

Microwave Disinfection Chamber



Illustration is similar, contains options

You can count on it!

In food production, you won't want to take any chances. We'll support you.



Bacteria all around.

When dealing with sensitive goods like fish, the reproduction of vegetative cells and growth of biofilm are serious problems. Surface disinfection methods do not reach critical areas in the food production chain. Yet most of the used plastic materials are microwave-transparent and allow for a selective treatment. Our Microwave Disinfection Chamber can help you to significantly reduce the bacteria count. Reliable, for sure!

Lots to disinfect? No problem!

In food production, numerous standards for cleanliness must be fulfilled. The development of our Microwave Disinfection Chambers was accompanied by SINTEF Industry (Biotechnology and Nanomedicine) and SINTEF Ocean (Seafood Technology). The scientists validated the process, resulting in kill rates of 99.99% in containers and 99.9% in conveyor belts. The integration of such a technology at all relevant production sites is recommended by SINTEF. Find out, what we can do for you!

Reliable, effective, flexible.

Microwave Disinfection Chambers.

Patently designed.

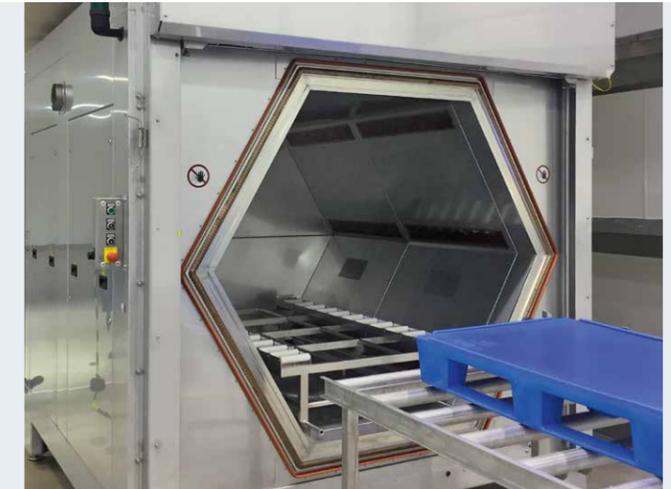
The unique hexagonal chamber allows for homogeneous treatment of relevant materials and parts, even in larger dimensions. Containers as well as conveyor belts can be handled in the same chamber.

Effectively reduced.

-99.99% vegetative cells, but in advantage over UV light, not limited only to surfaces: the volumetric heating of microwaves allows for bacteria treatment even inside of insulation materials or robust conveyor belts.

Efficiently green.

Our system works exclusively with electrical energy. Chemical sanitising and rinsing are no longer required. Furthermore, the selective microwave heating allows for a very energy-efficient process.



Our highlights:

- 99.99% kill rate of vegetative cells
- Container and conveyor belt treatment
- Integration in workflow
- Green technology
- Validated and patented process

More features, right from the start.

Basic equipment setting standards.



You can find further details on equipment in our technical descriptions. **Contact us.**

Interior



- **Flexible power choice**
Microwaves are generated by 2.45 GHz magnetrons. The standard version is equipped with 24 kW. Yet various power levels are available, depending on the use case.
- **No chance for corrosion**
To give maximum protection, the inner chamber material is manufactured in stainless steel 1.4404 (AISI 316 L).

Exterior



- **Robust outer casting**
Perfect for set-up in rough environments: stainless steel 1.4301 (AISI 304) is used for the outside.

Communication



- **Reliable control as standard**
Digital measurement and control system SIMPAC® for automated process steps and integration of external devices (e.g. balance).

Safety



- **Compliant for sure**
The units are built according to the EU machine guideline 2006/42/EG and in specific according to DIN EN 60519-6.

Patented hexagonal chamber format.
Most homogeneous field distribution for ideal disinfection results.

Convincing technology. Reliable results.

The performance data at a glance.

