are at the center of our actions. We are a reliable and honest partner who, together with them, shapes the digital future of our industry.

Team

Open and honest communication is essential to us. We work together and develop solutions and results as a team and across departmental boundaries.

Individual Action

Each of us has high standards for our personal work results. Taking responsibility for one's own actions and seeing mistakes as opportunities for improvement is part of our culture.

OUR

VALUE

As an innovative manufacturer of high-quality concrete block and paver plants, we – together with our customers – ensure our mutual market leadership.

Quality

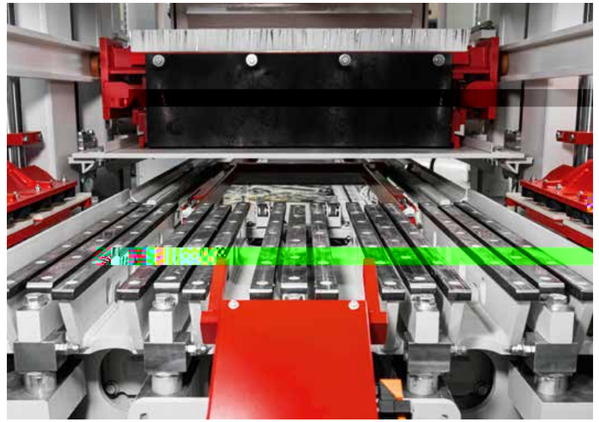
For us, quality means combining durability and reliability with the latest technology.

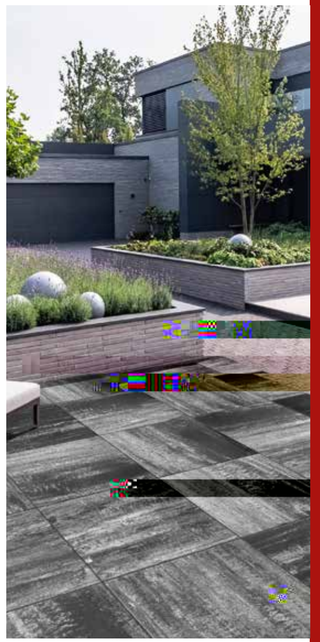
Innovation

Innovation involves transforming the market through technology. By continuously enhancing automation, swiftly responding to market needs, and broadening refinement options, we ensure the long-term viability of our products.

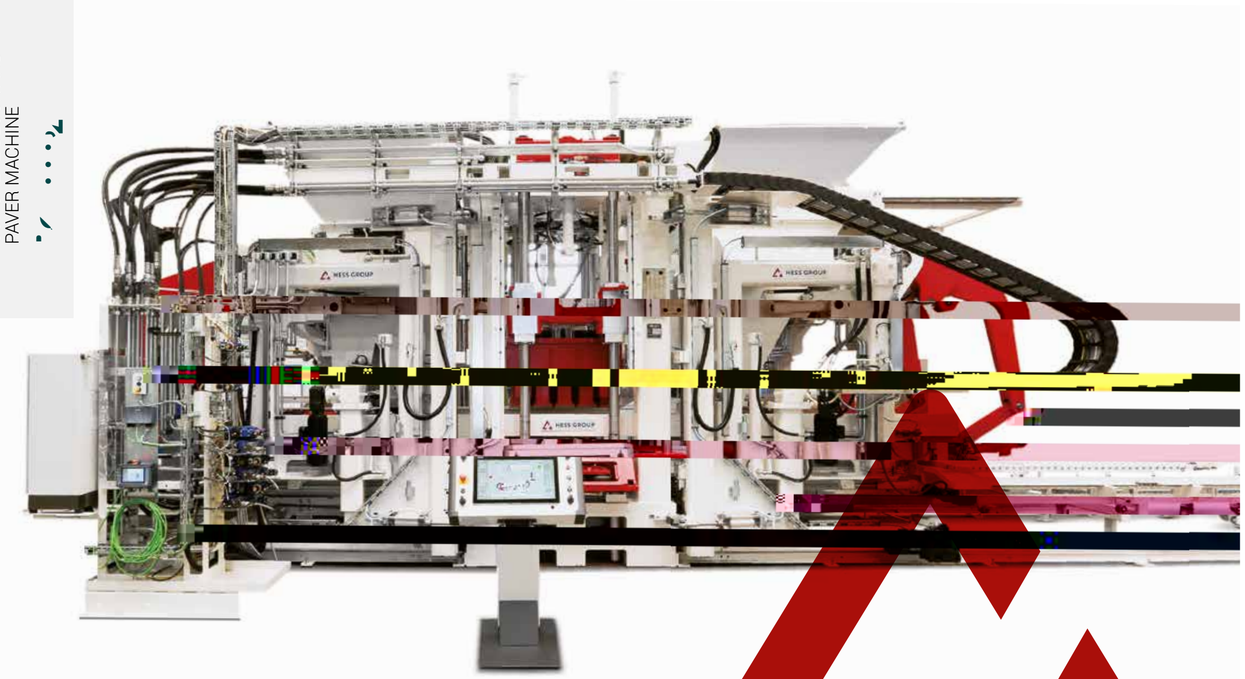
Customer Focus

In partnership with our customers, we fulfill individual requirements. We support them operationally as a knowledgeable and trustworthy partner.





CONCRETE BLOCK AND PAVER MACHINE



HESS RH 2000-4

The RH 2000 is HESS's high-end machine, combining the latest technology with decades of machine-building experience. It offers an easy operation, maximum efficiency, and meets the highest safety standards. Continuously developed since the 1990s, the RH 2000 is now available in its fourth generation: the RH 2000-4.

