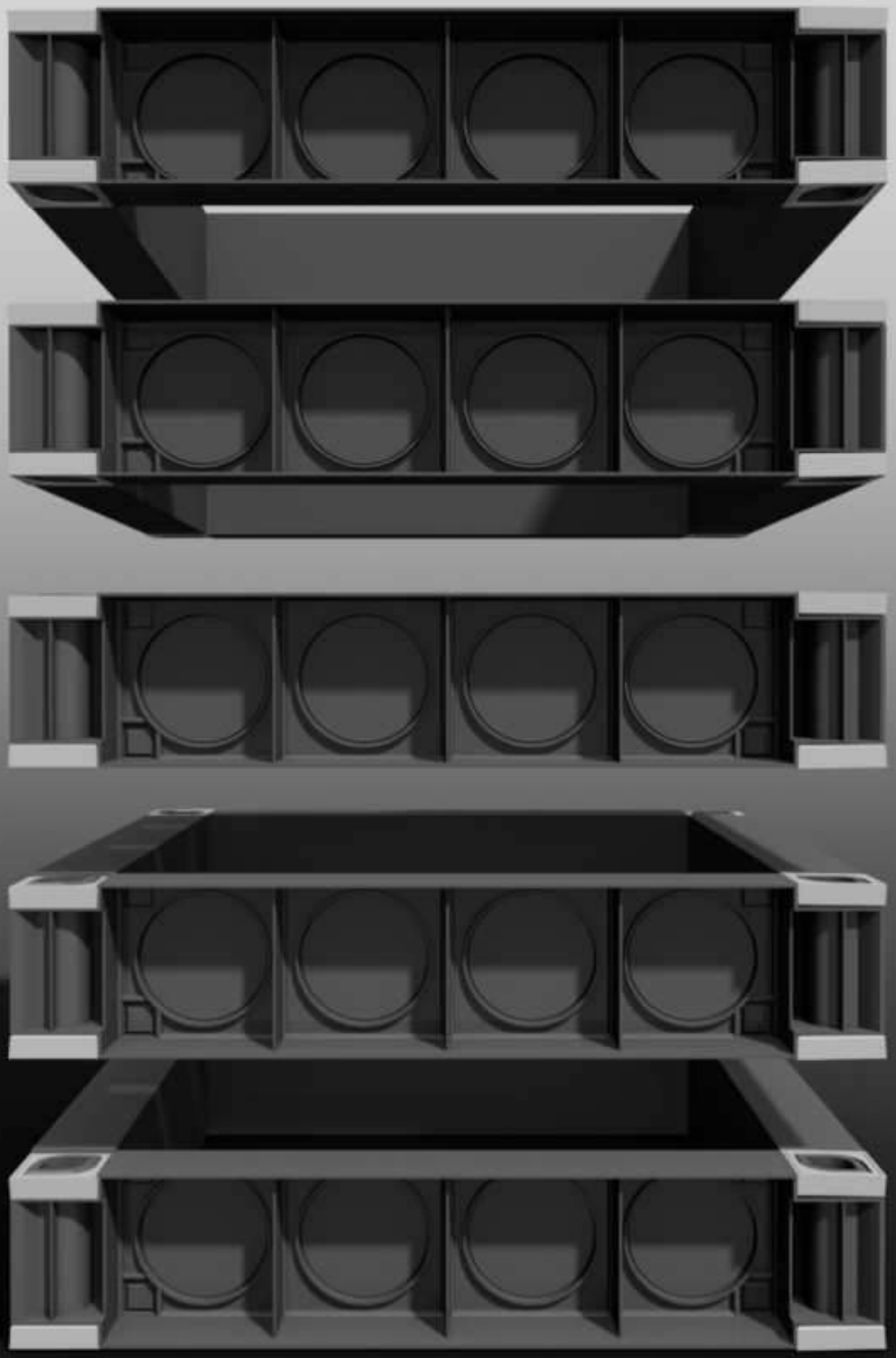
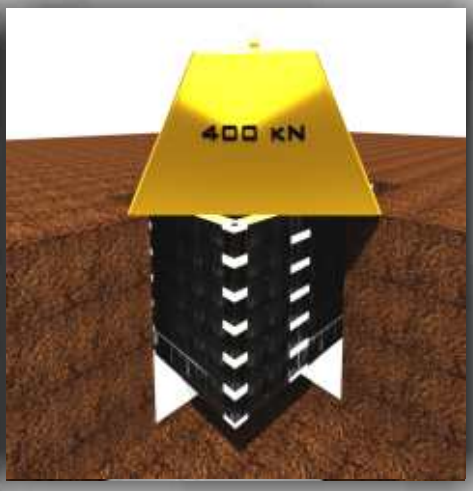
ATLAS

