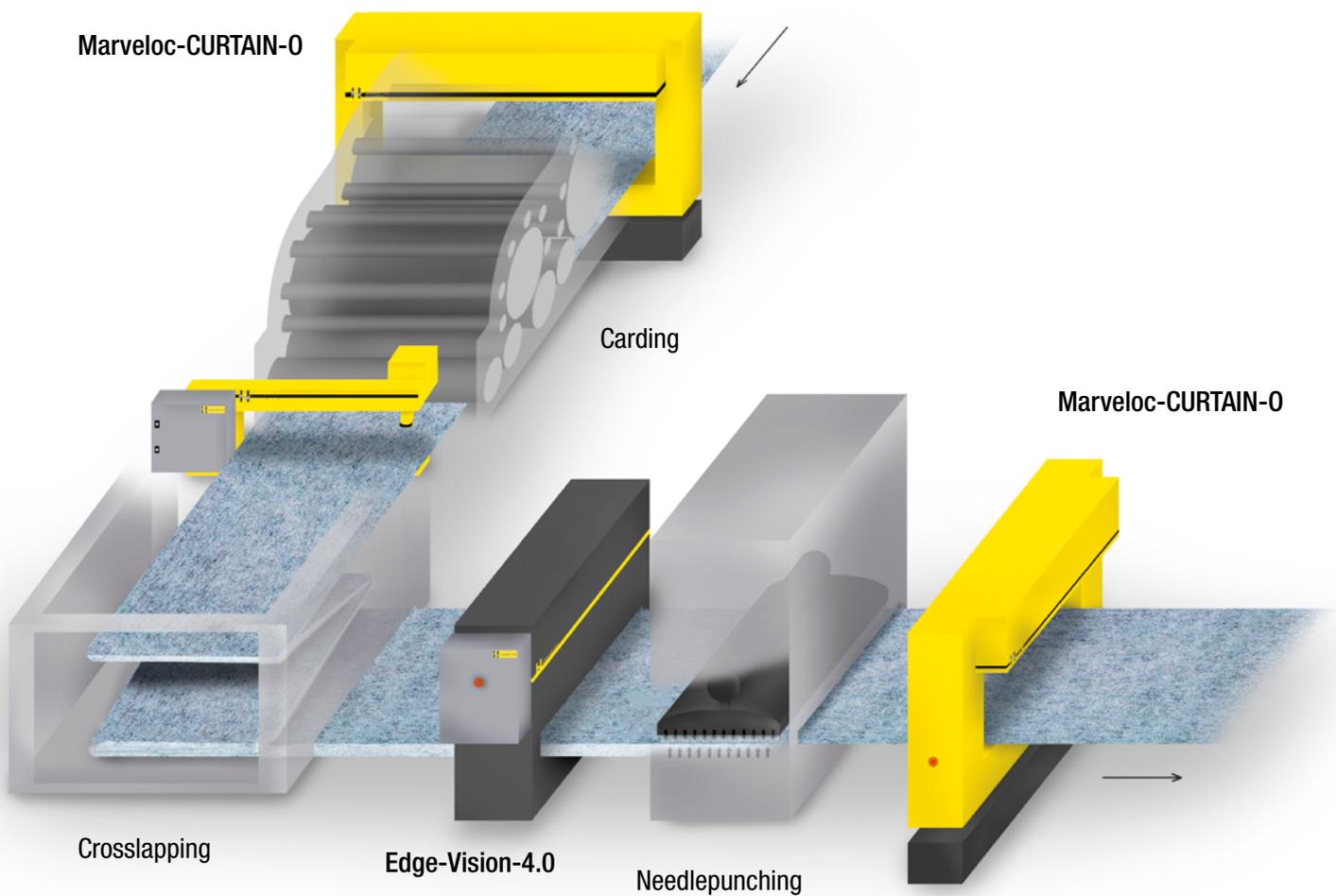




HAMMER-IMS

Extensive coverage, inline basis-weight and thickness measurements of drylaid non-wovens:



Seamless integration at every step of the non-woven production process

Precise measurements and quality control are critical for non-woven production. Hammer-IMS' cutting-edge sustainable measurement systems provide real-time data that facilitates integration at every step of the process: from chute feeding, carding, cross-lapping, to needle-punching; depending on your case, one or more Marveloc-CURTAIN C-Frame, Marveloc-CURTAIN O-Frame, and/or Edge-Vision-4.0 systems can be integrated to analyze basis-weight, and detect anomalies in the product, allowing manufacturers to adjust parameters on the fly, ensure consistent product quality, and reduce waste.

Marveloc Sensor Technologies

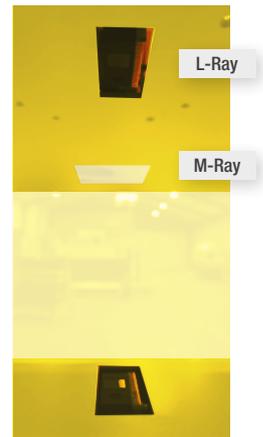
M-Ray: millimeter wave sensor technology

The concept of our M-Ray technology for thickness or basis-weight (grammage) measurements is straightforward: A sensor at the top transmits an electromagnetic millimeter wave that passes through the material being measured, then reverses direction when hitting the reflector underneath, passing through the material once again, and finally being captured by the sensor. M-Ray based measurement systems track the time required by the wave to pass through the material.

