

## Procedure 2103: Installation of Pre-Formed Band Clamps Using Screw-Action Tool with Roll-Over Tool Attachment

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### Selection

- Select the proper pre-formed band clamp using Procedure 1001: Pre-formed Band Clamp Selection (page 6).

### Preparation

- Prepare and mark the hose using Procedure 1100: General Preparation Instructions (pages 9-10).

### Notes

- 1. For hoses having a helical wire ,make certain that the clamp tail and the helical wire are pointing in the same direction. Refer to Procedure 1100: General Preparation Instructions (page 10) for illustration.
- 2. Testing is the only way to know for sure if the proper tension has been achieved. However, as a visual indicator, the clamp OD (Outside Diameter) will be equal to or less than the hose OD.
- 3. If the tool runs out of stroke before the clamp is tight; rotate handles counter-clockwise, slide the pulling dog head until it contacts screw-action tool head, push down on the pulling-dog lever and rotate the handles clockwise until the clamp is properly tensioned.
- 4. When multiple clamps are used, clamp buckles must be offset to prevent a leak path; 2 clamps - buckles at 180°, 3 clamps - buckles at 120° and 4 clamps - buckles at 90°.

### Process

- 1. Slide the clamp(s) over the hose end.
- 2. Insert the coupling. Refer to step 9 of Procedure 1100: General Preparation Instructions (pages 9-10).
- 3. Secure the screw-action tool in a vise. Position it so that the tightening handles are on the right.
- 4. Install the roll-over attachment onto the screw-action tool head. Make sure that the cutting lever is facing the operator.
- 5. Use the screw-action tool as follows:
  - a. Rotate the tightening handles counter-clockwise until the pulling dog head contacts the tool head.
  - b. Insert the clamp tail through the slot on Roll-Over tool until the clamp buckle contacts the tool head.
  - c. Pre-tension the clamp by pushing down on pulling dog lever.
  - d. Rotate tightening handles clockwise. Continue rotating handles until the pulling dog lever can be released without band slippage.
  - e. Insert the hose through the clamp and into its proper position.
  - f. Rotate tightening handles clockwise until the clamp has been properly tensioned.
  - g. **Caution!** Bend excessive clamp tail away from tool handles to avoid being cut by sharp edges. 
  - h. Rotate handles counter-clockwise (no more than one full turn) while rolling the hose towards the operator. Continue rotating the hose until the clamp buckle engages the cutting bar of the attachment tool.
  - i. Quickly pull the cutting lever towards the operator.
  - j. Remove the clamp tail from the pulling dog.
  - k. For assemblies using multiple clamps, repeat the process.
- 6. Inspect results using Procedure 3002: Band Clamp Inspection (page 52).
- 7. Test the assembly using Procedure 4000: General Hydrostatic Testing Information (page 60) and Procedure 4001: Hydrostatic Testing (page 61).

*Tip: Always wear leather gloves to avoid cuts from sharp edges.*