



**High pressure
cleaning mentor**

ROBOTCHEMIE is your specialist for special cleaning requirements.

In the following we wish to give you some tips related to cleaning with high-pressure devices. Our products are designed so that you can always achieve a perfect result.

Consider our notes and advice in order to optimize your cleaning process, to minimize sources of danger and to work economically

Please always note the specifications of the manufacturer of your high-pressure device.

In case of cleaning with high-pressure devices, several components must be coordinated in order to achieve the required cleaning success. We indicate to you the most important factors with which you can immediately improve your cleaning result.

1. Jet pressure

The jet pressure should not exceed values between 80 and 120 bar. By the installation of a pressure regulation or by the selection of a suitable nozzle for the regulation of the separation distance between nozzle and object being cleaned, the impact pressure of the beam can be additionally influenced. In case of very finely adjusted nozzles and high pressure, the atomizing of the water/cleaning solution can easily occur (aerosol formation). In this case, very fine, respirable particles are formed which are capable of being breathed in and which can lead to cough irritation. These irritations even occur when working with pure water.

2. Water quantities

The water quantity must correspond to the size of the object being cleaned. Values of 600 liters per hour should not be fallen below in this case, since otherwise the flushing effect of the water does not suffice. Basically, in case of large surfaces, water quantities between 900 and 1000 liters per hour should be provided. It is important to consider the capacity of the floor drains in this connection.



3. Temperature

The temperature of the water jet should be between 60°C and 80°C before leaving of the nozzle. After discharge from the nozzle, the jet cools down rapidly

so that at about 30 cm distance to the object being cleaned temperatures of approx. 50°C are present. In particular with the occurrence of fat contamination, hot water provides better cleaning results than cold water. With higher temperatures, it must be noted that work-hindering saturated steam forms and an energy expenditure arises which cannot be justified when measured against the effect.

4. Cleaning agents

The cleaning agents must be adapted to the respective dirt accumulation. In particular in case of grease-content and mineral contamination, a satisfactory result is not achieved with clear water alone.

Here our cleaners are dealt with.

Generally alkaline products are to be employed for grease-content dirt and acidic cleaning agents for mineral deposits.



In order to work both economically and non-polluting, you should always select the least possible concentration. You can find the recommended concentrations on our product labels in each case. With special application challenges, our chemical technology department will be glad to help.

5. Cleaning time

Based on economic considerations alone, the cleaning time must be kept short.

According to the degree of dirt accumulation, as well as the correct combination of the remaining four factors, the cleaning process can be optimized so that you are provided with the best result in the shortest time.

However, the cleaning time of course also depends on the process selected.

6. Process variants

The cleaning processes used considerably influence economic working. Also further factors, such as working time, cleaning agents and water consumption are to be considered, which are included in the cost accounting.

One-step method

With the one-step method, cleaning agent is continuously added to the high-pressure jet. The concentration here is between 0.2% and 4%. Since with this method the contact period of the dirt-removing components is only very short, this process will frequently not indicate an adequate cleaning result.

Two-step method

agent is first of all applied in higher concentrations at lower pressure on the surface. After a corresponding contact period, during which **the product may not dry**, the dissolved dirt and the cleaning agent residues are washed off under full pressure. The advantage of this procedural method is that the cleaning agent is given sufficient time to dissolve the dirt. By working with low pressure, less cleaning agent is atomized into the environment, which results in a lower level of pollution for the working personnel.



Do you have any questions and do you require a product consultation?

Our sales team and our chemistry-technical consultation service are glad to remain available to you.

Contact us by telephone: +49(0)209/95899-0
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