

Fuseal® LD 8", 10" & 12" Installation Training

+GF+

- Fuseal joint preparation
 - Setting up 8"-12" joints
 - Further information
 - Written test
- # 236 – Fuseal LD



Pipe & Fitting Inspection & Storage

Pipe & fittings should be inspected upon arrival for obvious shipping damage.

Store pipe and fittings in a dry location, protected from direct sunlight.

If material is to be stored outside, it should be covered with a light colored tarp to be kept dry and protected from UV damage.

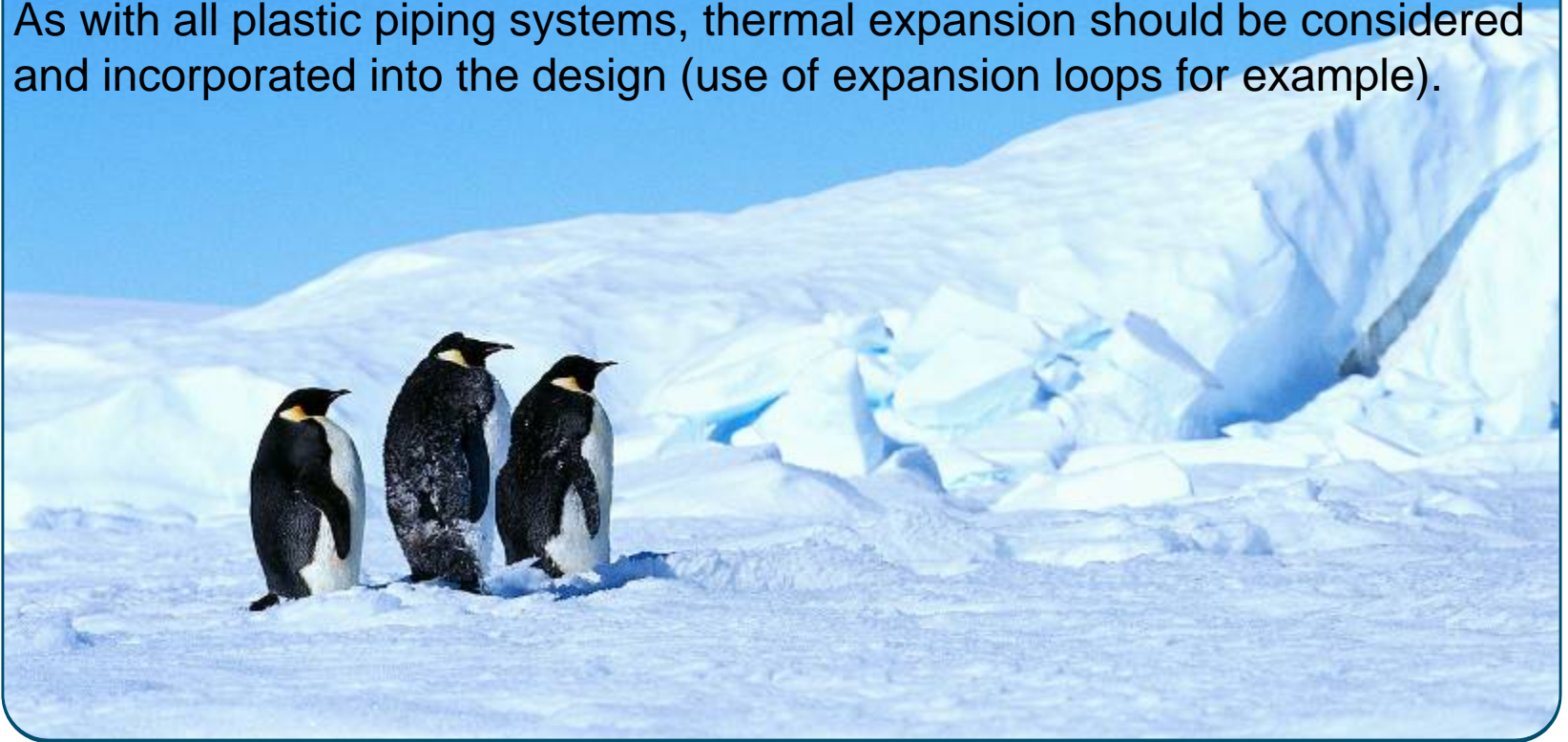
Pipe should be laid on a flat surface to prevent warping.



Installation Environment

Material and fusion machine must be the same temperature prior to fusion. This can be achieved when components and machine are in the same environment for 2 hours.

As with all plastic piping systems, thermal expansion should be considered and incorporated into the design (use of expansion loops for example).



Fuseal[®] LD joint preparation

1.

Cut pipe end square with axis of pipe!

Use a fine tooth hand saw and miter box, a power cutoff saw with blade for plastic or a wheel type pipe cutter for plastic.

