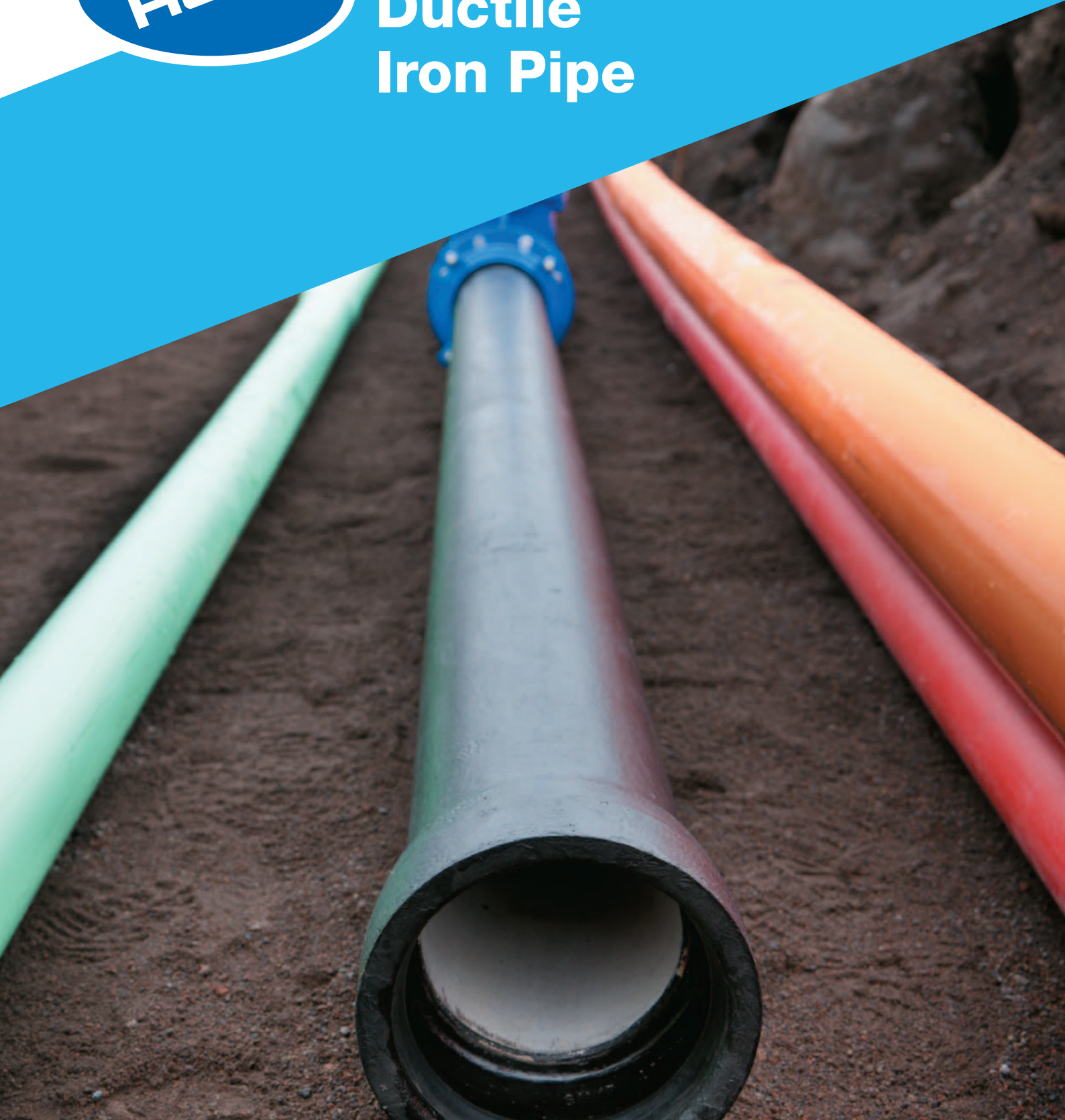




# Ductile Iron Pipe



A full range of ductile iron pipe  
fully certified to AS/NZS 2280



# Humes certified ductile iron pipe

Humes pioneered the introduction of AS/NZS 2280 standard pipe into New Zealand in 2000. Since this time we have provided Ductile iron pipe for many projects in New Zealand and the Pacific islands. Over the past year we have undertaken our own tooling and sourcing to be able to provide a full range of AS/NZS 2280:2004 standard pipe to our customers. Through this you can have full confidence that any ductile iron pipe provided by Humes will be fully compliant with this standard and come with the total backing of Humes Pipeline Systems.



## Why Humes ductile iron pipe

- Compliance with AS/NZS 2280 dimensions and performance
- High impact/mechanical strength
- Suitable for above and below ground applications including high pressure to PN35
- Available in socket x spigot
- Corrosion Resistant
- Compatible with existing fittings



The standard range of ductile iron pipe manufactured in China in accordance with AS/NZS 2280:2004 will be available in sizes 100mm to 750mm. Pipes are offered with a spigot/socket rubber ring joint configuration with a pressure rating of PN35 and a nominal length of 6 metres. The 'dual seal' gaskets in EPDM are certified to AS 1646:2007 (licence held by Gulf Rubber – Australia).



