

Procedure 2306	<b>Crimping Unirange, Air King (WF), Dix-Lock (WF), and Dual-Lock (WF) Couplings</b>	Revision 2-04
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**Selection:**

- 1. Select the proper fitting using the current Dixon Price List (DPL).

**Preparation:**

- 1. Prepare the hose using Procedure 1100 (General Preparations Instructions)
- 2. Measure the hose O.D. at each end using Procedure 1101 (How to use a Dixon Diameter Tape).
- 3. Determine the proper crimp diameter and crimp length from the appropriate Recommendation Guide in current Dixon Price List (DPL).
- 4. Using a scale or caliper measure inside the fitting from the end of the ferrule to the stem collar. This is the insertion depth.

**Process:**

- 1. Depending upon the type of crimping machine used, set the crimp diameter or select the appropriate die cage and spacers.
- 2. Starting from the hose end, measure and mark the insertion depth on the hose.
- 3. Insert the coupling into the hose until the end of the ferrule reaches that mark on the hose.
- 4. Measuring from the square end of the ferrule, mark a crimp length line on it.
- 5. Insert the coupling through the crimper die segments and align the crimp length line with the end of the die segments.
- 6. Jog the machine until the die segments lightly contact the ferrule. Adjust the fitting, if necessary, to ensure the crimp length line is at the end of die segments. This is important.
- 7. With light pressure, push the hose on to the fitting to ensure the stem collar is contacting the ferrule.
- 8. Activate the crimper until desired crimp diameter is achieved.
- 9. Reverse the machine and remove the coupling.
- 10. Measure the crimp diameter with dial calipers or micrometer. If the crimp diameters within  $\pm 0.005$  the assembly is acceptable.
- 11. Crimp diameters that are outside the 0.005 tolerance must be evaluated further by using the Percent of Reduction Formula found in the Holedall Die Chart:
  - a. If the diameter is too large:** Calculate the Percent (%) Reduction using the formula found in the Holedall Die Chart. If the result is between 18% to 24%, the crimp is acceptable. If it is less than 18%, re-crimp the ferrule until specified crimp diameter is achieved. When the Percent Reduction is below 18% the assembly may leak or the hose and coupling may separate. Contact Dixon Valve & Coupling Company at 1-800-355-1991 if questions arise.
  - b. If the diameter is too small:** Calculate the Percent (%) Reduction using the formula found in the Holedall Die Chart. If the result is between 18% to 24%, the crimp is acceptable. If it is greater than 24%, contact Dixon Valve & Coupling Company at 1-800-355-1991. The hose and / or coupling may have been damaged.
- 12. Test the assembly using Procedure 4000 (General Hydrostatic Testing Information) and 4001 (hydrostatic Testing).

Assembled By: \_\_\_\_\_ Tested By: \_\_\_\_\_ Reference No. \_\_\_\_\_  
 Assembled Date: \_\_\_\_\_ Test Date: \_\_\_\_\_