Speeding up Construction With Versatile Products



Contents



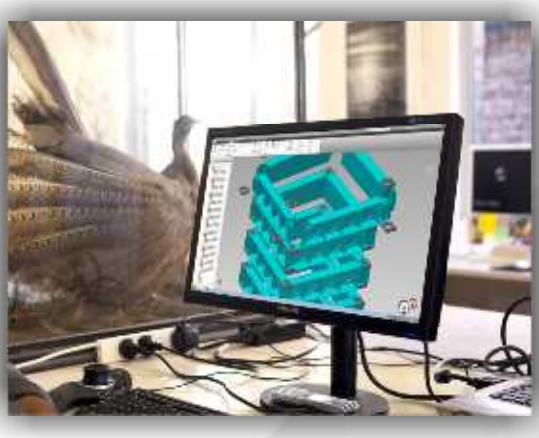
Pennine Products
Fold Mill, Bradley Lane, Bolton, BL2 6RR
T: 01204 361 547 F: 01204 380 872
Email: info@pennineindustries.com

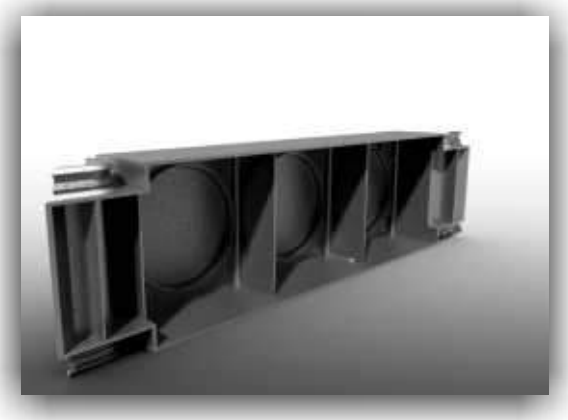
Introduction

What is Atlas?

Atlas is a range of innovative structural access chambers for underground installations. Ideal for all ducted network applications where access chambers are required for inspection and maintenance, Atlas is suitable for all footway and highway projects.

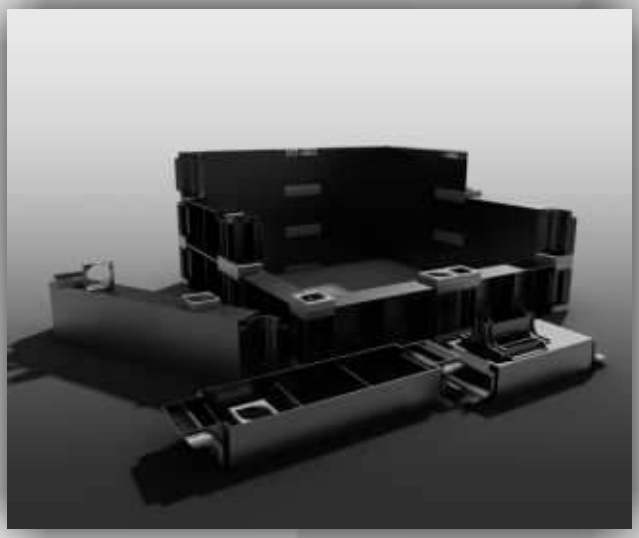
Atlas chambers are formed by a interlocked rectangular ring. Each ring is made .... joined by joiners and collars. Several block lengths are available, they can be mixed to obtain many different side lengths of 300m and above.





Atlas blocks are a 150mm deep, with a single reinforced wall design. This makes them lightweight and easy to install. Atlas blocks are also able to support both BSEN124 B125 and D400 loadings.

