Fuseal Corrosive Waste Systems

Installation Instructions for
Fuseal PP
Fuseal PP LD (Large Diameter)
Fuseal PP MJ (Mechanical Joint)
Installation Instructions for Fuseal® PP (1½” to 6”)

Joint Preparation

1. **Cut pipe end square** with axis of pipe. Use a fine tooth hand saw and mitre box, a power chop / cut-off saw or a plastic pipe cutter.

2. **Remove all burrs from pipe end.** Chamfer the pipe end to ease insertion of the pipe and prevent the fusion collar from being displaced.

3. **Using a clean, dry cloth wipe the pipe surface and inside of fitting socket** free of all debris. Do not remove fusion collar from fitting. If fusion collar was removed, then the inside of the fusion collar has to be wiped cleaned prior to putting it back onto the fitting socket.

4. **Sand the pipe surface** where it enters the fitting socket. Use a 60 grit abrasive cloth.

5. **Clean sanded pipe surface and inside of fitting socket with 70% Isopropyl Alcohol Solution** (i.e. IPA). Allow the surfaces to dry before inserting pipe into socket. [Please see supplier’s Material Safety Data Sheets for proper use and safety regulations of Isopropyl Alcohol.]

**NOTE:** Do not handle the freshly cleaned surfaces before assembling.

6. **Mark socket depth** on the pipe.

<table>
<thead>
<tr>
<th>Fitting</th>
<th>Socket Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>inches</td>
</tr>
<tr>
<td>1 1/2”</td>
<td>13/16</td>
</tr>
<tr>
<td>2”</td>
<td>7/8</td>
</tr>
<tr>
<td>3”</td>
<td>15/16</td>
</tr>
<tr>
<td>4”</td>
<td>15/16</td>
</tr>
<tr>
<td>6”</td>
<td>1 1/4</td>
</tr>
</tbody>
</table>

**SETTING UP JOINTS**

1. **Rotate the fusion collar** for easy access to the duplex receptacle.

2. **Rotate the plastic clamp** to orient the ratchet closure to the right or left of the duplex receptacle. For 6” joints, fit the steel clamp to orient the t-handle to the right or left of the duplex receptacle.

3. **Insert the pipe into the fitting socket and push to the pipe stop.** The pipe must be fully inserted to the pipe stop. Check socket depth marks you previously made on the pipe to verify proper insertion. The fusion collar must be fully seated on the hub of the fitting socket.
4. **Tighten the clamp.** Proper clamp tightness will result when the pipe cannot be rotated in the fitting socket.
   - Channellock #440 pliers work well for 1-1/2”, 2” and 3” plastic clamps.
   - Channellock #460 pliers work well for 4” plastic clamps.

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

**JOINT FUSION WITH Electro Plus, MSA 250SE and MSA 250EX**

1. Ensure that the Machine is standing firmly and the ventilators or cooling devices have an unobstructed air flow.

2. Plug the power cord into a suitable AC power source:

   **Electro Plus**
   - Volts 100 to 130 VAC @ 60Hz
   - 200-250 VAC @ 50Hz
   - Input Current 15 amps Max.
   - Length of Power Cord 150’ Max. (10 gauge/3 strand)

   **MSA 250SE**
   - Volts 90 to 130 VAC @ 60Hz
   - Input Current 15 amps Max.
   - Length of Power Cord 150’ max. (10 gauge/3 strand)

   **MSA 250EX**
   - Volts 200 to 250 VAC @ 50Hz
   - Input Current 15 amps Max.
   - Length of Power Cord 150’ max. (10 gauge/3 strand)

3. Connect the factory supplied fusion cable(s) to the duplex receptacle of the fitting(s).

   **Electro Plus has multiple joint capabilities**

<table>
<thead>
<tr>
<th>Size</th>
<th>Time (Sec)</th>
<th># Joints</th>
</tr>
</thead>
<tbody>
<tr>
<td>1½</td>
<td>70</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>80</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>90</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>105</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>190</td>
<td>4</td>
</tr>
</tbody>
</table>

After connecting the fusion cable(s) a green light will illuminate on the display if continuity is achieved.
4. To start the fusion cycle, press the green (MSA250SE/EX start/stop) or red (Electro Plus fuse) button once.

5. When the fusion cycle is complete an audible alarm will sound.
   
   If the display shows an error code, consult the Technical and Operation Manual for the fusion machine to determine the source problem, and correct the problem before attempting another fusion.

6. Allow the joint to cool to touch before disturbing (approximately five minutes).

7. To re-fuse a leaking joint, drain any liquid from the area surrounding the joint and repeat steps 3 through 6. For 1-1/2” through 4” joints, use a new plastic clamp and immediately tighten two (2) clicks after the fusion cycle is complete. For 6” joints, immediately tighten metal clamp one (1) turn after the fusion cycle is complete.

   **NOTE:** If the leak is not repaired by re-fusing, please contact your local factory representative.
Installation Instructions for Fuseal® LD
(Large Diameter - 8” to 12”)

Joint Preparation

1. **Cut pipe end square** with axis of pipe. Use a fine tooth hand saw and mitre box, a power cutoff saw or a plastic pipe cutter.

2. **Remove all burrs from pipe end.** Chamfer the pipe end to ease insertion of the pipe and prevent the coil from being displaced.

