

SPEL Hydrochannel

Stormwater filtration treatment in grated drains



spelstormwater
joy in water

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The Hydrochannel is an insert that can be placed inside a channel grated drain of 300mm wide, and at least 450mm deep. It is designed for areas that would benefit from at source stormwater treatment, which would otherwise be bypassed.

This allows stormwater from high traffic areas (car parks and roads), industrial areas and metal roofs to be cleaned at site level, and then discharged safely to ground or surface water bodies locally.

The SPEL Hydrochannel's modular design means that the stormwater is treated in two steps:

1. Solids and particulates are settled in the first step.
2. Dissolved contaminants are then absorbed in the filter matrix.

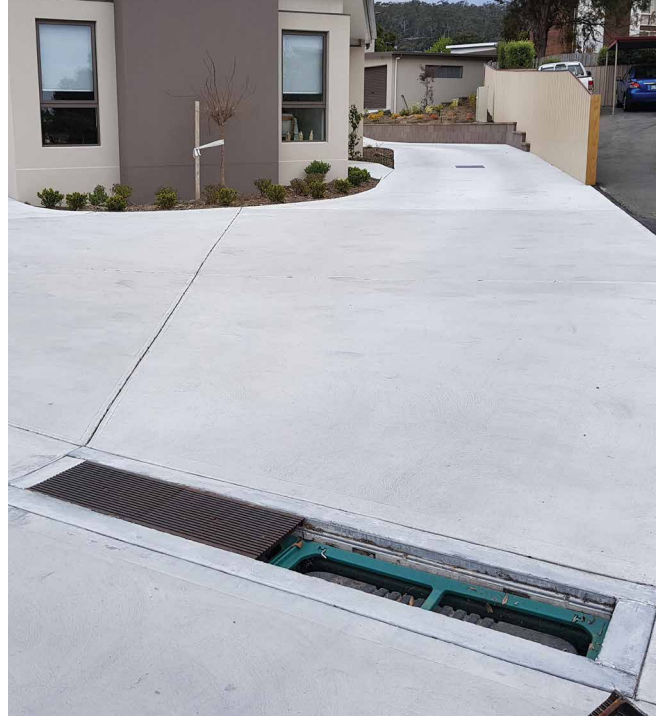
FEATURES

The Hydrochannel filters and binds pollutants like hydrocarbons, heavy metals as well as total phosphorus (TP) and total nitrogen (TN). The pollutants can then be disposed of safely and easily.

- Stormwater treatment of surface levels.
- Gross pollutant sediment, and nutrient capture.
- Insert into 300mm wide channel drain.
- Sites with little CR flat grade.
- No underground vault for cartridges.
- Quick and easy installation and maintenance

Technical data

Module Length:
1000mm
Module Width:
300mm
Minimum Depth;
450mm



Tested Treatment Efficiencies*

Pollutant	Efficiency
Gross Pollutants (GP)	100%
Total Suspended Solids (TSS)	88%
Total Phosphorus (TP)	69%
Total Nitrogen (TN)	67%
Petroleum Hydrocarbon	0%

