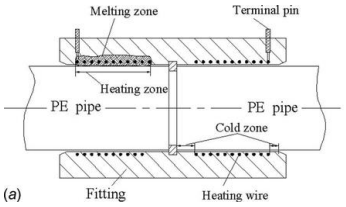
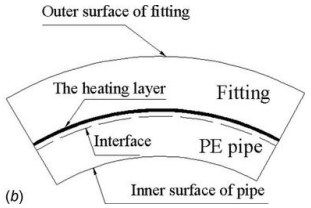
TRUSTLENE Electrofusion Fittings

Electrofusion jointing principle

In electrofusion, plastic pipes and electrofusion fittings are permanently joined by a homogeneous joint. These fittings contain internal resistance wires that are heated by electric current during the fusion process. This heating raises the temperature of both the interior of the fittings and the exterior of the pipes, causing them to melt together. The dimensions of the pipe and fitting socket are designed to create fusion pressure during the joining process, leading to a uniform joint. The jointing force in the molten polymer is generated by the increase in volume of the melt. Once it cools, a permanent, homogeneous joint is formed.

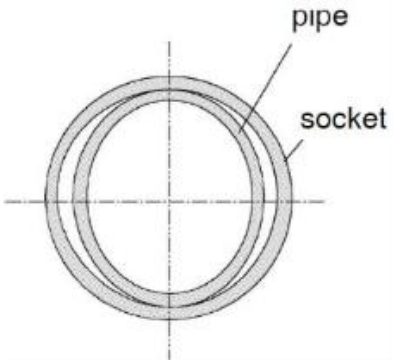




General requirements

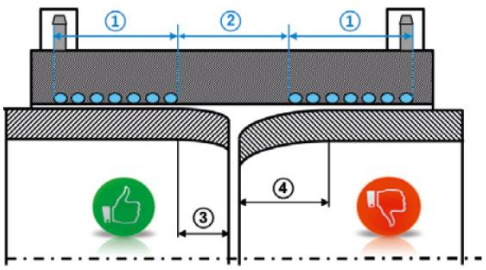
Ovality

During welding, the ovality of the pipe must remain within acceptable tolerances, specifically a maximum of 1.5% or 3 mm. If the measurements exceed these limits, corrective actions should be taken, such as using re-rounding tools.



Pipe end reversal

If there is excessive reverse at the pipe ends, the heating coil zones must be adequately covered. If uncertain, visually inspect the pipe ends using a spirit level and compare the reversed ends with the half inner cold zone. If needed, trim the pipe ends to size at a right angle just before welding.



1. Heating zone
2. Cold zone
3. Permitted pipe end reverse
4. Impermissible pipe end reversal

Adherence to welding procedure

The welding procedure provides an overview of the method used for making joints using the electrofusion jointing technique.

Installers of electrofusion fittings:

- Must be competent
- Have undertaken the appropriate industry training and assessment
- Have acquired the necessary knowledge
- Have experience of the jointing method