

# SINTAJOINT®

## Steel Pipeline Systems

RUBBER RING JOINT PIPE FOR POTABLE WATER, RAW WATER, AND SEWAGE RISING MAIN APPLICATIONS

### Sintajoint® - Rubber Ring Joint (RRJ)

Pipe Sizes: 324mm to 1829mm OD  
 Joint deflection: Up to 3°  
 Pressure rating: Up to PN42.5  
 Wall Thickness: Up to 12mm

#### Advantages:

- Extremely fast installation speeds
- Fastest pipe lay rates
- No additional joint corrosion protection required
- Sintakote® external corrosion for aggressive soils
- Electrically insulated joint
- Fully protected joint internally for aggressive fluids

*BEST FOR: Straight runs, where high installation rates can be*

### APPLICATIONS

Suitable for both buried and above ground installations; the Sintajoint Steel Pipeline System is primarily used for the transmission of pressure potable, raw water, wastewater and sewage rising mains.

### FULL 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.

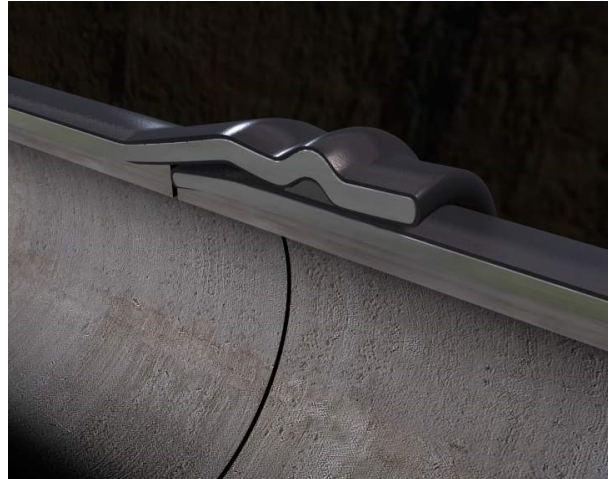
Internally, a smooth, dense, centrifugally spun cement mortar lining provides active protection against corrosion.

Full corrosion protection of the steel pipe is achieved by extending the Sintakote coating around both spigot and socket ends to underlap the cement mortar lining.

### BENEFITS OF SINTAJOINT SYSTEMS

The rubber ring joint eliminates welding and associated weld hole excavation.

Field assembly is rapid—the easy, push-in joint and longer pipe lengths of 12.2m or 13.37m effective length maximises laying rates and minimises construction costs. Sintajoint is available in shorter lengths as well.



No field heat shrink sleeves or wrapping, application or reinstatement of cement mortar corrosion protection is necessary, either internally or externally.

Joints can accommodate larger angular rotations of up to 3 degrees in both horizontal and vertical plains, while maintaining full seal pressures up to 4.25MPa, depending on diameter.

The Sintajoint flexible, steel pipeline system incorporates a factory applied total corrosion protection to ensure an extended trouble free service life.

Due to its insulating properties, the joint is ideal for applications where induced current may be a design consideration. Cathodic protection is also available.

### 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.

Calcium Aluminate Cement Mortar Lining—this lining is used when conveying aggressive fluids in sewage and wastewater pipelines.

## DEEP ENTRY SINTAJOINT

To accommodate abnormal angular rotation and axial displacements, rubber ring joints can be supplied with a modified socket profile featuring a deeper, wider throat.

This joint is suited to mine subsidence areas where ground strain can be high, typically in the range of 3 to 7mm/m.

## SINTAPIPE

Sintapipe incorporates Sintakote medium density fusion bonded polyethylene applied to both the external and the bore of steel pipes in conjunction with the Sintajoint rubber ring joint. Sintapipe is ideal for aggressive water applications such as high CO<sub>2</sub>, septic sewage, trade wastes and highly saline waters and can operate at temperatures up to 50°C.

## HOCKEY STICK SINTAJOINT PIPES

These Sintajoint pipes feature a rubber ring jointed socket offset at angles up to 15°. Coupled with the existing angular deflection of the joint—up to 3 - significant changes in direction can be effected by using several hockey sticks in sequence.

## THRUST BLOCKS

Steel Mains has a complete range of welded socket and spigot ended pipes and fittings to complement the Sintajoint Pipeline System.

These special ended pipes and fittings enable welded restrained bends to be integrated into the Sintajoint pipeline system with minimum time and effort. This eliminates the need for on-site fabrication or using expensive and cumbersome thrust blocks.



## STANDARDS

- Steel Mains Sintajoint pipe comply with :
- 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

### STEEL MAINS PROPRIETARY LIMITED

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