



## Laatu.

Innovative on-site  
microbial reduction  
solution for the spice  
industry.

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## Effective on-site microbial reduction for spices.

Guarantee unmatched product quality with a validated 5-log reduction of Salmonella whilst ensuring maximum quality preservation.



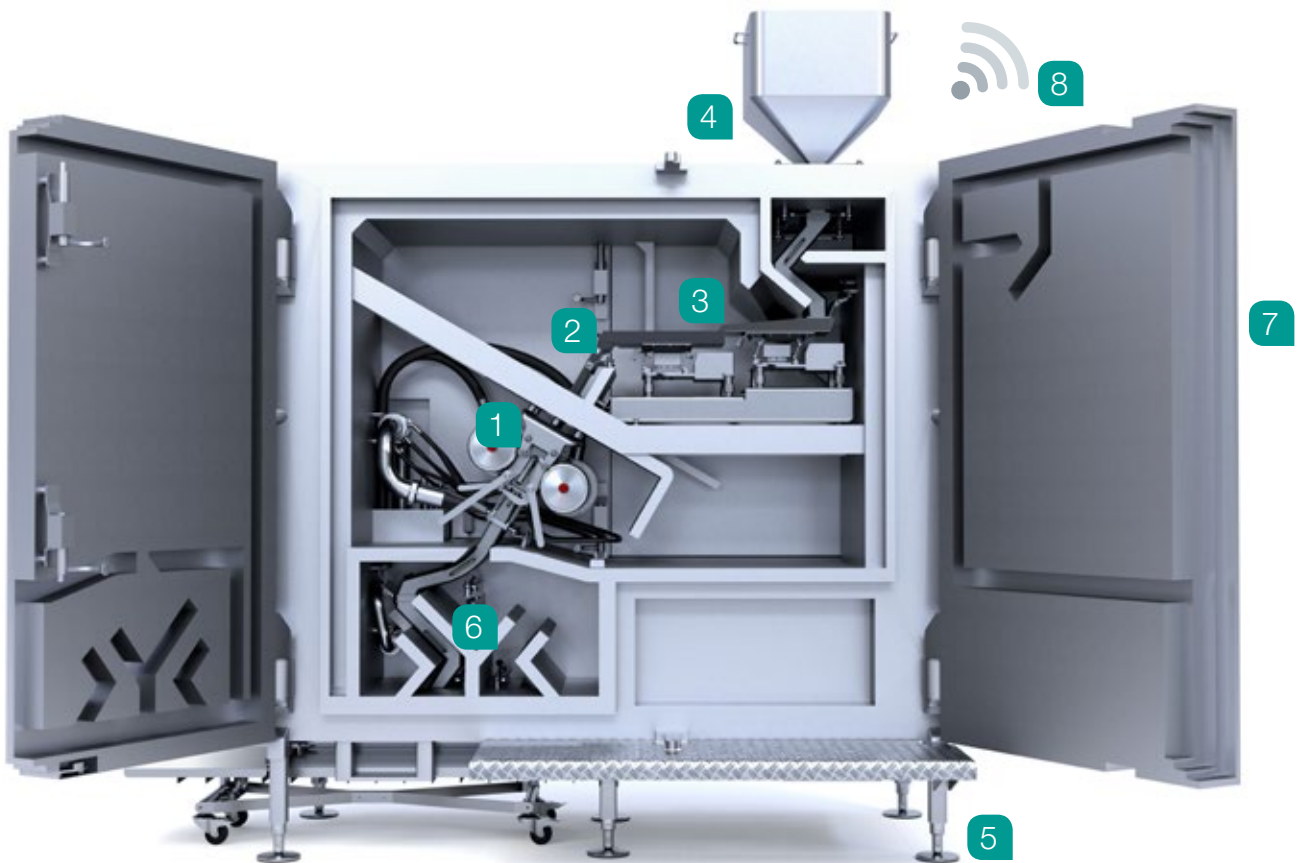
Laatu is an industrial on-site microbial reduction solution with 24/7 accessibility. Enjoy superior flexibility, reliability and minimal downtime without any concerns related to transport or logistics.

The technology is easy to use with continuous performance monitoring and automated quality reports made to support traceability programs.

Laatu offers a chemical-free solution with reduced running costs thanks to its low energy consumption and minimal or no product waste.