TECHNICAL DATA*

		RH 2000-4 MVA **Standard** Production area	RH 2000-4 MVA **Large** Production Area
Production board size [mm]**		1,400 x 1,100	1,400 x 1,300
Production area [mm]**		1,300 x 1,050	1,300 x 1,250
Min. product height [mm]		25	25
Max. product height [mm]		500	500
Dead weight in MVA Version [kg]		46,000	48,000
Paving stone 10 x 20 x 5 cm without face mix	Cycle time [s]	10	10
	m² in 8h	2,644	3,230
	Quantity of products/mold	54	66
Paving stone 10 x 20 x 6 cm with face mix	Cycle time [s]	11.5	11.5
	m² in 8h	2,299	2,809
	Quantity of products/mold	54	66
Hollow block 20 x 40 x 20 cm	Cycle time [s]	13.5	13.5
	Quantity in 8h	21,760	32,640
	Quantity of products/mold	12	18

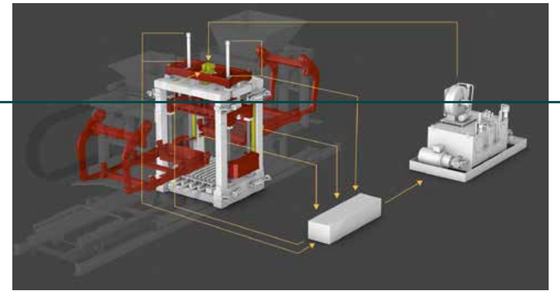
* Production output is calculated based on 85 percent machine availability and is significantly influenced by machine settings, the concrete mixing recipe used, the quality of raw materials, the performance of other related plant equipment, mold characteristics, the stone format, and the production pallets used. Technical Data are subject to change.
** Other production board sizes available.

RH 2000-4

Minimum production board depth [mm]	870
Maximum production board depth [mm]	1450
Minimum production board width [mm]	1200
Maximum production board width [mm]	1520
Minimum production height [mm]	25
Maximum production height [mm]	500
Table vibration Variofrequency, 1 table	●
Table vibration Variofrequency, 2 tables	○
Table vibration Variotronic, 1 table	●
Table vibration Variotronic, 2 tables	○
WIDIA wear ledges for vibration table	○
Standard hydraulics, Bosch-Rexroth	●
MLC+H control 2 tamper head cylinders	○
MLC+H control 4 tamper head cylinders	○
Leakage detection with M version	○
Hydraulic function for mold flaps	○
Emergency operation hydraulics function with M version	○
Agitator with round bars and driven by a hydraulic cylinder	●
Agitator with triangle bars and driven by a hydraulic cylinder	○
Stone height stops (4 rods) (without M version)	○
Stone height stops with drawplate compensation	○
Tamper head clamping, bolted	○
Tamper head clamping, hydraulic (non HESS machine molds)	○
Tamper head clamping, pneumatic	●
Tamper head vibration	○
Tamper head adapter (existing moulds, requires previous assessment)	○
Electrical connection tamper head heating system	○
Tamper head cross cleaner, straight	○
Tamper head cross cleaner curved curb stones	○
Tamper head brake (without M version)	○
Pneumatic filling compensation tamper head	○
Oil spray lubrication for tamper head guidings	○
Mold clamping, pneumatic	●
Height adjustable mold tray	○

Height adjustable mold tray with pneumatic pusher	○
Mold in base position detection	○
Mold change cart, manual	○
Mold change cart, electric (from face mix side)	●
Swivel crane for mold change	○
Automatic fast mold change cart (from base mix side)	○
Drive unit for base mix unit	○
Base mix hopper two outlet flaps	○
Lining for base mix hopper, PA/ Hardox	○
Pneumatic tapper base mix hopper	○
Colormix device with draw plate, base mix	○
Pneumatic scraper base mix filler box	○
Table plate lining base mix (build-up welding material)	○
Horizontal adjustment of base mix table plate, electric	○
Fast lifting cylinders base mix for automatic mold change	○
Base mix silo flap with adjustable filling plates	○
Face mix part	○
Lining face mix hopper PA/Hardox	○
Pneumatic tapper face mix hopper	○
Colormix device with draw plate, face mix	○
Planing roller, including pneumatic scraper at base and face mix fillerbox	○
Rotating on base and face mix fillerbox (tamper head cleaning)	○
Pneumatic scraper face mix filler box	○
Table plate lining face mix, build-up welding	○
Horizontal adjustment of face mix table plate, electric	○
Fast lifting cylinders face mix for automatic mold change	○
Face mix silo flap with adjustable filling plates	○
Styrofoam inserter, swiveling	○
Central grease lubrication system	○
Oil cooling tower	○
Hydraulic draw plate device	○
Hydraulic corepuller, base mix side	○
Mobile panel machine	○

Standard equipment ● Selectable as an option ○



High-performance hydraulics in MLC+H version

MLC+H control with 4 cylinders (optional)

