

PRODUCT TESTING

All products within the Triple Tap® Tapping Sleeve product line are universally tested to a test pressure of 275 psi. This rating is slightly greater than 1.5 times the rated working pressure.

Note Rated Working Pressure of Triple Tap with AWWA Class “D” Flange is per AWWA C-207 or 175 psi.

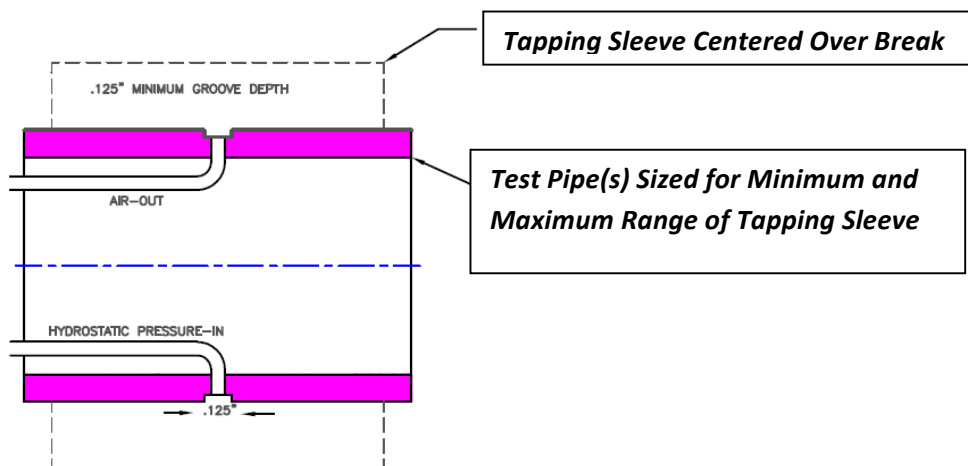
The Triple Tap with Mechanical Joint End is rated to a working pressure of 200 psi.

Triple Tap Line Stop Fittings are rated to a working pressure of 175 psi with higher working pressures available upon request.

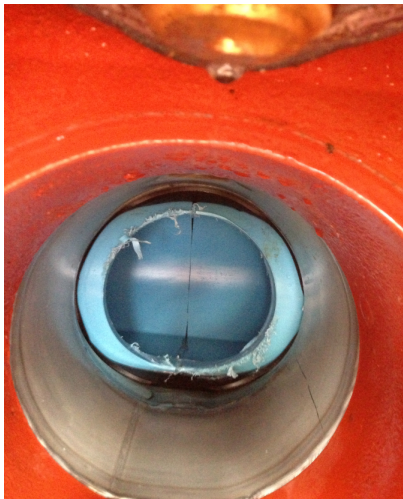
Qualification Testing allows Triple Tap to Surpass Field Requirements

- All Triple Tap Tapping Sleeves are tested for beam breakage on a simulated 360-degree break test.
- The test is performed at a test pressure of 175×1.5 safety factor = 265 psi
- Testing is performed on a test pipe designed with a 1/8” wide by 3/16” deep hydrostatically pressurized groove.
- This test is performed on a steel test pipe which represents the min and max diameter of the main conductor pipe for each size range.

Beam Break Qualification Test



The Triple Tap in fact has been field tested on pipe that has been cut in half before tapping to verify the beam break test results. Several major utilities have performed this test to satisfaction:



Triple Tap Tapping Sleeves and Line Stop fittings are tested to meet ANSI/AWWA C223-07 and MSS SP-124-2012. In addition, consideration is made to the various pipe materials used in the pipeline industry including: steel, cast iron, ductile iron, PVC, High Density Polyethylene, Asbestos Cement and Copper Pipe.

MSS SP-124-2012 requires a proof of design test equivalent to 150% of the rated operating pressure for the tapping sleeve. For testing purposes, each sleeve is tested to a circumferential test of 175 psi and hydrostatic test pressures are contained to at minimum pressure of 265 psi. Please note: Hydrostatic test pressures on both PVC and HDPE pipe are a function of the pipe wall thickness. Consequently, a lower test pressure will be encountered during test on thinner wall pipe such as DR25 and DR26.

Each Triple Tap is tested on Minimum range pipe and Maximum range pipe as accommodated by the shell size as noted in the chart below:

| Line Item No. | Nominal Diameter | Range Category | Minimum Dia. In. | Maximum Dia. In. | Sleeve Length | 5/8" Bolts |
|---------------|------------------|----------------|------------------|------------------|---------------|------------|
| 1 | 4 Inch | Nominal | 4.45 | 5.10 | 15 | 8 |
| 2 | 4 Inch | Oversize | 4.74 | 5.36 | 15 | 8 |
| 3 | 6 Inch | Nominal | 6.55 | 7.42 | 15 | 8 |
| 4 | 6 Inch | Oversize | 6.84 | 7.65 | 15 | 8 |
| 5 | 8 Inch | Nominal | 8.54 | 9.44 | 20 | 10 |
| 6 | 8 Inch | Oversize | 8.98 | 9.84 | 20 | 10 |
| 7 | 10 Inch | Nominal | 10.64 | 11.46 | 25 | 14 |
| 8 | 10 Inch | Oversize | 11.34 | 12.16 | 25 | 14 |
| 9 | 12 Inch | Nominal | 12.62 | 13.56 | 25 | 14 |
| 10 | 12 Inch | Oversize | 13.65 | 14.42 | 25 | 14 |

Non Metallic pipe is tested on a simulated tapped hole through the pipe sidewall, and all Triple Tap Tapping sleeves are tested on both short term (24 hour) and long term (30 days minimum) waiting periods.

