WE PUT CONCRETE INTO SHAPE
This high end production machine combines many years of machine building experience with the latest proven M-Version technology to create reliable and repeatable performance levels for high quality concrete products. From the most exact dimensional tolerances to the strongest durability in concrete density, the smooth and easy operation of the M-Version RH 2000 production machine assures the greatest economic efficiency for the producer in his marketplace. The RH 2004 leads in performance levels where others cannot follow.

### Technical data* RH 2000-4 M- version

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production board (mm)**</td>
<td>1.400 x 1.300</td>
</tr>
<tr>
<td>Production area (mm)**</td>
<td>1.300 x 1.250</td>
</tr>
<tr>
<td>Min. product height (mm)</td>
<td>25</td>
</tr>
<tr>
<td>Max. product height (mm)</td>
<td>500</td>
</tr>
<tr>
<td>Dead weight approx. (kg)</td>
<td>48.000</td>
</tr>
<tr>
<td>Paver 10x20x6 without face mix</td>
<td></td>
</tr>
<tr>
<td>Cycle time (s)</td>
<td>10</td>
</tr>
<tr>
<td>m³ in 8h</td>
<td>3.230</td>
</tr>
<tr>
<td>Qty stones/form</td>
<td>66</td>
</tr>
<tr>
<td>Paver 10x20x6 with face mix</td>
<td></td>
</tr>
<tr>
<td>Cycle time (s)</td>
<td>11.5</td>
</tr>
<tr>
<td>m³ in 8h</td>
<td>2.809</td>
</tr>
<tr>
<td>Qty stones/form</td>
<td>66</td>
</tr>
<tr>
<td>Hollow block 20x40x20</td>
<td></td>
</tr>
<tr>
<td>Cycle time (s)</td>
<td>13.5</td>
</tr>
<tr>
<td>Quantity in 8h</td>
<td>32,640</td>
</tr>
<tr>
<td>Qty stones/form</td>
<td>18</td>
</tr>
</tbody>
</table>

*Production capacities are calculated on 85% basis and depend on machine configuration, used recipes, raw materials, pallet handling, mold characteristics as well as utilized production boards. Technical Data are subject to change. **Other production board sizes available.
MULTIMAT RH 1500-4

The RH 1500-4 has been developed as a particularly powerful machine for the high-performance sector. Also available in M Version technology, it features the harmonic cooperation between electrical and hydraulic machine functions to generate reliable and consistent high output production. It is a powerful machine that stands out for its smooth mechanical movements and versatility in high quality production of a wide range of concrete shapes.

**Technical data**

<table>
<thead>
<tr>
<th>RH 1500-4</th>
<th>production board (mm)**</th>
<th>production area (mm)**</th>
<th>min. product height (mm)</th>
<th>max. product height (mm)</th>
<th>dead weight approx. (kg)</th>
<th>cycle time (s)</th>
<th>m² in 8h</th>
<th>qty stones/form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paver 10x20x6 without face mix</td>
<td>1.400 x 1.100</td>
<td>1.300 x 1.050</td>
<td>25</td>
<td>500</td>
<td>46.000</td>
<td>10.5</td>
<td>2.517</td>
<td>54</td>
</tr>
<tr>
<td>Paver 10x20x6 with face mix</td>
<td>cycle time (s)</td>
<td>12.5</td>
<td>m² in 8h</td>
<td>2.114</td>
<td>qty stones/form</td>
<td>54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hollow block 20x40x20</td>
<td>cycle time (s)</td>
<td>14.5</td>
<td>quantity in 8h</td>
<td>20.258</td>
<td>qty stones/form</td>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Production capacities are calculated on 85% basis and depend on machine configuration, used recipes, raw materials, pallet handling, mold characteristics as well as utilized production boards. Technical Data are subject to change. **Other production board sizes available.

- Standard equipment
- = selectable as an option
HeSS Technology

HeSS Oil-bath Vibration System.