3. **Using a clean, dry cloth wipe the pipe surface and inside of fitting socket** free of all debris. Do not remove coil from fitting. If coil was removed, then the inside of the coil has to be cleaned prior to putting it back onto the fitting socket.

4. **Sand the pipe surface** where it enters the fitting socket. Use a 60 grit abrasive cloth.

5. **Clean sanded pipe surface and inside of fitting socket** with 70% Isopropyl Alcohol Solution. Allow the surfaces to dry before inserting pipe into socket. (Please see supplier’s Material Safety Data Sheets for proper use and safety regulations of Isopropyl Alcohol.)

**NOTE:** Do not handle the freshly cleaned surfaces before assembling.

6. Mark socket depth on the pipe.

<table>
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<td></td>
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</tr>
<tr>
<td>8”</td>
<td>1 7/8</td>
</tr>
<tr>
<td>10”</td>
<td>2 3/4</td>
</tr>
<tr>
<td>12”</td>
<td>2 3/4</td>
</tr>
</tbody>
</table>

**SETTING UP JOINTS**

1. **Make sure the coil is positioned** against the coil stop in the fitting socket.

2. **Fit the steel clamp** to orient the t-handle to the right or left of the duplex receptacle.
   - For 8” fittings, allow the clamp to seat flush with the end of the fitting [socket entrance].
   - For 10” & 12” fittings, seat the clamp against the shoulder of the fitting.

3. **Insert the pipe into the fitting socket** and push to the pipe stop. The pipe must be fully inserted to the pipe stop. Check socket depth marks you previously made on the pipe to verify proper insertion.

4. **Tighten the clamp.** Proper clamp tightness will result when the pipe cannot be rotated in the fitting socket.

**NOTE:** Clamp does not prevent pipe from being pulled out during handling.
JOINT FUSION WITH Electro Plus, MSA 250SE and MSA 250EX

1. Ensure that the Machine is standing firmly and the ventilators or cooling devices have an unobstructed air flow.

2. Plug the power cord into a suitable AC power source:

   **Electro Plus**
   - Volts 100 to 130 VAC @ 60Hz
   - 200-250 VAC @ 50Hz
   - Input Current 15 amps Max.
   - Length of Power Cord 150’ Max. (10 gauge/3 strand)

   **MSA 250SE**
   - Volts 90 to 130 VAC @ 60Hz
   - Input Current 15 amps Max.
   - Length of Power Cord 150’ max. (10 gauge/3 strand)

   **MSA 250EX**
   - Volts 200 to 250 VAC @ 50Hz
   - Input Current 15 amps Max.
   - Length of Power Cord 150’ max. (10 gauge/3 strand)

3. Connect the factory supplied fusion cable(s) to the duplex receptacle of the fitting(s).

   **Electro Plus has multiple joint capabilities**

<table>
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<tr>
<th>Size</th>
<th>Time (Sec)</th>
<th># Joints</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>240</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>240</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>280</td>
<td>2</td>
</tr>
</tbody>
</table>

4. Check the continuity of the coil using the Continuity Tester supplied with the Bar Code Set. If continuity exists, a green light will illuminate on the end of the tester. If continuity is not present, replace the coil and repeat step.

5. Select the appropriate barcode card (i.e. correct material and size) and scan the barcode with the barcode reader pen. Place the pen in the white area of the card, either to the left or right side of the code, swipe the code with the pen in one continuous movement ensuring that all bars of the code are read.

   **NOTE:** The barcode reader pen operates best when held at an angle of 10° to 30° from the vertical position.

6. Connect the factory supplied fusion cable(s) to the duplex receptacle of the fitting(s).

   After connecting the fusion cable(s) a green light will illuminate on the display of the MSA250 if continuity is achieved.
7. To start the fusion cycle, press the green [MSA250SE/EX start/stop] or red [Electro Plus fuse] button once.

8. When the fusion cycle is complete an audible alarm will sound.
   If the display shows an error code, consult the Technical and Operation Manual for the fusion machine to determine the source problem, and correct the problem before attempting another fusion.

9. Allow the joint to cool to touch before disturbing (approximately five minutes).

10. To re-fuse a leaking joint, drain any liquid from the area surrounding the joint and repeat steps 3 through 6. Immediately tighten metal clamp one (1) turn after the fusion cycle is complete.

   **NOTE:** If the leak is not repaired by re-fusing, please contact your local factory representative.
Installation Instructions for Fuseal® MJ 
(Mechanical Joint - 1½” to 4”)

Special Note: George Fischer Mechanical Joint Fittings are to be used only in exposed or easily accessible under bench locations.

Joint Preparation 1½”-2”

1. Lubricate threads of fitting with silicone
2. Slide nut over pipe, slide grabber ring over pipe, with tapered side facing nut
3. Assemble o-ring over pipe, approx ¾” from end
4. Insert pipe into socket bottom, slide o-ring against socket entrance and grabber ring against o-ring
5. Tighten nut by hand to allow proper o-ring seating, then with George Fischer spanner wrench [p/n 8100] until joint is securely tightened

Joint Preparation 3”-4”

1. Lubricate threads of fitting with silicone
2. Slide nut over pipe, slide grabber ring over pipe, with tapered side facing nut
3. Assemble gasket over pipe, with flat side facing grabber ring
4. Insert pipe into socket bottom, sliding gasket into socket and grabber ring against gasket
5. Tighten nut by hand, then with George Fischer spanner wrench [p/n 8101] until joint is securely tightened
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Adding Quality to People’s

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