POWERED BY GERMAN ENGINEERING

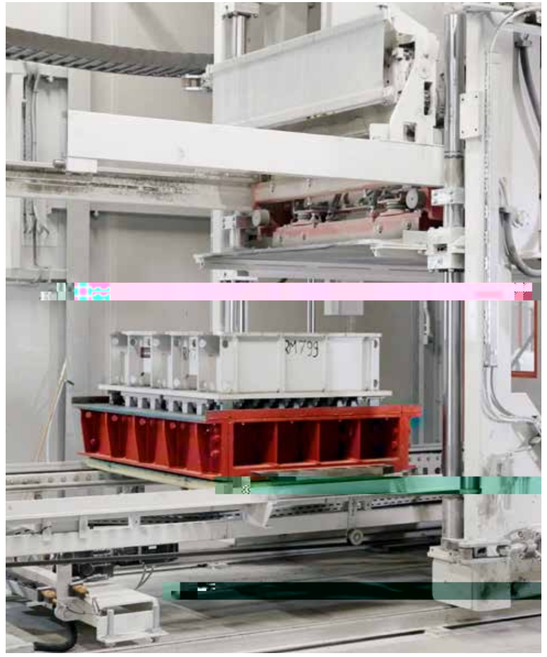
MOTION LOGIC CONTROL FOR HYDRAULICS

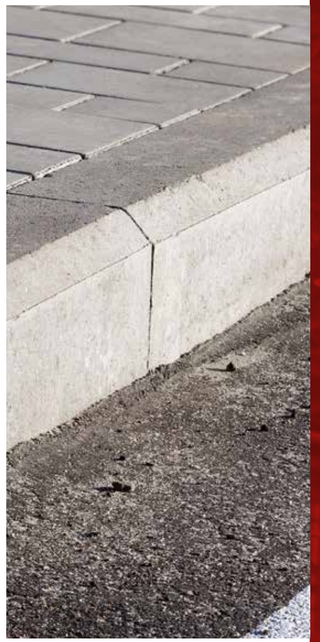
ADVANTAGES

- Better, more evenly controlled power distribution.
- Specialized bearing control and thus improved valve response.
- Faster movements and more precise positioning of components regardless of operating temperature.
- Higher pressures for faster movements.
- Larger oil reserve to ensure cylinder oil supply during overlapping movements.
- Larger cylinders for faster and more precise positioning of the filler boxes.
- Due to the design of the hydraulic system, it is possible to move the machine at reduced speed (emergency operation) with a smaller, additional pump. In the event of a main pump failure, the machine can be „emptied“ in setup mode.
- More powerful pump for faster and overlapping movements.
- Pressure vessel for storing hydraulic pressure to enable overlapping movements.
- Elimination of the braking device for the tamper head. No mechanical wear.

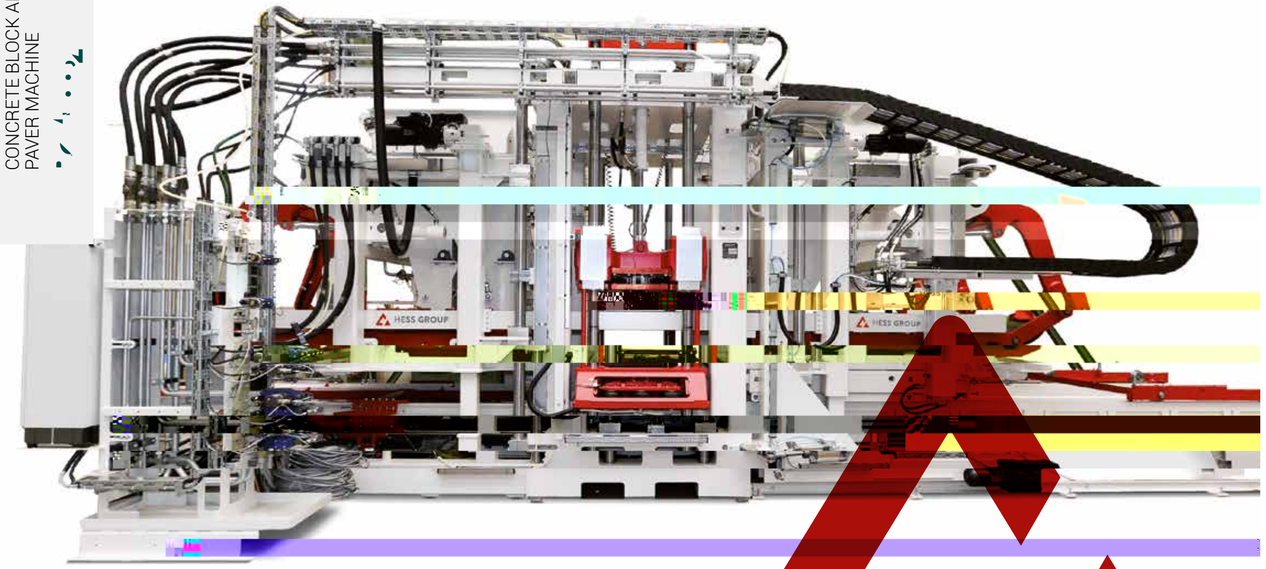
DOUBLE VIBRATING TABLE

- LE





CONCRETE BLOCK AND PAVER MACHINE



HESS RH 1500-4

Developed for high-performance applications, the RH 1500 impresses with short cycle times and dynamic movements. This is made possible by the special control technology and innovative hydraulic system. The interaction guarantees reliable and efficient concrete block and paver production.

RH 1500-4 VA TECHNICAL DATA*

Production board size [mm]**		1,400 x 1,100
Production area [mm]**		1,300 x 1,050
Min. product height [mm]		25
Max. product heigh [mm]		500
Dead weight in MVA Version [kg]		46,000
Paving stone 10 x 20 x 5 cm without face mix	Cycle time [s]	10.5
	m² in 8h	2,517
	Quantity of products/mold	54
Paving stone 10 x 20 x 6 cm with face mix	Cycle time [s]	12.5
	m² in 8 h	2,114
	Quantity of products/mold	54
Hollow block 20 x 40 x 20 cm	Cycle time [s]	14.5
	Quantity in 8 h	20,258
	Quantity of products/mold	12

* Production output is calculated based on 85 percent machine availability and is significantly influenced by machine settings, the concrete mixing recipe used, the quality of raw materials, the performance of other related plant equipment, mold characteristics, the stone format, and the production pallets used. Technical Data are subject to change.
** Different production board sizes available.

RH 1500-4

Min. production board depth [mm]	870
Max. production board depth [mm]	1150
Min. production board width [mm]	1200
Max. production board width [mm]	1520
Min. production height [mm]	25
Max. production height [mm]	500
Table vibration Variofrequency, 1 table	○
Table vibration VARIO TRONIC, 1 table	●
WIDIA wear ledges for vibration table	○
Standard hydraulic, Bosch-Rexroth	●
Servo hydraulic M version with 2 tamper head cylinders	○
Leakage detection with M version	○
Hydraulic mold flaps	○
Emergency operation hydraulic system with M version	○
Agitator with round bars and driven by a hydraulic cylinder	●
Agitator with triangle bars and driven by a hydraulic cylinder	○
Stone height stops (4 rods) (without M Version)	○
Stone height stops with drawplate compensation	○
Tamper head clamping, bolted	○
Tamper head clamping, hydraulic (non HESS machine molds)	○
Tamper head clamping, pneumatic	●
Tamper head vibration	○
Tamper head adapter (existing moulds, requires previous assessment)	○
Electrical connection tamper head heating system	○
Tamper head cross cleaner, straight	○
Tamper head cross cleaner curved curb stones	○
Tamper head brake (without M Version)	○
Pneumatic filling compensation tamper head	○
Oil spray lubrication for tamper head guidings	○
Mold clamping, pneumatic	●
Height adjustable mold tray	○
Height adjustable mold tray with pneumatic pusher	○

