



**coerco**

# Flatbed Leach Drains-HD

Product & Installation  
Guide

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# Index

## 1. Reference Standards

## 2. Drawings

**2.1.** COERCO Flatbed Leach Drain-HD Setup

**2.2.** Flo-Cell Drainage Cell 50mm

**2.3.** Flo-Pipe Drainage Pipe

## 3. Datasheets

**3.1.** Flo-Cell 50mm

**3.2.** Flo-Pipe

## 4. Installation Guideline

**4.1.** Excavation

**4.2.** Installation

## 5. Warranty

# 1. Conforming Standards

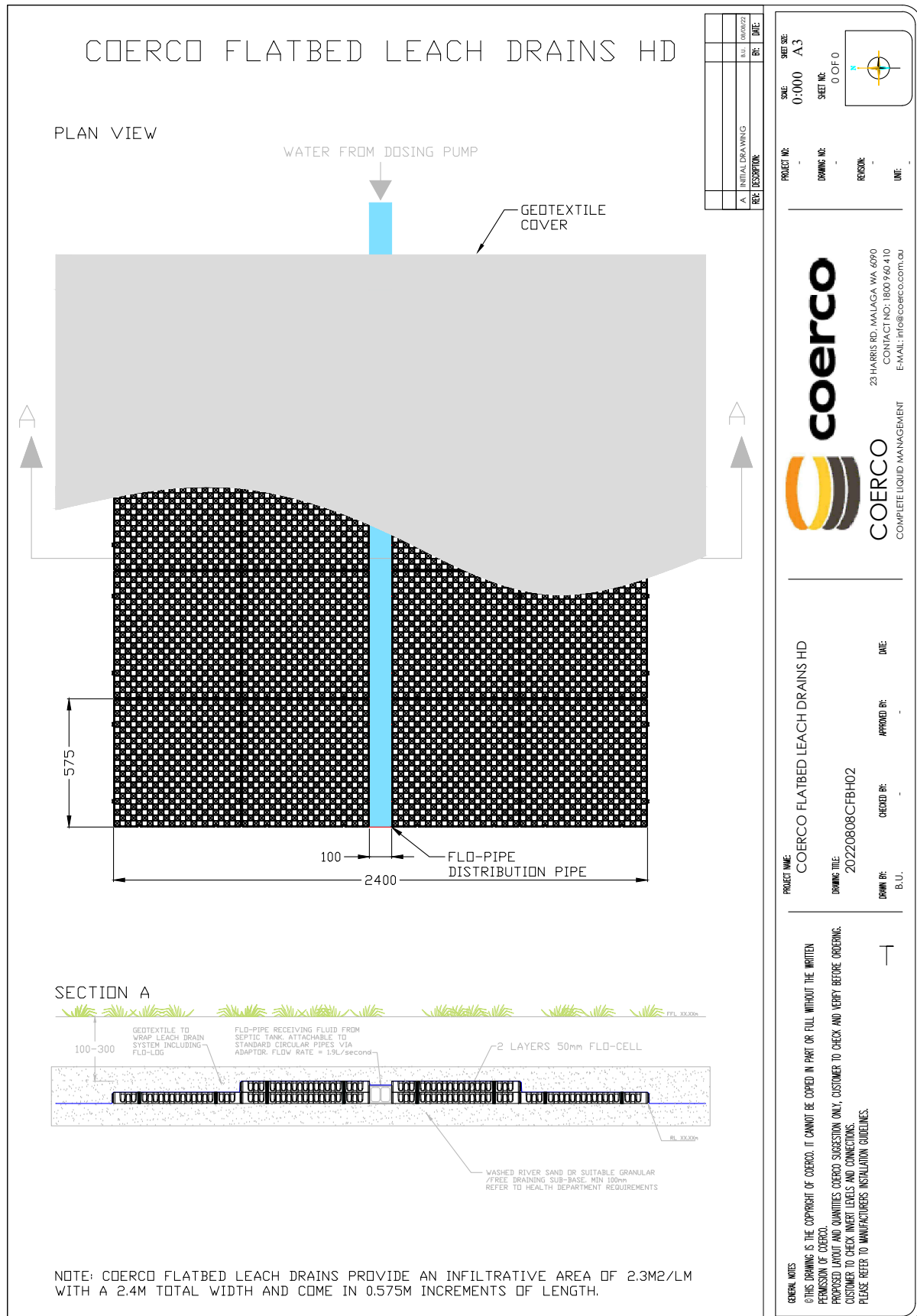
Design Area Sizing: AS/NZS1547:2012 L4

Effluent Loading: AS/NZS1547:2012 L6

Distribution Line: AS/NZS1547:2012 L6.1.2

# 2. Drawings

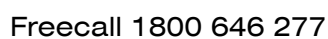
## 2.1. COERCO Flatbed Leach Drain-HD Setup





