

# SAFE MANAGEMENT OF INFECTIOUS WASTE



# METEKA GIVES GERMS NO CHANCE



# PROTECTED FROM INFECTIONS WITH METEKA



METEKA – GIVES GERMS NO CHANCE



METEKA GmbH was founded in Judenburg, Austria, in 1987. Facing the problems arising in connection with the disposal of potentially infectious waste from his dialysis institute, Dr. Helmut Katschnig, the founder of METEKA, started looking for a practical and safe method for the collection and decontamination of such waste. This led to the development of the renowned **METEKA Hygiene System.** Today, METEKA stands for excellence and know-how in all matters relating to hygiene as well as the provision of reliable products that afford its customers maximum safety in implementing decontamination and disposal solutions.

Based on the fundamental principles of a "Non-Contamination Strategy" as well as "Limitation of infection risk to

the source" the METEKA System reduces both hospital acquired infections and infections that could otherwise spread into the public domain.

METEKA has succeeded in establishing a successful market presence, both in Austria and internationally. METEKA's well-proven technology has been effectively applied in such diverse health facilities as hospitals, laboratories, institutes of veterinary medicine as well as research units and production plants. METEKA systems have been installed in over thirty countries.

METEKA has received numerous awards for its product solutions, including a gold medal at the International Inventors' Fair in Brussels.



Mag. Roland Katschnig, Managing Director

METEKA'S RESEARCH AND DEVELOPMENT ACTIVITIES ARE AIMED AT IMPROVING OUR LIVING CONDITIONS AND PROTECTING THE ENVIRONMENT. A HIGHLY MOTIVATED TEAM OF EXPERTS, TOGETHER WITH STATE-OF-THE-ART PLANNING, DEVELOPMENT AND PRODUCTION FACILITIES, ENSURE THAT OUR PRODUCTS ARE OF THE VERY HIGHEST QUALITY.



in the puncture-proof

re-usable MEDITAINER

waste container

return of the re-usable containers

# 03 MICROWAVE TREATMENT\*

Decontamination of the waste in the container, in the **MEDISTER device** 



\* all steps "on site"

## 04 DISPOSAL

Decontaminated waste bearing the control label may be disposed of in a waste bag in the same way as household waste



# SAFE WASTE DECONTAMINATION WITH METEKA EQUIPMENT

METEKA offers system solutions for the decontamination of infectious waste. Decontamination is carried out "on site", in a safe, practicable cycle – an economical, environmentally friendly solution that is easy to operate. By collecting waste in a transportable container and immediately neutralising it "on the spot" close to its point of generation, it is possible to prevent the spread of infections. Both hospital and disposal staff, as well as patients and the public at large, are protected against injury and infection.

Decontamination is achieved by heating up the waste from inside in the collection/transportation container by using "non-contact" microwave energy. The special patented Even-Heat Technology is common to all MEDISTER waste decontamination devices, which are available in various sizes.

Following the decontamination, and in accordance with ADR/RID, the decontaminated waste may be safely disposed of like ordinary household waste. Costly and problematic special waste transportation is no longer necessary. Protection of the environment is ensured by the lower CO<sub>2</sub> emissions burden, which contributes to reducing the "Carbon Footprint", while the objectives of the "Basel Convention" are met in an optimal manner.

### **ADVANTAGES OF THE METEKA SYSTEM:**

### PREVENTION OF INFECTIONS AND SAFE HANDLING

The collection, transportation and decontamination of contaminated waste is achieved in one and the same puncture-proof waste container. The collection in dangerous waste bags is no longer necessary.

### MAXIMUM RELIABILITY DURING TREATMENT

No matter how inhomogeneous the composition of the waste, decontamination is achieved through heating the waste evenly from inside.

### SIMPLE HANDLING AND PROCESSING

The MEDISTER device has a front loading system as well as a fully automated programme sequence.

### SIMPLE AND QUICK INSTALLATION

No special installation requirements are needed, no steam generator and/or water treatment facility is necessary.

### ECONOMICAL AND ENVIRONMENTALLY FRIENDLY

With no air pollution or need to add chemicals, and with low water and energy consumption, waste volume may be reduced by 30 % to 50 %.

### **LEGAL CERTAINTY**

A recognised and certified treatment procedure.

### **DID YOU KNOW**

THAT IN THE EUROPEAN UNION SIX IN EVERY HUNDRED PATIENTS SUFFERS HOSPITAL ACQUIRED INFECTION DURING THEIR STAY IN HOSPITAL? THIS AFFECTS 4.9 MILLION PATIENTS ANNUALLY, AND CAUSES AN ADDITIONAL COST TO HEALTH SERVICES OF 6.5 BILLION EUROS PER YEAR.
(European Centre for Disease Prevention and Control, Stockholm 2009)

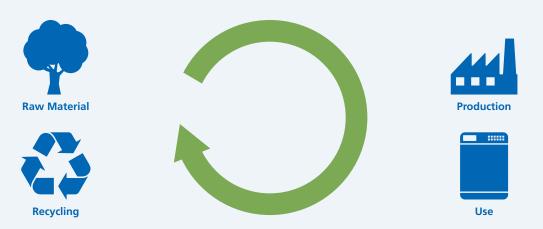


### METEKA'S CONTRIBUTION TO A GREENER PLANET

A healthy environment is important for our habitat. If we damage our environment, we will damage ourselves. In this sense, METEKA is a pioneer of transparent environmental communication.

The environmental performance of our products is communicated through Environmental Product Declarations (EPDs) following the international EPD system.

They are based on Life Cycle Assessment methodology and function as an externally validated communication tool, providing complete transparency to the benefit of our customers and stakeholders. The external validation is carried out by independent verifiers approved by the technical committee of the international EPD system and/or the EU Eco-Management and Audit Scheme (EMAS). The Environmental Product Declaration for the MEDISTER HF-Waste Decontamination Devices was developed considering the requirements of ISO 14025:2006.



At METEKA life cycle thinking is integrated to the design process, highlighting the significance of different design choices and the true overall environmental impact these choices have. Resource efficiency, waste generation and overall environmental impact are estimated throughout all life cycle phases of the MEDISTER HF-Waste Decontamination Devices following ISO 14040:2006 methodology.\*

### METEKA-DEVICES DESIGNED FOR SUSTAINABLE MANAGEMENT OF INFECTIOUS WASTE

When compared with alternative waste decontamination options, it becomes obvious that the MEDISTER treatment system is certainly one of the "greenest" possibilities to treat infectious waste, if not the "greenest" system currently available.

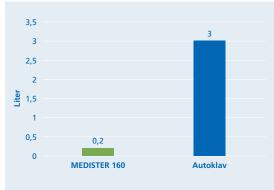


Global Warming Potential for one cycle of decontamination with the MEDISTER 160

Greenhouse gas emission throughout the MEDISTER 160 HF-Waste Decontamination Device life cycle are only 2,56 kg of CO<sub>2</sub> equivalents per treatment cycle. Most of the contribution to the global warming potential are primarily the result of the energy consumption in the use phase.



Comparison of direct energy consumption for 1 kg of treated waste in kWh



Comparison of water use for 1 kg of treated waste (in litres)

The figure shows the direct energy consumption of a 160-litre vertical laboratory autoclave in comparison with the MEDISTER 160 HF-Waste Decontamination Device. Assuming an average loading for both devices the energy consumption of the MEDISTER is almost 2.5 time lower.

It can be shown that the water consumption for the treatment of 1 kg of waste in the MEDISTER is 15 times lower than for the treatment with an autoclave.





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### SAFE | CLEAN | ECO-FRIENDLY





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