

Installation Overview

Downstream Defender®



Items to be Supplied by the Contractor

- Outlet pipe coupling (Fig.1)
- Excavation
- Unloading, storage and installation
- Final assembly

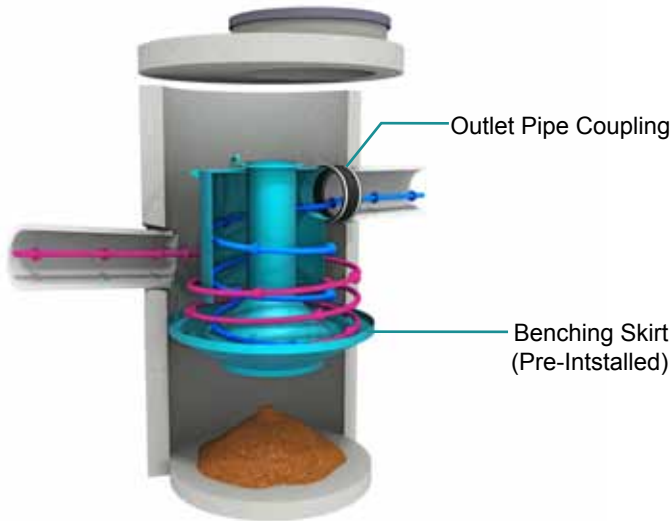


Fig.1 The outlet pipe coupling of the Downstream Defender®.

Downstream Defender® Outlet Pipe Coupling Information

A large diameter coupling is required to connect the Downstream Defender® outlet pipe stub to the outlet pipe. Please note that this coupling is **NOT** included in the quoted price and is to be supplied and installed by the contractor. Reference Table 1 for the dimensions of the outlet pipe stub.

Table 1. Dimensions of the Downstream Defender® Outlet Stub.

Downstream Defender® Diameter		Outlet Pipe Stub O.D. *		Coupling Length	
ft	m	in	mm	in	mm
4	1.2	12.50	317.5	6.38	162.1
6	1.8	18.69	474.7	9.56	242.8
8	2.4	24.81	630.2	12.75	323.9
10	3.0	36.00	914.4	15.25	387.4

*Note: Pipe stub O.D.'s are equal to SDR-35 PVC Pipe O.D.'s of a similar size.

Recommended Coupling Suppliers

Fernco: www.fernco.com/rep-locator
 Esky Wrap: www.uprubber.com
 Indiana Seal: www.indiana-seal.com
 Marmac: www.marmac.com
 PipeConx: www.pipeconx.com

Downstream Defender® Installation Notes

The Downstream Defender® is pre-assembled by the pre-caster to facilitate installation onsite. A complete set of Handling and Installation Instructions (including photographs) will be included with the final submittal package. Refer to Table 2 for the Downstream Defender® pick weights.

The basic installation procedures are as follows:

1. Install precast base and riser sections.
2. Install pipe coupling on the Downstream Defender® outlet pipe stub.
3. Lower the dip plate assembly onto the ledger angles and connect the assembly to the ledger angles by tightening four bolts (hardware provided by Hydro International).
4. Install the inlet pipe so that it enters the interior of the precast structure tangentially and flush with the inner wall.
5. Connect the outlet pipe to the outlet pipe stub using the pipe coupling.
6. Grout both the inlet and outlet pipe knockouts with watertight non-shrink grout once the pipes are positioned correctly.
7. Install the remaining risers and the precast lid. Install the cast iron frames and covers.
8. When fully assembled, carefully backfill around the Downstream Defender®.

Downstream Defender® Heaviest Pick Weights

Table 2. Pick Weights of the Downstream Defender®.

Downstream Defender® Diameter		Approximate Heaviest Pick Weight	
ft	m	ton	tonne
4	1.2	4	3.6
6	1.8	7	6.4
8	2.4	13	11.8
10	3.0	18	16.3