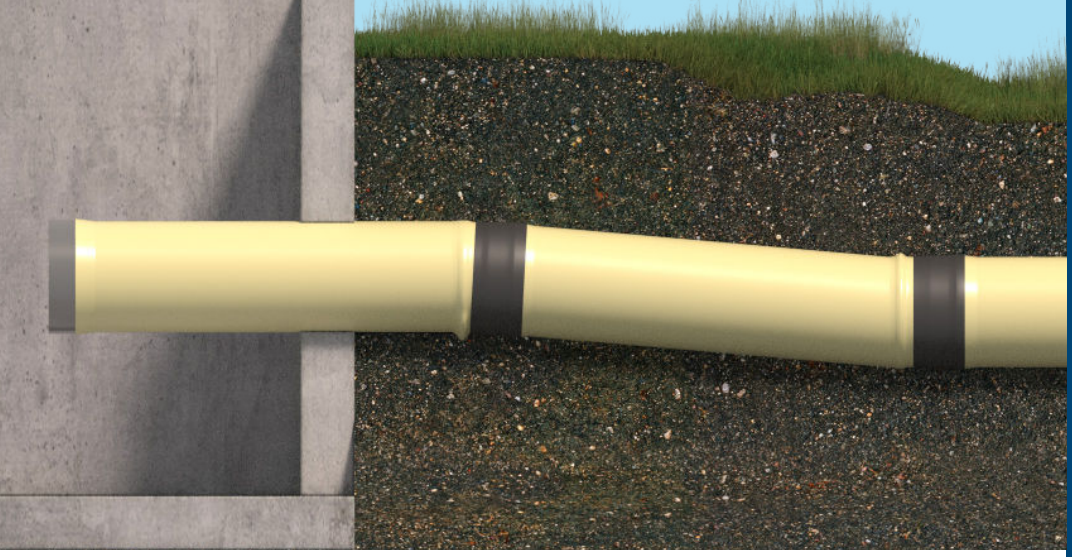


InfraShield® JOINT SYSTEM

Geohazard Resistant Steel Pipe (GRSP)
for Differential Settlement Applications

The InfraShield® Joint System technology builds on the proven performance of C200 steel pipe with a standard bell and spigot lap welded joint to provide even greater resilience in areas with differential settlement and subsidence. Previously, couplings or joints with seated gaskets were typically used to maintain water containment after settlement. However, complex installation and the potential for leaks in gasketed connections can increase risk and threaten reliability. InfraShield's innovative, patented joint design eliminates the need for gaskets, providing a fully welded, leak-proof system that ensures uninterrupted water delivery to critical infrastructure and communities.

Applications

Differential settlement • Subsidence • Expansive or soft soils • Replace leaking joints or couplings

Advantages

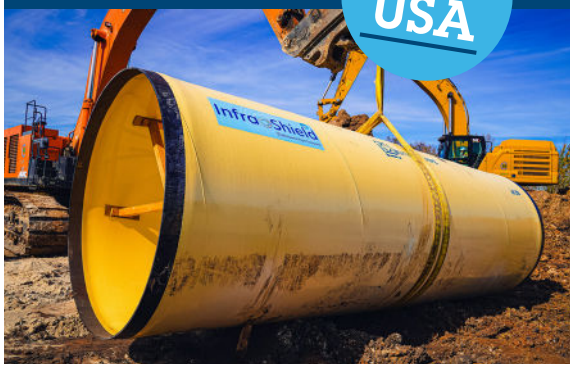
Quick Installation
InfraShield® installs like any C200 steel pipe with bell-and-spigot lap weld joints—no special training or equipment required. It's a contractor-friendly system that saves time in the field and minimizes risk.

Cost Savings
Simple installation translates to lower construction costs, especially compared to alternative systems that require additional crew training and installation oversight.

Proven Performance
The InfraShield® Joint System has been verified with rigorous, full-scale physical testing backed by extensive finite element simulations.

