

HESS GROUP



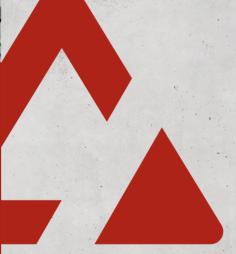
INLINE QC

Automatic quality control

Optimize your concrete block and paver production with automatic non-contact quality control: the Inline QC.

Inline QC minimizes the time required for manual checks thanks to real-time monitoring and evaluation. Each production batch undergoes a full surface inspection by means of precise defect detection to enable the highest quality standards of the concrete blocks and pavers.

The height measurement with color indication ensures intuitive recognition of product quality through objective evaluation. Statistical evaluations can help you fully analyze your production processes.



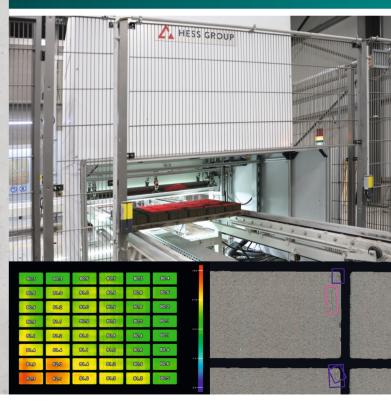
HESS Group GmbH

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INLINE QC

Automatic quality control



PERFORMANCE FEATURES

- Automatic quality control with maximum precision in defect detection
- Height measurement

with color indication over the entire layer of stones

- Height measurement accurate to 0.5 mm
- For product heights from 25 mm to 500 mm
- For products with bevel up to 150 mm deep for heights up to 300 mm
- Precise defect detection
 - Defect detection from an area of 1 mm²
 - Lift-offs from 0.5 mm height difference
 - Cracks from 0.5 mm width
 - Differentiation between surface pollution and defects
- Accuracy of 99%
- Integration into the machine visualization
- Integration into the production statistics
 - Heights
 - Colors and color gradient
 - Defect rates
 - Surface structures
 - Image representations
- Customization
 - 1, 3 and 5 height values per block
 - Visualization for sorting recommendation on the dry side
- Approx. dimensions: 1,400 x 2,300 x 3,050 (L x W x H)
- Expandable with associated robot sorting



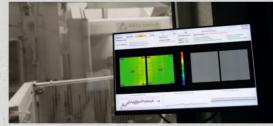


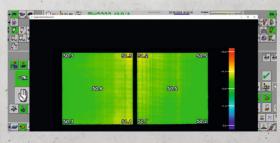


Bounding box pink: Crack



Bounding box blue: Break-out





TECHNICAL

DAIA	Inline QC (with 3 scanners)
Detection area w x I [mm]	1,500 x 1,450
min. product height [mm]	25
max. product height [mm]	500
Precision of geometric measurement [mm]	0.5
Maximum detectable chamfer depth [mm]	150
min. detectable size of lift-offs and (edge) break-outs [mm²]	1
min. recognizable crack width [mm]	0.5
Number of pixels of the camera system	16,000,000
Number of 3D points per scanner	2,000,000
Al-supported defect detection	included
Color evaluation	included
Surface structure evaluation	included

^{*} The values were determined under test conditions and may vary under other conditions

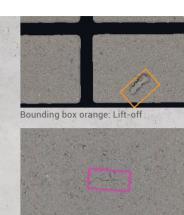
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 - Defect detection from an area of 1mm²
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 - Cracks from 0.5 mm width
 - Differentiation between surface pollution and defects
- Hit ratio of 99%
- Integration into the machine visualization
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 - Heights
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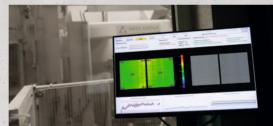


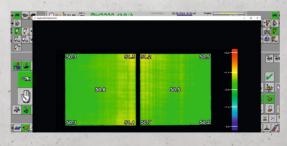


Bounding box pink: Crack



Bound box: Break-out





TECHNICAL

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Number of 3D points per scanner	2.000.000
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Color evaluation	included
Surface structure evaluation	included
* Technical Data are subject to change	



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