Humes ductile iron pipe is zinc coated and then painted with bituminous paint in accordance with AS/NZS 2280:2004. In low corrosive soils, this removes the need for a PE sleeve (subject to council requirements). In highly corrosive soils, Humes recommends the use of a PE sleeve fitted to the outside of the pipe to increase protection. These are available on request through Humes.



Humes ductile iron pipe is lined with ordinary Portland Cement in accordance with AS 3972. The lining is applied through centrifugal spinning of the pipe. A smooth finish and high compaction is achieved by this method, giving excellent hydraulic performance.

Shrinkage is normal in cement mortar lining. Any such shrinkage should be checked to ensure it complies with appropriate product standards. Cracks will normally close on submersion in water.



Material used in the manufacture of ductile iron is: as per AS1831:2007, ductile iron mechanical properties 450-10. Cement: as per AS/NZS 2280:2004 section 2.5.2. External coating: as per AS/NZS 2280:2004 section 2.4.1 – 2.4.2.



# Humes certified ductile iron pipe

Humes ductile iron pipe is certified to AS/NZS 2280:2004 and is fully tested and compliant with AS/NZS 4020:2005. As part of this certification, specific independent material testing has been undertaken on: Pipe Coating to AS 3750.4 and Dimensional and Deflection Testing to AS/NZS 2280:2004



Humes ductile iron pipe is manufactured in quality, safe and environmentally secure production facilities with the foundry holding the following certification:

- Quality Management System – ISO 9001:2000
- Occupational Safety and health System – GB/T28001:2001
- Environmental Management System – ISO 14001:2004



Humes ductile iron pipe is compatible with the following standard marked products:

- Pipes and fittings – AS/NZS 2280
- Valves – AS 2638.1 and AS 2638.2
- Non return valves – AS 4795
- Couplings – AS/NZS 4998
- Butterfly valves – AS 4795
- Mechanical tapping bands – AS/NZS 4735



## Jointing systems

Ductile iron pipe is jointed using a standard rubber seal ring made from natural rubber produced to AS 1646 Standard. Joining can also be achieved with a flanged adaptor with standard drilling to AS 4087 drilling B5, B6. Other drilling is available upon request. Additionally an AVK flanged super adaptor with a non-creep ring which inhibits axial movement down the pipe can be used.



Humes AVK valves and fittings provides a full range of fittings, valves and couplings all made to AS/NZS standards. This in conjunction with Humes ductile iron pipe provides a dependable pressure water reticulation package. As the leading provider of pressure water system in New Zealand, Humes is in a unique position to provide these products plus any additional products required.

The design and specification advice available from Humes team of pressure water professionals provides expertise for potable water reticulation, pressure sewer lines, irrigation schemes and other pressure pipeline system applications. If you have any design or specification requirements we are pleased to be able to assist you to obtain the optimal performance from your ductile iron pipeline.



# Humes certified ductile iron pipe

## The key benefits of Humes ductile iron pipe

Ductile iron is widely used in New Zealand and provided it is installed in accordance with installation guidelines provided in the Buried Flexible Pipeline Installation Guideline, will deliver a well performing pipeline system.

Ductile iron provides strength and flexibility as well as proven durability from linings and coatings. This means the lifetime payback on a ductile iron pipeline provides an extremely cost effective solution over other pipeline options.

This can be summarised by:

- The strength of ductile iron
- No loss of strength over time
- Ability to handle cyclic loads, surges and pressure transients
- An effective solution for areas of limited cover requiring less excavation
- High loading capacity and response
- Withstands second corner and impact damage.
- High resistance to ground movement and settlement, etc.
- Simple, easy to assemble modular system
- Proven, fast and simple rubber ring jointing
- Broad range of fitting options
- Not subject to creep
- Proven track record

## Standard product values for PN35 ductile iron pipe

Nominal size DN (mm)	Mean external diameter (mm)	Mean wall thickness (mm)	Recommended maximum working pressure		Mass (kg)
			metre	Mpa	
100	121.9	6.1	350	3.5	98
150	177.3	6.3	350	3.5	144
200	232.2	6.4	350	3.5	192
225	259.1	6.6	350	3.5	222
250	286.0	6.8	350	3.5	259
300	345.4	7.2	350	3.5	341
375	426.2	7.9	255	2.5	480
450	507.0	8.6	255	2.5	633
500	560.3	9.0	255	2.5	746
600	667.0	9.9	255	2.5	993
750	826.0	11.3	255	2.5	1468

For further technical details or advice freephone  
0800 502 112 or visit [www.humes.co.nz](http://www.humes.co.nz)

Buyers and users of the products described in this brochure must make their own assessment of the suitability and appropriateness of the products for their particular use and the conditions in which they will be used. All queries regarding product suitability, purpose or installation should be directed to the nearest Humes Sales Centre for service and assistance. © Fletcher Concrete and Infrastructure Limited 2010. Printed 09/10.

