

Pulled Joints (GAPS – Installation Anomaly)

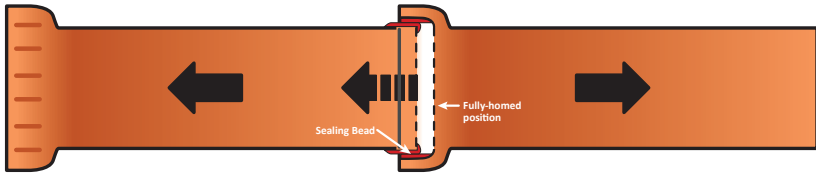


Figure 19: Pulled joints can occur when trench boxes are moved without enough care.

During construction, joints must be assembled to assure pipeline integrity. When using a trench box, pipe must be held in place when the box is moved forward to ensure the assembled joint does not pull apart. If joints have been pulled, a larger gap may result between the pipe ends. The joint design for clay pipe provides an allowance for joint gap without sacrificing pipeline integrity, see Figures 19 & 20.

Assembled joints that are fully homed may have a tight fit at one location while showing a minor gap at another. This is not a pulled joint if the sectional lengths are within end squareness tolerances as specified in ASTM C700. For more information on this condition, see Curvilinear Sewers on page 20.



Figure 20: While this joint cutaway shows a significant gap in the pulled joint for illustration purposes, the joint holds and would perform as specified.

The images below show a $\frac{3}{8}$ -inch and a 1-inch joint gap as viewed with the CCTV camera. Both joints passed a Low-Pressure Air Test to verify joint integrity.

Whenever there is doubt about the integrity of the joint seal, the Low-Pressure Air Test is recommended. If the installation passes the Low-Pressure Air Test, pipeline performance and pipe integrity should be unaffected.

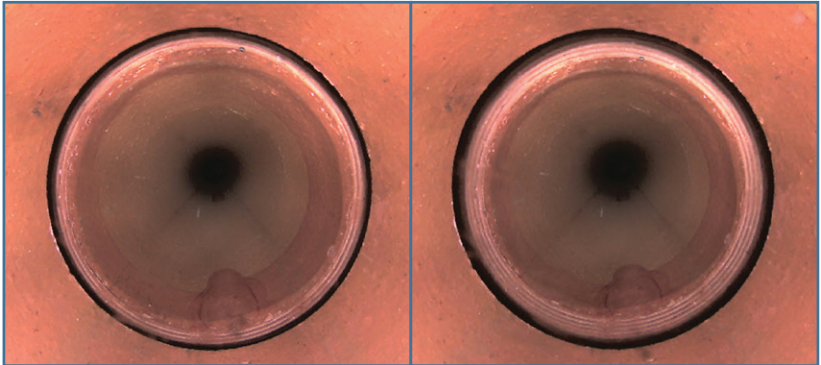


Figure 21: $\frac{3}{8}$ -inch Pulled Joint (gap)

Figure 22: 1-inch Pulled Joint (gap)