



Pipex px®

Cable Draw Pit Chambers

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Pipex px® Product Group: Manholes, Chambers & Tanks

Pipex px® Product Type: Cable Drawpits

Pipex px® Specification: PX-MH-SP-07



Pipex px® Cable Draw Pit Chambers

Bespoke draw pit chambers for electrical and communication cable protection, inspection and maintenance. Chamber depths are available to suit site requirements and multiple cable entry connection spigots supplied in the quantity, diameter and configuration as required.

The bespoke chambers will be factory constructed to provide a watertight seal against the ingress of ground water into the draw pit chamber and the egress of any contaminants into the surrounding environment.

Pipex px® must be notified of any poor site ground conditions and/or high water table conditions at the proposal stage. Additional chamber reinforcement maybe required for locations with a high water table.

The chambers will be supplied to site as completed factory prefabricated units, manufactured to suit the consultant's general arrangement drawings. Each chamber will be numbered with an indelible marker to correspond with the site layout drawings.

Chamber Detail Drawings

CAD detail drawings of each chamber, based on consultants' design, will be submitted by Pipex px® for approval by the client. Drawing details will indicate chamber number, cover level, chamber depth and cable entry connections.

Thermoplastic Materials of Construction

Draw Pit and Connections: Homopolymer Polypropylene Din 8077 & 8078.

Shuttering system: HDPE Din 8075 & 8074.

Pipex px® Chemical corrosion guide is available on request.

Pipex px® Thermoplastic waste material is 100% recyclable.

Methods of Construction

Thermoplastic welding completed in accordance with BSEN13067- Plastics Welding Personnel, under the Certification Scheme for Welding and Inspection personnel (CSWIP). Approved by the Thermal Welders Institute (TWI).

British Standard Specifications

Rectangular and Circular chambers will be fabricated in general accordance to BS EN12573 (welded static non-pressurised thermoplastic tanks) , BS7158 and BS EN13598-2:2009.

Cable Connections

The incoming connections and will be configured to suit the existing system design drawings. The spigot ends will be supplied as plain end or adapted to suit the connecting pipe system e.g. vitrified clay, PVC, cast iron, ductile iron, HDPE as required. Joint options – mechanical or push fit couplers.

Chamber Access Steps/Ladders

Pipex px® can install either chamber access steps or ladders to comply with each end user's requirements. Chamber steps will be bright yellow polypropylene steel core access steps to BSEN 13101:2002. Plastic Encapsulated access Steps WIS 4-33-01:1990. Ladders will be either FRP or Stainless Steel to BS EN 14396:2004. Access steps and ladders will be factory installed into the chamber with a welded water tight seal.

Testing

The chambers will be tested at the factory, each cable connection will be fitted with an inflatable bag stopper and the chamber filled with water to confirm 100% water tightness.

CDM Regulations 2007 - Confined Space Regulations 1997

Contrary to traditional chamber construction methods, Pipex px® chambers eliminate the need for confined space working. By providing an alternative approach, foreseeable health and safety risks are reduced from the outset.

Installation and Loading

For guidance on chamber handling & installation refer to Pipex px® Work Instruction WP47.

The chamber shafts and bases are designed to meet the stiffness requirements (as per BS7158) for installation up to the specified invert depth. When the chambers are situated in D400 load areas e.g. road carriageways, a concrete surround will be required to take the load transmitted by the Reinforced Concrete cover slab. F900 loading can be achieved with re-bar mesh.

Operation and Maintenance

When installed to Pipex px® installation instructions the chambers will operate with minimum maintenance. If alterations are required to the chambers, Pipex px® will be contacted to discuss the procedure.

Chamber Testing to BS EN13598-2:2009, BS7158:2001

The following tests have been passed by the BBA technical approval certification:

BS EN13598-2 Table 3 Structural integrity test.

BS EN13598-2 Table 2 Durability test.

BS EN13598-2 Table 3 Impact resistance.

BS EN13598-2 Satisfies the step irons pull out and deformation test Table 4.

BS7158 Clause 7.2 and Appendix A - Water tightness of chamber when full of water and when surrounded by water

BS7158 Clause 7.5 and Appendix E - Resistance to thermal cycling

BS7158 Clause 7.6 and Appendix F - Specific tangential initial stiffness (STIS)

BS7158 Clause 7.8 and Appendix I - Negative internal pressure test

BS7158 Clause 7.7 and Appendix G - Vertical load test class A15

BS 1247-2 1990 – Clause 7.3 Step iron pull out test when installed in a Pipex px® chamber.

Additional Testing

BS 1247-2:1990 – Clause 7.2 Step iron bending resistance test when installed within a Pipex px® chamber

BS EN 1277: 1996 Method 2 condition A - Positive high pressure 0.5 bar test on gasket within internal bolted inspection cover plate within Pipex px® chamber.

