



## TESALYS « VIRUS + » PROGRAM

### DOUBLE SECURITY AGAINST VIRUSES

Most of the recent and deadly epidemic outbreaks (Covid-19, SARS, MERS, AIDS, Ebola, ...) are caused by viruses.

In response to the Covid-19 outbreak, Tesalys has developed a special infectious waste treatment program with double security for the elimination of viruses.

In the « Virus + » program, viruses are eliminated with an additional pre-decontamination phase at 85° C for 15 min, providing double security to the standard 135°C sterilization cycles.

The « Virus+ » program is an option exclusively designed and scientifically tested for Tesalys healthcare waste treatment systems STERIPLUS™ and STERISHRED®





# TESALYS « VIRUS + » PROGRAM

## Double security against viruses

### Questions & Answers

#### In an outbreak situation, why is it important to treat the infectious waste on site ?

WHO technical brief dated March 3, 2020 clearly states : « **All health care waste produced during the care of COVID-19 patients** should be collected safely in designated containers and bags, treated, and then **safely disposed of or treated, or both, preferably on-site** »



UNIQUE SHREDDING



135°C STEAM STERILIZATION



8 LOG<sub>10</sub> REDUCTION

#### Are Tesalys systems effective to kill all kind of micro-organisms ?

Tesalys healthcare waste treatment systems **STERIPLUS™** and **STERISHRED®** are equipped as standard with a shredding-decontamination program with the following parameters (shredding, air extraction by vacuum through a 0,2 µm microbiological filter, steam autoclaving at 135°C ± 0,5°C during 10 minutes, under 3,145 ± 0,028 bar). This program has been tested according to the requirements of NFX 30-503-1 standard with optimum results on **vegetative bacteria, bacterial spores, fungi, viruses and parasites** (up to 8 log<sub>10</sub> reduction on bacterial spores).

#### What makes Coronavirus SARS-CoV2 (causing Covid-19) particularly dangerous ?

Coronavirus causing the Covid-19 disease is a **new emerging virus of small size**, which attacks primarily the respiratory airways. **Viral RNA is transmitted via respiratory droplets** but **airborne transmission** and **contaminated surfaces** are also being considered.



#### What is Tesalys' « Virus + » program ?

In response to the **Covid-19 outbreak**, Tesalys has developed a **special program named « Virus + »** in order to have a reinforced efficacy of the standard program which includes an extra **pre-decontamination stage after the shredding at a temperature of at least 85°C during 15 min.** to make sure all viruses are inactivated even before the standard decontamination cycle starts.

#### Is the « Virus + » program safer than a normal autoclaving cycle ?

In a normal autoclaving cycle, air is removed from the chamber either by gravity displacement or with a vacuum system before the sterilization phase. This air potentially contaminates the surrounding environment and puts the personnel at risk.

In the Tesalys **STERIPLUS™** and **STERISHRED®** standard program, air removed from the chamber during the pre-vacuum is effectively filtered by a 0.2 µm microbiological filter to avoid the release of pathogenic micro-organisms in the atmosphere.

**The « Virus + » program provides an extra security** : the pre-decontamination phase at 85°C, prior to 135°C sterilization phase, ensures that viruses are completely eliminated in the sealed chamber of the Tesalys unit even before the 0.2 µm air filtration starts. Using the « Virus + » program is like driving a car wearing your safety belt + an Airbag !



#### Is the « Virus + » program scientifically tested to eliminate Coronavirus - like viruses ?

Efficacy tests have been carried out by an independent laboratory using H1N1 ATCC VR1469 which has similar heat resistance properties to the Coronavirus causing SARS (SARS-CoV or SARS-CoV2, & Covid-19).

**« Virus + » program equipping Tesalys HCW treatment systems inactivates Coronavirus-like viruses during the pre-decontamination phase providing additional security for the user.**

### Epidemic Risk Management Solutions



**STERIPLUS™ RANGE**  
Integrated shredding & steam sterilization systems  
Capacity of up to 20 kg/h



**STERISHRED® RANGE**  
Integrated shredding & steam sterilization systems  
Capacity of up to 100kg/h



**TESABOX**  
Cardboard containers with internal plastic bag



**SPIRE**  
INTEGRATED SOLUTIONS