Mold in base position detection	○
Mold change cart, manual	○
Mold change cart, electric (from face mix side)	●
Swivel crane for mold change	○
Automatic fast mold change cart (from base mix side)	○
Drive unit for base mix unit	○
Base mix hopper two outlet flaps	○
Lining for base mix hopper, PA/ Hardox	○
Pneumatic tapper base mix hopper	○
Colormix device with draw plate, base mix	○
Pneumatic scraper coarse mix filler box	○
Table plate lining coarse mix (build-up welding material)	○
Horizontal adjustment of base mix table plate, electric	○
Fast lifting cylinders base mix for automatic mold change	○
Siloflap with adjustable filling plates	○
Face mix unit	○
Lining for face mix hopper, PA/ Hardox	○
Pneumatic tapper face mix hopper	○
Colormix device with draw plate, face mix	○
Planing roller, including scrapers at base and face fillerboxes	○
Rotating brush on face mix fillerbox (tamper head cleaning)	○
Pneumatic scraper face mix filler box	○
Table plate lining face mix (build-up welding material)	○
Horizontal adjustment of face mix table plate, electric	○
Fast lifting cylinders face mix for automatic mold change	○
Face mix silo flap with adjustable filling plates	○
Polysterene insert device	○
Central grease lubrication system	○
Oil cooling tower	○
Hydraulic draw plate device	○
Hydraulic corepuller, base mix side	○
Mobile panel machine	○

Standard equipment ● Selectable as an option ○

HESS

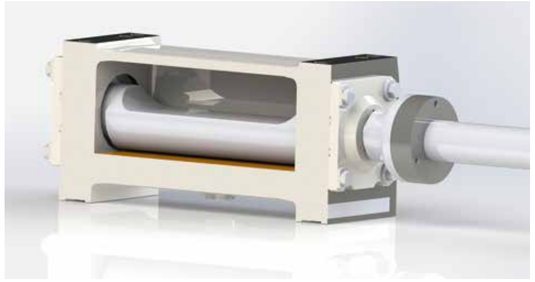
PERFECTED PRODUCTION
OF FINE CONCRETE SURFACES

- Patented production system to ensure a homogeneous layer thickness of the face concrete over the entire production area
- The scraper frame in the front area of the filler box is replaced by a hard-chromed smoothing roller
- Both filler boxes (base and face concrete) are equipped with pneumatic scrapers in the front area

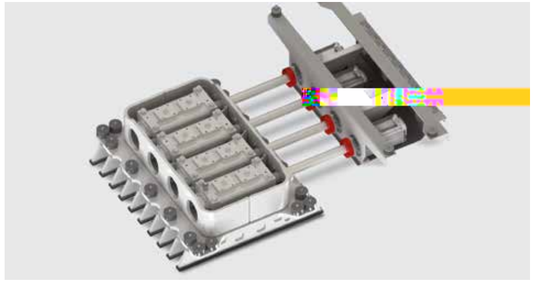
ADVANTAGES

- ▶ Avoids „digging“ concrete out of the mold during the reverse movement of the feeder. The layer thickness of the face concrete is uniform across the entire product.
- ▶ Especially suitable for large concrete slabs.
- ▶ Improved cycle time by eliminating reversing during face concrete filling.
- ▶ Significantly closed product surface.
- ▶ Better bond between core and face concrete.
- ▶ A higher moisture content in the face concrete can be achieved, resulting in improved color intensity of the product.
- ▶ For Colormix products, a more natural-looking surface appearance of the color gradient is achieved (no striping).

See video for explanation

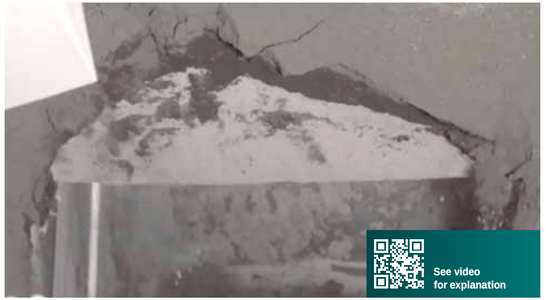


Model oil bath vibrator



VarioTronic vibrating table, view from below

Colormix device with draw plate



Colormix device with two layers of colored concrete

HESS

PRODUCTION OF MULTICOLORED CONCRETE PRODUCTS

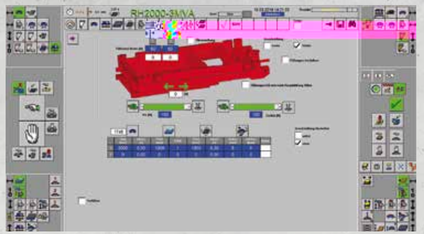
- Cost-effective way to produce multicolored concrete products.
- Can be used on both face and base concrete silos.
- Adjustable parameters at the control panel.

