

Keep your eye on prevention

High-Level No-Touch Disinfection Systems



www.99technologies.ch



99Technologies help reduce the incidence of Healthcare Acquired Infections

Prevention is paramount

Healthcare Acquired Infections represent a silent epidemic that afflicts millions of patients in hospitals and healthcare facilities worldwide¹.

Constant rise in anti-microbial resistance reduces therapeutic options available to physicians. Containing the spread of dangerous pathogens to **prevent** the insurgence of HAI is like **fitting** the **pieces** of a **complex puzzle** together.

One of the most important is represen-



ted by the disinfection of fomites and other inanimate surfaces.

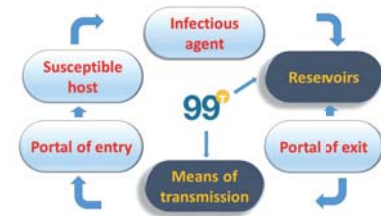


Effectively inactivating HAI-causing pathogens

The correct disinfection of hard surfaces is an essential component of the fight against HAI. When properly executed, disinfection allows to cut off surfaces as a transmission route for HAI-causing pathogens by hitting them when they are most vulnerable, and it is easier to

lessen their negative impact: that is when they are on surfaces. By contrast, when inside the human body, pathogenic bacteria become a source of potentially serious health conditions such as infections.

Breaking the chain of infection, exploiting pathogens vulnerabilities





We manufacture systems which automatically disinfect surfaces

99 Technologies introduces a new paradigm in the use of automated (or no-touch) disinfection systems that opens new modalities in the fight against HAI. Our systems bring contaminations of 1 million spores per



Introducing HyperDRYMist® an innovative environmental disinfection technology

square centimeter down to less than 1, hence they can solve essentially all bio-contamination problems encountered in healthcare facilities.





From prevention to high-level bio decontamination



99T brings considerable improvements on the extensively documented biocidal properties of aerosolized hydrogen peroxide disinfection. Effectively combining efficacy, speed, and affordability, HDM[®] allows to rethink the use of automated disinfection technologies by making available to infection preventionists a set of preventive disinfection protocols which drastically limit the insurgence of HAI.



99T systems aerosolize into the environment one of the company's proprietary disinfectant solutions transforming it into an extremely fine mist which behaves similarly to a gas made up of submicron droplets. The droplets are distributed evenly and thoroughly over each square millimeter of the environment depositing a coating of high biocidal efficacy.

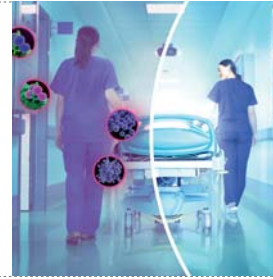
How do 99T's systems work

This level of efficacy and efficiency is simply not achievable via traditional manual disinfection methods.





Rigorous testing in the lab and in the clinic



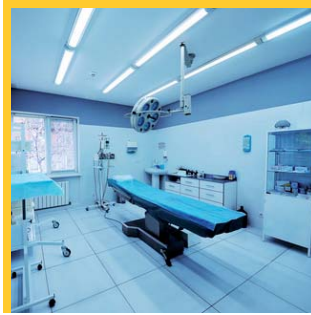
Wide-ranging testing in clinical setting has successively proved the drastic reductions in microbial load achieved via the use of 99T systems.



99T has followed a demanding path to validate the efficacy of its

proprietary disinfectant formulas via extensive testing carried out in certified labs.





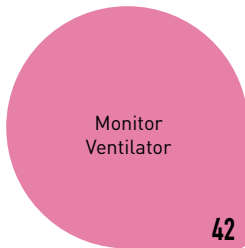
Testing effectiveness in clinical setting

Extensive In Vitro and In Vivo evaluations have demonstrated the efficacy of the HyperDRYMist® technology. A growing body of clinical evidence support the use of the 99T system as a valuable tool for the effective disinfection of hard surfaces and in the fight against Healthcare Acquired Infections¹.