*Contact Spel to confirm approved performance for the project LGA

HOW IT WORKS

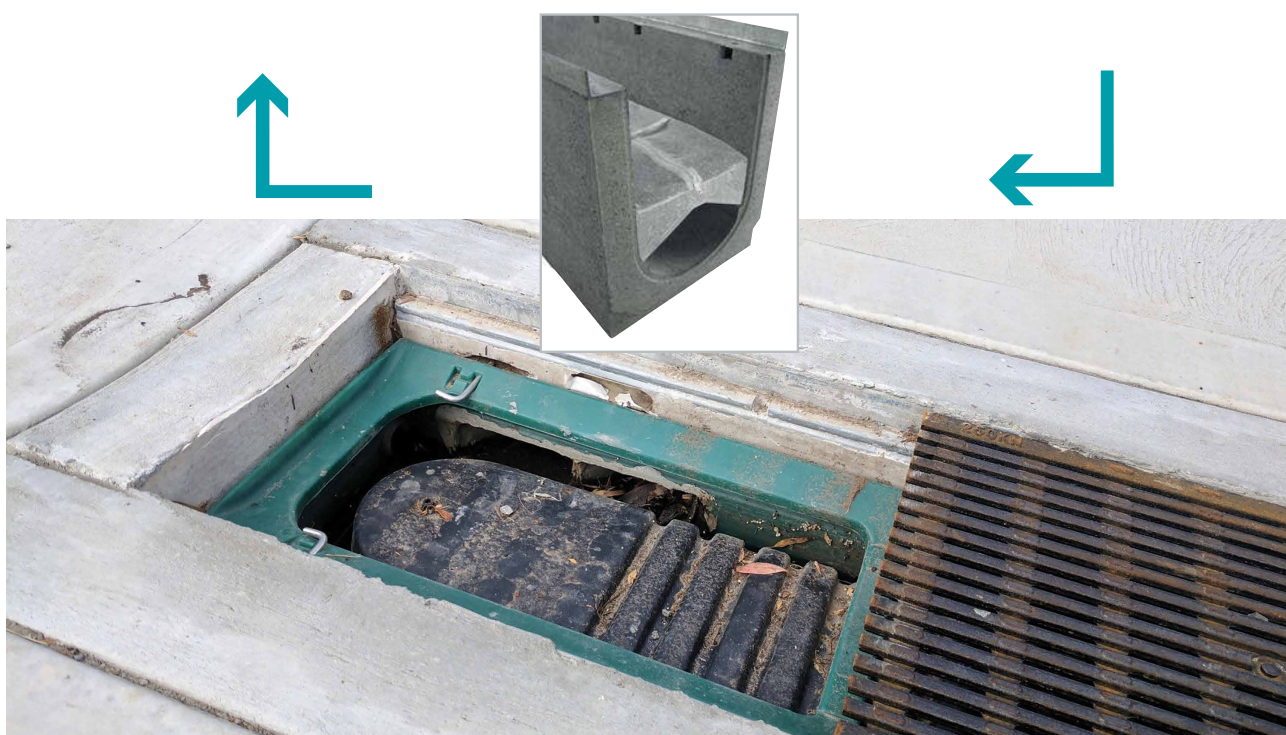
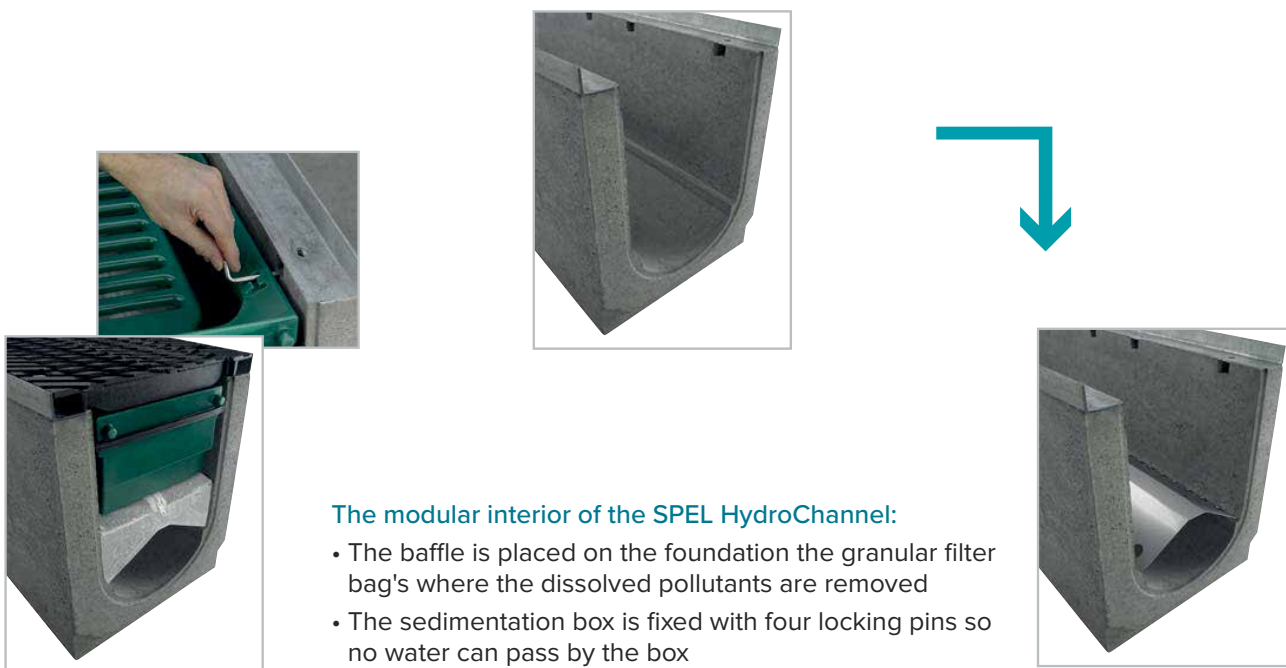
Modular design for ecological line drainage