TECHNICAL OVERVIEW CONCRETE BLOCK AND PAVER MACHINES*

		RH 500	RH 600	RH 1450	RH 1500 VA	RH 2000 M-Version – standard production area	RH 2000 M-Version – large production area
Production board size [mm]**		1,200 x 670	1,400 x 700	1,400 x 1,100	1,400 x 1,100	1,400 x 1,100	1,400 x 1,300
Production area [mm]**		1,100 x 620	–	1,300 x 1,050	1,300 x 1,050	1,300 x 1,050	1,300 x 1,250
Min. product height [mm]		25	25	40	25	25	25
Max. product height [mm]		300	300	500	500	500	500
Dead weight in MVA Version [kg]		7,700	14,000	38,000	46,000	46,000	48,000
Paving stone 10 x 20 x 5 cm without face mix	Cycle time [s]	17	14	12.5	10.5	10	10
	m² in 8 h	863	1,258	2,114	2,517	2,644	3,230
	Quantity of products/mold	30	36	54	54	54	66
Paving stone 10 x 20 x 6 cm with face mix	Cycle time [s]	22	18	14.5	12.5	11.5	11.5
	m² in 8 h	667	979	1,823	2,114	2,299	2,809
	Quantity of products/mold	30	36	54	54	54	66
Hollow block 20 x 40 x 20 cm	Cycle time [s]	20	16	16.5	14.5	13.5	13.5
	Quantity in 8 h	6,120	13,770	17,800	20,258	21,760	32,640
	Quantity of products/mold	5	9	12	12	12	18

* Production output is calculated based on 85 percent machine availability and is significantly influenced by machine settings, the concrete mixing recipe used, the quality of raw materials, the performance of other related plant equipment, mold characteristics, the stone format, and the production pallets used. Technical Data are subject to change.

** Different production board sizes available.



Visualization of mold and tamper head control

HESS

PILOTING ALL MACHINE FUNCTIONS

Concrete block and paver machines and plants are equipped with a control panel that can be adjusted in height and screen angle. With the clear touch panel, you have full control over all machine functions of the linked system.

The intuitive user interface with icons simplifies operation. Complicated inputs are eliminated as the intelligent software automatically adjusts many parameters. Settings can be made quickly with a few operations and sliders – user-friendly and self-explanatory.

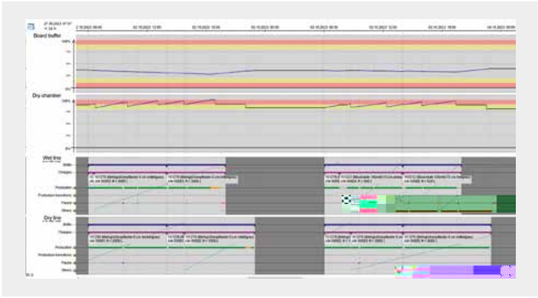
FEATURES OF HESS CONTROL

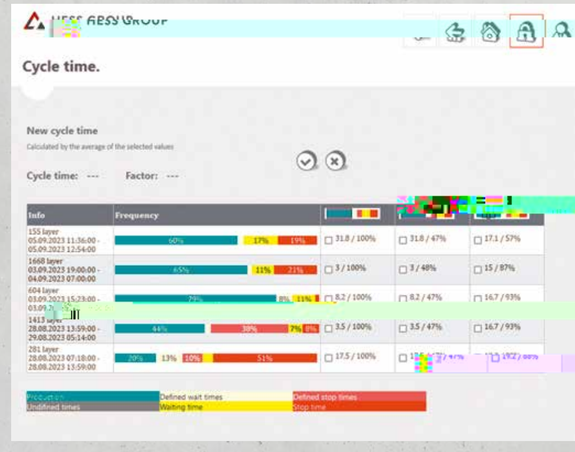
- Master recipe
- Comparable recipe
- Version management recipe management
- Login using an RFID pen at the control panel