- Unmatched product quality with a validated 5-log reduction
- Minimal downtime with on-site solution, accessible 24/7
- Long-term peace of mind with automatic performance monitoring functionality
- Minimized processing costs
- Reduced environmental footprint

# Features at a glance.



**1 Low-energy electron beam technology**  
Each seed is exposed to low-energy electrons ensuring complete surface microbial reduction. This can be customized to meet specific product quality requirements

**2 Controlled product flow**  
Product flow through the treatment zone takes only milliseconds to complete

**3 Consistent and adjustable feeding system**  
Throughput can be easily adjusted according to your specific requirements, up to a maximum of 1 ton per hour

**4 Continuous operation**  
The process can be fitted to suit any unique requirements for streamlined processing with minimal downtime

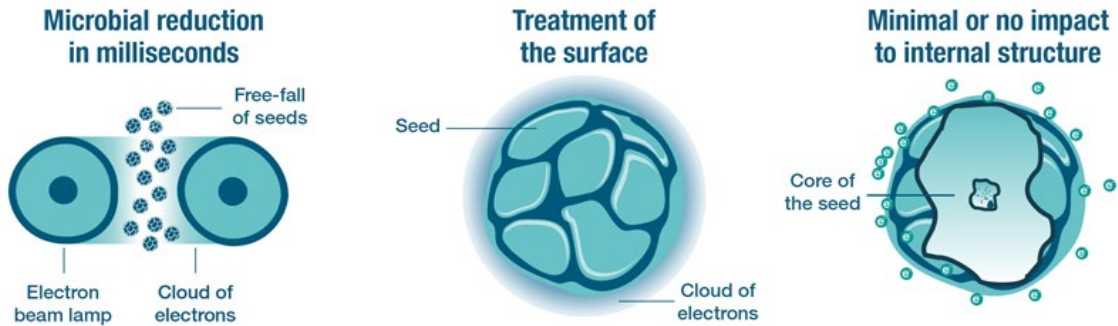
**5 Small footprint**  
Can be implemented anywhere in the processing line, with 24/7 accessibility without any concerns related to transport and logistics

**6 Innovative hygienic design**  
Cleaning time under 1h and avoidance of cross-contamination ensures high quality of final product with minimal downtime

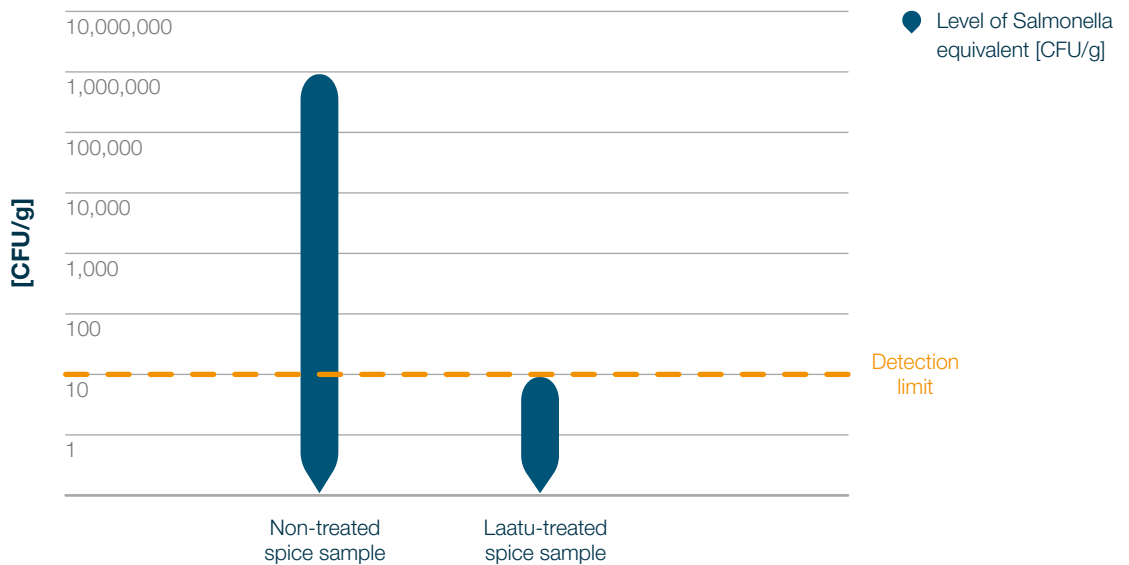
**7 Bühler Laatu software**  
Pre-set parameters and easy-to-use, intuitive UI for effortless food safety control