***Ratchet Type pipe cutters are **not** recommended*

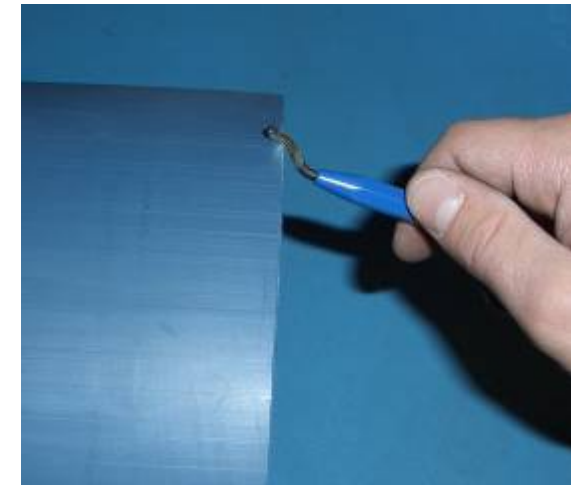
Regardless of tool, pipe needs to remain round and square.

**2.**

Remove all burrs from pipe end.

Chamfer the pipe end to ease insertion of the pipe and to prevent the fusion coil from being displaced.

The shown chamfering tool is from Noga Deburring System, www.noga.com which can be purchased from any professional vendor. A similar tool would work as well.



Fuseal[®] LD joint preparation

3.

Vigorously **sand the outside surface of the pipe** where it enters the fitting socket.

Must use 60 grit abrasive cloth!

4.

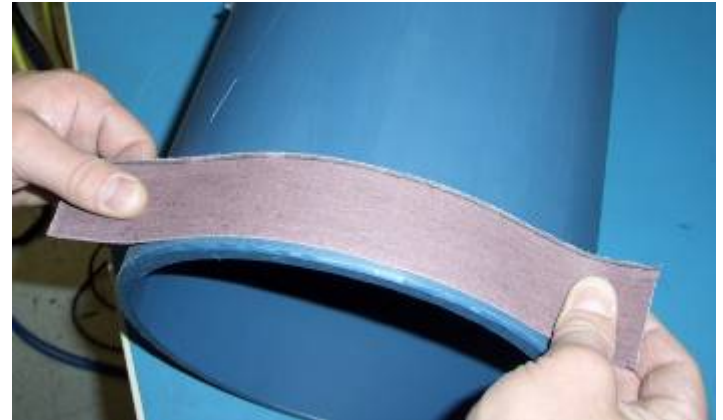
Clean sanded pipe surface and inside of fitting socket with Isopropyl Alcohol (*IPA).

The alcohol concentration has to be at least 70%!

Do not handle the freshly cleaned surfaces before assembling.

If the fittings have become excessively dirty due to the atmosphere, collars should be carefully removed and fittings hub and collar cleaned of debris and dirt. Care should be used when removing collar.

*(For proper use and safety regulations of IPA, please see supplier's Material Safety Data Sheets)

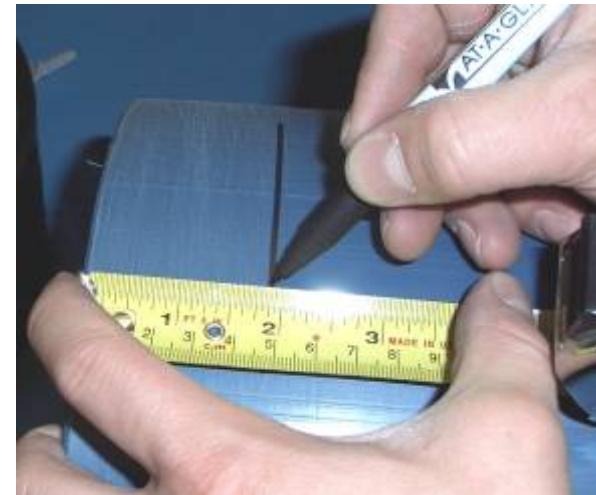


Setting up 8"-12" joints

5.

Mark socket depth on the pipe.

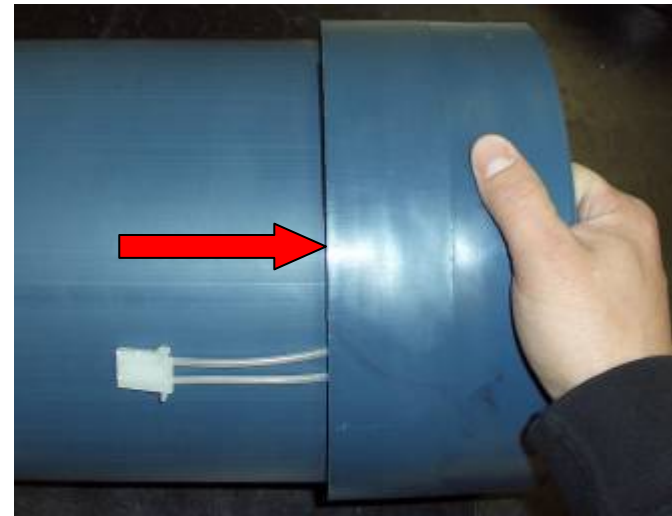
Fitting	Socket depth
8"	1-7/8" / 4.7 cm
10"	2-3/4" / 6.9 cm
12"	2-3/4" / 6.9 cm

**6.**

Insert the pipe carefully into the fitting socket with fusion coil.

