



DESIGN-FLOW[®] High Density Polyethylene Pipe Sidewall Fusion Procedure

PE3408 / PE3608 / PE4710 Sidewall Fusion Procedure

1. Install fusion machine on the main pipe.
2. Clean the pipe with a clean cotton cloth. Rough the surface with 60 grit or coarser utility cloth. Brush away residue with a clean, dry rag after abrading. **(Do not use sand paper.)**
3. Clean and rough the saddle base of tee (side fitting) with 60 grit or coarser utility cloth. Brush away residue with a clean, dry rag after abrading.
4. Align fitting on main and tighten clamp (insert adapter) on fitting stem while applying slight pressure on movable clamp handle.
5. Check saddle for square alignment on main.
6. Clean face of heater adapters with a clean cotton cloth.* Check heater plates for proper surface temperature of 475° F - 500° F. Raise movable clamp with fitting. Roll in and center heater plate with adapter between base of fitting and main.
7. For all sizes, apply an adequate and uniform pressure until continuous melt bead can be seen on main. Reduce pressure to light pressure; continue heat soak cycle on fitting and main; and, watch base of fitting for the appropriate melt bead to be visible completely around the base of the fitting and on the main around the heating iron base;

Approximate Melt Bead Width **

Pipe OD Range (inches)	Nominal Melt Bead Width (inches) **
>1 to <3	1/16 to 1/8
>3 to <8	1/8 to 3/16
>8 to <12	3/16 to 5/16
>12 to <24	5/16 to 7/16
>24 to <36	7/16
>36 to <54	9/16

** As measured from the heater plate face

8. Raise moveable clamps and remove heater plate.
9. Bring melted surfaces together rapidly and smoothly. Apply continuous progressive pressure until proper fusion bead is formed. Maintain pressure until joint has cooled (until comfortable to the touch). **(For additional information, refer to PPI Report TR41.)**

REMEMBER:

- Install proper sidewall and fitting inserts in fusion unit for the pipe and fittings being joined.
 - Be sure correct sidewall adapters are installed on heater plate.
 - A quality side fusion joint has a uniform, well-aligned appearance all around.
 - Heater plate should be checked periodically with a pyrometer for correct surface temperature (475° F - 500° F).
- * Avoid materials that melt and stick to heater plates.