HeSS maintains the most advanced vibration system to deliver the following benefits:

- Fully electronic control which is reliable and extremely accurate
- The rotation speed and amplitude can be adjusted and programmed for optimal results during mold filling and main compaction operations
- Ideal compaction for complete range of products achieved in short cycle times
- Vibrating Shafts are mounted in closed casings filled with oil.

This provides significant advantages:

- Permanent lubrication of bearings- running dry inside casings impossible
- Three Year Warranty on imbalance bearings
- Reduced downtime with lower maintenance

HESS Filler Box Planing Roller.

This patented system utilizes a steel roller which replaces the front stripper frame of the filler box assembly. The roller is regulated by a chain-driven, frequency-controlled motor that is independent from the movement mechanisms of the filler box. The Filler Box Planing Roller provides significant advantages for production of Face Mix Pavers:

- The Roller prevents the digging out of concrete mix from top surface during the production cycle
- Color blend finish has sharper resolution and definition
- Larger paving slabs of high quality now possible

The production with wetter mix design for face mix pavers now possible in efficient cycle times:

- Higher color brightness and intensity
- Better bond between base mix and Face Mix for a stronger paver
- Faster cycle times as less movements of the filler are required

Machine options

- Mold side guide in mold clamping (standard)
- Lockable 2-silo outlet at second silo flap (optional with second flapp)
- Rubber-coated tamper head plate (standard)
- Tamper head vibrator (optional)
- Hydraulic fast lift charger fast mold change (optional)
- Colormix drawplate (optional)
- Colormix drawplate (optional)
HESS Technology

HESS M-Version Technology

M-VERSION Technology represents the most improved machine operation technology. All movements and positioning mechanisms of machine components are controlled by a dedicated hydraulic system and CNC-Control unit. Maintaining equal oil pressure on both side of cylinders provides sequence benefits that result in unrivaled results:

- All axes movements of tamper head, mold, and filler box are monitored and controlled to 1/10 of a mm
- All axes communicate with each other to enable overlapping movement for optimal cycle times
- Tamper head brake is not required as hydraulic cylinders can be held in exact position by CNC-Control Unit
- No bumping or stuttering movements of tamper head which contribute to uneven compaction
- Harmonic movements ensure extremely low-wearing operation of machine for reduced running costs
- Most consistent, repeatable, and efficient operation each and every cycle
- No variation due to different oil temperatures throughout day
- Precise positioning of tamper head cleaning brush
- Possible wearing in the cylinders is identified easier and faster due to the constant pressure feedback

Technical data summary

Technical data block machines*

<table>
<thead>
<tr>
<th></th>
<th>RH 500</th>
<th>RH 1000</th>
<th>RH 1400</th>
<th>RH 1500</th>
<th>RH 2000 (M-Version)</th>
</tr>
</thead>
<tbody>
<tr>
<td>production board (mm)**</td>
<td>1.200 x 670</td>
<td>1.400 x 700</td>
<td>1.400 x 1.100</td>
<td>1.400 x 1.100</td>
<td>1.400 x 1.300</td>
</tr>
<tr>
<td>production area (mm)**</td>
<td>1.100 x 630</td>
<td>1.300 x 650</td>
<td>1.300 x 1.250</td>
<td>1.300 x 1.250</td>
<td>1.300 x 1.250</td>
</tr>
<tr>
<td>min. product height (mm)</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>max. product height (mm)</td>
<td>300</td>
<td>300</td>
<td>400</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>dead weight approx. (kg)</td>
<td>7.700</td>
<td>14.000</td>
<td>22.500</td>
<td>46.000</td>
<td>46.000</td>
</tr>
<tr>
<td>cycle time (s)</td>
<td>17</td>
<td>14</td>
<td>13</td>
<td>10,5</td>
<td>10</td>
</tr>
<tr>
<td>m² in 8h</td>
<td>863</td>
<td>1.258</td>
<td>2.033</td>
<td>2.517</td>
<td>3.230</td>
</tr>
<tr>
<td>qty stones/form</td>
<td>30</td>
<td>36</td>
<td>54</td>
<td>54</td>
<td>66</td>
</tr>
<tr>
<td>cycle time (s)</td>
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<td>18</td>
<td>17</td>
<td>12,5</td>
<td>11,5</td>
</tr>
<tr>
<td>m² in 8h</td>
<td>667</td>
<td>979</td>
<td>1.554</td>
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<td>2.009</td>
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<tr>
<td>qty stones/form</td>
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<td>36</td>
<td>54</td>
<td>54</td>
<td>66</td>
</tr>
<tr>
<td>cycle time (s)</td>
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<td>16</td>
<td>16</td>
<td>14,5</td>
<td>13,5</td>
</tr>
<tr>
<td>m³ in 8h</td>
<td>6.120</td>
<td>13.770</td>
<td>18.360</td>
<td>20.258</td>
<td>32.640</td>
</tr>
<tr>
<td>qty stones/form</td>
<td>5</td>
<td>9</td>
<td>12</td>
<td>12</td>
<td>18</td>
</tr>
</tbody>
</table>

