

Description of Socket Fusion Method for PVDF pipes

General

Most common methods to connect PVDF pipes is butt fusion or socket fusion welding. IR – Infared Fusion is primarily used for high purity PVDF pipe connections. Socket fusion is mostly used for small sized PVDF pipes up to 110 mm, Butt Fusion for the > 110 mm PVDF pipes.

Welding conditions

Required minimum temperatures for fusion indicated in the Norms as DVS 2207, part 1 (Deutscher Verband für Schweißtechnik) are between +5°C (41°F) and 40°C (104°F). Humidity should be less then 85%.
If the project conditions diverge from these requirements please follow our recommendations TI 110-34.

Socket Fusion procedure

Socket Fusion procedures are described in detail in DVS 2207 part 15.

Brief description:

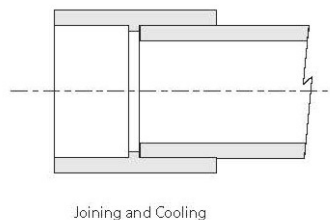
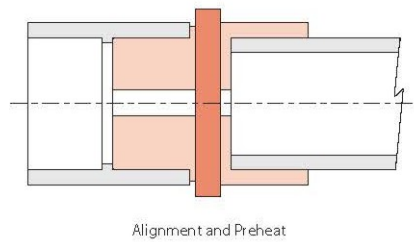
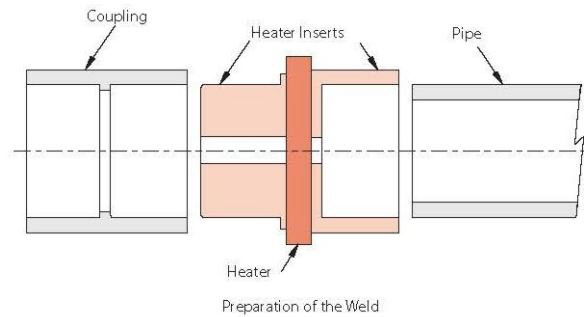
Pipe end to be joined into the socket fitting by using a socket welding machine.



The heating element needs to be heated up to 260°C for PVDF pipe welding.

Socket Fusion principle

Socket Fusion procedures are



Welding Quality

It is verified that the duration of the cooling time has a significant influence in the welding quality. A common failure is to reduce the cooling time which is more than half of the total welding operation time to increase jointing capacity.

Good welding quality concludes in same joint strength as the basic material. In fact the test results might reach more than 100% of pipe value if the welding bead is not removed because of more material in the welding area.

Welding parameters

Welding parameters as heating pressure, heating time, change over time, welding pressure and cooling time depend on the pipe size, wall thickness and welding equipment model. Please refer to the operation manual of the welding equipments.