The innovative modular design is based on a standard 300mm channel & trench grate width.

There is no need to make site specific or bespoke design amendments to the channel drainage runs.

The modular interior of the HydroChannel:

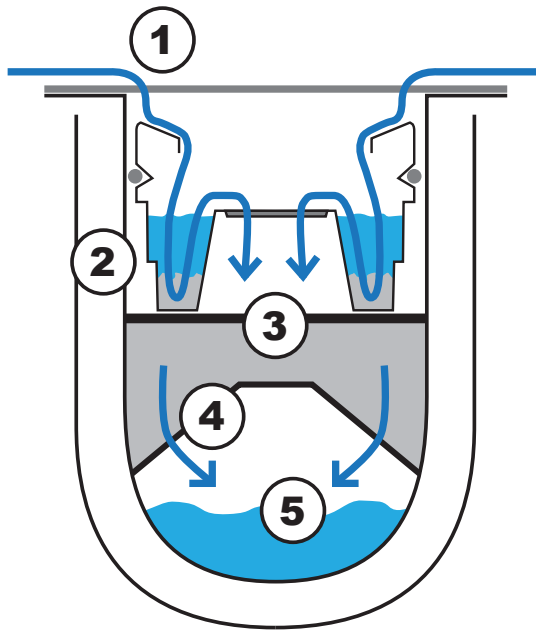
The Sedimentation Chamber removes coarse constituents, such as gravel, leaves and other solids. The rubber seal to the outside ensures no waters can by-pass this chamber within the channel.



HOW IT WORKS

Section of the SPEL HydroChannel:

- 1) Water comes from the surface to the SPEL HydroChannel
- 2) The sedimentation chamber removes coarse solids, such as gravels, chippings, leaves and other solids. The rubber seal ensures a water tight seal is maintained.
- 3-4) The pre-treated water pass through the granular filter bag, and the organic and inorganic pollutants are removed.
- 5) The filtered water flows over the baffle into the free flow area of the channel. It can then be re-used, or discharged to surface or ground water via infiltration.

