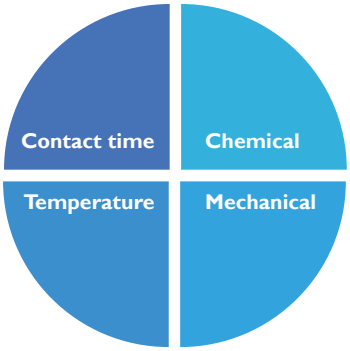
Rhima Australia Pty Ltd
Tel: 03 8586 5444
www.rhima.com.au

Four Basic Elements to Cleaning

Key components to consider

Cleaning is subjective and open to different interpretations. It is important to understand that when buying a commercial dishwasher there are factors which contribute in varying degrees to a required outcome. There are 4 basic elements to cleaning



Contact Time

Contact time is perhaps the most crucial part of any washing or cleaning process as it applies to all facets of cleaning.

It determines the time that a product or item is subjected to the influences of mechanical action (water jets), chemical action (detergents, surfactants, oxidents etc) and thermal action (temperature). The outcome can then be used to determine a process, which can be either cleaning, sanitizing, disinfecting or even sterilizing.

To determine the necessary contact time for a mechanical washing process you need to find a balance between applicable legislation, items to be washed and required outcome.

Chemical

The influence of chemistry on all aspects of cleaning is very complex. It not only refers to the detergents used, but the composition of the water used makes a difference, just as much as the product that needs to be cleaned.

We are not chemists, so this explanation will minimize the use of chemical symbols and formulae.

Water

First of all, the medium used for washing: water. Water contains certain mineral and organic constituents which influence the cleaning process. The higher the expectation of end results, the more significant the quality of water.

The role of water in the washing process is threefold. First, it has to dissolve and carry the detergents required to break down the soil; secondly, it is used as a mechanical means to remove the soil and provide a scrubbing action and finally, it is used to give a final finish to the item being cleaned and this can be either optical (clean glass) or physical (disinfection).

Detergents

The use of the correct detergent is often an underestimated factor in mechanical washing.

Getting it exactly right is critical. Examples of factors that cause negative reactions:

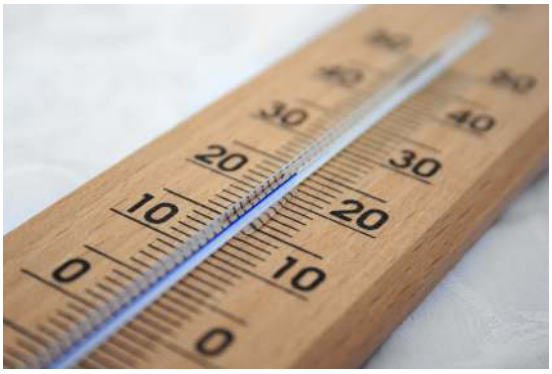
- The wrong detergent
- Incorrect dosage, either too little or too much

Rhima Australia Pty Ltd
Tel: 03 8586 5444
www.rhima.com.au

- Mixing of incompatible detergents
- Incorrect contact time
- Chemical passed its use by date
- Incorrect temperature

Two vital characteristics of a detergent used in a mechanical washing process are: it must be soluble in water and it must be low foaming. The first is obvious, the second would adversely affect the efficiency of the pumps.

Temperature



We are all aware of the influence temperature has on our lives and how dynamics can change dramatically with an increase or decrease in temperature. Of course the same applies to cleaning and in particular, mechanical washing. Temperature plays a significant role in:

- **Removing soil -** If the wash water temperature is too high, then proteins can bake on. On the other hand, if the temperature is too low, then fatty substances will not be removed.
- **Cleaning** - High temperatures (80oC +) are required to disinfect
- **Chemical -** Certain chemicals operate only within a specific temperature range, others may change their composition or break down. We all know how chlorine evaporates from a pool quicker in summer than winter
- **Safety -** When washing at high temperatures, operators need to be protected. Their working environment also needs to be at a pleasant, workable temperature
- **Machinery** - Not only the operating temperature of the actual wash water but also the surrounding temperature plays a significant role on the reliability and life span of the equipment
- **Dynamics -** Spray patterns can change with varying water temperature, so can pump efficiency

Mechanical

The mechanics of cleaning not only relate to the actual washing machine, but also to the items that have to be washed. Cleaning smokehouse trolleys requires a totally different approach to washing crystal glasses.

Washing machines vary in size and function, depending on what they have to wash. However they all share one basic function and that is to provide the mechanical action required to clean an item.

Rhima's washing philosophy is to use a high volume of water at (a relatively) low pressure for its washing action. The impact of the larger droplets used in our method together with the incredible volume of water that is recirculated gives the impact of mechanical force required. It also allows for versatility to adapt to different cleaning requirements.

What is the advantage of using our method of washing?

- Safe
- Versatile
- Efficient
- Cost effective