

Tech Note 8: Steam (Wet) & Press-Fit

TN.08

Related Documents:

- Tech Note TN.01 Chlorides, Chlorine and Stainless Steel
- Tech Note TN.04 Insulation & Stainless Steel (Lagging)

Applicable Products:

- AusPress Stainless Press-Fit, diameters 15 to 108mm.

AusPress press-fit is suitable for conveying wet steam when the recommendations below are followed for the design and use of the system.

We recommend a Project Information Sheet is completed and submitted for assessment to technical@auspress.com.au prior to the supply and installation of steam lines with our press-fit. Visit our website auspress.com.au to download this form.

Specifications:

- A maximum working steam pressure of 5.5 bar \equiv 550 kPa \equiv 75 psi.
- A maximum temperature of 160°C.
- Fittings must be fitted with a suitable **FKM** ring seal.
- AusPress Stainless fittings are suitable for steam except for fitting types FI Adaptor Nut (type 44), Unions (types 81, 82 & 83) and Ball Valves as these are manufactured with a flat internal face and not approved for steam.
- A thermal expansion safety valve designed to open at the maximum working pressure.
- A temperature gauge in centigrade (°C) that records the maximum temperature reached at the hottest part of the system.

Considerations:

Steam and water at elevated temperatures can have a negative effect depending on the water quality and additives that are present. We recommend a water test is completed as part of the design process to confirm the water supply is in accordance with Australian Drinking Water Guidelines (ADWG) and that chloride, pH and conductivity levels are suitable.

Press Tool Selection

Use a recommended press tool to press the fitting that would achieve a joint strength for a working pressure of 25 bar (362 psi) for the system – refer to our Select a Press Tool guide in our catalogue. This does not mean the system can be used for steam at 25 bar!

Insulation

Only 'low chloride' insulation is to be used with stainless steels. Refer to Tech Note TN.04 Insulation & Stainless (Lagging) for more information.

Commissioning

The test pressure is 1.5x the working pressure to a maximum test pressure of 20 bar \equiv 2,000 kPa \equiv 290 psi using an inert gas (eg compressed air, not steam).