Atlas parts are manufactured from 100% recycled polypropylene. All Atlas parts are highly resistant to attack from acids and alkalis and other forms of chemical erosion. They are able to withstand high loading forces which means that a concrete backfill is not required in many applications.



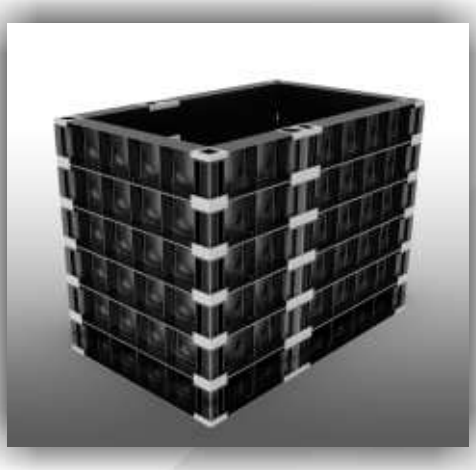
Atlas's modular design allows highly customised sizes and geometries to be made. it also makes for extremely efficient transport and a rapid response to bespoke orders.

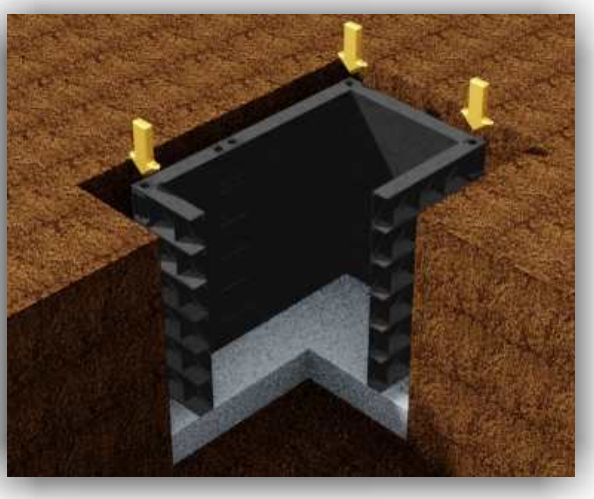
Applications And Features

Applications

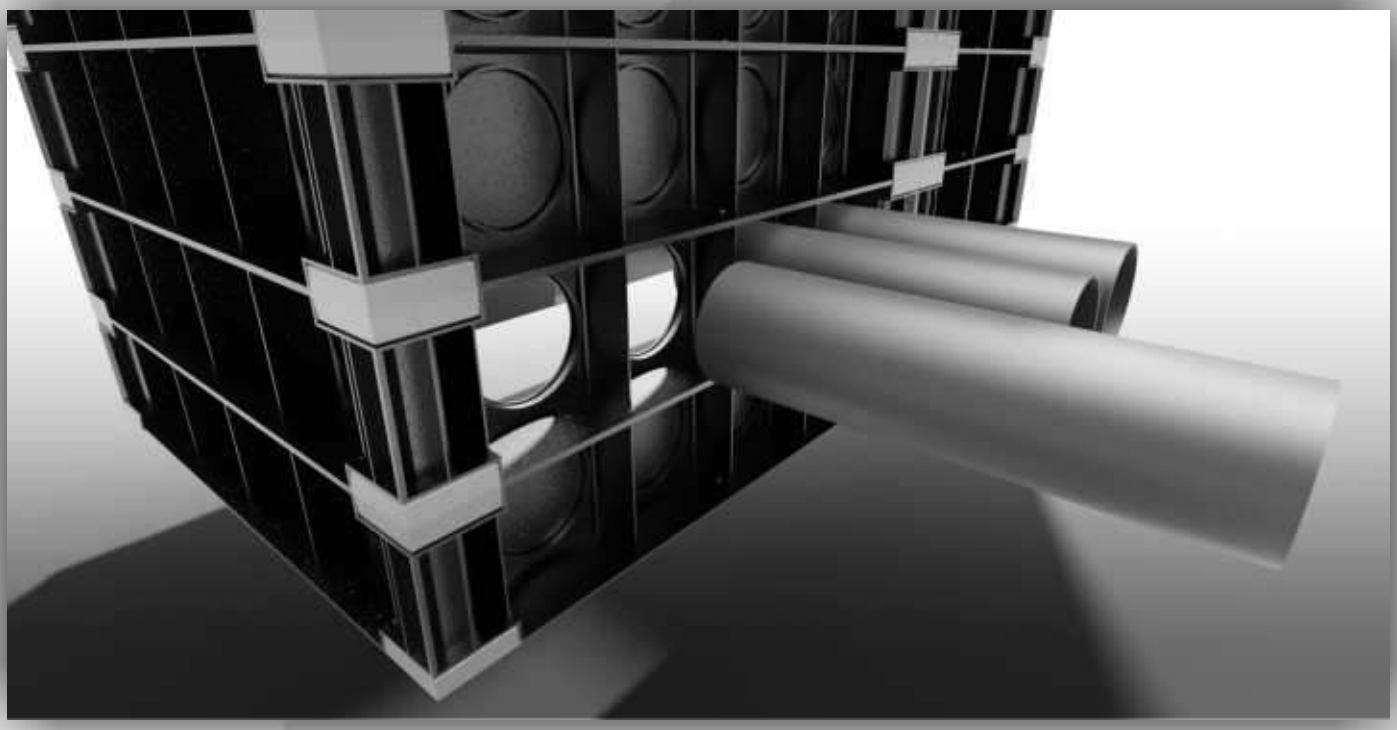
Atlas can be used to create Duct Access Chambers, Drawpits, Catchpits, Valve & Meter Chambers, Highway MCX chambers and Rail UTX Chambers. Thanks the loading capabilities of B125 and D400 Atles chambers are suitable for a wide range of applications.