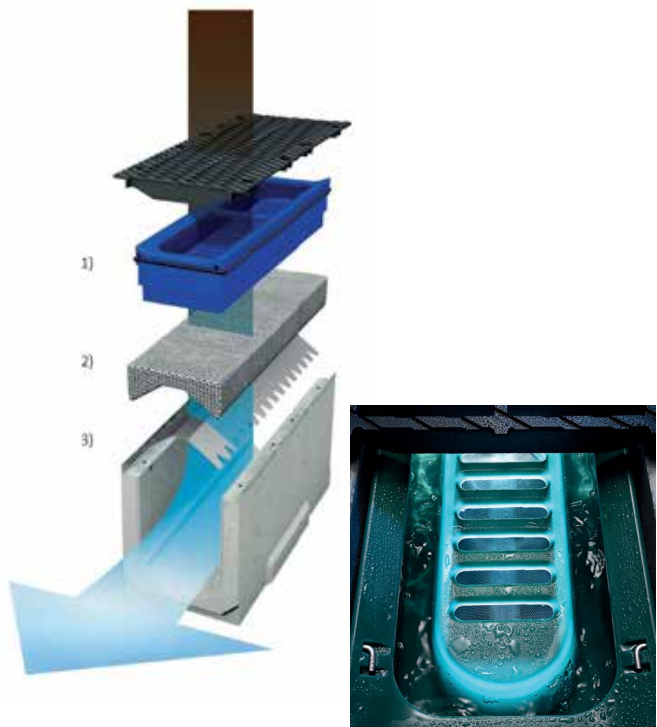


Modular Design

Based on the innovative filtration solution is the concrete nominal width of 300mm. Planners are not required to make any alternations in the drainage plan if they want to treat the water with the HydroChannel.

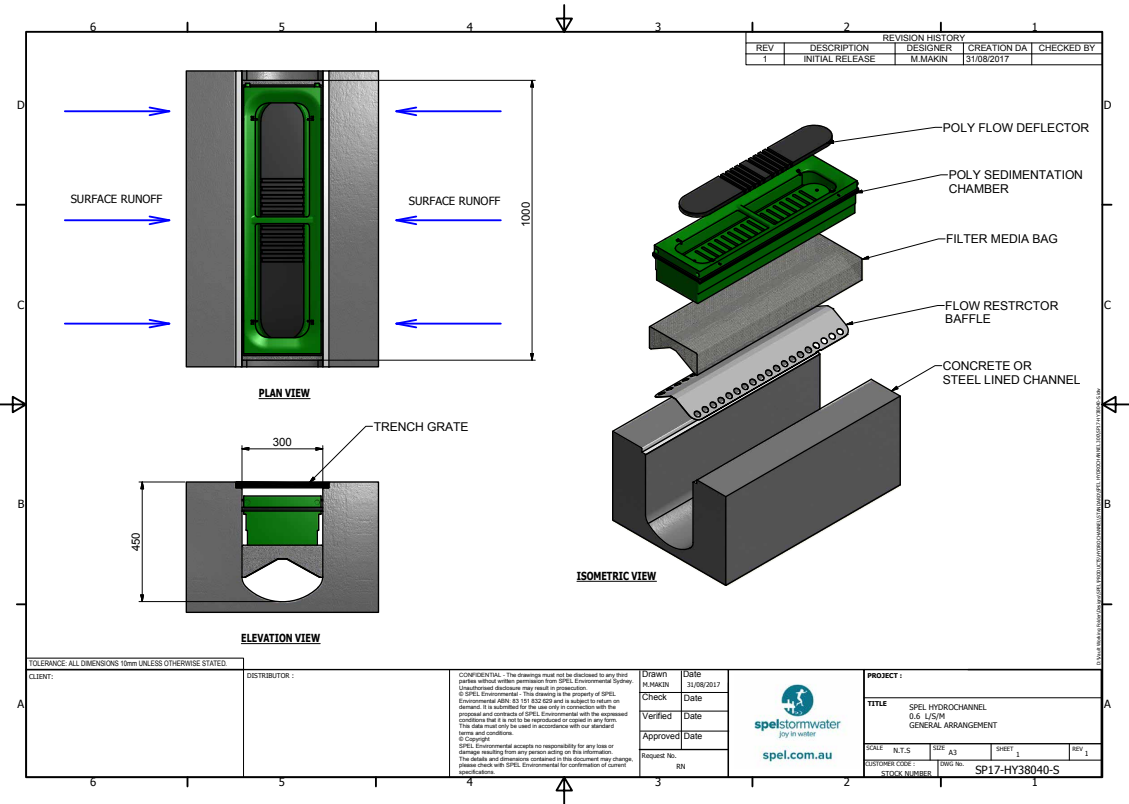
The modular interior of the HydroChannel:

- 1) The sedimentation box is primary treatment capturing solids such as stones, leaves, and suspended particles on. The rubber lip ensures sealing around the edges – for the reliable differentiation for subsequent filtration.
- 2) The pretreated rainwater passes through the granular-filter-pad and the organic and inorganic pollutants will be filtered from the water.
- 3) The filtered water flows over the baffle into the free flow area of the channel and is discharged per normal site requirements.

