

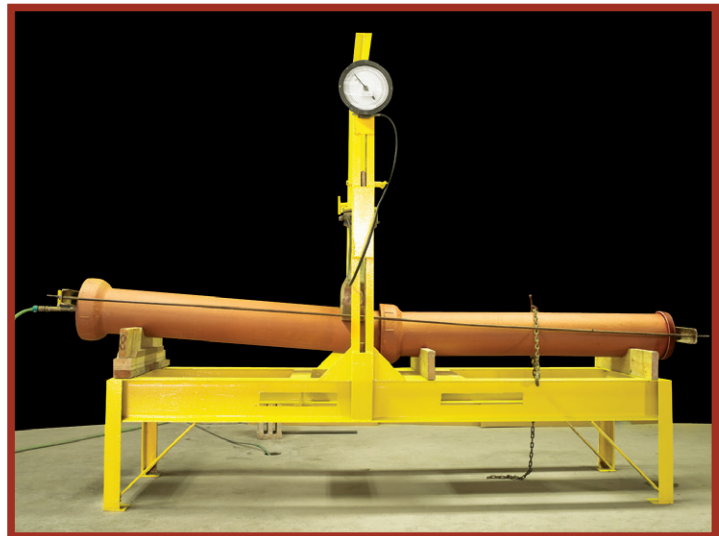
Logan's O-Ring Joint

Field Tested – Field Proven

The clay pipe sewers installed early in our nation's history were not supplied with a joint. The installers joined pipe by applying tar or mortar in the trench. These joints allowed significant infiltration which was beneficial as it diluted the effluent and cleaned the lines. These sewers generally discharged into waterways without treatment.

As cities began treating sewage, infiltration became an expense. Logan Clay responded by introducing factory applied joints. Each generation of factory applied joints improved upon the last until the O-Ring joint was developed, achieving the leak-free performance that communities require.

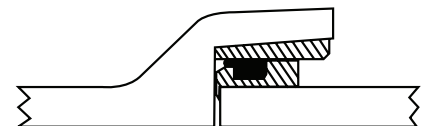
The Logan O-Ring joint has proven to be a reliable, watertight joint for more than 50 years. When installed in accordance with ASTM C12 specifications, our pipe and O-Ring joints eliminate the infiltration that was prevalent in early clay pipe lines.



For this test of 8-inch pipe, the pipe on the right provides the basis of a straight pipeline. The pipe on the left is intentionally misaligned to simulate a deflected joint. The bell end is 2 1/2 inches higher than the spigot end (1/2-inch deflection per foot length). The spigot end is unsupported while a shear load of 1,200 lbs. (150 lbs. per inch diameter or 150 x 8 = 1,200 lbs.) is then applied from above. This combination simulates a field condition of both misalignment of the joint and improper support of the barrel. In this condition, the joint must withstand the 1,200 lbs. shear load while maintaining 4.3 psi of water pressure (10 ft. head) without leaking.

Deflection Allowed by ASTM Specification

Normal Diameter	Deflection of Pipe
4-12" (101-305 mm), inclusive	1/2" (42 mm)
15-24" (381-610 mm), inclusive	3/8" (31 mm)



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