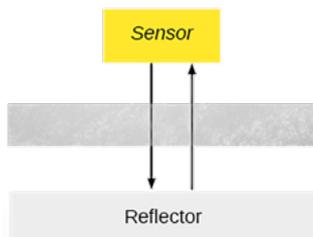
The M-Ray technology perfectly matches applications for basis-weight control for drylaid, needle-punched non-wovens. Typical applications for M-Ray technology include weight measurements of sheets starting from 50 grams per square meter (0.164 ounces per square foot).

L-Ray: laser-based sensor technology

For thickness control, L-Ray laser-based sensors are integrated at the last step of the production process. This integration allows for a complete analysis of the material's thickness profile.



Scan to watch
Heimbach installation
video



Marveloc-CURTAIN 0-Frame

Edge-Vision-4.0 for non-woven anomaly detection and classification

Our Edge-Vision-4.0 product family adds an extra eye to your non-woven production process. Edge-Vision-4.0 stands for optical ways to capture and analyze high-resolution images of your product, and this is mainly done by means of machine-vision technology or specialized color sensors. An Edge-Vision-4.0 system can be seen integrated in the non-woven production line visual.

The Edge-Vision-4.0-CURTAIN machine-vision system is able to detect foreign particles, stain spots and other anomalies in the non-woven production. Basis-weight measuring solutions can be combined with machine-vision solutions, realizing a smart fully-integrated quality solution. Contact our sales representative to discuss your particular case.

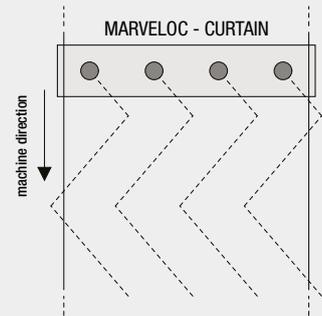
Sustainable measuring systems, no harmful emissions, no compromises

Marveloc-CURTAIN systems equipped with M-Ray sensors are able to obtain product basis-weight in a sustainable way. Compared to older radioactive technologies, Marveloc sensors from Hammer-IMS are not harmful for the environment nor the operators handling the system. Moreover, when taking into consideration the licenses required to use traditional radioactive measuring technologies, Hammer-IMS systems do not require such licenses, making it a better total-cost-of-ownership solution.



Multi-sensor measurement for 100% material coverage

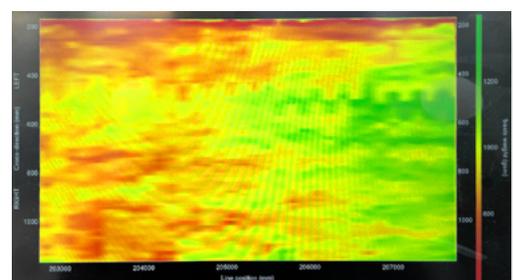
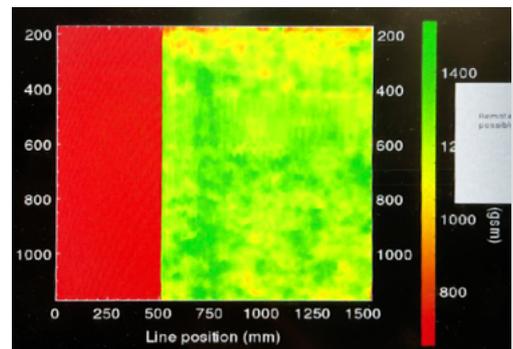
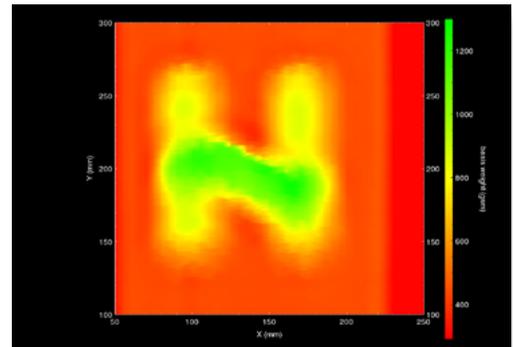
We are proud to have introduced our first solution based on multiple sensors back in 2016. Today we offer quality control system configurations containing multiple sensors, developed to simultaneously measure weight, thickness or anomaly level. The use of multiple sensors provides up to 100% material coverage. This compares favorably against the use of single-sensor systems that only make use of one sensor head unit.



Heat map add-on for real-time basis-weight mapping of the production

Heat maps from Hammer-IMS provide an instant and intuitive visual representation of g/sm distribution across the non-woven material. This allows operators to quickly identify variations or irregularities in the web. This is crucial for ensuring consistent product quality, especially in applications where detailed g/sm data is essential, such as medical textiles or filtration media.