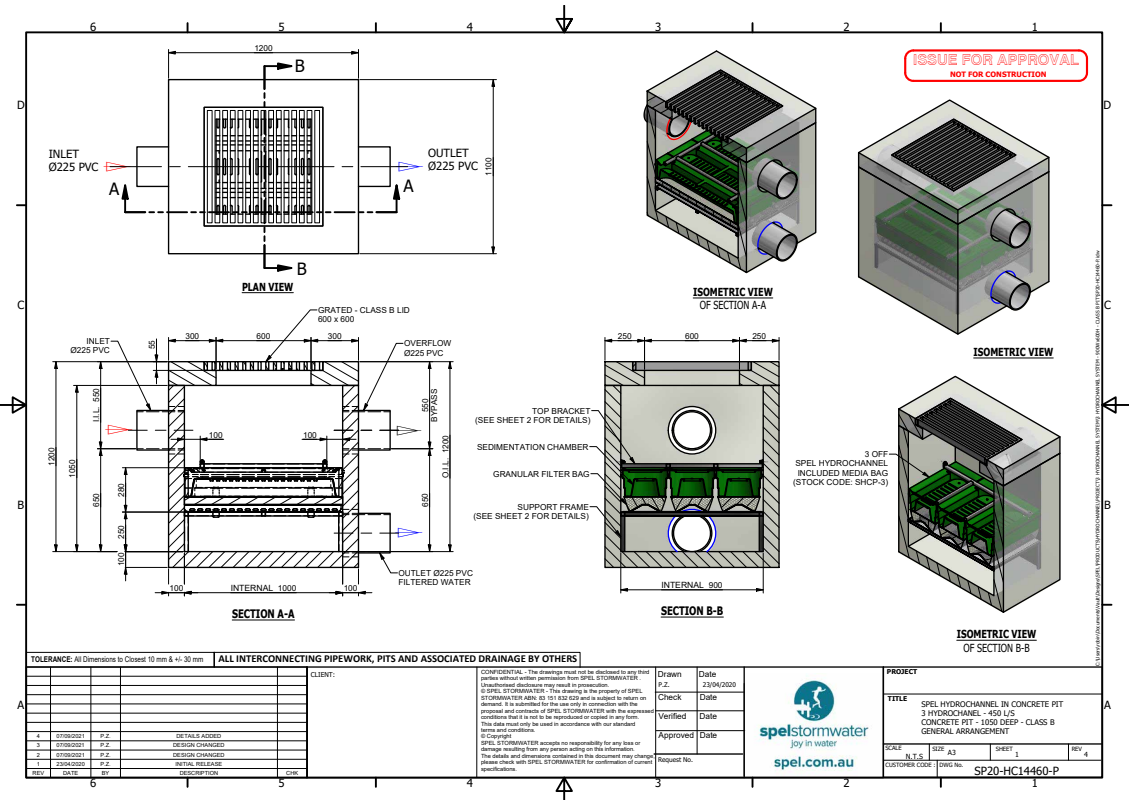


DRAWINGS

Hydrochannel



Hydrochannel IN A PIT

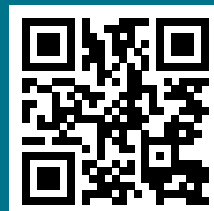


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We believe clean water is a right not a privilege and we work to ensure a joy in water experience for you with your children and grandchildren.



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