

# Concrete Pipe for Good Reason

Concrete pipe has been the cornerstone of the stormwater pipe industry for over 100 years, for good reason.

The concrete pipe of today is founded on innovation, sustainable practices, proven performance, longevity, reliability.

## Innovation

Australian and New Zealand concrete pipe manufacturers have developed the most efficient, sustainable concrete pipe in the world whilst maintaining strength, integrity and durability. It's mass by conduit diameter is the lowest for concrete pipe in the world. It more often than not, can contain up to 30% by mass of waste product and 100% recycled steel.

## Sustainability

Sustainability has many meanings. Used in a sentence with steel reinforced concrete pipe it represents a proven design life, lowest life cycle cost, recyclable, recycled, most sustainable installation detailing.

Maximizing use of waste materials and recycled materials, minimizing the use of valuable resources are front and center in steel reinforced pipe manufacture and installation.

Importantly the inclusion of recycled material is not detrimental to the long term strength or durability of the product meaning specifiers and asset owners are never compromising asset life.

The bedding and support materials for installing pipe have a large impact on the CO2 emissions. With unrivalled inherent strength, rigid concrete pipes can be installed using nil to minimum imported bedding material as opposed to full embedment being absolutely necessary for a flexible wall pipe to function as a structure.

With concrete pipe available in a range of classes, and AS/NZS 3725 Design for installation of buried concrete pipes providing a range of support types, designers and asset owners have the choice of material efficient design for all projects.

## Proven Performance

Steel reinforced concrete stormwater pipes that have been installed for generations are still in service today retaining structural capacity, integrity and durability. The 100 year design life is not just a mere claim based on extrapolation. The pipe structure is principally built in a controlled environment, in a modern high quality control environment, in stark contrast to flexible pipes that are in principal hole formers that require the structural capacity to be built around them in the field.

## Longevity

Not just satisfied with the fact that asset managers often associate 120 year asset life with steel reinforced concrete pipe, the CPAA is conducting a Durability study that is proving that installed pipe shows little to no degradation with the structural capacity and design life uncompromised.

## Reliability

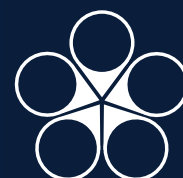
Ongoing In process strength testing underpins the reliability of concrete pipe. Both Proof and Ultimate load testing is performed by manufacturers to prove the structural strength of concrete pipe to give purchasers the confidence that the product they are buying is the right strength.

It doesn't matter what manufacturer the pipe is purchased from, the minimum performance strength of the pipe is identical. The strength number, e.g. Class 4, ensures the same tested strength regardless of the manufacturer, whereas for flexible pipes, the marketing number SN might be the same, but the long term tested stiffness varies by manufacturer.

The CPAA industry produced PipeClass installation design software has more than 25 000 downloads in Australia and New Zealand, providing users with consistent analysis, material and performance values to design installed stormwater pipelines.

**Good reasoning equals smart choices.**

**The smart choice: steel reinforced concrete pipe.**



Concrete Pipe  
Association of  
Australasia