

Solvent Cementing - WELD-ON



STEP NO.1

1. Measure Pipe Required

Assemble proper materials for the job (proper primer, cement, if necessary - cleaner, and applicator for the size of pipe and fittings to be assembled).

Measure the Pipe required for the joints required.



STEP NO.2

2. Cut the Pipe

Pipe must be cut as square as possible as a diagonal cut reduces bonding area in the most effective and critical part of the joint.



STEP NO.3

3. Chamfer the Pipe

Chamfering the pipe is as important as a square cut and correct cement and allows the pipe to fit the full length of the socket without removing the cement.

A chamfering tool places a 10 - 15 deg bevel at the end of the pipe approx. 2.5mm in depth which prevents unwanted removal of the cement during insertion.



STEP NO.4

4. Debur the inside of the Pipe

Remove inside diameter burrs or raised beads with an internal deburring tool or knife



STEP NO.5

5. Measure & Mark Insertion Depth

Measure the fitting socket length and mark this distance on the pipe OD to insure the fitting has been fully inserted, add a couple inches to this distance and make a second check mark on the pipe, as the primer and cement will remove the first mark.



STEP NO.6

6. Dry Fit Check

Check pipe and fittings for dry fit before cementing. For proper interference fit, fitting should go over end of pipe easily but become tight about 1/2 to 3/4 of the way on. Too tight a fit is not desirable.

If the fitting falls off the end of the pipe, do not start assembly. Contact your supplier.

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STEP NO.7

7. Apply Primer

The purpose of a primer is to penetrate and soften the surfaces so they can fuse together. Apply the Primer to the fitting and pipework.

The proper use of a primer and checking its softening capability provides assurance that the surfaces are prepared for fusion in a wide variety of conditions.



STEP NO.8

8. Checking Primer Application

The primer should remove all marking on the pipe in the cementing area, the pipe will also change its lustre from the pipe.

In cold weather more time is required for proper penetration.



STEP NO.9

9. Apply Cement

(Stir or shake the cement before using.)

Apply a full, even layer of cement to the pipe-end equal to the depth of the fitting socket – do not brush it out to a thin paint type layer, as this will dry too quickly.

Apply a medium layer of cement into the fitting socket; avoid puddling cement in the socket.

With the proper size and type of applicator, while surfaces are still wet, immediately apply the appropriate Weld-On cement.

Most joint failures are caused by insufficient application of cement.



STEP NO.10

10. Fit the Joints

Immediately, while cement is still wet, assemble the pipe and fittings. If not completely wet, recoat parts before assembly. If cement coatings have hardened, cut pipe, dispose of fitting and start over. Do not assemble partially cured surfaces. While inserting, twist / to / turn until reaching pipe stop. Do not continue to rotate after the pipe has reached the socket bottom.

Hold the pipe and fitting together for a minimum of 0 seconds to eliminate movement or pushout.



STEP NO.11

11. Remove Excess Cement

After assembly, a joint should have a ring or bead of cement completely around the juncture of the pipe and fitting. If voids (gaps) in this ring are present, sufficient cement was not applied and the joint may be defective.

Using a rag, remove the excess cement from the pipe and fitting, including the ring or bead around the socket entrance, as it will needlessly soften the pipe and fitting, and does not add to joint strength. Excess cement around the socket entrance will also extend the cure time. Avoid disturbing or moving the joint.

**12. Measure Pipe Required**

Handle newly assembled joints carefully until initial set has taken place.

Follow IPS Weld-On set and cure times before handling or hydro-testing piping system (for set and cure times refer to page 283).