



## JCM Heavy Duty Patch Clamps Installation Instructions Models 112 and 113

1. Clean and scrape pipe. Remove any dirt or debris that would interfere with the sealing of the gasket or stainless steel conforming around the pipe. Lubricate the pipe with soapy water. **Do not use oil base pipe lubricant.** *Trick of the Trade: Place a mark on the pipe to each side of the damaged area equal to the width of the clamp. This presents a visual mark to center the repair clamp over the damage area (1/2 of this distance is center).*
2. Inspect pipe for integrity, size and outside diameter. Confirm the proper size and range of repair clamp. Ensure damaged area (hole, crack, etc.) is within the size of the gasket of the patch clamp for full coverage.
3. Loosen bolts of the clamp (do not remove completely), wrap clamp around pipe, cover damaged area with gasket pad area, mesh the finger lugs, reinsert bolts into finger lugs, engage bolts and tighten finger tight to hold in place.
4. Tighten all bolts evenly to the following torque values:

**5/8" Bolts to 70 Foot Pounds**  
**3/4" Bolts to 90 Foot Pounds**

5. Complete installation of fitting and confirm minimum bolt torque levels have been maintained.

Years of field experience, special applications and product testing have revealed many subtleties regarding application and installation of patch clamps. For maximum performance under adverse conditions take advantage of the JCM "Tricks of the Trade."

- Always clean and lubricate pipe with water or soapy water. This will help overcome friction when tightening the clamp. Do not use oil base pipe lubricant.
- Place a reference mark on the pipe back from the damaged area to help in centering clamp over break. Clamp provides maximum performance when centered over damage area.
- Damage involving large holes or massive pitted areas - use stainless steel or galvanized metal plate over large holes (under repair clamp) to provide the gasket something to seal against.
- Drill holes in the ends of splits or cracks to relieve forces which could cause splits to continue.
- Leave sufficient pressure on a broken line to prevent intrusion of foreign matter to prevent excessive line contamination.
- With pressure reduced, spraying water will cease as soon as water level rises above break.
- Lubricating clamp bolts will ease clamp installation and assure proper torquing of bolts.