



COVID-19 :

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## Why Steam Is the Best Solution for Cleaning When Hygiene Is Critical

The COVID-19 pandemic has resulted in increased hygiene requirements in many facilities and institutions. Cleaning teams are working around the clock in hospitals, nursing homes, and even supermarkets, where they're sanitising trolleys after every use. When activities like dining out and travel resume, enhanced cleaning in areas such as restaurants, airports, hotel rooms, and retail spaces will also be necessary to prevent the virus that causes COVID-19 from resurging.

There are multiple ways to tackle these cleaning challenges. In many cases, the best solution is a simple one that has been around for decades: steam.

Steam cleaners work by heating water to a very high temperature (typically in the range of 100-150°C). When you spray this superheated water onto a surface,

it penetrates even stubborn materials like grease and biofilms, reaching into cracks and crevices that even many chemical sanitisers can't access. Because it can eliminate most pathogens without chemicals – or with fewer chemicals, in the event that they are used – steam is not only a highly effective cleaning solution, but a sustainable one, as well.

# Steam cleaning applications

Of all cleaning techniques, steam is the most flexible. It can be used indoors and outdoors, on porous and nonporous surfaces, and for cleaning everything from upholstered furniture to food processing equipment.

Below you find examples of steam cleaning applications in environments with high hygiene requirements.



## Hotels and restaurants

- Hotel rooms
- Kitchen appliances
- Dining room tables, chairs, and upholstery
- Lobbies
- Toilets



## Healthcare facilities

- Patient rooms
- Waiting rooms
- Foodservice areas and equipment
- Wheelchairs and other patient equipment
- Operating rooms

## Airports

- Toilets
- Seating areas
- Luggage trolleys
- Concessions areas
- Service counters



## Schools and daycare centers

- Toilets
- Mirrors and windows
- Tables, desks, and chairs
- Food preparation and foodservice areas
- Sports equipment and exercise areas



## Supermarkets

- Trolleys and baskets
- Department counters and display cases
- Checkout counters and conveyor belts
- Butcher shop cutting tables and boards
- Deli food preparation and foodservice areas

# Benefits of steam cleaning

As we mentioned earlier, steam cleaning is both effective and sustainable.

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Top 3 benefits of steam cleaning

- 1. Effectiveness** – Quickly remove both dirt and pathogens
- 2. Convenience** – Reopen zones faster
- 3. Sustainability** – Use less water, less energy, and fewer/no chemicals

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## Effectiveness

### – Quickly remove both dirt and pathogens

Steam is commonly used in environments with high hygiene requirements because it cleans both quickly and thoroughly. [A report from the UK Department of Health and Social Care](#) found that not only does steam effectively remove soil, but it also “completely removes the selected test microorganisms (MRSA, Acinetobacter, Klebsiella, and Clostridium difficile spores) and completely disinfects the cleaned surface. “The researchers also looked into concerns about the contaminants becoming aerosolised and traveling through the air. Their results found “no evidence of dispersion of viable organisms.”

As of this writing, there has not been any specific research into the use of steam cleaning to eliminate SARS-CoV-2 (the virus that causes COVID-19), but the [virus is known to be sensitive to exposure to high temperatures](#).

## Convenience

### – Reopen zones faster

Because steam cleaning uses less water than other cleaning techniques, and because the water it does use is superheated, surfaces dry very quickly after cleaning. In most cases, the surface will be completely dry in less than 10 minutes, compared to the 30-60 minutes that’s common for techniques that use more water.

The result is that you can reopen zones sooner after cleaning. Especially right now, as many hospitals are overwhelmed, being able to get patients into beds faster can be the difference between life and death.

## Sustainability

### – Use less water, less energy, and no chemicals

Finally, we’ve mentioned this already, but steam uses less water than other cleaning methods, and chemicals aren’t required for sanitisation. The machines also tend to use less electricity, resulting in greater sustainability all around.

