

Hydro-Brake[®] Drop

(Stormwater Management)

Technical Guide SW 18

Safely convey water or sewage while protecting infrastructure from damage, vibration, odour and noise.



08.24 | STORMWATER | SW18 HYDROBRAKE DROP

Applications

Controlled drop of sewer flows into deep tunnels

Energy dissipation of dropping water

Flood control

Combined sewer systems

Stormwater systems

Product Attributes

No auxiliary air and/or maintenance shafts needed

No requirement to keep an air core within the drop pipes so pipe sizes are significantly reduced

Safe, controlled, efficient

Approvals/Standards

NZS3109, Concrete Construction

Quality

ISO 9001:2008 Quality Management

We are the supply partner of choice for New Zealand's stormwater management and treatment solutions.

HYNDS
STORMWATER

Hydro-Brake® Drop is a self-activating conveyance and flow control system that dissipates the energy of dropping water, enabling customers to convey water from great heights while preventing the damage and nuisance effects associated with falling water.

Using the Hydro-Brake® Drop vortex technology minimises erosion, corrosion, noise and odour.

Features

- Self-activating with no moving parts
- Flows in excess of 5,000 L/s in a single pipe
- A multiple pipe arrangement can accommodate higher flow rates
- Vertical drops in excess of 100 m

Design and Sizing

The Hydro-Brake® Drop is ultimately configurable and can be designed to suit either the smallest flow or the highest drop. Two or more shafts can be fitted into the same chamber, and the optional consolidated inlet means that the entire system can fit inside a single chamber.

Installation

The Hydro-Brake® Drop is easy to install as it does not require complicated concrete work or approach channels. All components are prefabricated and use bolted connections, minimizing the installation time and cost.

Easy Access

The Hydro-Brake® Drop allows access to the base of the drop structure in the same chamber as the flow. This aids any maintenance commitment and simplifies visual inspection.

Construction

The Hydro-Brake® Drop is constructed from durable and corrosion resistant stainless steel. Furthermore the inlet bend, reducer and Energy Dissipation Unit are treated with an Iprathane coating to protect them from wear and ensures an extremely long component life.

The Hydro-Brake® Drop can also be fabricated out of PE.



