## **ENSIGN**<sup>®</sup> CAST IRON DRAINAGE SYSTEMS

### WHY CHOOSE A CAST IRON PIPE SYSTEM?

#### **FIRE SAFETY**

Ensign cast iron is non-combustible, does not require any fire protection, will not propagate fire and will not emit toxic gases. No fire collars are necessary.

#### **ACOUSTIC PERFORMANCE**

Cast iron surface mass and density result in unquestionably superior acoustic performance over UPVC and stainless steel.

#### STRENGTH: RESISTANCE TO DAMAGE

The strength of cast iron to withstand accidental impact makes it ideal for use in carparks and basements.

#### SUPERIOR COATINGS

Epoxy resin inner coating on pipe and fittings to provide superior resistance to corrosive and/or hot effluents.

#### NO EXPANSION JOINTS NECESSARY

The co-efficient of linear expansion for cast iron and concrete are almost identical. This eliminates the need for specific bracketing or expansion collars/joints.

#### EASE OF MAINTENANCE

Removable mechanical couplings provides ease of maintenance at vital points in the stack to relieve any blockages which may occur.

#### LOWER TOTAL COST OF OWNERSHIP

The total cost of ownership takes into account the product cost, the installation cost, any maintenance related costs and the long term durability of the product.

#### WATER MARK CERTIFICATION

The Ensign cast iron pipingsystem (pipes, fittings, couplings) have been granted the WATERMARK Certificate of Conformity WM-022735.

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### LOWER TOTAL COST OF OWNERSHIP

# PRODUCT COST AND INSTALLATION COSTS

Cast iron is not the lowest cost material option. However this needs to be considered against considerable installation cost savings from:-

- Quick Traditional Installation with mechanical couplings and simple tools, no gluing or welding saves time and labour cost.
- No expansion joints are necessary. No fire collars are required.
- Less acoustic insulation required due to the natural acoustic properties of cast iron.

#### DURABILITY AND LESS MAINTENANCE:

- Cast iron has a proven life span far exceeding 50 years due to its outstanding mechanical properties.
- Exposed sections are more resistant to damage compared to other drainage materials. It is also less sensitive to cracks and breakage prior to installation.
- Cast iron below ground offers greater resistance to ground movement.
- Where necessary, removable mechanical couplings eliminates the need to cut into the stack making repairs easier and lower cost.



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