Microwave Disinfection Chamber						
Type		VHM 180/200 DC	VHM 180/200 DC-A	VHM 180/200 DC-SD	VHM 180/200 DC-DA	VHM 180/200 DC-DSD
External dimensions	WxDxH (mm)	2800x 2515x 2630	2800x 4675x 4320	3800x 4520x 2630	2800x 6830x 4320	3800x 6505x 2980
Chamber volume	l	4200				
Internal dimensions	Hexagon diameter x depth (mm)	1800 x 2000				
µW power	kW	24	36	36	36	36
Connected load	kW	50	75	75	75	75
Power supply	AC	3/N/PE 400 V; 50/60 Hz				
Cooling water* supply	l/min.	96 at 4 bar	96 at 4 bar	96 at 4 bar	96 at 4 bar	96 at 4 bar
Pneumatic supply	bar	-	6	6	6	6
Housing material	Stainless steel	1.4301				
Chamber material	Stainless steel	1.4404				
Interface	Ethernet TCP/IP	RJ45				
Balance integration	Custom	-	Yes	Yes	Yes	Yes

Ask for our technical descriptions for further details on equipment.

*20-22 °C.

We reserve the right to make any technical changes without prior notice.



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Proven technology.

Perfect disinfection.

Containers or pallets might be subject for a daily disinfection routine. Ideally located next to the washing machine, the system allows for direct integration into the workflow via different layouts.



Flexible water adaptation.

An integrated workflow is necessary to control the microwave power depending on the water take-up by the products. This allows for an exact weight measurement of the parts to be treated and for a correct disinfection cycle set-up.

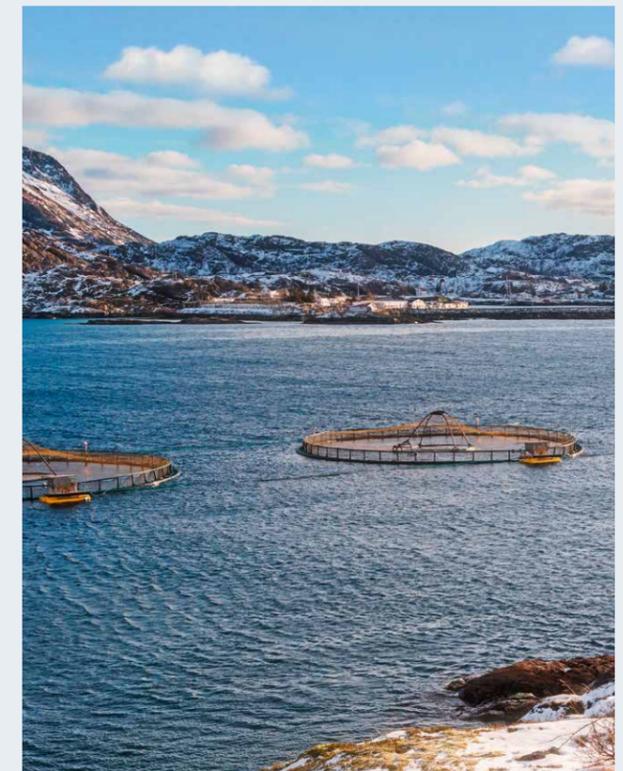
Our customers are convinced.

Nordlaks Produkter AS has been member of the working group for newly developed technology combating pathogenic bacteria in salmon production with scientific confirmation from SINTEF and Nofima.

Microwave technology with associated method is the optimum controlled and measurable disinfectant tool to significantly reduce the micro-organisms on plastic equipment used in food production. No worldwide known technology has the same effect.

Biofilm is a huge challenge in any food production and not entirely removable with microwaves, but this technology achieves an extremely high vegetative cell kill rate of > 99.99% in biofilm. Microwave with associated method will be a significant improvement in food security in the food industry. In addition, it is a patented, green technology.

Arne Andersen, Factory Manager, Nordlaks Produkter AS



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HT-Mikrow-DesinfK-01.0E/PP 1.0/08 2019