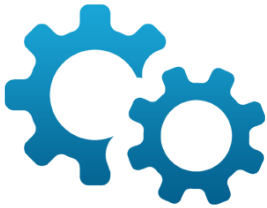




# Cleaning and Disinfection of Equipment

In order to make cleaning as efficient as possible, there are five important parameters to be considered:



## 1) Mechanical/Physical Action

In circulation cleaners, this is usually achieved by turbulent flow such that the liquid has a scrubbing effect on surfaces.

In spray applications, the kinetic energy of the spray flow will also give a scrubbing effect. Sometimes old fashioned physical scrubbing to the exterior of the clusters is required.

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## 2) Heat

Aids the break-up of fatty soils and if the temperature is sufficiently high, it will also aid in the destruction of micro-organisms.

Heat is useful to break-up proteins, but care is needed, if the temperature is too high, protein will simply burn on to surfaces and become more difficult to remove. The result will not only be a harbourage for micro-organisms, it could also directly result in milk contamination if burnt on debris has flaked off surfaces into subsequent milkings.

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## 3) Contact Time

Eventually, you might clean with just hot water, but a very long contact time would be needed, plus a lot of expensive thermal energy. Using detergents at the right strength and temperature will reduce contact time.

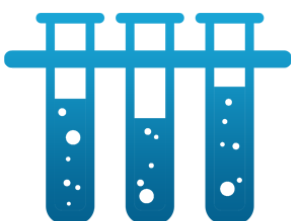
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## 4) Potable Water

You cannot clean with dirty water. If the water is not fit to drink, it is not fit to clean with.

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## 5) Chemicals (Detergents and Disinfectants)

Choosing the right chemical is essential, you cannot clean with a disinfectant, and you cannot disinfect with a detergent.