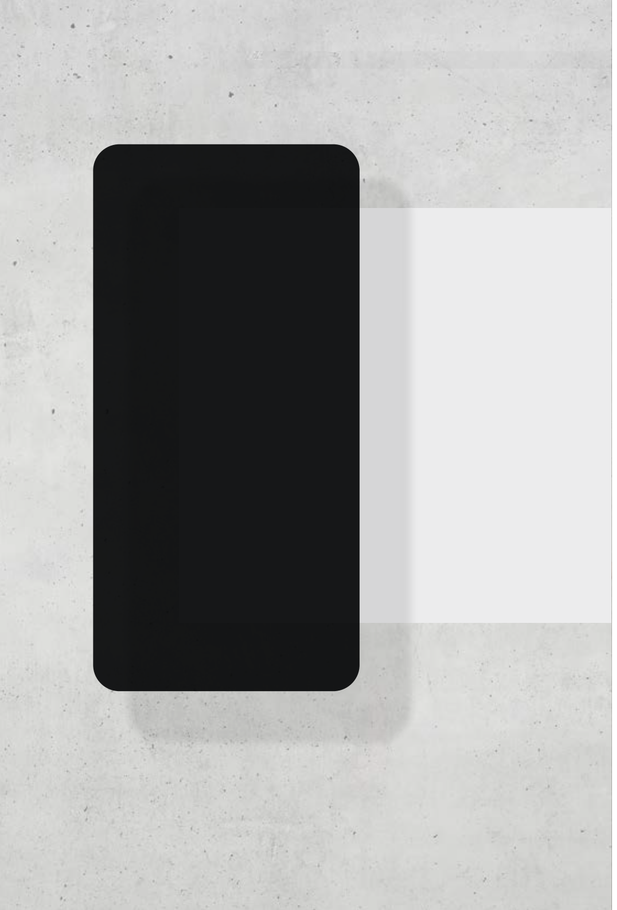
HESS

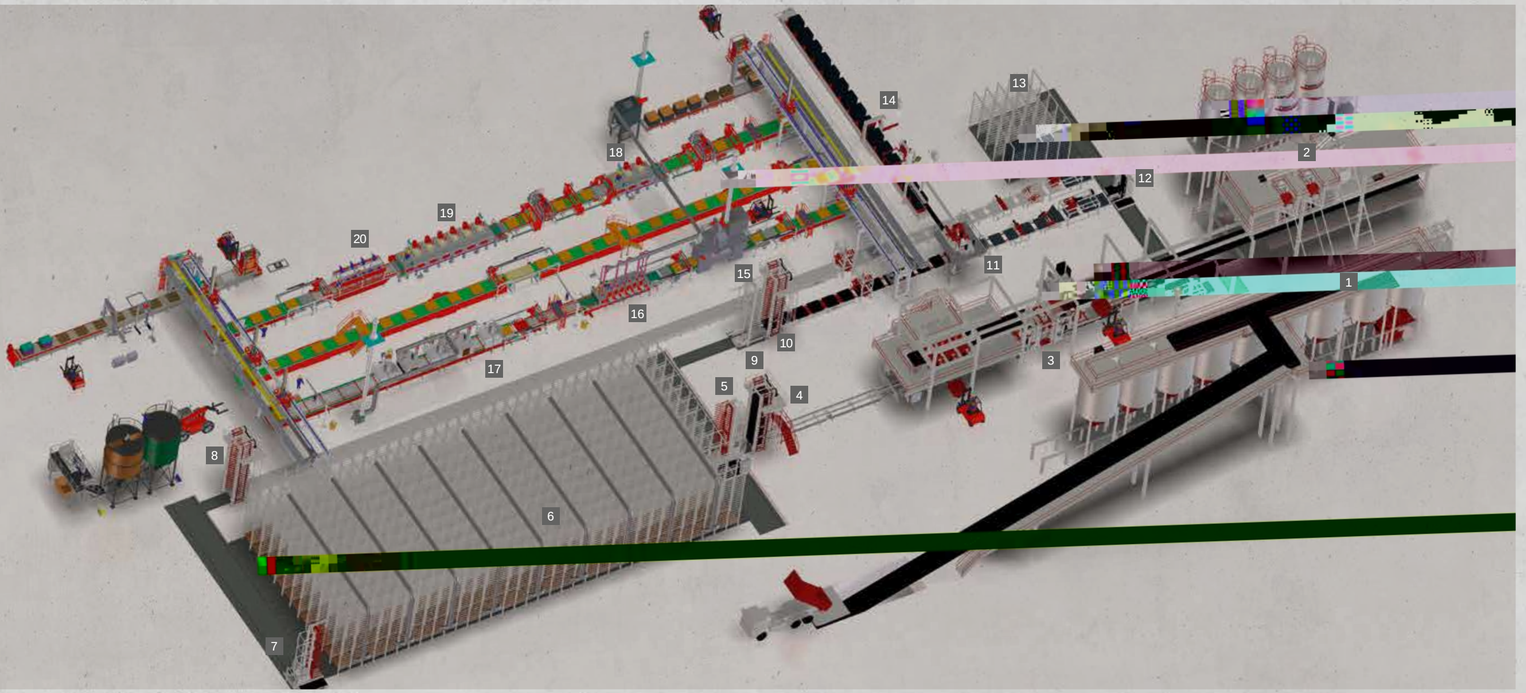
PLANT INFORMATION MANAGEMENT SYSTEM

PIMS can be used for optimized plant utilization and efficient personnel planning for maximum productivity. By optimally utilizing drying chambers and buffer systems, bottlenecks and downtimes are avoided. Thanks to just-in-time forecasting of product and order completion, customer logistics management is also optimized. Offline planning of ongoing orders and targeted control of engineer and standby times ensure smooth operations. PIMS can be integrated into plant and web visualization.









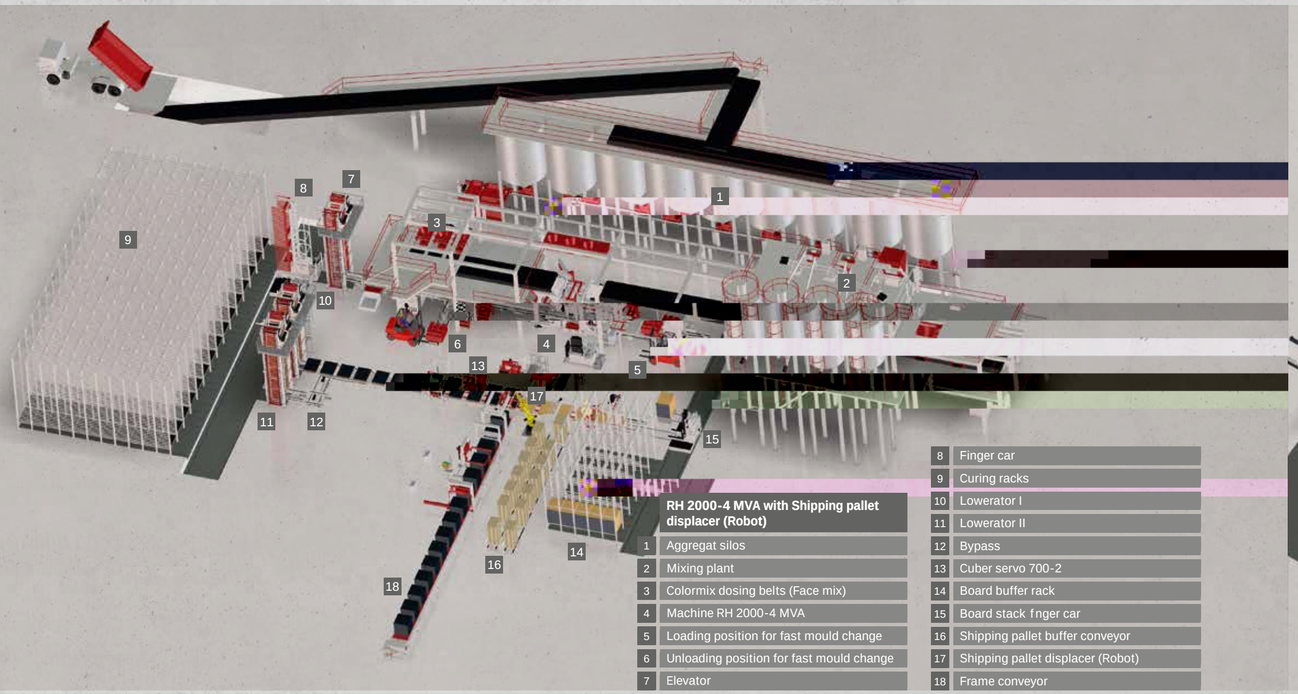
	RH 2000-4 MVA with large value-adding line
1	Aggregat silos
2	Mixing plant
3	Machine RH 2000-4 MVA
4	Elevator
5	Finger car I
6	Curing racks
7	Finger car II
8	Lowerator I
9	Buffer rack
10	Lowerator II
11	Cuber servo 700-2
12	Pallet stack finger car
13	Pallet buffer rack
14	Frame conveyor
15	Shot blasting machine
16	Curling
17	Coating system
18	Grinding I
19	Grinding II
20	Air blast device

