

GUIDE TO CHEMICALS AND HT

CHEMICALS

It is possible to use certain chemical cleaning products. The cleaning product can be added upstream (*delivery – high pressure*) or downstream (*suction – low pressure*) to the pump.

Analyse the chemical before use to ensure it is compatible with the materials of the system parts.

You must comply with legal standards for the protection of the environment when using chemicals.

Chemicals can always be added by means of a venturi. A small venturi is sufficient as there is high pressure downstream to the pump; a larger mixer will be required upstream to the pump.

Using an injector downstream to the pump has several benefits.

1. Less exposure of components to the chemicals.
2. Using the injector downstream is more cost effective as it runs on low pressure.
3. The machine operator can control the flow of the chemical more easily by changing the aperture of the venturi on the lance.

Generally, the injectors downstream are double lances and usually need an operating pressure of circa 50 bar.

Oversized injectors can lead to a strong drop in pressure and a higher concentration of chemical being added. Vice versa, the chemical will not be mixed properly if the injector is too small.

If you opt to pass the chemical through the pump, it will be subject to corrosion due to the effects of the chemical itself. Only opt for mixing on the suction line if the chemical is mild. If this is not the case, choose a high pressure mixer, possibly upstream to the nozzle, so that practically no components are affected by the corrosive effects of the chemical.

The pH must be between 5 and 9. A filter must be fitted with a pore size of 20-30 µm if the water contains abrasive particles.

HIGH TEMPERATURE

Hot water can be used instead of chemicals or in addition to them. Again, you can choose to pump hot water directly or to heat it downstream to the pump.

Always check that parts can tolerate the operating temperature.

High temperatures reduce the life of system parts, especially the seals and the automatic check valves in the pump as well as parts for closing and sealing in the control and safety valves and in the gun. Another result is rapid nozzle wear. See datasheet S009-13 “HT PUMPS”