

Procedure 2001: Installation of Boss™ 4 Bolt Clamp

effective 06/16



Selection

- 1. Select the proper Boss™ clamp using Procedure 1000: Boss™ Clamp Selection (page 5).
- 2. Refer to Procedure 3000: Criteria for Sufficient Fit of a Boss™ Clamp (page 49).

Preparation

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

Notes

- 1. Periodic bolt re-tightening is necessary due to "cold-flow" present in all rubber hoses.
- 2. Boss™ clamps (including nuts and bolts) are for a single use only! Once removed, discard. 
- 3. When installing stainless-steel bolts and nuts, the use of anti-seize or anti-galling lubricant is advised. A light coat is required on the bolt threads to prevent thread galling and artificial torque reading.
- 4. Torque values for brass and steel nuts and bolts are based upon "dry bolts." *Caution: Lubricant on bolts will adversely affect clamp performance.* 
- 5. After assembly of Boss™ clamps, Dixon® advises checking the torque setting daily for the first week, weekly for the first month and monthly thereafter.

Process

- 1. Insert shank into the hose. Refer to step 9 of Procedure 1100: General Preparation Instructions (pages 9-10).
- 2. Place the stem in a vise:
 - a. For male stems, tighten the vise on the hex.
 - b. For female stems (wing nut), place a spud in the vise, tighten and then thread the wing nut onto the spud.
- 3. Position the clamp gripping fingers behind the stem collar. See illustration below.
- 4. Tighten the bolts by hand until there is equal thread engagement. When hose OD (Outside Diameter) is at or near clamp maximum range, starting of nuts on bolts may require squeezing clamp halves in a vise.

Tip: Use the socket to aid hand tightening process.

- 5. Using a torque wrench, tighten bolts to the recommended torque value listed in the current DPL (Dixon® Product List).
Tighten nuts on bolts in the following sequence. See illustration below.
 - a. Turn the back bolt one full turn.
 - b. Turn the front bolt one full turn.
 - c. Snug by hand the nuts on opposite side of bolts just tightened.
 - d. Turn the opposite back bolt one full turn.
 - e. Turn the opposite front bolt one full turn.
 - f. Snug by hand the nuts on opposite side of bolts just tightened.
 - g. Repeat 'a' to 'f' until all bolts are tightened. Clamp bolts are designed to bend during tightening.

This "bending" allows the clamp to conform to the hose circumference.

- 6. Inspect results using Procedure 3000: Criteria for Sufficient Fit of a Boss™ Clamp (page 49) and Procedure 3001: Bolt Clamp Inspection (pages 50-51).
- 7. Test the assembly using Procedure 4000: General Hydrostatic Testing Information (page 60) and Procedure 4001: Hydrostatic Testing (page 61).