Atlas offers strengths from B125 (pedestrian areas) up to D400 (all types of road vehicles) and everything in between for use in roads, motorways and pavements.



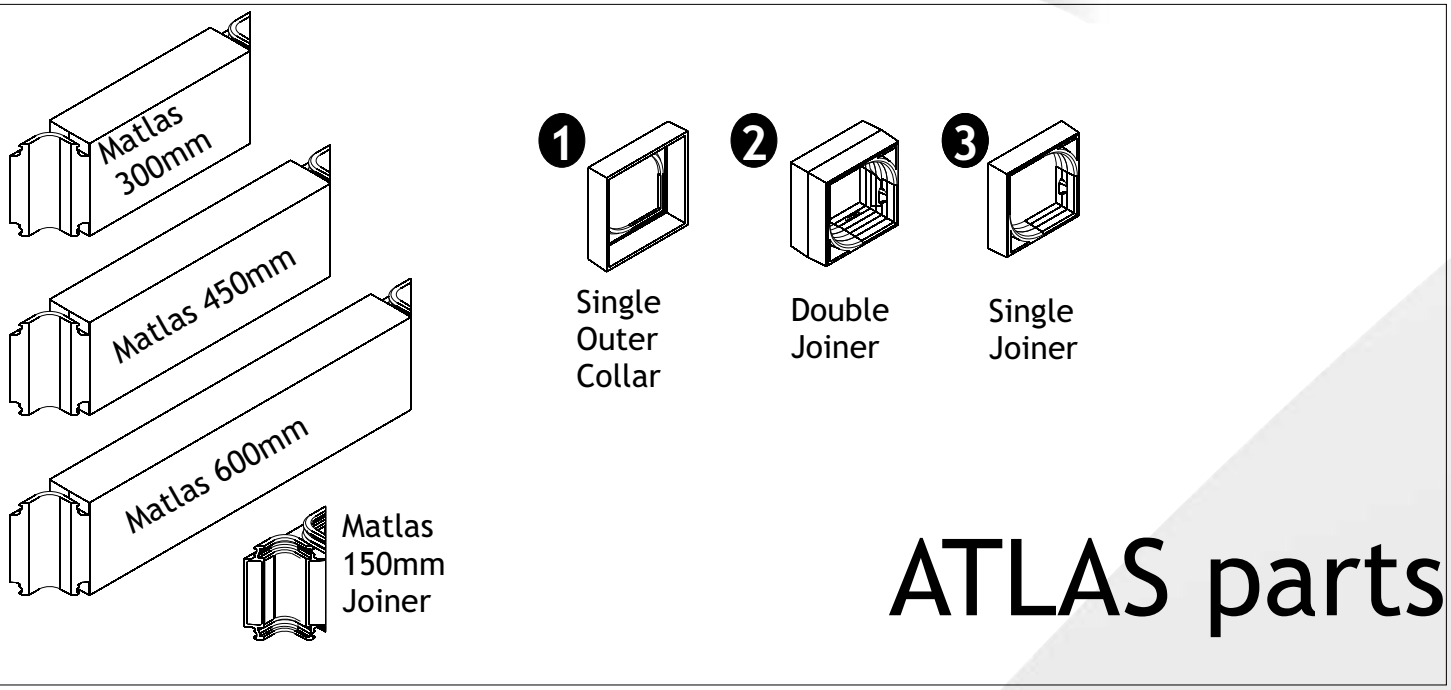


