

# Microwave Disinfection Chambers



# 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 hygiene 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 reduction 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.

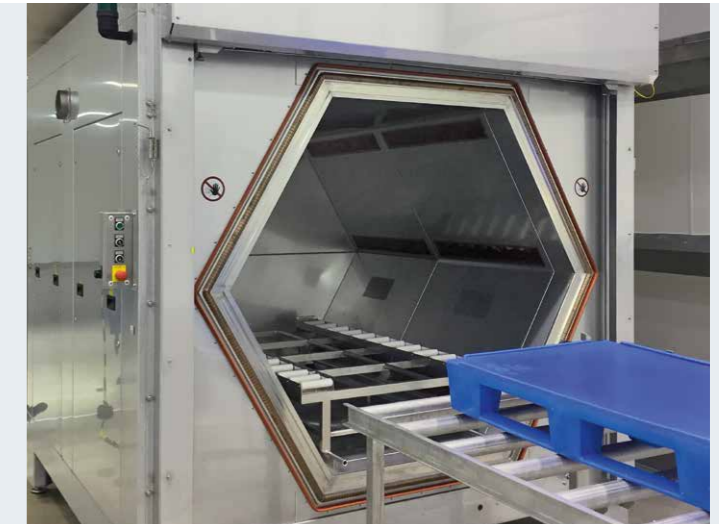
The unique hexagonal chamber allows for homogeneous treatment of relevant materials and parts, even in larger dimensions. Containers as well as conveyor belts can be handled in the same chamber.

## Effectively reduced.

Reduction of 99.99 % of the vegetative cells, but 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% reduction rate of vegetative cells
- Container and conveyor belt treatment
- Disinfection of inaccessible areas
- 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 various 2.45 GHz magnetrons. The standard version is equipped with 24 kW microwave power. Yet various power levels (12-36 kW) are available, depending on the designated use.

- **No chance for corrosion**

To give maximum corrosion protection, the inner chamber material is manufactured in stainless steel 1.4404 (AISI 316 L).

## Exterior



- **Robust outer casing**

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

## 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/EC 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 100/100 DC	VHM 180/200 DC	VHM 180/200 DC-A	VHM 180/200 DC-DSD
External dimensions, WxDxH	mm	1600x	2800x	2800x	3800x
		1650x	2515x	4675x	6505x
		2200	2630	4320	2980
Chamber volume	l	700	4200	4200	4200
Internal dimensions, hexagon diameter x depth	mm	1000x	1800x	1800x	1800x
		1000	2000	2000	2000
Microwave power	kW	12	24	36	36
Connected load	kW	27	50	75	75
Power supply	AC	3/N/PE, 400 V, 50/60 Hz			
Cooling water' supply	l/min at 4 bar	48	96	144	144
Pneumatic supply	bar	-	-	6	6
Housing material	Stainless steel	1.4301			
Chamber material	Stainless steel	1.4404			
Interface	Ethernet (TCP/IP)	RJ45			
Balance integration	Customised	-	-	Yes	Yes

\*20-25 °C.



## We measure ourselves by our service!

Our services - lots of good reasons:

- Global service network
- Wide selection of preventive maintenance
- Reliable spare part supply
- Special deployments available any time
- Certified proper disposal of outdated devices

Our Service Experts are always near you.

**24/7-Service-Helpline:**  
**+49 1805 666 556**

# Numerous applications fitting your needs.

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 weight 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.



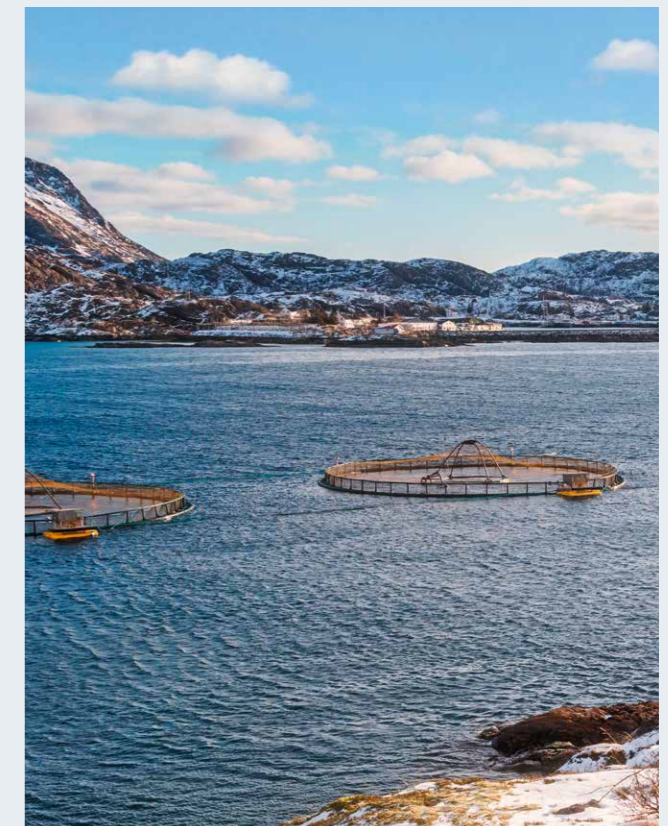
## Our customers are convinced.

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 production tools. 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 reduction 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



Interested in project-specific layouts? No problem, just contact us!

# Passionately innovative.

**We work in partnership to support companies in research, development, production and quality assurance. With 22 companies in 15 countries at 40 locations.**

**weisstechnik**

**For a safe future.**



## Environmental Simulation

The first choice for engineers and researchers for innovative, safe environmental simulation facilities. In fast motion, our test systems can simulate all the influences in the world as well as for instance in space. In temperature, climate, corrosion, dust or combined stress tests. With a very high degree of reproducibility and precision.



## Air Solutions

As the leading provider of clean rooms, climate technology and air dehumidification, we consistently ensure optimal climatic conditions for people and machines. For industrial production processes, in hospitals, mobile operation tents or in the field of information and telecommunications technology. From project planning to implementation.



## Heat Technology

Experienced engineers and designers develop, plan and produce high-quality, reliable heat technology systems for a broad range of applications from heating and drying cabinets to microwave systems and industrial furnaces.



## Pharma Technology

With decades of experience and know-how, we guarantee the most sophisticated clean air and containment solutions. Our comprehensive and innovative range of products includes barrier systems, laminar flow systems, safety workbenches, isolators and airlocks.

### Vötsch Industrietechnik GmbH

Heat Technology

Greizer Straße 41-49

35447 Reiskirchen/Germany

T +49 6408 84-0

info.ovens@weiss-technik.com

www.weiss-technik.com



**Test it. Heat it. Cool it.**



HT-Mikrow-DesinfK-01.2E/Dig/06 2020

Illustrations may contain options.  
Subject to technical changes.