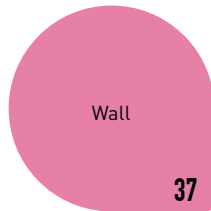
Proven microbial load reduction capabilities

50→ Microbial Load (UFC/cm²)

45→
40→
35→
30→
25→
20→
15→
10→
05→
00→

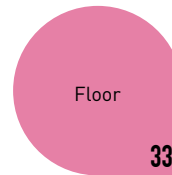


● <1



● <1

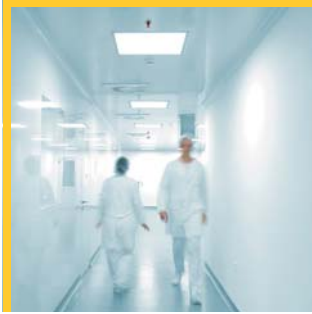
PRE-TREATMENT POST-TREATMENT



● <1



● <1



Protocol Guidance & Operational Support

99T provides support for optimizing the use of its no-touch disinfection systems. For parties seeking assistance, 99T offers kits for microbial load assessment, volume measuring tools, and advice on optimal protocol implementation.

Users benefits: targeting actual infection preventionists' needs

Higher execution speed

Optimized amounts of disinfectant, a mist composed of sub-micron size droplets and an accelerated-evaporation process allow a faster reuse of the treated spaces even in complex and densely equipped healthcare environments.

Full scalability of treatment's intensity, from prevention to decontamination.

Mist leaves no humidity residues, safe on electronic equipment and compatible with most surfaces found in hospitals.

Mitigated drop-off effect increases reach and efficacy of antimicrobial action.

Wider pervasiveness

Thanks to its novel aerosolization technology, the mist generated by the 99T systems travels in suspension further and reaches better even the most hidden surfaces.

Major cost effectiveness

Lower need of disinfectant formula and shorter cycles times cut down on operation and down time costs. Ease of use trims training costs.



Greater ease of use

- The system does not require elaborated preparations of the spaces before executing treatment.
- The modulator's programming and process activation are simple and done in seconds.
- Healthcare facilities' patients and personnel can reoccupy treated spaces in very compressed times.

We tested pathogens because of their clinical relevance, norms' requirements, and biocidal resistance



Microorganisms tested¹

- acinetobacter baumannii
- adenovirus 5
- aspergillus niger
- bacillus subtilis
- candida albicans
- clostridium difficile
- enterococcus faecium VRE
- enterococcus hirae
- escherichia coli
- carbapenem-resistant klebsiella pneumoniae (CR-KP)
- listeria monocytogenes
- legionella pneumophila
- murine norovirus (MNV)
- mycobacterium avium
- mycobacterium terrae
- poliovirus 1 lsc-2ab
- pseudomonas aeruginosa
- salmonella typhimurium
- staphylococcus aureus
- staphylococcus aureus MRSA

¹ Clinically relevant selection of a wider number of pathogens tested.



In formulating its disinfectant solutions 99T has strived to strike a key equilibrium point between efficacy, safety, stability, negligible amounts of residues, and absence of adverse effects on surfaces.

By doing so, we manufacture formulations whose biocidal efficacy goes well beyond the sum of their parts and fully exploits the effective synergy of its components

Our range of disinfectant solutions: moving beyond sheer hydrogen peroxide

while exceeding the capabilities of hydrogen peroxide or comparable disinfectants.





Surpassing hydrogen peroxide's capabilities

Superior biocidal power shown in efficacy norms' testing

Our proprietary formulas are chemically engineered so that other components are added to hydrogen peroxide. These elements work in synergy with one another and considerably enhance the biocidal properties of hydrogen peroxide. These improvements are particu-

larly important for the application of our preventive treatments which lab's testing has certified to be effective against contamination and pathogens commonly found in healthcare settings.

Certifications & Standards

Thanks to its novel aerosolization technology, the mist generated by the 99T systems expands in suspension further and reaches better even the most hidden surfaces.

The effectiveness of the 99S solution was tested in vitro according to the following European

standard norms:
EN 1040 EN 13697 EN 1650 EN 14476 EN 13623 EN 1276 EN 1275 EN 13704 EN 14348 EN 13727 EN 13624.

**The French Standard
AFNOR NF T72-281**

The United States Pharmacopoeial Convention standards.

In all cases the test results exceeded the norm's requirements.

The 99S solution is certified as: Medical Device Class IIa (EU Directive 93/42/EEC)

The 99S Solution is manufactured according to the standards: ISO 13485 ISO 9001

99 Technologies has achieved the ISO 13485 standard for Manufacture and After-Sale service of disinfectants for non-invasive medical devices and the ISO 9001 standard as Manufacture and Trading of disinfectants for non-invasive medical devices and biocidal products.



TRAICE®

Treatment Reporting And Interactive Compliance Execution is the technological ecosystem for total cycle automation, execution supervision, and compliance reporting.

Our range of Modulators Micro-Nebulizers: the 99MB and the 99MC

The 99MB is engineered to best exploit 99T's formulas elevated biocidal capabilities. Generate extremely fine mist, droplet size $<1\ \mu\text{m}$ / Single recharge treatable volume ranging from 1000 to 2000 cubic meters / Solid stainless-steel structure / Adjustable handle for easy transportation / Programmable disinfection operation's start / Smartphone app for remote operations (on demand) / Reports'

software for record keeping and compliance / Air intakes separation for maximum air quality control / HEPA filtering of engine's exhausts / Easy to carry as an in-cabin trolley.



99MC

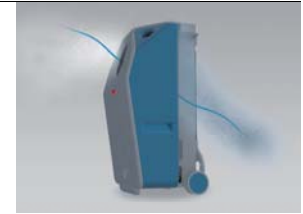
Seamless recharge operation with 2 bottles / Single charge extended to 2000 cubic meters / Flow control sensor / Up to 1000 pre-set protocols automatically matching treatment type with selected room.



The All New MD-1: converging multiple disinfection-enhancing technologies



- Double-exhaust potentiated nozzle.
- Disinfectant's optimized distribution via dynamic forced ventilation and rotating flow motion.
- Micro-nebulized disinfectant quantity high precision gauging. On-bottle data storage.
- Capacitive sensor for constant bottle status feedback.
- Bottle tampering prevention system.
- Total retraceability of disinfection operations.
- Fully automatic room identification and disinfection protocol execution.
- Programmable start of disinfection cycle.
- Automatic voltage regulator.
- Easy switch from fixed to portable mode.
- Autonomous identification of solution's type.
- Accelerated removal of in-excess volatile disinfectant.
- User friendly interaction and cycle programming.
- Remote control, fully automated cycle calculation, data storage and export.
- Sensor-guided end-of-cycle acoustic and visual feedback.





The 99MB Waves-Shielder

Stop pathogens, not your operations

At 99T we know that prevention must be applied widely and persistently in order to be effective. So we have made a deliberate effort make the use of our disinfection technology as widely adoptable as possible.





Electromagnetic Compatible



The 99MB Waves-Shielder

Environments hosting Magnetic Resonance Imaging MRI devices are by definition off limits to metallic objects whose presence represent a hazard or a potential source of interference with the proper working of the imaging devices.

Surface morphology of MRI devices complicates disinfection process, thus the use of the highly pervasive disinfectant action of HDM is highly warranted.

The technology of the 99MB Waves-Shielder allows to position our

device outside the 250Gauss line clearly identifiable inside rooms where MRI devices are located as it shields our modulator from the effects of the magnetic field generated by the MRI.



99 SK-shoot1: readily actionable disinfection in one easy shot

99 SK-shoot1: is a disinfectant formulation particularly suited for the disinfection of surfaces in confined spaces or with limited volumetric extension such as the interior of vehicles or hospital bathrooms. It is also



very useful in emergency situations or in areas not served by powerlines. The SK-shoot1 is autonomously micro-nebulized onto surfaces from a rapidly emptying container. The proprietary formula is based on the same guiding principles used to manufacture the

99T's range of disinfectants.

- Elevated and wide spectrum biocidal capabilities
- Extreme convenience and rapidity of use
- Chemically engineered for the one-shot delivery system.



99 SK-shoot1: readily actionable disinfection in one easy shot

With 99 SK-shoot1 we supply to healthcare facilities a vertical and integrated solution in the realm of high-level microbial load control to fully meet infection preventionists' need.

Vertical Disinfection Solutions



Visit our website for updates on
our technology and science.

www.99technologies.ch

99Technologies is based in
Switzerland, incorporated under
Swiss law, and member of the
Swiss Chamber of Commerce



**No-touch disinfection technologies
that make life easier for
infection preventionists and life better
for patients and healthcare workers.**



99Technologies S.A.

Via al Chioso 8
6900 Lugano - Switzerland
Tel/Fax: +41 (0)91 970 29 29
E-mail: info@99technologies.ch