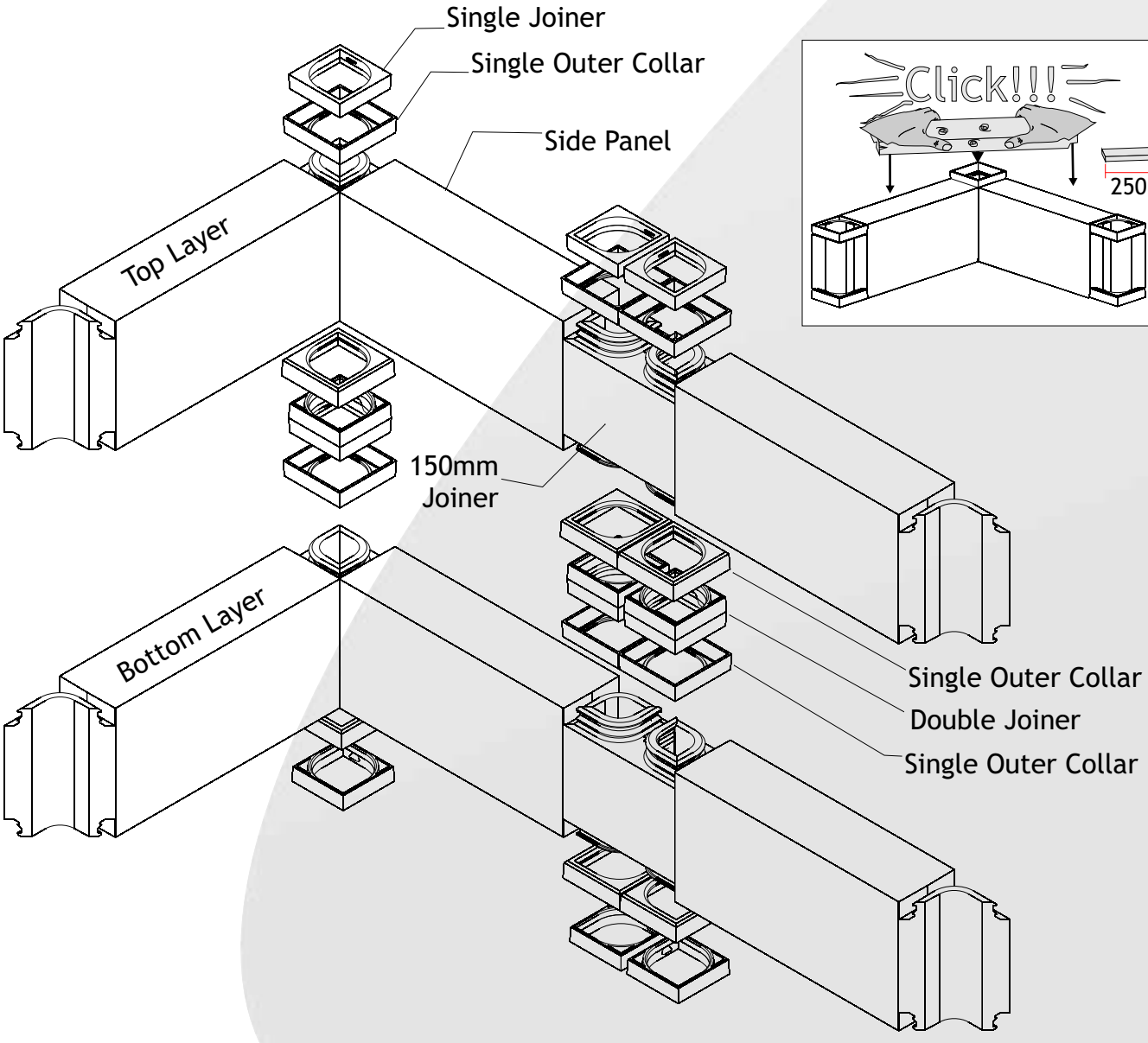
Lightweight chamber construction allows manual handling for rapid on-site installation and eliminate the machine costs associated with traditional concrete chamber construction.