FIG. 1 Drop Shaft with access

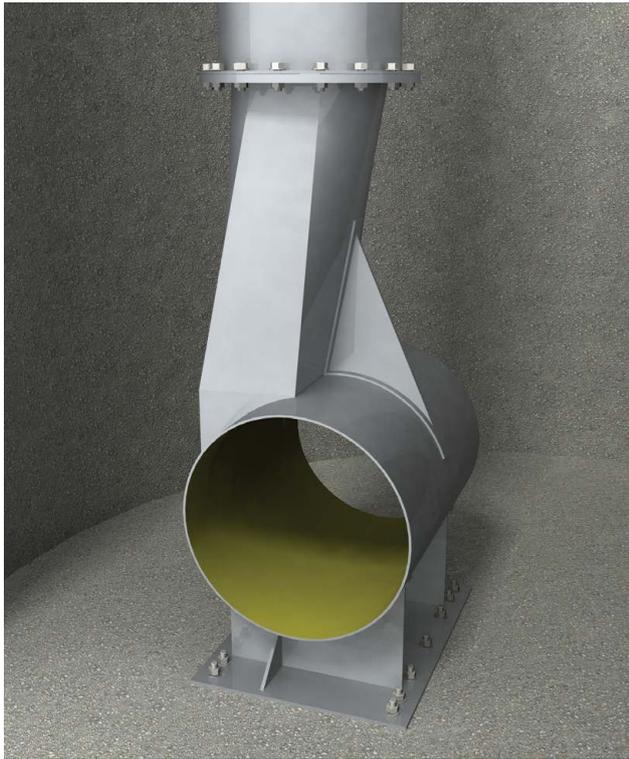


FIG. 2 Energy Dissipation Unit

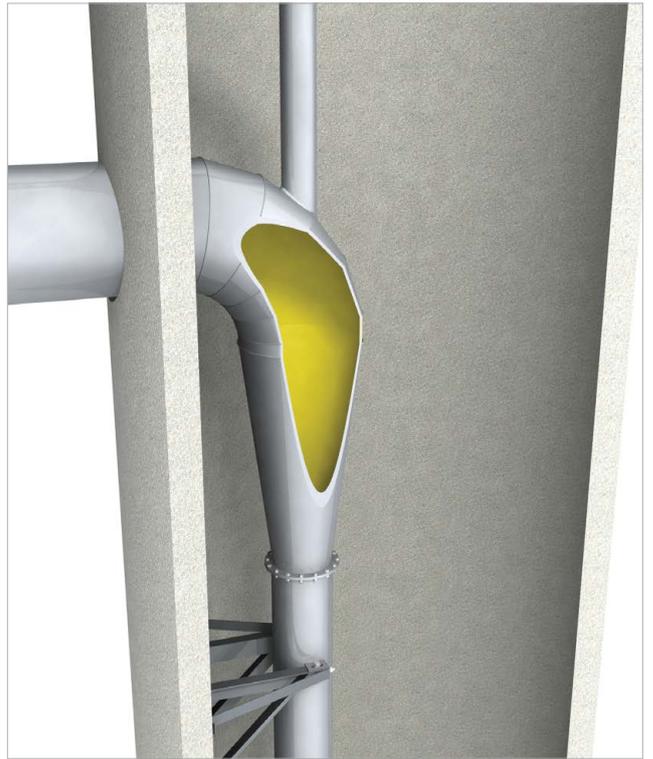


FIG. 3 Drop Shaft Top Bend

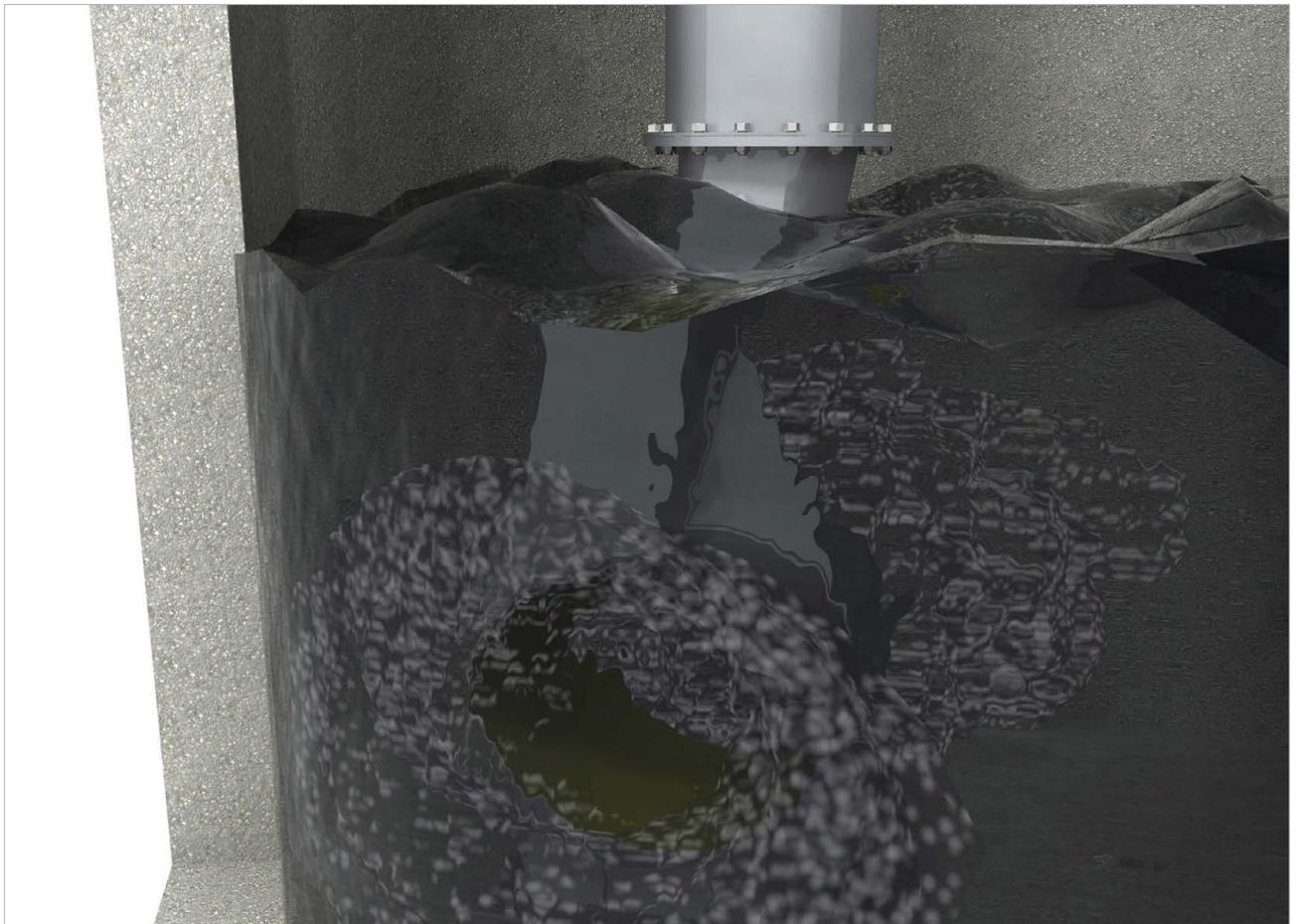