Red areas show light areas in the material, while green areas translate to heavy areas. Operators and engineers can use this visual data to generate real-time reports and make informed decisions.



Edge-Vision-4.0

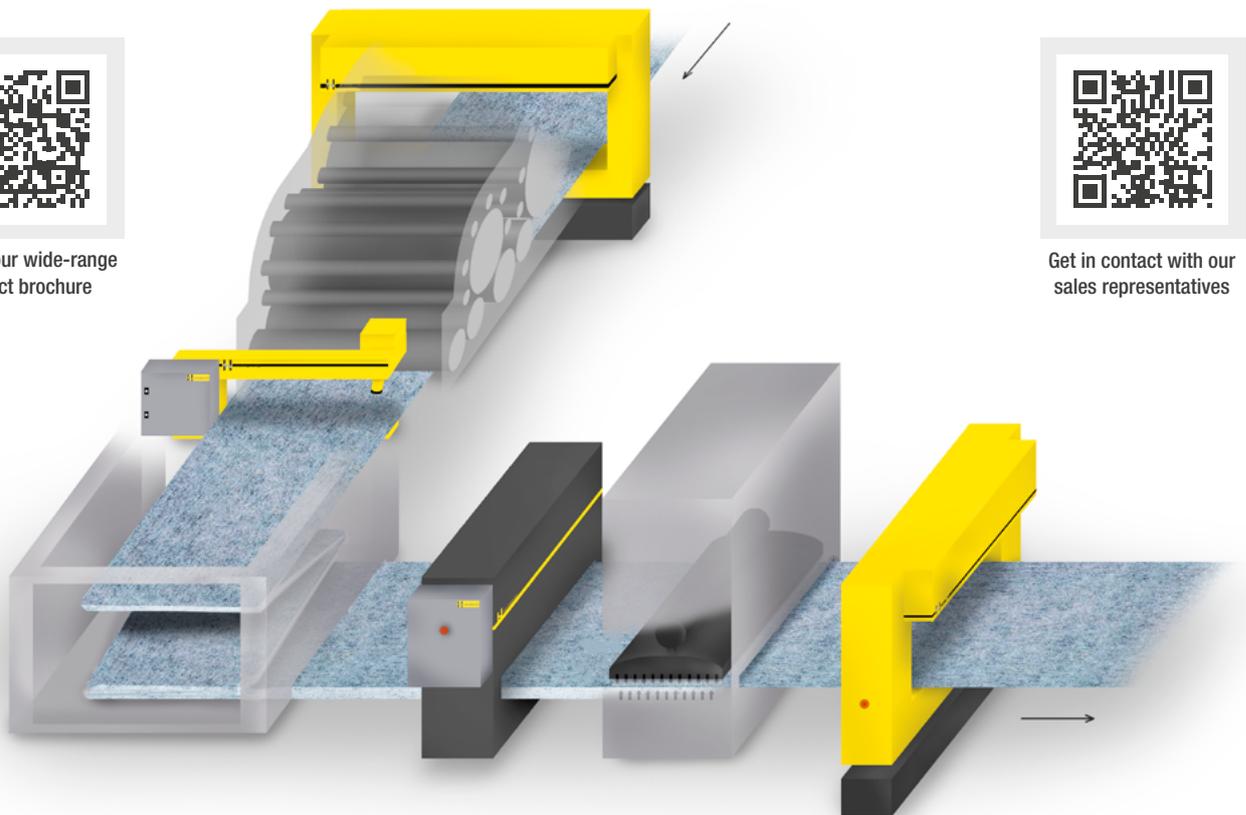
Contact us to discuss your specific application

The list below provides a general product overview of the systems in this brochure and the software package for the control of it. An extensive list of add-ons can be implemented to your process and quality control system in consultation with a sales representative.

Product name	Product group	Product description	Combinations
Marveloc-CURTAIN-O featuring M-Rays	Industrial basis-weight quality control systems.	Machine for basis-weight measurement of flat materials. Closed frame.	+ L-Ray for thickness measurements.
Marveloc-CURTAIN-C featuring M-Rays	Industrial basis-weight quality control systems	Machine for basis-weight measurement of flat materials. Open frame.	+ L-Ray for thickness measurements.
Marveloc-CURTAIN-C Slim featuring M-Rays	Industrial basis-weight quality control systems	Compact machine for basis-weight measurement of flat materials. Open frame.	+ L-Ray for thickness measurements.
Edge-Vision-4.0-CURTAIN-O	Machine-vision systems	Machine-vision solution for detection and classification of anomalies or continuous monitoring. Closed frame.	
Edge-Vision-4.0-CURTAIN-C	Machine-vision systems	Machine-vision solution for detection and classification of anomalies or continuous monitoring. Open frame.	
Connectivity 3.0	Control software	Industrial software to connect to PLCs and various information sources.	



Explore our wide-range product brochure



Get in contact with our sales representatives



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The data as listed in this brochure is nonbinding. Contact us to obtain a dedicated technical datasheet, a feasibility analysis for your industrial case, or to get in touch with our preferred integrators and resellers. Our general terms and conditions apply.

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