COMPLETE PLANTS

HESS

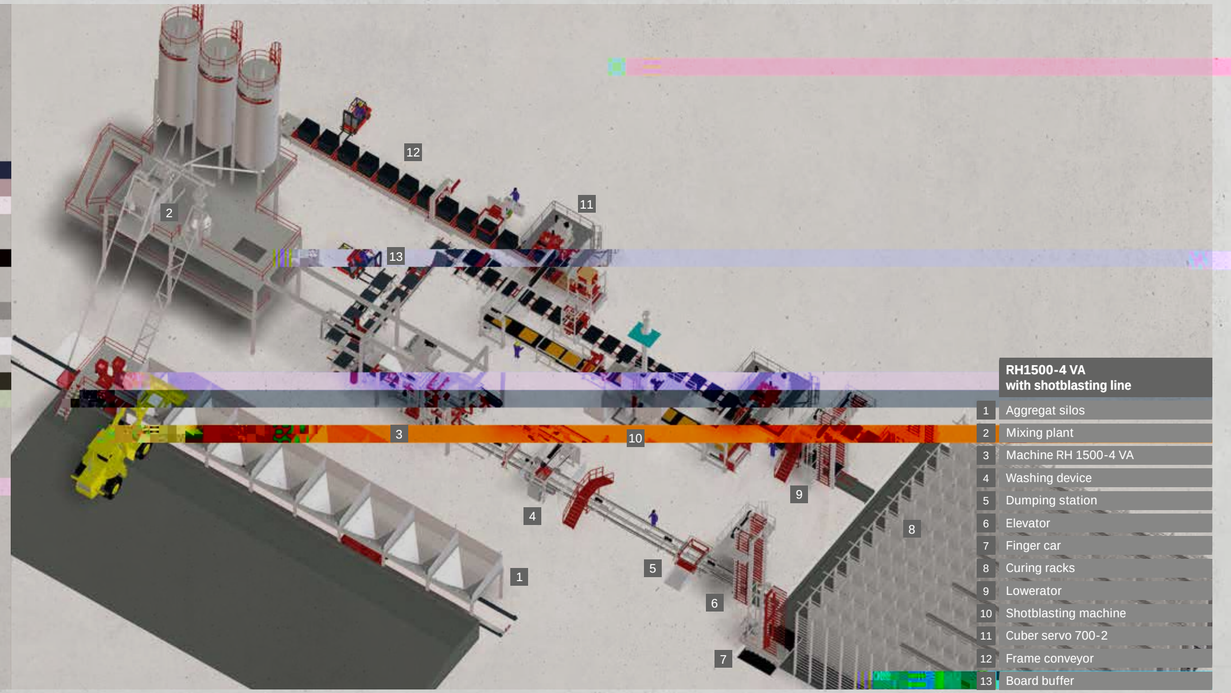
CUSTOMIZED
MARKET-ORIENTED
OPTIMIZED FOR THE CUSTOMER

HESS develops, together with the customers, system concepts that are tailored to the respective requirements.



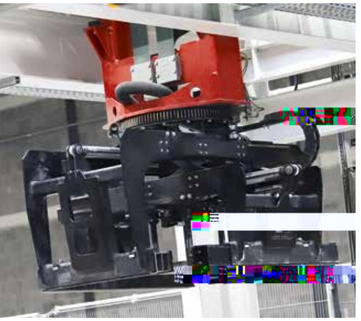
RH 2000-4 MVA with Shipping pallet displacer (Robot)

1	Aggregat silos
2	Mixing plant
3	Colormix dosing belts (Face mix)
4	Machine RH 2000-4 MVA
5	Loading position for fast mould change
6	Unloading position for fast mould change
7	Elevator
8	Finger car
9	Curing racks
10	Lowerator I
11	Lowerator II
12	Bypass
13	Cuber servo 700-2
14	Board buffer rack
15	Board stack finger car
16	Shipping pallet buffer conveyor
17	Shipping pallet displacer (Robot)
18	Frame conveyor



RH1500-4 VA with shotblasting line

1	Aggregat silos
2	Mixing plant
3	Machine RH 1500-4 VA
4	Washing device
5	Dumping station
6	Elevator
7	Finger car
8	Curing racks
9	Lowerator
10	Shotblasting machine
11	Cuber servo 700-2
12	Frame conveyor
13	Board buffer

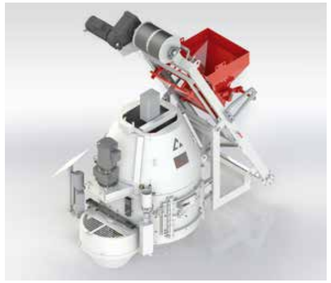


SPECIAL PLANTS

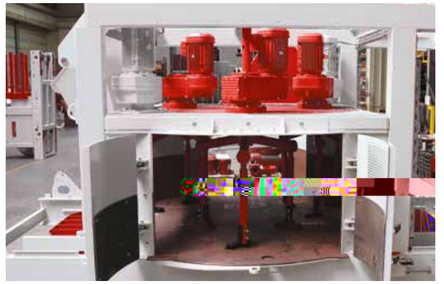
HESS

For the production of high-quality concrete products (interlocking paving stones and slabs, curbstones, hollow blocks and segmental retaining walls, pipes and manholes as well as various precast elements), we offer the necessary mixing plants including all batching devices for aggregates, cement, and Color-Mix concrete.