Product Options Available:

Chamber Shuttering System

Optional HDPE or timber shuttering can be supplied to suit the consultants' specification, factory fabricated for each chamber to accept the poured concrete surround (150mm minimum surround).

Rebar Reinforcement

Pipex px® can install rebar reinforcement tied into the external thermoplastic reinforcement.

Pipex px® can offer to design reinforcement to suit specific load requirements.

Chamber Top Formwork and Access Turret

Optional reinforced top formwork with access turret with a clear opening to suit chamber cover and frame, welded to the chamber to accept insitu poured concrete cover slab.

For Technical Assistance please contact:

Pipex px®

Pipex House

Devon Enterprise Facility

1 Belliver Way

Roborough

Plymouth

Devon

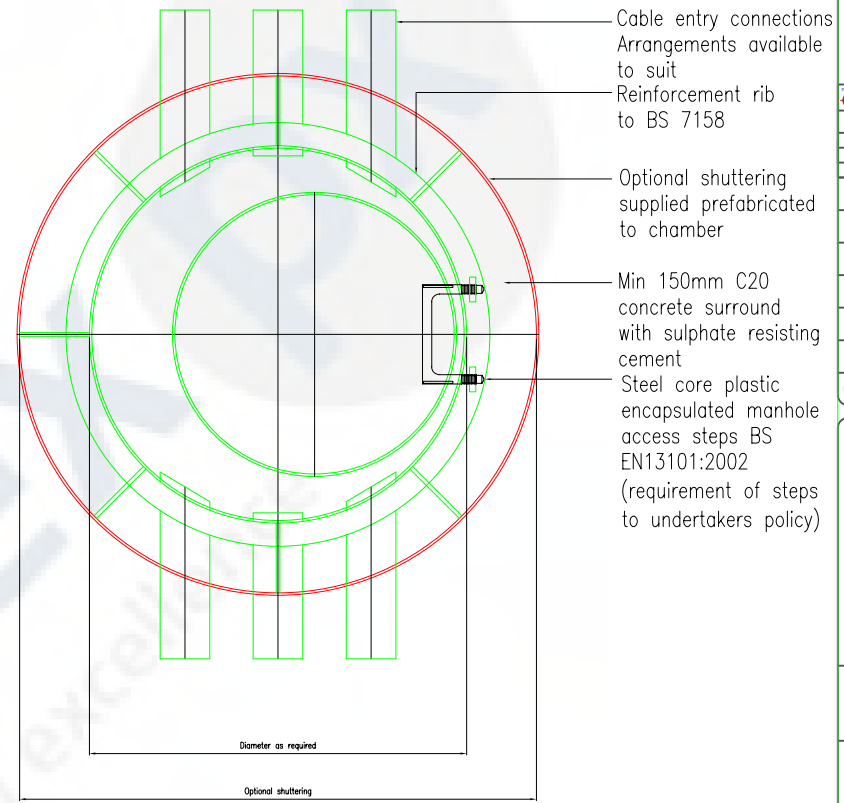
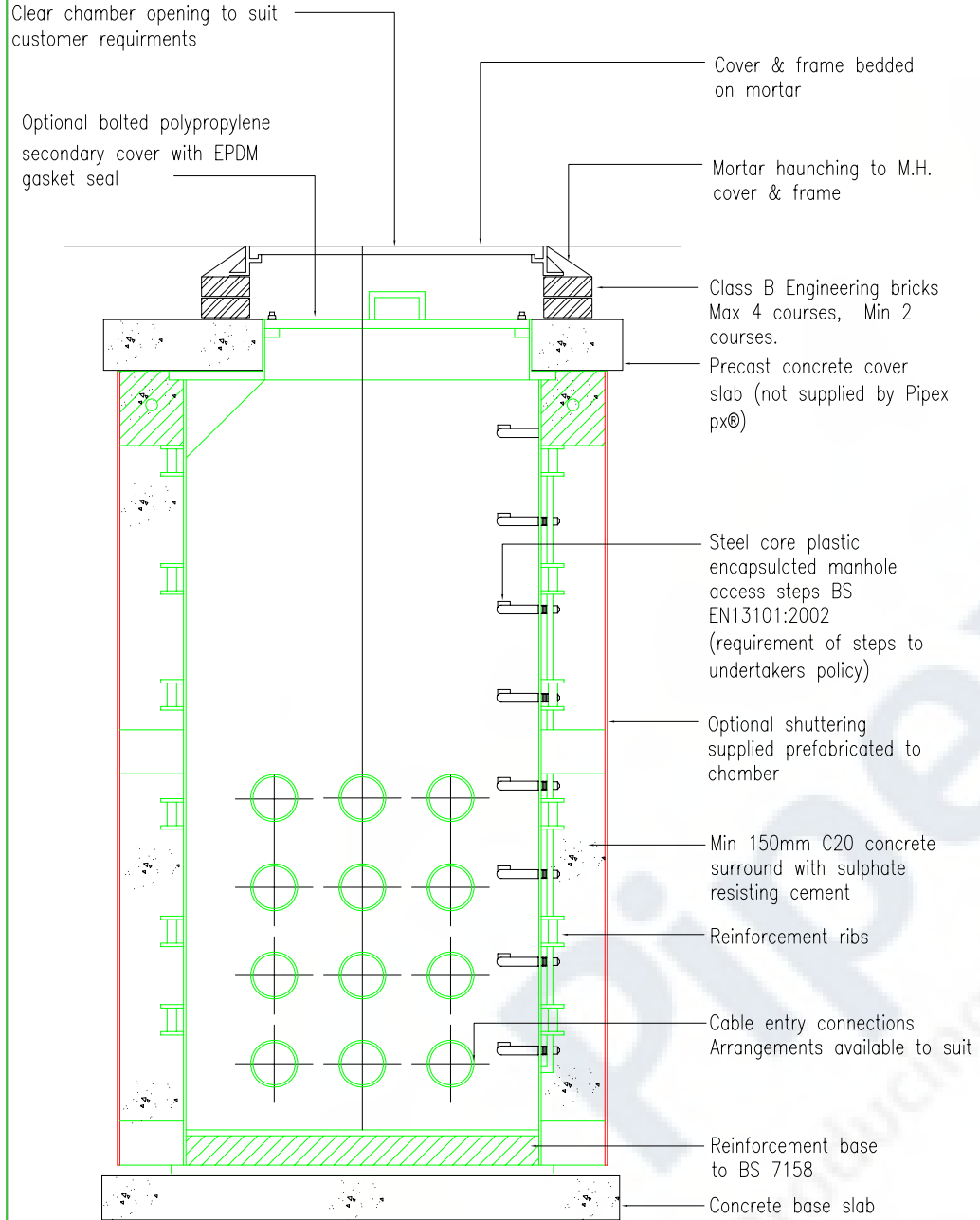
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NOTES

