Nipples and Reducers for Fisher® Welding-End Valve Bodies

Description

Certain alloy steel valve bodies (WC9, WC6, etc.) require post-weld heat treatment. These alloy steels are usually selected for temperatures above 427°C (800°F) but are occasionally specified for temperatures below 427°C (800°F) because of superior material characteristics (such as better erosion resistance). In the latter case, the inconvenience of post-weld heat treatment when welding the alloy steel valve body into a carbon steel line can be avoided if carbon steel nipples (figure 1) are welded to the alloy steel valve body and post-weld heat treated at the factory.

Nipples or reducers offer no advantage where the line has to be post-weld heat treated (such as alloy steel lines) or where carbon steel valve bodies or stainless steel valve bodies have to be welded into lines of the same material (these are not usually post-weld heat treated).

Valves with nipples or reducers will be hydrostatically tested as an assembly whenever possible. If the schedule or material of the attachments will not allow this single test, or if the valve has been component tested, the valve body will be hydrostatically tested by itself and then the completed assembly air tested at 5.5 bar (80 psig) to check the weld. Optionally, a double hydrostatic test can be scheduled at additional cost.

Pressure Capability

Unless specified, the attached piping components are not considered part of the valve and are not within the scope of ASME B16.34.

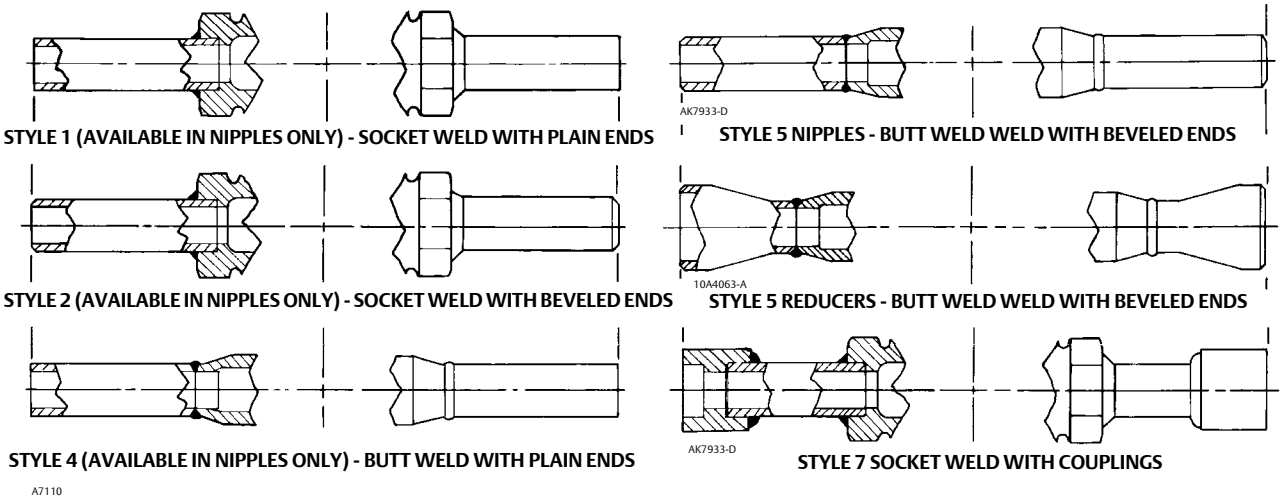
If the customer has specified the specific pipe schedule for nipples and reducers, the pressure capability of the piping component is not checked.

If the customer has not specified the specific pipe schedule, then Emerson Process Management™ selects the pipe schedule in accordance with the wall thickness requirements of the customer- specified code or standard applicable to the assembly.

If the customer has not specified either the specific pipe schedule or applicable code or standard, Emerson Process Management selects the pipe schedule in accordance with the wall thickness requirements of ASME B31.1, Power Piping.

If the customer specifies that the welded-on piping components, other than ASME Flanges, are to be considered as part of the valve, then the valve is treated as a fabricated valve in accordance with ASME B16.34. Then, the minimum wall thickness of the welded-on components must meet the minimum wall thickness requirements of ASME B16.34.

Figure 1. Nipple and Reducer Styles



Ordering Information

When ordering nipples or reducers, specify:

1. Valve body size
2. Pipe size, schedule, and material
3. Desired nipple or reducer material
4. Desired nipple or reducer length
5. Style (figure 1)
6. Maximum design pressure and temperature

When nipples are specified and no length is given, they will be furnished in six-inch lengths. Styles 4 and 5 (figure 1) are recommended for valve bodies larger than NPS 2, and the other styles are recommended for NPS 2 and smaller valve bodies.

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