

The Polystorm Inspect cell is complementary to the Polystorm range of modular cell solutions. Its primary purpose is to provide a tunnel along the length of a fully installed Polystorm structure to enable access for inspection and maintenance. Polystorm Inspect is a high strength thermoplastic cell which evenly distributes its load through the Polystorm structure. The tunnel end is left open by default but the unit can be closed off if required by clipping into place the moulded end plate. For purposes of identification the cell features a yellow centre section and end plate.



Key Benefits

- Creates a horizontal tunnel running through the middle of the tank to provide access for inspection and maintenance, i.e. jetting and rodding
- Can be used with Polystorm Lite, Polystorm and Polystorm-R (cannot be used in the same layer as Polystorm Xtra as the Polystorm Inspect cell is deeper)
- Tunnel can be used as a flow inlet track achieving greater stormwater flow distribution within the unit
- Large access tunnel (height 320mm and width 172mm nominal) – allows maximum field of vision while maintaining the systems structural performance
- High strength to weight ratio
- Light weight cell allows easier handling and reduced health & safety risk
- Utilises the same shear connectors and clips as the Polystorm range
- The tunnel restricts the dissipation of silt in to the overall structure making inspection and maintenance easier
- Technical support available
- Polystorm Inspect cells with 225mm or 300mm inlets are available (PSM4CRD225 or PSM4CRD300)

Applications

Polystorm Inspect is designed to work with the rest of the Polystorm range within a layered hybrid system enabling a value engineered attenuation or infiltration structure to be created. It is intended to be used from the inlet point of the Polystorm structure. If used other than along an inlet tract, the Polystorm Inspect End Plate should be used to cap off the tunnel entrance. The most cost effective way to create a tank is to use a combination of Polystorm Inspect cells and other Polystorm modular cells.

TECHNICAL SPECIFICATION OVERVIEW

UNIT TYPE	POLYSTORM INSPECT
Product Code	PSM4
Length	1m
Width	0.5m
Depth	0.4m
Total Volume	0.2m ³
Unit Weight	11.6kg*
Cube Storage Volume	0.188m ³ (188 litres)
Volumetric void ratio	94%
Vertical Compressive Strength at yield	Minimum 440kN/m ²
Lateral Compressive Strength at yield	Minimum 63kN/m ²
Short-Term Vertical Deflection	Minimum 70.1kN/m ² per mm
Estimated Long Term Vertical Deflection (creep)	0.6113Ln (design life in hrs)

Note: The table above is applicable to PSM4 without the end plate.

* Approximate weight

Please note: The use of Polystorm Inspect does not negate the requirement for a Silt-Trap to be installed prior to the Polystorm structure. The use of a Silt-Trap or other silt prevention device would always be recommended.

End plates to be purchased separately as required.

RECOMMENDED MAXIMUM DEPTH OF INSTALLATION (to cell invert) [m]

TYPICAL SOIL TYPE	TYPICAL ANGLE OF SHEAR RESISTANCE	WITHOUT GROUNDWATER (below base of cells) NORMAL CASE		WITH GROUNDWATER AT 1M BELOW GROUND LEVEL AND UNITS WRAPPED IN GEOMEMBRANE	
		Pedestrian	Trafficked (cars)	Pedestrian	Trafficked (cars)
Stiff over consolidated clay e.g. London Clay	24°	2.3	2.0	1.8	1.7
Normally consolidated silty sandy clay e.g. Alluvium, Made Ground	26°	2.4	2.2	1.9	1.7
Loose sand and gravel	30°	2.8	2.6	2.0	1.8
Medium dense sand and gravel	33°	3.2	2.9	2.1	1.9
Dense sand and gravel	38°	3.9	3.6	2.2	2.1

- Note:
- 1) Stated depths based on the calculation methodology detailed within CIRIA C680 (2008)
 - 2) Assuming a soil density = 19 kN/m³ water density = 9.81 kN/m³
 - 3) Assumed Ultimate Limit State (ULS) partial factor of safety applied to: Material = 2.75 Live Load = 1.5 Dead Load = 1.35

Notes:

1. Unless stated, all values are nominal and may vary within normal production tolerances.
2. Polypipe reserve the right to change product specifications without prior notice.
3. This document is uncontrolled and updates will not be issued automatically.

Technical Support

Detailed guidance and assistance is available. For further information, please contact our technical team on **01509 615 100** or email: wmsenquiries@polypipe.com

RECOMMENDED MINIMUM COVER LEVELS [m]

LIVE LOAD CONDITIONS	PEDESTRIAN	LIGHT TRAFFICKED
Minimum cover depth required (m)	0.50	Car park with vehicle mass <6000kg 0.60

- Note:
- 1) Stated depths based on the calculation methodology detailed within CIRIA C680 (2008)
 - 2) Assumed Serviceability Limit State (SLS) partial factor of safety applied to: Material = 1.5 Live Load = 1.0 Dead Load = 1.0
 - 3) Shallower minimum burial depths may be applicable subject to specific site conditions.

All descriptions and illustrations in this publication are intended for guidance only and shall not constitute a 'sale by description'. All dimensions given are nominal and Polypipe may modify and change the information, products and specifications from time to time for a variety of reasons, without prior notice. The information in this publication is provided 'as is' on January 2013. Updates will not be issued automatically. This information is not intended to have any legal effect, whether by way of advice, representation or warranty (express or implied). We accept no liability whatsoever (to the extent permitted by law) if you place any reliance on this publication you must do so at your own risk. All rights reserved. Copyright in this publication belongs to Polypipe and all such copyright may not be used, sold, copied or reproduced in whole or part in any manner in any media to any person without prior consent. Polypipe is a registered trademark of Polypipe. All Polypipe products are protected by Design Right under CDPA 1988. Copyright © 2013 Polypipe. All rights reserved.