Duct entry options are available with 110mm entries pre-moulded into the wall blocks. Additional larger pre-drilled duct entries can be supplied prior to despatch and meet specific site requirements.

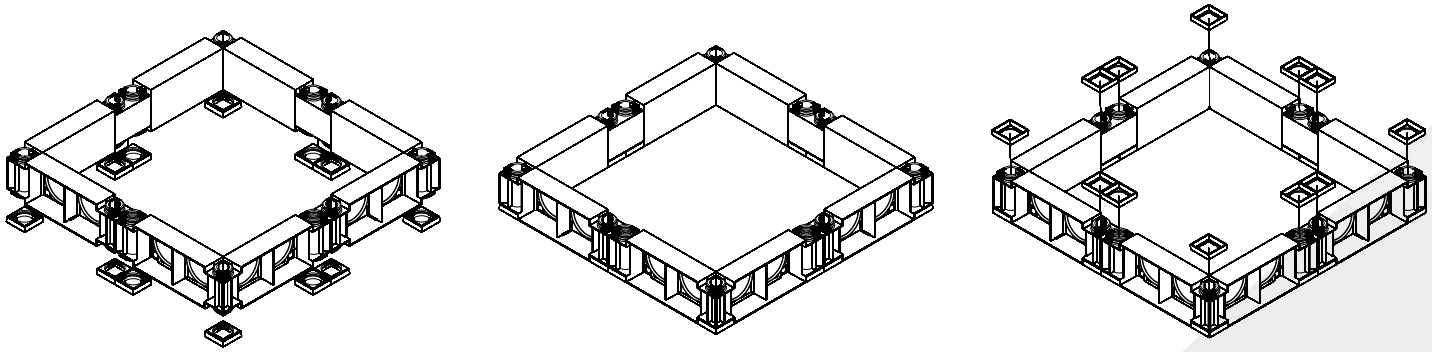