Technical data mixers*

<table>
<thead>
<tr>
<th></th>
<th>SM 400</th>
<th>SM 1500</th>
<th>SM 2250</th>
<th>SM 3375</th>
<th>SM 4500</th>
</tr>
</thead>
<tbody>
<tr>
<td>dry filling</td>
<td>400</td>
<td>1.500</td>
<td>2.250</td>
<td>3.575</td>
<td>4.500</td>
</tr>
<tr>
<td>max. filling weight</td>
<td>640</td>
<td>2.400</td>
<td>3.600</td>
<td>5.400</td>
<td>7.200</td>
</tr>
<tr>
<td>concrete volume per batch</td>
<td>0.270</td>
<td>1</td>
<td>1.5</td>
<td>2.25</td>
<td>3</td>
</tr>
<tr>
<td>main drive</td>
<td>15</td>
<td>22</td>
<td>30</td>
<td>2x22</td>
<td>3x22</td>
</tr>
<tr>
<td>no. of mixing stars (individually driven)</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>skip hoist drive</td>
<td>5.5</td>
<td>18.5</td>
<td>18.5</td>
<td>22</td>
<td>30</td>
</tr>
</tbody>
</table>

*Production capacities are calculated on 85% basis and depend on machine configuration, used recipes, raw materials, pallet handling, mold characteristics as well as utilized production boards. Technical Data are subject to change. **other production board sizes available. ***Basic configuration.
Further features of operator controls:

- Control Panel adjustable for height and screen angle to match operator’s preference or need
- User Interface has touched panel clearly arranged with intuitive graphics
- Symbolic buttons manage specific parameters to improve understanding within shortest time
- Adjusting one parameter automatically and correctly changes corresponding pre-set parameters without further complex input of many parameters
- Many adjustments are set by a simple slider to allow inexperienced operators become quickly familiar with logic and operating knowledge

Features of the HESS Production Statistics:

- Data is sorted by location, plant, and plant equipment
- Multiple facilities can be monitored and evaluated
- Data is accessible via mobile devices (smartphones or tablets) anytime and anywhere
- Included as standard with new installations. Retrofits are possible
- Data for each work center (mixers; production machines; finger cars; curing chambers; splitters; etc.) are collected and tracked
- Data is available for import into business system

As the industry demonstrates increasing digitalization of production processes (Industry 4.0) the HESS Production Statistics supports continuous improvement programs and other manufacturing excellence initiatives.

- Digital chamber and storage administration
- Link to ERP Systems (SAP, Navision, Oracle)
- Integration of parametric value data for quality control
- Product tracking
- Integration into customer-specific order management
Fully automated production with value adding

1. Mixing plant
2. Concrete block machine
3. Elevator
4. Finger car
5. Curing chamber
6. Lowerator
7. Value adding line
8. Cubing
9. Board return / -buffer
10. Transport of finished cubes
Fully automated production with colormix plant for face and core mix

1. Aggregat silos
2. Mixing plants
3. Colormix dosing belts (Core mix)
4. Colormix dosing belts (Face mix)
5. Concrete block machine
6. Elevator
7. Finger car
8. Curing chamber
9. Lowerator
10. Cubing
11. Boar return / -buffer
The production of high quality concrete products requires mixing technology that delivers precise results each and every batch. Hess SM-Series mixing technology consistently dispenses the perfect concrete mix in the shortest time. Hess offers complete mixing plant technology including dosing units for aggregates, cement, and color-blended concrete.

