

INFECTION CONTROL Frequently Asked Questions – The New Virus Protective Class B Autoclave









## What is the advantage of a Class B autoclave?

Class B autoclaves, also called pre-vacuum steam sterilizers, use steam under pressure to sterilize contaminated items. In order to comply with class B, over 99% of the air in the chamber must be removed before the heating and sterilization stages. Just for reference, gravity autoclaves remove only 90 to 95% of the air. Class B autoclaves are therefore more advanced than Class N that use gravity as the air displacement method.



# Why is pre-sterilization air removal necessary?

Air removal is critical for improved steam penetration. Over time dental and medical instruments have become more sophisticated, and there was a need to confirm steam penetration to the deepest and most complex parts of the tools to verify sterilization.



It's quite simple:

If there is air, there is no steam

#### If there is no steam, there is no sterilization

Imagine a very long and narrow tube that needs to be sterilized in the autoclave. Steam, the sterilization agent, cannot penetrate the long, hollow, and narrow tube or wrapped instruments.

**99% of the air in the chamber is removed, consequently enabling the full penetration of steam.** Without the critical stage of pre-vacuum air removal, the sterilization process would be compromised.

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### Is the air removed from the autoclave prior to sterilization phase treated?

Until now, only highly sophisticated laboratory autoclaves have treated the air removed from the autoclave at pre-sterilization phase. Although processing air released from the autoclave into the environment at pre-vacuum stage is not required by regulation, Tuttnauer has added extra safety measures to its dental and medical autoclaves, providing a unique solution that adds an extra layer of protection to the clinic's environment. Tuttnauer's Elara and HSG autoclaves are now available with a cycle that addresses the problem of contaminated pre-vacuum air removal.



The autoclave's goal is to make sure that by the end of the cycle, you get the microorganisms sterilized. A standard Class B autoclave does not take into account the ambient. Here is where the virus protection cycle takes place.

The advantage of this cycle is that at pre-sterilization stage decontamination conditions, for viruses, are created in the chamber, so once the regular cycle starts, the air that will come out during the air removal stage will be treated air with limited risk to the ambient.



The class B autoclave with the new virus protection cycle, treats air in the autoclave chamber **before** the preliminary air removal stage. This secures that any harmful virus, including Coronavirus, are destroyed and will not be released back into the environment, during the air removal phase.

This innovative cycle was developed due to the Coronavirus outbreak. During periods of Pandemics, there is a need to minimize the contamination risk, particularly in clinics and medical facilities. This autoclave is the perfect solution.



Where can I learn more about the autoclave and the coronavirus cycle?

There are a few options:

Download autoclave brochure

Contact a Tuttnauer sales representative

### About Tuttnauer

Tuttnauer provides end to end sterile processing solutions for dental and ophthalmic clinics, including; advanced autoclave sterilizers, washer-disinfectors, indicators, and sterile processing products. The new Coronavirus Class B autoclave is a highly advanced autoclave explicitly developed for dental, ophthalmic and medical practices by providing an extra layer of protection.

The Autoclave goes above and beyond standards by meeting all sterilization needs and creating cyclic parameters that accommodate with the most challenging loads, ensuring load sterility, efficient drying, helping dentists achieve today's challenging workloads and provide superior patient care, without risking cross patient contamination.

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