1. Pipex px® Thermoplastic cable drawpits factory fabricated to suit drainage layout drawings.
2. For Pipex px® Cable drawpit specification refer to data sheet PX-MH-SP-07

TOLERANCES UNLESS OTHERWISE STATED				
LINEAR	OVER 30	OVER 120	OVER 315	OVER 1000
UP TO 30	UP TO 120	UP TO 315	UP TO 1000	UP TO 1000
±0.5	±0.8	±1.2	±2	±3
HOLES - H12		THREADS - G1/8" to G1 1/2"		
SQUARENESS ± 0.3° OR ± 4mm ON DIAGONALS				
F				
E				
D				
C				
B				
A				
REV	REV BY	DATE	DESCRIPTION	

Pipex px
Producing excellence
www.pipexpx.com

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PROJECT
Pipex px® Manhole and Inspection Chambers

TITLE
Cable Draw Pit Chamber

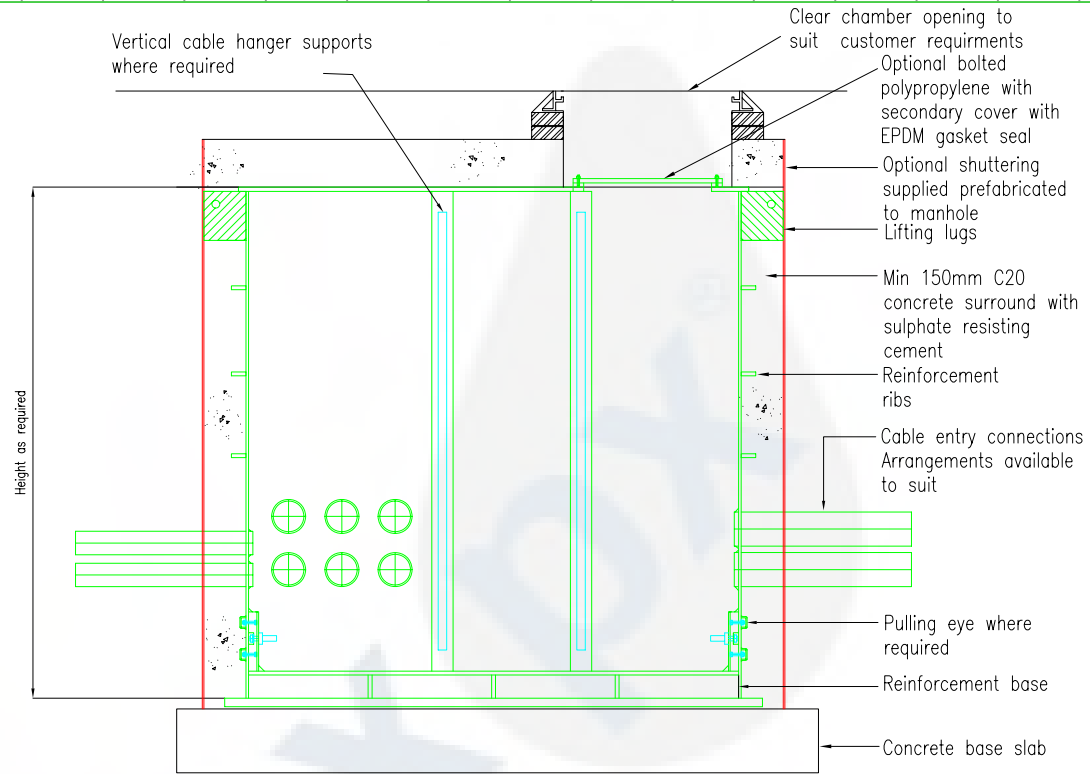
DRAWING NO. **PX-DP-LV01** SHEET NO. **-**