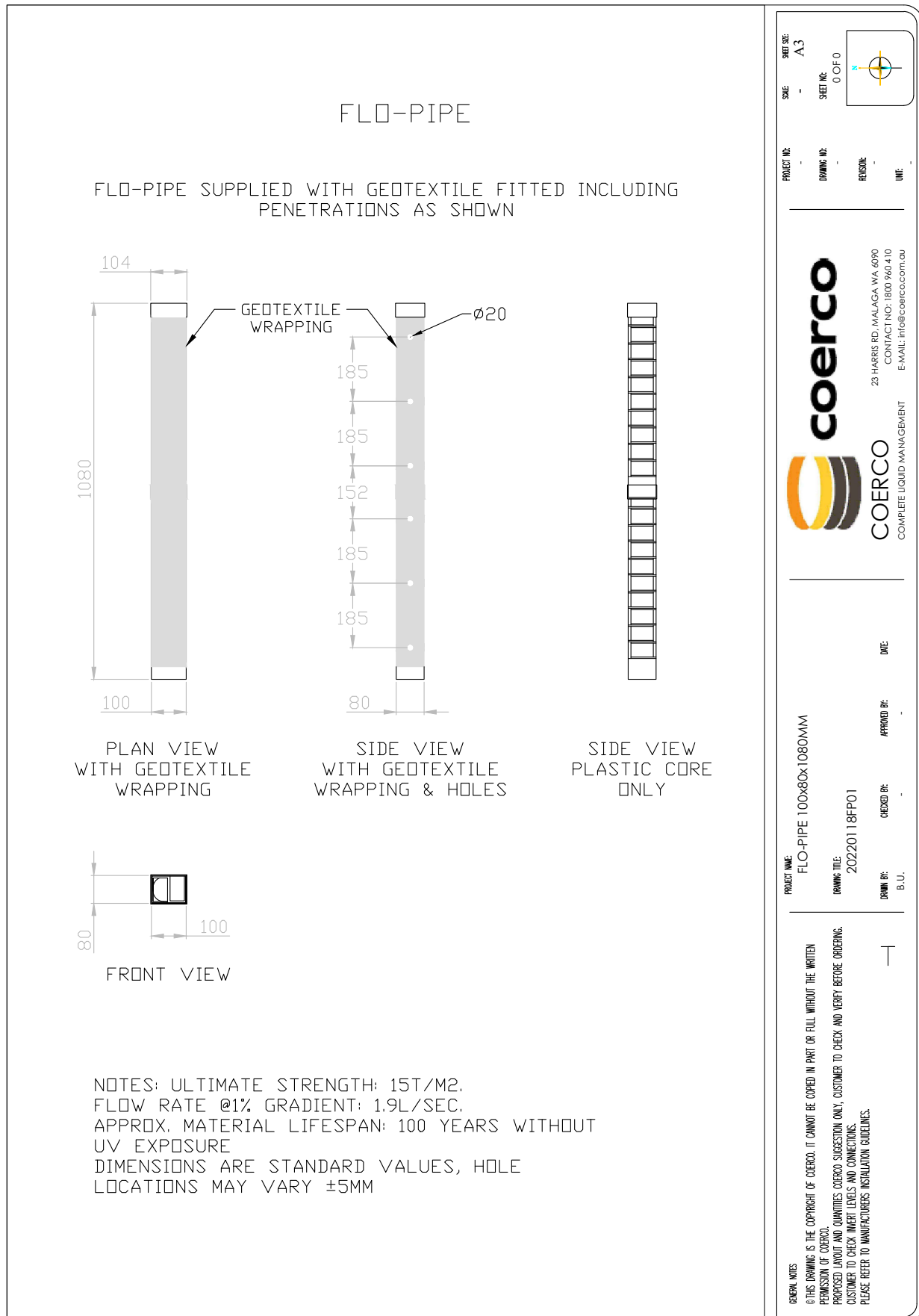
## 2.2. Flo-Cell Drainage Cell 50mm

## 2.2. Flo-Cell Drainage Cell 50mm



# 2. Drawings

## 2.3. Flo-Pipe Drainage Pipe



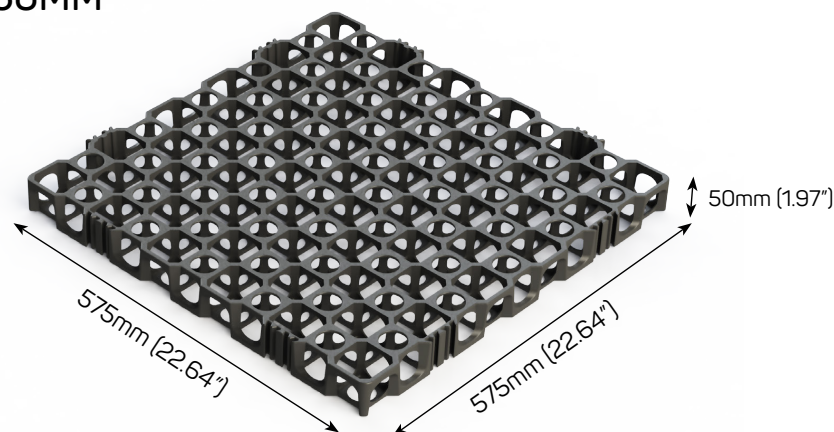
# 3. Datasheets

## 3.1. Flo-Cell 50mm



### PRODUCT SPECIFICATION

#### FLO-CELL® 50MM



Part Number	80050
Part Size	(H) 50mm (W) 575mm (L) 575mm   (H) 1.97" (W) 22.64" (L) 22.64"
Part Weight	1650 grams
Weight Per Square Metre	4.95 kg
Ultimate Strength (RECYCLED PP)	140 tonnes/SQM
Ultimate Strength (VIRGIN PP)	TBA
Flow Rate	2.56 Litres/Sec/m @ 1% gradient
Pieces Per Square Metre	3
Volume Void	90%
Surface Void	70%
Material	85% Recycled Polypropylene 15% Propriety Selected Materials
Colour	Black
Chemical & Biological Resistance	Unaffected by molds, algae, soil-bourne chemicals, bacteria and bitumen.
Service Temperature	-10°C - 70°C ( 14 F° - 158 F°)
Approximate Material Lifespan	100 years + with no ultra violet exposure

\*Ultimate strength till failure (not yield)

**Note:** Atlantis® product specifications are updated on a regular basis. Please contact Atlantis® technical department for the latest data sheet available



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# 3. Datasheets

## 3.2. Flo-Pipe



### Technical Product Specification Flo-Pipe

Date: 14/03/2016

Atlantis Corporation reserves the right to change its products specifications at any time. It is the responsibility of the specifier and purchaser to ensure that the product specifications used for design and procurement proposes are current and consistent with the products used in each instance.

Product Type:	Integrally Formed Strip Filter Pipe
Polymer:	85% Recycled Polypropylene, 15% Proprietary Selected Materials
Recommended Applications:	Trench Drainage, Sub-soil Drainage, Wall & Foundation Drainage, Sub-surface Drainage, Podium Landscape, Sports Fields

#### Product Properties

#### **Unconfined Compressive Strength** Compressive Strength

Maximum 15 tonnes/m<sup>2</sup> (21.34 psi)

#### **Dimension-Void**

Width

100mm (4 in)

Length

560mm (22.05 in) \*Customizable

Height

80mm (3.15 in)

Void Ratio

> 80-90 %

#### **Hydraulic Properties**

Manning Value 'n'

0.085 (0.076 – 0.089)

Permeability

12 m/s (7-26 m/s)



