

Technical Manual

May 2016



VSpoonDrain™

vantage Pipes™



1.0 Introduction

Looking for a quick solution to forming open channel drains? Using VantagePipes™ VSpoolDrain™ Open Channel Drainage as a permanent formwork allows for rapid construction with minimal hand finishing of placed concrete. Available in sizes from 225 up to 750mm, there is a size to suit any application.

Benefits:

- Rapid setup of forms and location braces
- Easy placement of backfill concrete with minimal labour required
- Minimal finishing of backfill concrete
- Smooth, aesthetically pleasing and hydraulically efficient finished surface.

Notes:

- VSpoolDrain can be cut to any custom length and butt jointed
- Join VSpoolDrain to the next adjacent length by simply placing end to end, so that the specially grooved ends are mated in a rebate joint. Fill any gaps between spoon drain lengths using a flexible mastic
- VSpoolDrain is not suitable for areas subject to traffic loads.

Applications:

- Back of barrier drainage for retaining walls
- Channel drains alongside hardstand areas, grated covers can be used if desired
- An easy method for forming an open drain into concrete slabs.

Available in standard 4m lengths, VSpoolDrain allows rapid installation and cost savings for open channel drains.

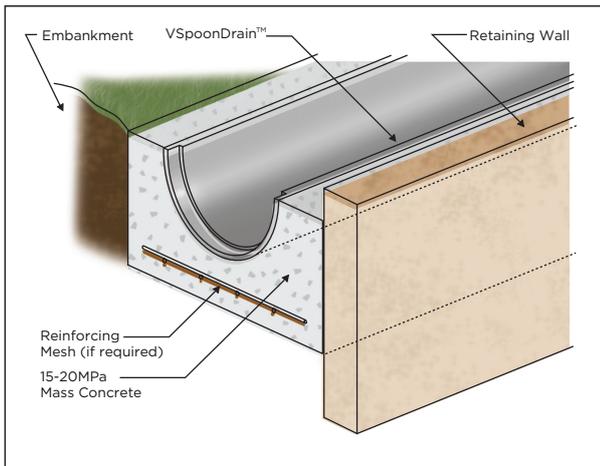


2.0 Design & Installation

2.1 Design

Simple, easy to use VantagePipes™ VSpoonDrain™ almost designs itself. Typically backed by a 15-20MPa mass concrete support, the VSpoonDrain acts as a permanent formwork for the smooth drainage channel providing quick and easy installation.

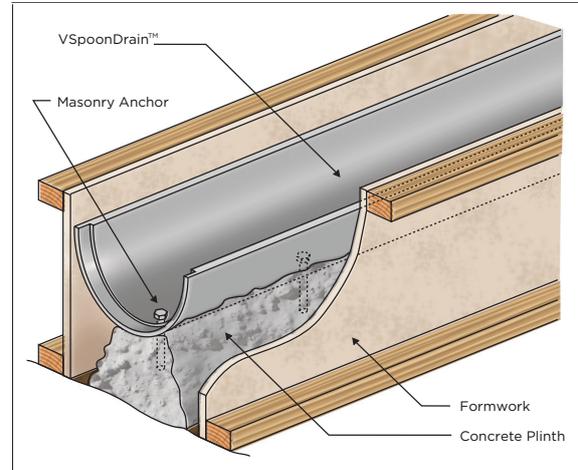
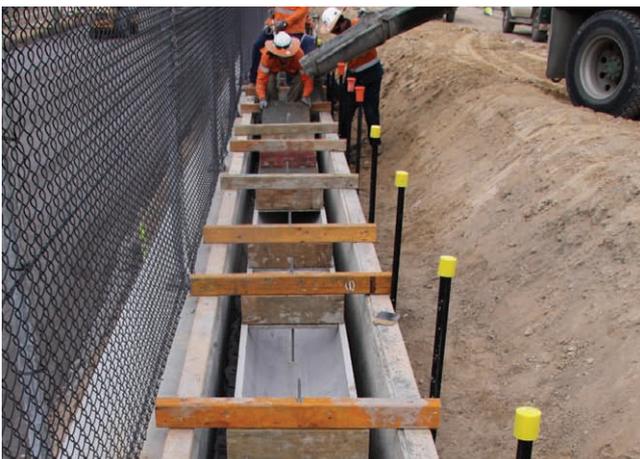
In most cases reinforcing mesh is not required, however this should be checked by an appropriately qualified person for site specific requirements.



Typical back of barrier installation

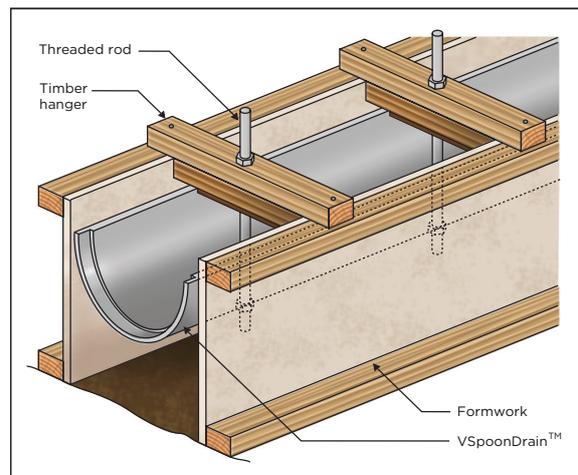
2.2 Installation

- Install side forms if required and VSpoonDrain hangers
- Position and secure the VSpoonDrain (see possible setup diagrams below)
- VSpoonDrain can be cut to any required length and angles and butt jointed
- Join VSpoonDrain to the next adjacent length by simply placing end to end, so that the specially grooved ends are mated in a rebate joint
- Fill any gaps between VSpoonDrain lengths using a flexible mastic
- Cover the VSpoonDrain using a piece of form ply to prevent concrete spills into the VSpoonDrain channel during pouring
- Place concrete and trowel finish edges flush with the top edge of the VSpoonDrain channel
- After suitable curing time has elapsed, remove formwork and braces and plug any remaining holes with a suitable urethane or grout filler material.



Concrete Plinth Option

- Concrete plinth poured and set to reqd level in advance (2 per length)
- VSpoonDrain secured to plinths using required masonry anchors
- Masonry anchors left in position after concrete curing.



Timber Hanger Option

- Timber hanger fabricated and attached to VSpoonDrain with threaded rod (2 per length)
- VSpoonDrain and hangers positioned and secured to framework
- Threaded rod removed and hole filled after concrete curing.

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