Interior view of mixer with material



Face concrete mixer SM 500



Interior view of mixer

Color-Mix dosing belts

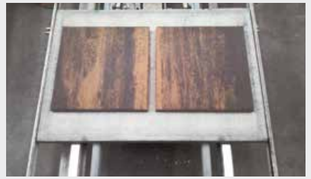
TECHNICAL OVERVIEW OF BATCHING AND MIXING PLANTS*

	SM 500	SM 1500	SM 2250	SM 3375	SM 4500
Dry filling [l]	500	1,500	2,250	3,375	4,500
Max. filling weight [kg]	800	2,400	3,600	5,400	7,200
Compacted concrete output/batch [m^3]	0.333	1	1.5	2.25	3
Main drive [kW]	15	22	30	2 x 22	3 x 22
Number of mixing stars and agitator [pcs]	1+1	2	2	3	3
Skip hoist drive [kW]	7.5	18.5	18.5	22	30

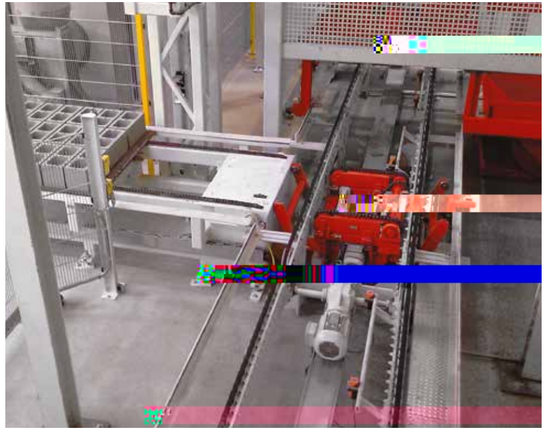
* Technical Data are subject to change.

FEATURES OF PLANETARY MIXER SERIES SM

- Self-supporting construction with lower and upper frame
- Separate drive system (for tool mounting plate and mixing stars)
- Stopping and starting the fully loaded mixer at any time possible
- Two large opposite doors for unobstructed cleaning and maintenance
- Two large discharge openings in the floor
- Significantly less concrete residue and cleaning effort due to special water supply
- Optionally, for cement feeding to the mixer an auger is available (almost dust-free cement feeding)
- Because of its high mixing intensity, this method is particularly suitable for producing concrete with a low water-cement ratio.



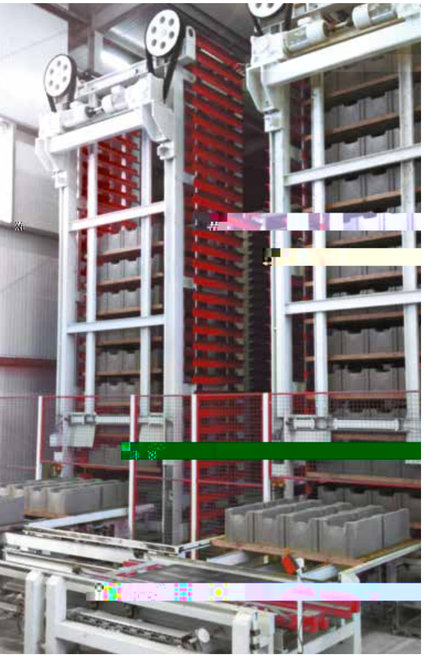
Multi-Color product



Ejection station

Cuber

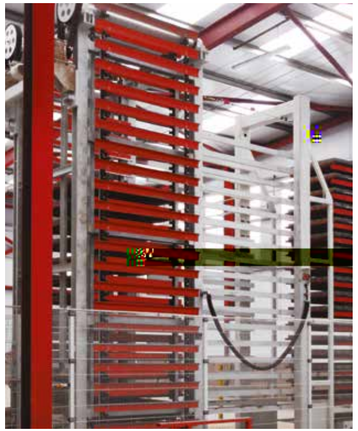
Allows the ejection of a production board with freshly produced products for comprehensive quality control on the wet side. Advantage: Production continues uninterrupted during the inspection. Afterwards, the production board is reintroduced into the produc-



Lowerator with bypass

Finger cart system load capacities (8.5t, 14t, 24t)

We offer the best solution for optimal utilization of drying chamber capacity with a customer-specifc storey con-fguration.



Buffer rack

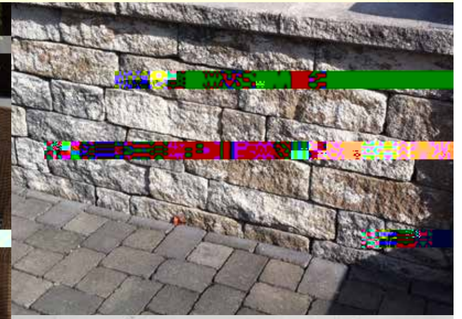
Increases the effciency of the linked system and can be installed on both the dry and wet sides.

Transfer unit for board or sheet packages

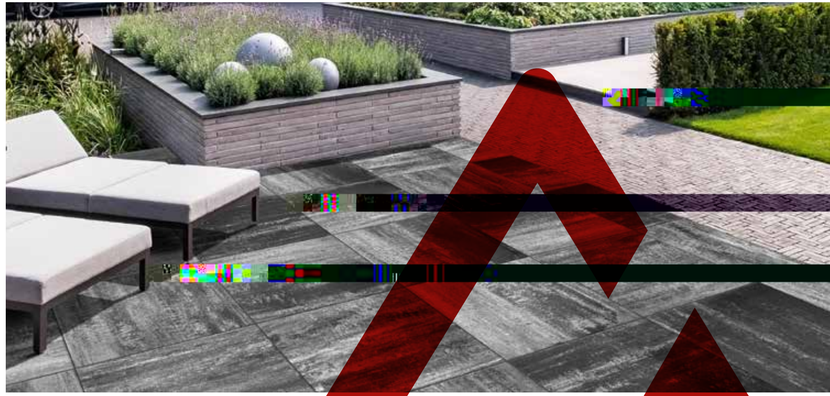
To buffer a larger number of production bases, the transfer unit takes the packages from the dry side, places them in the buffer area, or returns them to the wet side.

Finger cart system for board or steel pallet packages

Used for buffering board or sheet packages. The vehicle group picks up the board or sheet packages from the dry side, buffers them in a storage rack, or returns them to the wet side.



END PRODUCTS



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