

Dixon® Steam Crimp Coupling Procedures

Procedure 2506: Steam Crimp – 1 ½” Gates Plant Master® Steam 250 Hose Formerly 205MB Steam King®

Effective 9/20

Preparation

- 1. Cut Ends Square: Hose ends must be cut square (90° to the length of the hose) for proper coupling insertion. Improper insertion can reduce coupling retention.
- 2. Clean Hose End: Debris left inside the hose from the cutting process must be removed prior to coupling insertion. This is especially important when an abrasive wheel or 'chop saw' is used to make the cut. Debris will reduce coupling retention.

Process

- 1. Slide ferrule CSTF-150-2240 over hose until turnover end contacts hose end.
- 2. Place wing nut B17 on stem CSTS-150
- 3. Insert stem and nut combination into hose until stem bottoms out on hose.
- 4. Set crimp diameter on crimp machine so it produces a final diameter of 2.398” (+/- .008) on the ferrule.
- 5. Use crimp dies that are sized so the low end of their crimp diameter is slightly smaller than final diameter of ferrule.
- 6. Bring hose with wing nut, stem, and ferrule through the back of the crimper so that it is facing the operator.
- 7. Slowly jog dies closed, and make sure dies clear wing nut.
- 8. Position the ferrule so the turnover is setback ~ 1/8” from the edge of the crimp dies.
- 9. Slowly close dies until they just contact ferrule. Make positioning adjustments if necessary.
- 10. Make sure the hose is in contact with the hose stop on the stem and the ferrule is aligned with locking groove and dies clear wing nut.
- 11. Close the dies until the machine has reached the set crimp diameter and hold / dwell for 3 - 5 seconds.
- 12. Open dies, pull assembly forward and measure crimp diameter between grooves using calipers.
- 13. If the ferrule diameter does not fall within the required diameter range then adjust the crimp machine and repeat steps 11 and 12, otherwise move on to 14. (Refer to #1 in the Notes section if ferrule needs to be re-crimped.)
- 14. Inspect the assembly to ensure the ferrule is in the locking groove, the entire length is crimped and wing nut seats properly.

Notes

- 1. Although not necessary, Dixon® recommends turning the assembly half way through the crimp process so the ribs on the ferrule are centered in each of the crimp dies. This reduces the spines on the ferrule caused by the gaps between the die and more uniformly distributes the clamping force, of the ferrule, on the hose.
- 2. Finished crimp diameter must be measured for each fitting.
- 3. If finished crimp diameter is larger than tolerance re-crimp. If crimp diameter is smaller than tolerance consult Dixon®.
- 4. Dixon® recommends hydrostatically proof testing all assemblies at working pressure and 2x working pressure to assure proper assembly.
- 5. This document covers assembly for 1½” Gates Plant Master® Steam 250 Hose (formerly known as 205MB Steam King®) only.