

SPHERICAL SLIP-IN JOINT

Steel Pipeline Systems

SPHERICAL SLIP-IN JOINT PIPE FOR POTABLE WATER, RAW WATER, AND SEWAGE RISING MAINS

Spherical Slip-In Joint (SSJ)

Sizes: 168mm to 1422mm OD

Joint deflection: Up to 3°

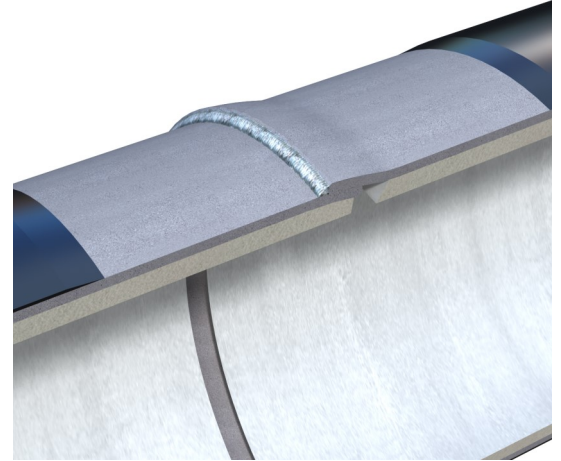
Pressure rating: Full pipe pressure

Wall thickness: Up to 11mm

Advantages:

- Permits internal & external fillet weld for larger than 762mm
- Enables pneumatic field testing of joint (if welded internally)
- Full axial restraint - reducing requirement for concrete thrust restraint
- Minimises bends using joint deflection
- Compatible with SSJ fittings

BEST FOR: Welded restraint in smaller to medium diameter pipelines



APPLICATIONS

Spherical Slip-In joints are a fillet welded joint which provide 100% structural integrity. Suitable for both buried and above ground installations; they provide up to 3° of angular joint deflection depending on diameter and steel wall thickness. They are primarily used for welded restraint in smaller to medium diameter pipelines; minimising bends using joint deflection, and reducing the requirement for concrete thrust restraint.

CORROSION PROTECTION

External barrier protection is achieved with Sintakote® fusion bonded medium density polyethylene in thicknesses ranging from 1.8mm to 2.3mm dependant on pipe diameter.

Internally, a smooth, dense, centrifugally spun cement mortar lining provides active protection against corrosion.

JOINT CORROSION PROTECTION

External barrier protection of the weld portion is achieved by means of a heat shrink sleeve overlapping the bare steel and the transition to the external corrosion coating of Sintakote® fusion bonded medium density polyethylene.

Internal reinstatement of the bare welded steel area at the joint for sizes above 762mm, or where man - entry is permissible by the local agency, is achieved with Steel Mains Eziline. Eziline Mortar Mix is a high performance product specifically designed for use in reinstating the field joints and repair of Steel Mains cement mortar lined steel pipes and fittings. It is a complete system, including the primer and mortar materials.

BENEFITS OF SPHERICAL SLIP-IN JOINTS

Joints can accommodate angular rotations of up to 3° degrees, depending on diameter and wall thickness, in both horizontal and vertical plains.

Spherical Slip-In joints are rated at the full pipe calculated operating pressure in accordance with AS1579 (72% of Specified Minimum Yield Strength).

Field assembly for weld preparation is rapid—due to the ability to easily rotate and line up the spigot and socket of the two pipe ends for fillet welding due to the spherical slip-in feature.

Spherical Slip-In joints permit a pneumatic test of the weld integrity, for sizes welded externally and internally, in the field during construction.

SINTAKOTE®

Sintakote is a medium density black polyethylene coating applied directly to the steel pipe using a fusion bonding process.

Sintakote is ideally suited to below ground applications, including sub-sea installations such as the protection of tubular steel wharf piling.

With its excellent chemical and mechanical strength, Sintakote should provide a 100 year buried pipe design life when correctly installed. Sintakote is ideally suited to aggressive soils such as acid sulphate soils.

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CEMENT MORTAR & CALCIUM ALUMINATE LININGS

Cement Mortar Lining — Internally a smooth, dense, high radial acceleration centrifugally spun cement mortar lining provides active protection against corrosion. The high radial rotation and simultaneous vibration of Steel Mains cement mortar linings produces a very dense, smooth lining of extremely low permeability.

The dense cement actively protects the carbon steel due to the chemistry at the cement and steel interface. This is achieved by creating a high pH environment, typically pH12 at the steel-mortar interface. A passive film is formed at the surface that inhibits oxidation of the pipe surface.

STANDARDS

Steel Mains Spherical Slip-In Joint pipe comply with Standards :

- AS 1579 - Arc welded steel pipes and fittings for water and waste water
- AS4020 - Water contact approval
- AS/NZS 1594 - Hot rolled steel flat products
- AS4321 - Fusion bonded medium density polyethylene coating and linings for steel pipes
- AS1281 - Cement mortar lining of steel pipes



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