

SANISIM & SANISIM SOLUTION

Evolution is: versatility, economy, continuous improvement

Sanisim & Sanisim Solution represent a system designed by MDF Srl, built and certified to pursue the environmental sanitation of confined spaces.

Sanitization is an activity that integrates all activities finalized to hygiene, executes after activity of cleaning and detergency in environments where biological contamination is a serious problem for human health and/or for production activities.

All the factors that determine effectiveness of treatment of environmental sanitation are:

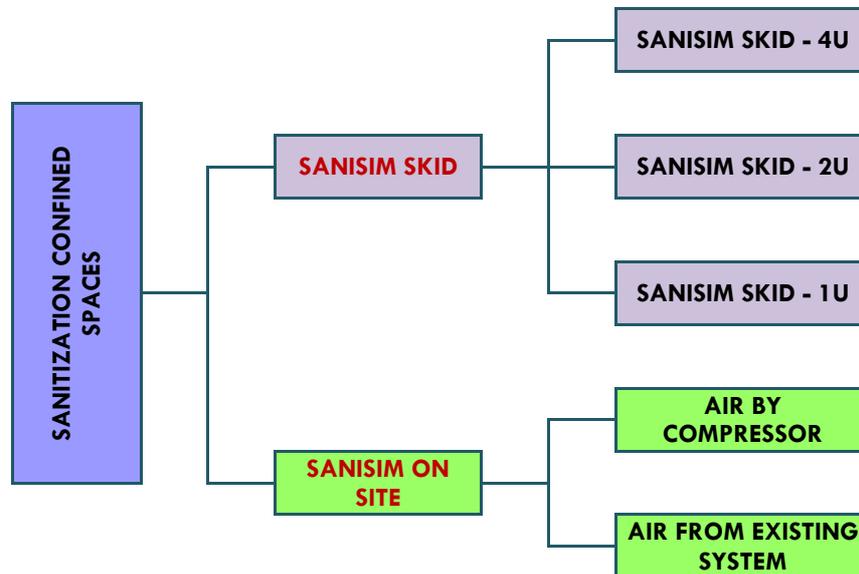
- environment Volume
- Time to spray Sanisim Solution
- Contact Time
- Decay Time
- Intended use of environments for treatment
- Frequency of treatment
- Human presence environments
- Target of treatment

Types of treatment with sanitizing process SANISIM:

- | | |
|-----------------------------|-----------|
| ✓ COMPLETE Sanitization | 6 ml/mc |
| ✓ INTERMEDIATE Sanitization | 4,5 ml/mc |
| ✓ MAINTENANCE Sanitization | 3 ml/mc |

A careful analysis of factors listed above determines the system MDF to offer to the market. In summary have been designed two large families of systems for environmental sanitization:

-  SKID system
-  ON SITE system



Skid system: Is a base system from which they were born a number of considerations. It's a machine that will be in competition on market, which is a fair competition on market, is a compare subject that allows you to highlight technical and performance characteristics, innovations that allow you to trace and historicize the whole process of sanitation, including machine, sanitizing product, environment, operator, the timing and operational techniques.

On site System: It's a case of a fixed installation, installed by customer, designed and sized according to the data input/factors found by same customer. A fixed logic is applied when the frequency of sanitizing treatments is constant and close in time (every day, every other day, every week, ...), when the introduction into environment of machine and operator, involves situations that invalidate treatment itself.

INSIGHTS

Skid system:

Today the Skid system includes three machines:

The **SANISIM – 1U** is the smallest machine, it is suitable for small environments, in particular for clean rooms, laminar flow hoods, for small workshops. Among the main features we can provide:

- Sprinkler System (fogger) to 1 nozzle capable of delivering 11 ml of SANISIM SOLUTION (Hydrogen Peroxide - H₂O₂);
- Time of diffusion for complete sanitization of an environment of 30 cubic meters of volume equal to 17 minutes. In this time we guarantee 6 ml/mc, then supply of 180 ml of solution;
- Weight that provides comfortable movement;
- Ability bottle SANISIM SOLUTION equal to 1 liter, able to sanitize over 160 cubic meters of volume;



- Compressed air produced by intern compressor or by an external fixed installation plant;
- Complete software for:
 - o data entry or customer / department / room;
 - o Inserting Lot no. of SANISIM SOLUTION;
 - o Data recording activities;
 - o Possibility recovery histories of individual activities;
 - o Verification of services provided;
- Security for workers, visitors, environments, furniture and fixtures present in environment.

This machine can be supplied with mobile fogger connected to the machine with two tubes in Rilsan diameter of 6mm supply by a compressed air and SANISIM SOLUTION. This solution allows sanitization performed without having to enter machines within the environment and operator. Naturally, in some cases must establish an entrance hole of fogger.

The **SANISIM – 2U** is an intermediate machine, is indicated for small rooms, in particular for clean rooms and small laboratories. Among the main features can indicate:

- Sprinkler System (fogger) 2 nozzles capable of delivering 22 ml of SANISIM SOLUTION (Hydrogen Peroxide - H₂O₂);
- Two opposing fogger are mounted on the front at an angle of 30° each to allow a fast propagation from above;
- Time of diffusion for complete sanitization of an environment of 30 cubic meters of volume equal to 9 minutes. In this time we guarantee 6 ml/mc, then the supply of 180 ml;
- Weight that provides comfortable movement;
- Ability bottle SANISIM SOLUTION equal to 1 liter, able to sanitize over 160 cubic meters of volume with half the time of SANISIM - 1U;
- Compressed air produced by intern compressor or by an external fixed installation plant;
- Complete software for:
 - o data entry or customer / department / room;
 - o Inserting Lot no. of SANISIM SOLUTION;
 - o Data recording activities;
 - o Possibility recovery histories of individual activities;
 - o Verification of services provided;
- Security for workers, visitors, environments, furniture and fixtures present in environment.

If the delivery time for an environment exceeds 20 minutes, it is advisable to use two machines or the mod. SANISIM - 4U.

The **SANISIM – 4U** is a more powerful machine, main features are indicate:

- Sprinkler System (fogger) to 4 nozzles capable of delivering up to a maximum of 11ml of SANISIM SOLUTION (Hydrogen Peroxide - H₂O₂) for each nozzle;
- Time to complete sanitization spread to a room of 100 cubic meters of volume equal to 20 minutes. In this time we guarantee 6 ml/mc, then the supply of 600 ml;
- Mobility on 4 wheels that allow easy moving;



- tank capacity of 4,5 liters of SANISIM SOLUTION, able to sanitize more than 750 cubic meters of volume;
- Compressed air produced by intern compressor or by an external fixed installation plant;
- Complete software for:
 - o data entry or customer / department / room;
 - o Inserting Lot no. of SANISIM SOLUTION;
 - o SOLUTION SANISIM continuous level control in tank;
 - o Data recording activities;
 - o Possibility recovery histories of individual activities;
 - o Verification of services provided;
- Security for workers, visitors, environments, furniture and fixtures present in environment.

This machine ensures times of rapid saturation of the environment so appropriate contact times before the beginning of the decay of the concentration of the product in a sanitizing environment. *Important factor is that the SANISIM SOLUTION quickly reaches the expected concentration for the entire process environment, if the delivery is slow, the decade produced during nebulization and does not reach the environment in a homogeneous and concentrated in all its entirety .*

If the environment is very large, you have to work with multiple machines.

On Site System:

With a on site system is not possible to speak of machines on site because the system is designed and built by the customer's production site following evaluation of specific factors to intended use.

This system has three fixed points:

1. Fogger
2. Software connected to PC
3. SANISIM SOLUTION

This system also has a variable point: for example power source of compressed breathable air at 3 ÷ 4 bar having capacity of at least 240l/min for 4 nozzle.

- ❖ It can feed plant with one or more compressors type oil-free, similar or identical to those installed on Sanisim Skid. The sizing of compressor is in a function of number of nozzles to be served (the saturation of environment for sanitization complete equal to 6ml/mc, must be done within 20 minutes.
- ❖ You can power it with compressed air network, if available, having making sure set up a filtering system suitable before entering our sanitizing system. In this case there are no problems of flow and this guarantees performance of entire system.

Fogger or foggers, can be of variable number and will be mounted in the environment to be sanitized; will be positioned so as to ensure a homogenous diffusion of SANISIM SOLUTION. So they may be of variable number from 1 to more foggers, provided these are supported by a good supply of compressed air from the product and sanitizing.

If the environment is very large or has a particular geometry, it is advisable to enter into the system of internal air circulators that allow a better homogenization.



One of the strengths of the On-Site system is the autonomy of operation: its activity can be programmed, the system carries out the treatment, and the software keeps track of what happened. This independence, however, must be carefully accompanied by some measures related to security.

In fact, even if the SANISIM SOLUTION is a solution that does not cause serious harm to humans in the event of accidental contact, may cause slight discomfort in mucous.

To avoid this, the relevant treatment will be provided with adequate beeps and lights that indicate the status of the system. Them, given both inside and outside of the environment, will be:

- Light red/green on each port of entry/exit from room
 - Light red: danger, away from the room
 - Green light: no danger, environment frequentabile
- Display with text and countdown;
- No written: frequentabile environment. In this case, the Light is green.
- Attention, start sanitizing between a set countdown timer than activates the treatment. In this case, light is red;
- Attention, sanitation in progress. At the end of treatment there is a countdown timer that activates 15min to the end of treatment. In this case, the Light is red.

System SANISIM On-Site is adopted in those environments where the guarantee of the absence of biological contamination is high, where the cycles are frequent and the environment remains at rest for a short time, sometimes only the time of the cleaning and regeneration the entry of operators, machines and products is in itself a source of pollution physical / chemical / biological. For this reason, in these cases, you can also make a sanitizing intermediate or maintenance.

In case of on-site system powered by air network, plant appears to be small, cheap and simple to make. In fact, it will be constituted by:

- ✓ Compressed air input served by air filtration system in order to make it breathable;
- ✓ tank of containing SANISIM SOLUTION size proportionate to consumption;
- ✓ Software and computer management and control system;
- ✓ Network of diffusion of the product sanitizing ending with an adequate number of fogger;
- ✓ system of servo valves for use in autonomy.