

focus on
Laboratory Products

Purchasing a Lab Washer – How to Ensure a Perfect Wash Before you Purchase

Miele Professional

Purchasing a new lab washer is a major decision for any laboratory owner. As an expense which falls outside of the 'everyday' costs of running a lab, such as for water, electricity, or everyday replacements or repairs, the purchaser needs to be certain that they are choosing the correct lab washer for the often very specific job that needs to be done.

It's a task that is made more difficult by the fact that each laboratory has its own particular needs, which many operators may struggle to feel can be met by a 'catch-all' washer. Lab washers can be put to work doing anything from pasteurising bottles, to removing soil from test tubes and cleaning tiny parts of intricate equipment. For labs dealing with incredibly sensitive items and often dangerous pathogens which need to be eradicated without any doubt, a washer that delivers less than 100% results simply isn't an option. In many cases, a below-standard lab washer could mean the difference between life and death for the end users of the item being cleaned.

One solution that manufacturers have used to deal with this understandable concern from potential customers is having



a facility on-site at their sales premises, with technical demonstrators on hand to show how the lab washers operate, and the extent to which they can be adapted to meet customers' individual needs. A test wash centre means that customers can see the work that they would like to process being cleaned in a real-life environment, and trial exactly what they would wish to process in their business rather than just generic items which will not accurately demonstrate what the washer will need to do every day.

During a visit to the test wash centre, programmes on the lab washer can even be modified and saved to meet the exact needs of the customer, to give the results that they would expect if they were to purchase on the machine. In addition, this process can be filmed for follow on training purposes, so that everyone who will operate the machine can see exactly how the professionals operate it, including in-depth details such as how to adjust the cleaning programmes for different items.

At Miele Professional's test wash centre in Abingdon, this solution to customers' concerns has been extremely effective – in fact, 100% of the customers who have visited the test wash centre with the items they need cleaned have gone on to buy the product.

One of the biggest issues covered by the lab washers is the need to pasteurise items. For Miele, in recent months clients have included some of the biggest drinks brands in the UK. Pasteurisation is a thermal treatment applied to foods to remove and destroy pathogens. In the food and drinks industry, tunnel washers are often used to pasteurise drinks bottles in a production line. Within research and development flavour laboratories, new flavours and additives are tested for heat stability prior to being used in new formulations and production. Typically, pasteurisation here is performed with a bench top pasteurisation system, in a stove-top immersion bath.

However, a glassware washer can be used instead of a typical immersion system or tunnel washer to pasteurise. These can simulate tunnel washer conditions on a smaller scale, so bottles are sprayed with water at a specific temperature but stay in place in the wash chamber. Temperatures can be raised step-by-step then held for a specific time interval and then lowered. This temperature ramping can be customised for a particular liquid, volume or flavour, to ensure that these are not altered or affected by the process. For example, the program can be written with a number of steps, with each step raising the temperature gradually then holding the temperature for a given time designated by the responsible user operating the machine. Since the programming is easily done using the electronic controls of the machine, optimal hold times and temperatures can be determined with minimal testing. Good manufacturers such as Miele Professional also provide onsite training in the operation of the machine and custom programming using temperature sensors in the vessels to be pasteurised determining a pasteurisation program for any customers.

The holding times and temperature can be customised allowing for researchers to optimise the flavour. For example, if the material is heat sensitive, the water temperature can be held at a lower level for a longer time. Once the temperature is held, it must then be ramped down to cool the bottles.

Other uses for the laboratory washers are hugely diverse, covering an enormous range of sectors and uses. One test that you might not expect for these machines was for the petroleum industry, where a high level of organic soiling has been removed from specialised glassware.

The contract electronic industry has also found laboratory glassware washers invaluable. Specialist programmes and inserts for the machine can enable flux and solder residues to be cleaned from incredibly intricate circuit boards and components that would be impossible to remove otherwise. This has benefited organisations across sectors where a reliable and consistent wash is crucial. In the aerospace and



military sectors, having a clean and solder-free component can literally mean the difference between life and death.

For the medical profession, the importance of a high-quality clean almost goes without saying. Surgical instruments and clinical implants must have the highest standards of cleanliness, and so those responsible for purchasing these items should ensure that everything possible has been done to guarantee this.

Whether you work in one of these industries, or another sector where a lab washer is needed, it is important to do your homework first. Anyone purchasing a new lab washer should ask whether they can visit a test wash centre for the item in question, and ensure that the specific item they need to be cleaned is treated to their standards before purchasing. If this service isn't offered, consider shopping around to ensure that this major purchase is worthwhile.