Push in until pipe end touches large shoulder.

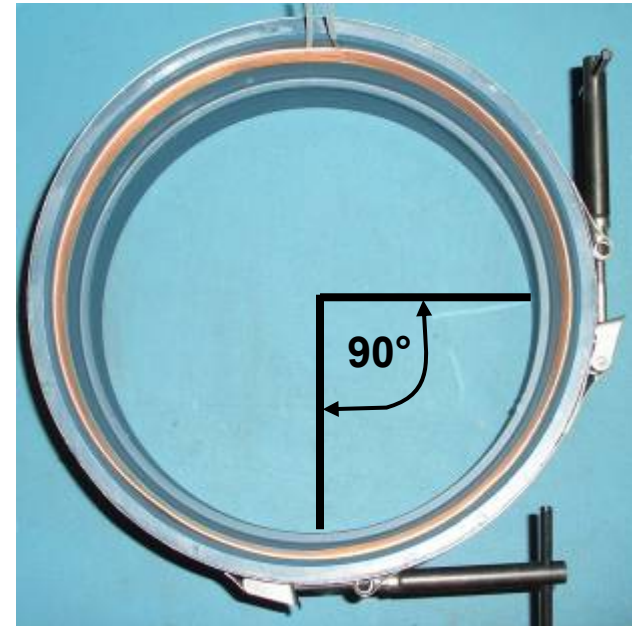
Check socket depth mark to be sure the pipe is fully inserted.



Setting up 8"-12" joints

7.

Fit two steel band clamps around the fitting or socket flush to the end and at an angle of 90° from each other. Proper clamp tightness will result when the pipe can not be easily rotated in the fitting socket.



Note: Clamp does not prevent pipe from being pulled out during handling.

Setting up 8"-12" joints

8.

Check the continuity of every fusion collar with the continuity tester before fusing. A green light will indicate a good fusion collar.



MSA250



Electro Plus

9.

Tie a loop at the end of the fusion cables and loop it onto the T-handle of the clamp. Afterward, connect the cable connectors to the male plug of the fusion coils.

This prevents the wires of the fusion coil from pulling out during the fusion.

Maximum 2 joints are possible per cycle for 8"-12"!



10.

See the Instructions for the Electro Fusion Machine Trainings.

MSA250-SE or -EX Multi
Training # 236 – MSA250



Electro Plus®
Training # 236 – Electro Plus



After the Joint Fusion

11.

Tighten the steel band clamps approximately one and a half to two turns, within 30 seconds after the fusion cycle is finished.



End of the Installation

12.

Allow the joint to cool to the touch before testing.

 **End of the Installation**

The steel band clamps on the fittings can be removed after a cooling time of 10 minutes.

Testing:

Joints may be pressure tested 10 minutes after completion of fusion. Test in accordance with local plumbing codes. All selections of the system can be tested with up to 30 feet head of water.

It is a good plumbing practice to test a small section (20 fittings) of the fused piping system first, to ensure proper installation procedures are being performed before continuing with the completion of the system.

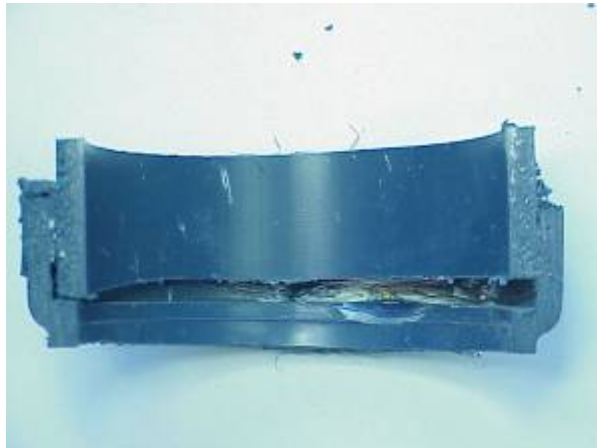
To re-fuse a leaking joint, drain any liquid from the area surrounding the joint and allow it to dry, then repeat steps 7 through 12. If this does not fix the leak, it is recommended that you cut out the leaking joint and replace. Multiple re-fusions are not recommended.

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Proper Installations are a must!



Pipe was not inserted to the pipe stop!



Pipe was not cut square!



Pipe and fitting were not cleaned!



Further Information



If you have any questions regarding the Fuseal System contact your **+GF+ Area Sales Manager.**

For further information about the fusion units, see the instruction manuals.
The machines need to be calibrated and serviced every year according to the service label on the machine.

For specific questions about the fusion units, contact our Machine Service Department.
Address for Machine Service and technical questions:

**George Fischer Inc.
Machine Service Department
2882 Dow Avenue
Tustin, CA 92780**

**Phone: (714) 368-4284
Fax: (714) 731-9056**

Place business card here!!