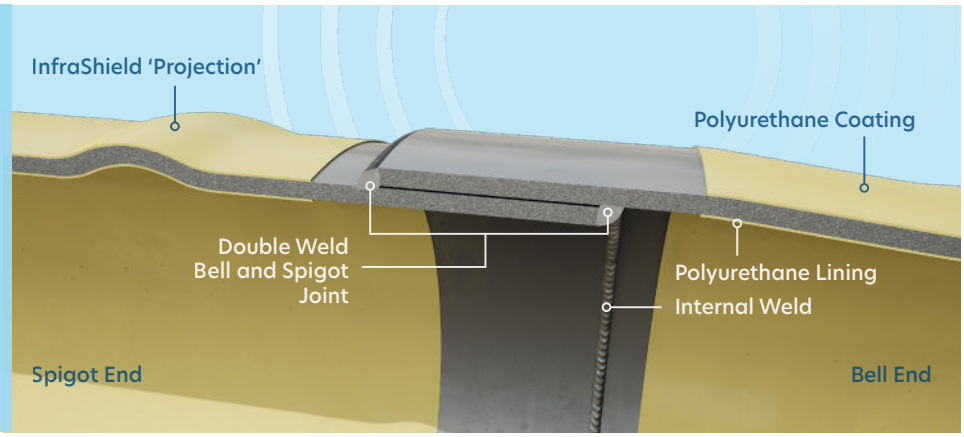
Reliably Leak-Free
InfraShield's fully welded, gasketless design provides a high-strength watertight connection, delivering joint soundness without perfect trench grading or soil stability. Our leak-proof joint system guarantees continuous water delivery without the need for system redundancy.

MADE IN THE USA



InfraShield® Components
100% American Made

The InfraShield® Joint System improves the mechanical response of lap-welded joints by introducing a small projection around the pipe circumference at the spigot side of the weld. This enhancement forces any deformation to occur at the projection, thereby protecting the lap weld joint.



InfraShield® Joint System

Design Guide — Differential Settlement

The number and location of InfraShield® projections required for effective performance in differential settlement applications is determined by pipe diameter and amount of predicted settlement. Use the following design guidelines to easily specify InfraShield® GRSP for areas with commonly encountered settlement ranges of up to four inches. *(Contact your NWP representative for additional guidelines for applications with larger settlements and other pipe diameters.)*

1 Determine Number of InfraShield® Projections

Settlement (Inches)	Diameter (Inches) 24	30	36	42	48	54	60	66	72	78	84	90	96
1	S	S	S	S	S	S	S	S	S	S	S	S	S
2	D	S	S	S	S	S	S	S	S	S	S	S	S
3	D	D	D	S	S	S	S	S	S	S	S	S	S
4	D	D	D	D	D	D	S	S	S	S	S	S	S

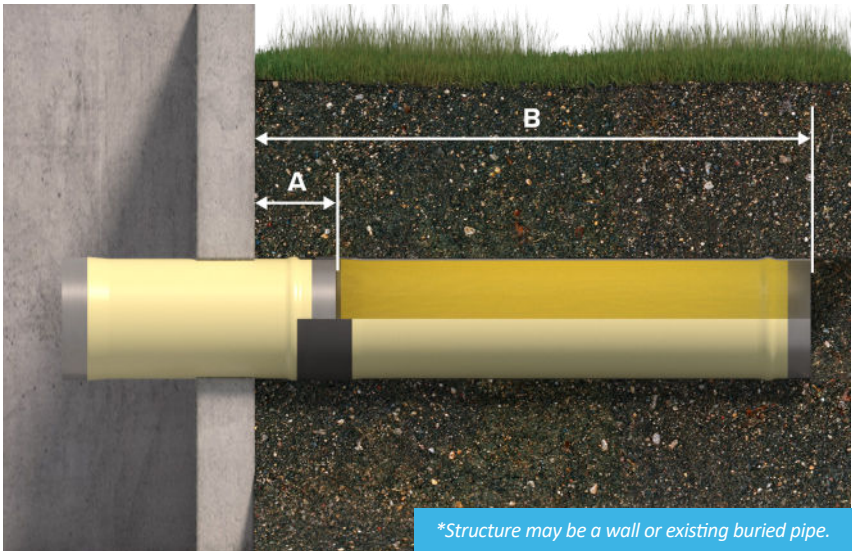
**Applicable for SC1, SC2 or SC3 soil embedment as defined in AWWA M11 (2017)*

First, determine whether one or two InfraShield® projections are required in the pipeline design. Use the table to match the to the amount of expected settlement with the pipe diameter.

S = Single
1 projection needed

D = Double
2 projections needed

2 Determine Location of InfraShield® Projection(s)



Then, refer to this figure to determine the location of the required InfraShield® projection(s).

A **Joint Length Extending from the Structure***
(single & double projection designs)

Dia. (in.)	*A (ft.)*
24-36	1.5
36-96	2.0

B **Second Joint Length**
(double projection designs only)

***B** = 4 pipe diameters (4D)*

Contact Us

Our sales and engineering teams are ready to support your project from specification to installation. Scan to get started today!

Find your NWP Representative:

Technical Question? Ask an Engineer: