REDUCERS

TECHNICAL DATA

SINTAKOTE® STEEL PIPELINE SYSTEMS

Steel Mains Steel Pipeline System is available across a full size range and can be tailor-made to suit specific design parameters.

Reducers are generally manufactured from fabricated plate depending on the dimensions required. The fabricated fitting is 100% non-destructively tested and complies with AS 1579.

Reducers manufactured from plate pressure ratings are based on 50% of specified minimum steel yield strength per requirements of AS 1579.

SINTAKOTE is the recommended coating for pipe and fittings for the Steel Mains Steel Pipeline System and complies to AS 4321. Alternative coatings are available where reduced operating life of the pipeline is permissible.

Cement Mortar Lining (CML) is the recommended lining for the Steel Pipeline System pipe and fittings and complies to AS 1281. Alternative lining systems are available where required.

Special considerations to the jointing and the pipeline system’s capabilities need to be confirmed with Steel Mains prior to proceeding with design.

- Consult the Steel Mains Steel Pipeline Systems Design manual for design information
- Check with Steel Mains on material availability prior to placing orders

GENERAL APPLICATION

Steel Mains Reducers for Steel Pipeline Systems are suitable for use with potable water and waste water in above and below ground applications.*

For special application requirements, beyond what is specified in this datasheet, please contact Steel Mains.

*Only applies to Steel Mains recommended coating and lining systems. Please consult the design manual for further details.

TECHNICAL DATA

Size Range
114mm to 2500mm diameter

Operating Pressures
Maximum 3500kPa

Maximum Velocities
6m/s for cement mortar lined fittings

Operating Temperatures
-40°C to 70°C

Certifications
AS/NZS ISO 9001
AS/NZS 4020
AS 1579 Standards Mark
SPECIFYING REDUCERS

1 - Reduce type
Determine type of reducer: Eccentric or Concentric. If the reducer is eccentric, specify the offset (X).

2 - End type
Specify the end types ['A' and 'B'] on the reducer:
- Plain - most commonly used
- RRJ Spigot
- RRJ Socket
- Flange, etc.
Specify paint system for flanges, if applicable. Inorganic zinc paint is included as standard.

3 - Pressure
Determine the pressure requirements for the reducer - PN rating, (e.g. PN 16 - equivalent to 1600KPa, 16 Bar or approximately 160 metres of head).

4 - Large diameter
Specify the large diameter - ODA

5 - Wall thickness
Determine the wall thickness of the large end (normally to suit the pipe wall thickness). Stress concentration factors need to be taken into consideration when ratio of diameter is

6 - Small diameter
Specify the small diameter - ODB

7 - External coating
Specify the external coating of the reducer.
SINTAKOTE® is the recommended external coating.

8 - Internal lining
Specify the internal lining of the reducer.
Cement mortar lining is the recommended internal lining.

9 - Reducer length
Specify the reducer length required (L1). The minimum length recommended for the reducer is calculated according to the formula 4.5 x (ODA - ODB).

10 - Reducer length
Specify the tail length (L2) according to the type of end selected. The recommended tail length for plain ends is as follow:
OD ≤ 800L2 = 150 mm
OD > 800L2 = 200 mm

11 - Additional component
To add any additional fittings component to the reducer, refer to Steel Mains Steel Fittings ‘Combinations’ datasheet.