

Pharma-X

Pharma-X Point-of-use Cooler for Pharmaceutical Water Systems

Applications

The Alfa Laval Pharma-X is a compact point-of-use cooler for Water For Injection (WFI) or Purified Water (PW) systems. The Pharma-X meets the stringent hygiene standards imposed by both control authorities and industry.

For quick and easy installation, the Pharma-X point-of-use cooler is supplied as a complete insulated module with a pitot tube arrangement and either manual or automatic valves. Installed in a water system, the Pharma-X module can be regarded as a sub-loop of the main loop.

Working principles

To maintain optimum sanitary conditions when the point-of-use cooler is in 'stand-by' mode, hot water from the main loop enters via the pitot tube and flows continuously through the point-of-use cooler and back to the main loop (fig. 1).

Switching from 'stand-by mode' to 'cooling mode' (fig. 2) enables cold WFI or PW to be withdrawn within a few seconds.

It is also possible to withdraw hot WFI or PW at the point of use.

The low hold up volume, and the quick response of the heat exchanger, ensures that waste of WFI or PW is minimised. The cooling water demand is very low thanks to the efficient heat transfer.



PHYSICAL DATA

Connections: Tri-clamps metric or ANSI
 Material: 316 L stainless steel, seamless tubes
 Pharma-X module: Insulation: Armaflex
 Cladding: 304L electropolished
 Weight of module:22-46 kg

TECHNICAL DATA

Max flow rate: 1500 l/h
 Heat transfer area: 0.3-1.0 m²
 Surface finish: Ra < 0.5 μm. Electropolished on all product wetted parts
 Welding according to: . . EN 287 and ASME IX
 Design pressure: 10 barg
 Design temperature: 150 °C
 Pressure vessel code: . . N/A