

**Zap-Lok Pipeline Systems,  
Inc.  
Houston, Texas**

**Offshore  
Field Installation Guide**

**March, 2005**

## Zap-Lok Field Installation Guidelines

### 1.0 Installation

1.1.1 The installer must be trained by a Zap-Lok technician in the use of the equipment, pipe connection procedure, and installation of the pipe.

1.1.1.1 Usually 2 days of training with the approval of the Zap-Lok technician and company representative are sufficient.

1.1.2 Zap-Lok pipe will be installed accordingly to manufacturer's recommendations. Recommendations should include epoxy mixtures, curing times, and installations.

### 2.0 Equipment Needs

2.1.1 Pipe rollers should be installed level with the height of the pipe rack

2.1.2 Bottom of Zap-Lok pipe grips should be level with the rack

2.1.3 Set up press in line with rollers in to and out of the press

### 3.0 Pipe Layout

3.1.1 Bells face well (direction flow originates from).

### 4.0 Pipe Preparation and Field Inspection

4.1.1 Zap-Lok supplies pipe end markers for each size of pipe. The marking templates are used to draw a chalk line around the pin end at the proper insertion depth.

4.1 Visually inspect ends looking for foreign matter or damage. Inspection is to look for burrs, dents, scratches on bell ID or pin OD, and grease.

4.2 All burrs must be filed off. The operator should keep a file with him for this reason.

4.3 Pin ends with dents must be rejected if they are out of API tolerance.

4.4 On bell end, if the pipe can be stabbed and joined, the dent will usually smooth out.

4.5 Grease must be completely removed. (Use MEK or paint thinner)

4.6 Scratches must be within API tolerances but can not have any sharp edges.

4.7 Always check pipe for any steel shot or any excess tar from coating which must be removed if it is in the depth insertion area of the pipe.

4.8 Dry pipe using rags. In some cases warm pipe using a wide flame to remove moisture. However, pipe should NEVER be too hot to touch with a bare hand.

4.8.2 Ensure pipe is free of rags or foreign materials prior to proceeding.

## 5 Zapoxy Mixing and Application

### 5.1 Zap-Lok hand mixing procedure

- 5.1.1 Zap-Lok supplies 2 part epoxy in kits including beakers, stir sticks, and gloves.
- 5.1.2 Wearing rubber gloves use a stir stick putting ½ pint of white activator and ½ pint of blue base into the supplied beaker.
- 5.1.3 Mix the contents using the stir stick until it is a consistent blue with no streaks.
- 5.1.4 Use a gloved hand, apply a thin layer of epoxy to the outside of the pin from the end of the pipe to ½ inch past the groove.
- 5.1.5 Ensure no dirt or debris is present on the joint surfaces.
- 5.1.6 Mixed epoxy must be used within 45 minutes. Reject any epoxy that is beginning to harden or solidify

### 5.2 Zapoxy application to the bell end is as follows:

2 3/8" and 2 7/8" OD	1 ½"
3 ½" OD	3 ½"
4 ½" OD	3 ½"
6 5/8" OD	5"
8 5/8" OD	5"
10 ¾" OD	6"
12 ¾" OD	7"

## 7. Operating the Press and Stabbing the pipe ends.

- 7.7. Trained operators (trained by Zap-Lok technician in the use of the controls) are the only people to use the Press.
- 7.8. Open the grips of the Zap-Lok press.
  - 7.8.1. Raise the automatic rollers.
  - 7.8.2. Move down along the roller until the bell is in place to be held by the grips.
  - 7.8.3. Push pipe along the roller until the bell is in place to be held by the grips
  - 7.8.4. Stab the pin into the bell making sure the pipe is aligned.

7.9. Clamping (Connecting) the pipe.

7.9.1. Close the clamping grips on the bell end.

7.9.2. Close the clamping grips on the pin end.

7.9.3. Ensure chalk markings are still visible on the pin end prior to proceeding. If chalk lines are not visible, refer to step, 4.1.1.

7.9.4. Pull the pin into the bell until the chalk line meets the bevel of the bell end.

7.9.5. Raise the clamping grips

7.9.6. Raise the rollers

7.9.7. Repeat the process.

For Further assistance please contact:

Zap-Lok Pipeline Systems, Inc.

12100 West Little York Road,

Houston, TX 77041.

Phone: 713-849-4932 or Toll Free 800-441-6021.

Email: [info@zap-lok.com](mailto:info@zap-lok.com)

More information is available at [www.zap-lok.com](http://www.zap-lok.com) .