The SM-Series of planetary mixers feature:
- Self-supporting construction with lower and upper frame
- Separate drives (for tool plate and mixing stars)
- Stopping and starting the loaded mixer is possible anytime.
- Two large double doors for easy and safe clean-up and maintenance operations
- Two large discharge openings in the mixer floor
- Clean-out time significantly reduced due to minimal deposit build-up (special water inlets)
- Special cement input device allows dust-free cement adding operation (optional)
- High mixing intensity most favorable for low cement/water ratio concrete mix designs
Transfer and handling systems

HESS supports the efficiency of their high quality and high volume mixing and production systems with matching proficiency in the transfer and handling systems. The necessity to transfer, buffer, and store fresh and cured product is essential to sustaining a balanced flow rate while maximizing the throughput pace of finished product.

More and more, manufactures need to harmonize the wet side and dry side cycle times across a wider range of product requirements. HESS has the know-how and equipment technology to optimize these balancing logistics to deliver the highest quality, greatest output, and lowest unit cost.

Our fully-automated transfer, handling, treatment and packaging lines communicate with each other and are intuitively displayed on the operator control screen for smarter insights and understanding.
Surface Treatment.

The market demand for enhanced surface finishes continues to grow, and offers producers an opportunity to grow in market share and profitability. TOPWERK GROUP stands alone in offering the most complete line of surface treatment systems that deliver architectural-grade finishes with integrity, refinement, and unmatched in capability and output.

Surface treatment of concrete products can be implemented in two different methods: Wet side treatment between the production machine elevator device; or, dry side treatment which is applied before cubing with a bypass solution.

- Aging / bush-hammering / abrasion rumbling
- Coloring
- Curling
- Chamfering and edge treatment
- Calibration
- Surface protection
- Grinding
- Splitting
- Blasting
- Washing
Our patented equipment technology is combined with specifically designed handling systems which can be integrated into the fully automated production plant via a bypass line, or a secondary off-line to support producer preference.

All surface treatment technology is designed to optimize output and reduce unit production cost to enable our producer customer to profitably capture market share and gain a faster return on investment.
After Sales Service

**HESS After Sales Service.**

Our expert service team is available anytime to answer any question you may have. Our primary goal is to support your operation as if it were our very own. We are proud to share the expertise gained from our global experience for your benefit. This industry knowledge supports the following areas of our supply chain departments:

- **High quality spare parts and competent technical advice - worldwide**
- **Problem solving with capable assistance – around the clock**
- **Efficient assistance and technical support via teleservice**
- **Secure – fast – information available everywhere**
- **Professional guidance on all questions regarding process engineering**
- **Optimized retrofits due to continuous developments**
- **HDPS Software - Your benefits: Information is available, wherever it is needed!**
  - In production and maintenance
  - In logistics regarding the optimization of parts inventory
  - In material scheduling to procure necessary spare- and wear parts
  - Customized information
  - More efficient communication between operator and service technician
  - Customer-specific language possible
The HESS After Sales Service offers training programs for your staff near the headquarters in Burbach:

- Consecutive training courses
- Gradual training in: Machine operation, maintenance and concrete technology

Benefit from our know-how and many years of experience:

- Practical exercises with specific designed models or machinery parts
- Visualization of complex motion sequences using animations and videos
- Digital transmission of training material by tablet
- Acquired knowledge available anywhere and anytime
- Optimum training and know-how transfer from the beginning
- Systematic gain of expertise by intensive training

Productivity increase by Best Practice, prevention of drop outs and reduction of setup times through an expertwise work approach are just a few advantages resulting from the training.
We put concrete into shape

Hess Group GmbH
Freier-Grund-Straße 123
57299 Burbach-Wahlbach, Germany

Phone: +49 2736 4976 0
Fax: +49 2736 4976 620
E-Mail: info@hessgroup.com
Internet: www.hessgroup.com