**8 Automated monitoring and batch quality reporting**  
Continuous monitoring and recording system ensures that the equipment operates within critical limits. Created batch quality reports can be shared with customers and authorities to ensure complete traceability of every batch

# Laatu. How it works.



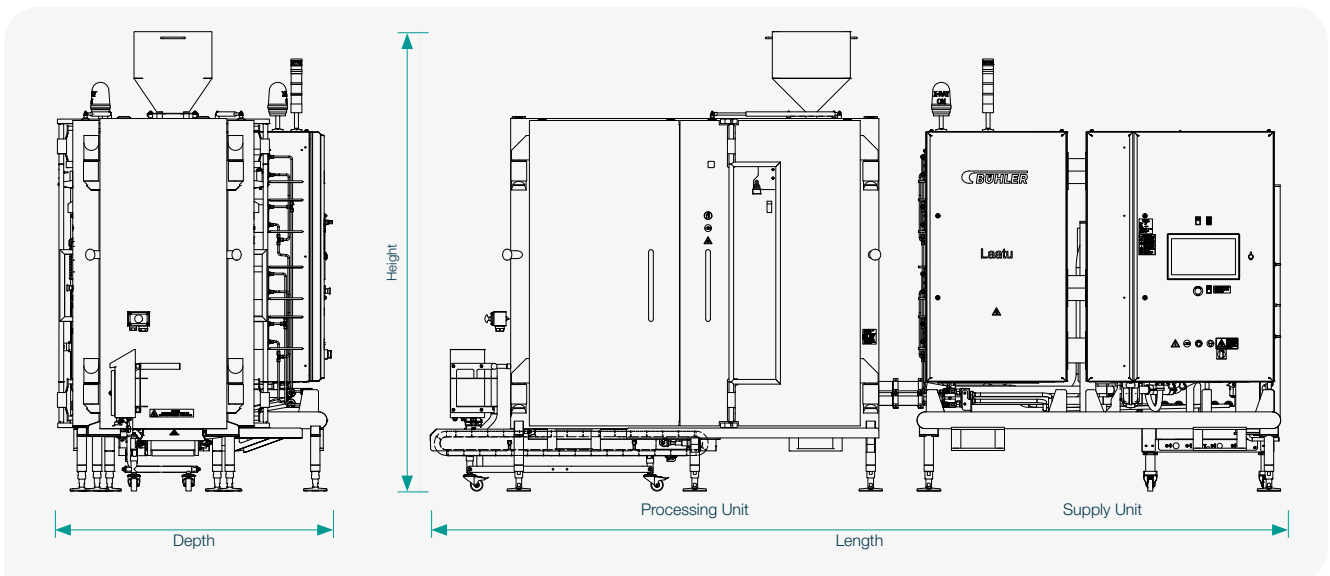
The product free-falls between low-energy electron beam lamps. Each seed is surrounded by electrons to ensure complete surface microbial reduction. Non-thermal surface treatment guarantees maximum quality preservation of important nutrients and sensory attributes, such as aroma, flavor and appearance.



Laatu offers a validated kill-step where the microbial inactivation level can be customized to meet specific product quality requirements and ensure complete regulatory compliance.

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## Technical specifications.



### Dimensions and weight

Length	5,452	mm
Height	2,945	mm
Depth	1,726	mm
Processing unit weight	10,500	kg
Supply unit weight	1,750	kg

Remarks: ±10mm tolerance is acceptable by real measurements.  
Figures will vary based on machine specifications.

### Specifications

Voltage	With supply frequency 50 Hz: 400Y/230 VAC With supply frequency 60 Hz: 400Y/230 VAC + 460 VAC	
Power	≤30	kW
Product throughput (product dependent)	up to 1,000	kg/h
Air exhaust (depending on installation)	up to 8,100	m <sup>3</sup> /hour
Ambient temperature	+5 ... +40	°C
Relative humidity, non-condensing (during operation)	10 ... 70	%

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