Flo-pipe supplied with  
geotextile fitted



Easy Connection to  
Standard Stormwater  
Fittings

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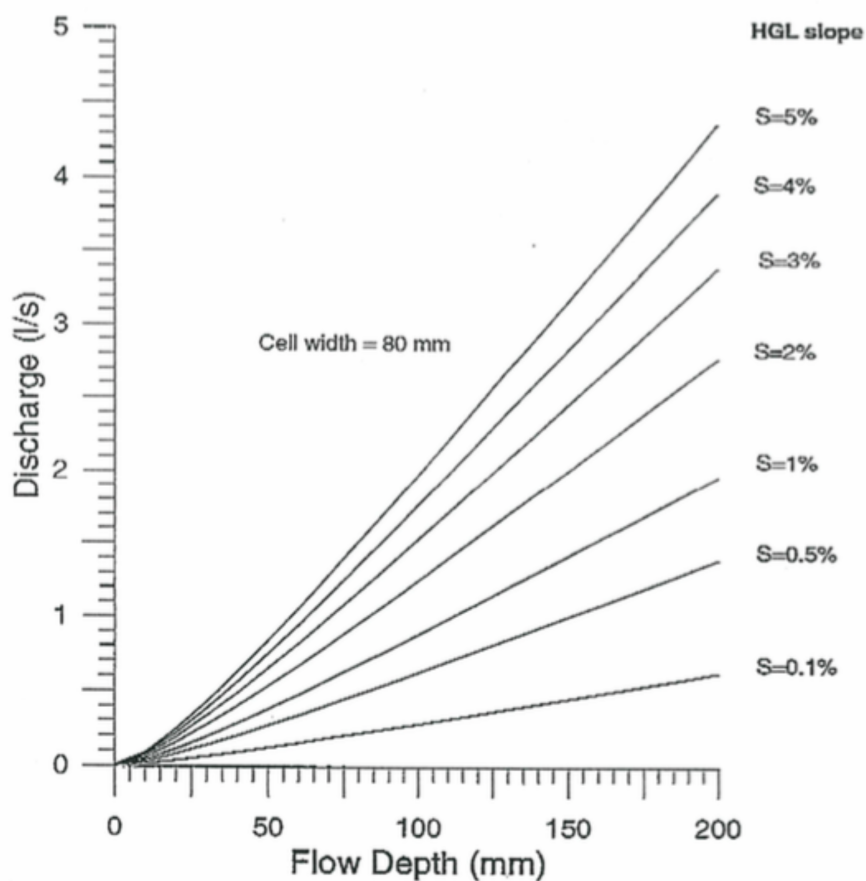
# 3. Datasheets

## 3.2. Flo-Pipe



### Water Flow

	H.G = 0.1% (0.1V:100H)	H.G = 0.5% (0.5V:100H)	H.G = 1% (1V:100H)
Flow Depth (mm)	200	200	200
Flow Rate (l/min)	36	80	114
Flow Depth (in)	7.9	7.9	7.9
Flow Rate (gal/min)	9.5	21.1	30.1



Flow rates were tested and evaluated by the Water Research Laboratory, UNSW, on the basis of Manning's 'n' = 0.085.

#### Note:

Standard and conservative values, they may vary. Sizes slightly vary,  $\pm 4$ mm

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# 4. Installation Guideline

## 4.1. Excavation

Ensure that the level bed is prepared to max.  $\pm 20\text{mm}$  tolerance with existing soil or clean sand layer underneath, layer height per below chart.

Soil Type	Sand Base Thickness
1. Sand and gravels	
2. Sandy loams	
3. Loams	
4. Clay loams	Min 100mm of clean sand underneath
5. Light clays	Min 100mm of clean sand underneath
6. Medium to heavy clay	Min 100mm of clean sand underneath

Table 4.1A: Sand Base Thickness

## 4.2. Installation

### 4.2.1. Flo-Pipe Distribution Pipe

After preparing the bed as explained in 4.1, Lay distribution pipes centered in the trench, with the pipe orientation 80mm high and 100mm wide. Join pipes ensuring they finish at max. 1000mm from the end of the leach drain. NB: Seal end of pipe by using a plug or with other measures.

### 4.2.2. Base Layer – Flo-Cell

Lay the drainage cells by clipping or abutting to form a 1150mm wide continuous blanket on either side of the distribution pipe.

### 4.2.3. Second Layer – Flo-Cell

Lay a second layer of drainage cells by clipping or abutting to form a 575mm wide continuous blanket on either side of the distribution pipe.

### 4.2.4. Geotextile

Cover the top and sides of the setup with infiltration grade geotextile supplied (140gsm recommended).

### 4.2.5. Backfill

The excavated material can be used to carefully backfill.

## 5. Warranty

Coerco Flatbed Leach Drains supplied by Coerco are guaranteed to be free from defects in material and workmanship for fifteen (15) years from the date of shipment from factory. The obligation of this warranty, statutory or otherwise, is limited to replacement or repair at factory or at a point designated by Coerco, of such part as shall appear to us, upon inspection at such point, to have been defective in material or workmanship.

This warranty does not obligate Coerco to bear the cost of labour or transportation charges in connection with replacement or repair of defective part. No express limited or statutory warranty, other than herein set forth is made or authorised to be made by Coerco.

In no event shall Coerco be liable for consequential damages or contingent liabilities arising out of failure of any Coerco Flatbed Leach Drains or parts thereof to operate properly. Coerco Flatbed Leach Drains must be installed by licensed tradesmen. Failure to do so voids all Warranty.

## Notes:

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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