SCALE NTS
DRAWN BY **KLN** CHECKED BY **PJM**

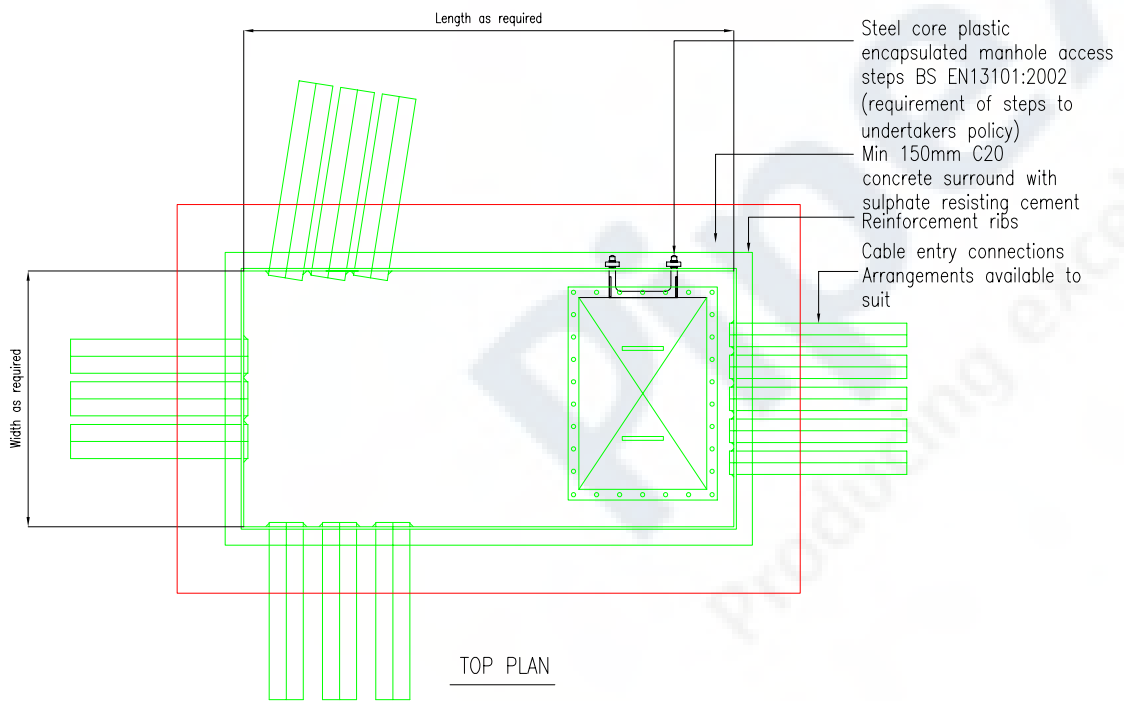
PROJECT REF DATE **06/12/11** REV **-**

Pipex px® Inspection Chambers Technical Approvals





ELEVATION



TOP PLAN

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2. For Pipex px® Cable Drawpit specification refer to Data Sheet PX-MH-SP-07.

TOLERANCES UNLESS OTHERWISE STATED			
LINEAR UP TO 30	OVER 30 UP TO 120	OVER 120 UP TO 315	OVER 315 UP TO 1000
±0.5	±0.8	±1.2	±2
HOLES - H12		THREADS - G/10g	
SQUARENESS ±0.3° OR ±4mm ON DIAGONALS			

REV	REV BY	DATE	DESCRIPTION
F			
E			
D			
C			
B			
A			



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PROJECT
Pipex px® Manhole and Inspection Chambers

TITLE
Rectangular Cable Drawpit Chamber

DRAWING NO. PX-RDP SHEET NO. -

SCALE NTS DRAWN BY KLN CHECKED BY PJM

PROJECT REF DATE 06/12/11 REV -

Pipex px® Inspection Chambers Technical Approvals