## Hot water cleaning vs. steam cleaning

There are two main methods to harness the cleaning and sanitising power of heat:

- With hot water, using a hot water high pressure washer, and
- With steam, using a steam cleaner

Both methods provide fast and effective cleaning, but there are some differences that make each of them best suited for different applications.

Pressure washing is ideal for applications where there is a large buildup of soil on the surface. Because they use high pressure, they are able to loosen even caked-on dirt.

However, the water in a pressure washer isn’t as hot as the water in a steamer (if it were, it would turn to steam), so the water on its own isn’t sufficient for sanitisation. It can start the process, but a chemical disinfectant is still required.

Steam cleaning can cut through soil, but not to the same extent as pressure washing. However, steam is consistently hot – hotter than 100°C, or else it would be water – which eliminates the need for chemicals. That’s why steam is preferred for applications, like toilets and hospital cleaning, that require sanitisation but don’t involve a lot of built-up dirt.

# Best practices for cleaning with a steam cleaner

Follow these best practices to achieve a thorough clean while keeping your cleaning team safe.

- 1. Before you start, remove everything that doesn't need to be steam cleaned.** This includes removing any built-up dirt. By doing this, you enable the steam to have maximum direct contact with the surfaces to be cleaned.
- 2. Use the accessory most appropriate for the surface.** Steam cleaners come with a wide variety of accessories (floor tools, crevice tools, etc.). For disinfection to take place, the steam must come into direct contact with the surface before it dissipates. Using the right accessory will ensure this happens.
- 3. Don't touch the machine while it's running.** A steam cleaner is essentially a boiler, which means it's hot. Be sure to touch only the handles, tools, and other parts of the machine that are clearly indicated as safe.
- 4. Don't rush.** Even at a high temperature, the steam needs a minimum exposure time to achieve the desired results. Aim for at least 20-30 seconds of exposure. You can accomplish this either by cleaning slowly or doing a double pass.
- 5. After cleaning, vacuum up the water.** Steam cleaning leaves a thin layer of hot water that contains all of the dirt and germs that have been loosened from the surface. Vacuum this up to remove the dirt and germs completely, as well as to reduce the drying time.
- 6. Add a chlorine or bleach tablet to the dirty water tank.** This extra safety measure will guarantee all pathogens are inactivated.
- 7. Wear personal protective equipment (PPE).** While steam doesn't aerosolise, it is possible to have sprayback if you're close to the surface you're cleaning, so you should always wear protective gear. When cleaning in areas where pathogens may be present, follow national, regional, state, and/or local guidelines for wearing PPE.



## What to look for in steam cleaning equipment

Many steam cleaning solutions are available. Look for these features to get the best results from your investment.

- 1. A high-quality commercial-grade machine.** Steam cleaners are available for residential, as well as for commercial and industrial cleaning. But there is a big difference between machines designed for homes and those designed for hospitals. Look for robust stainless steel construction, good ergonomics, and a long runtime – best-in-class machines can run for up to 12 hours at a time and still last for several years.
- 2. An integrated vacuum.** Steam cleaners come in three main configurations: steam only (SO), steam + vacuum (SV), and steam + detergent injection + vacuum (SDV). An SV machine, which allows you to steam and vacuum at the same time, is ideal for the applications discussed above.
- 3. A constant-fill tank.** There are two types of cleaning tank: constant-fill and stop-and-fill. With a constant-fill tank, you can top up the water while the machine is in use. With a stop-and-fill tank, you must turn the machine off and wait for it to cool down before refilling. When speed is important, constant-fill is by far superior.
- 4. A complete range of accessories.** Pick a machine that comes with accessories that match your surfaces to be cleaned.
- 5. Easy-to-remove dirty water tank.** At the end of each cleaning session, the dirty water tank must be removed and emptied. Make sure you select a machine where this task is easy to perform without causing strain for the operator or risking a spill.