FIG. 4 Drop Shaft Vortex

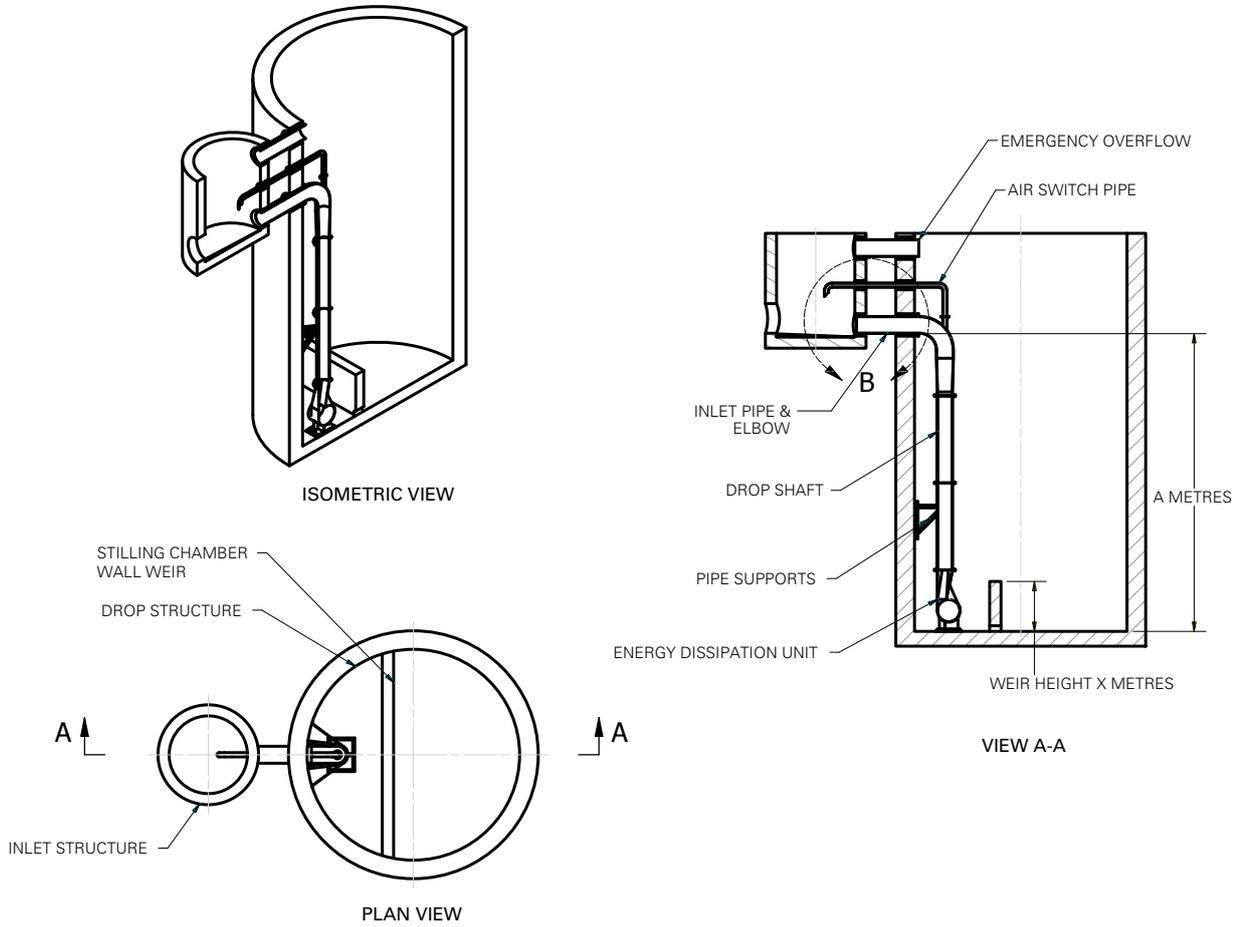


FIG. 5 General arrangement drawing

Note: Above is subject to design requirements. Please enquire at www.hynds.co.nz

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