Chamber assembly



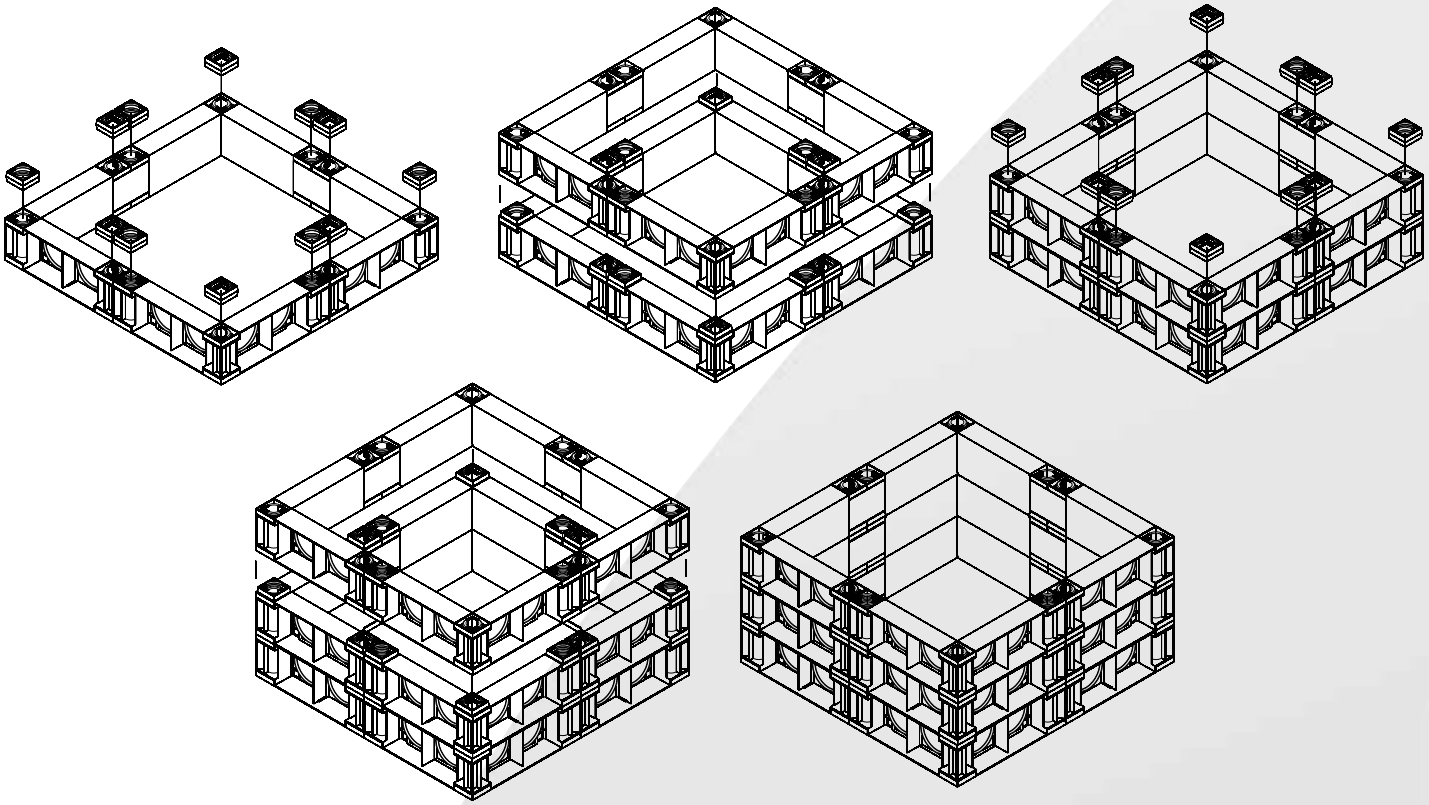


Chamber assembly

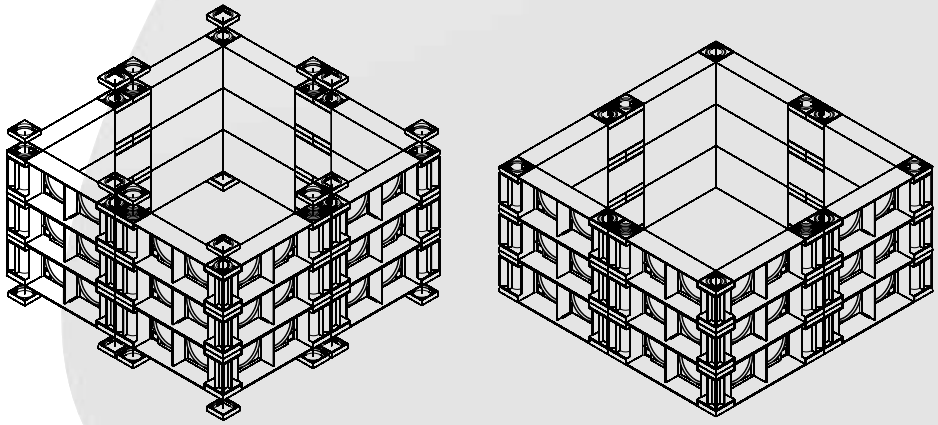
❶ ring assembly- Use Single Outer collars to assemble the rings



❷ Chamber Assembly-Use Double Joiner to attach rings together



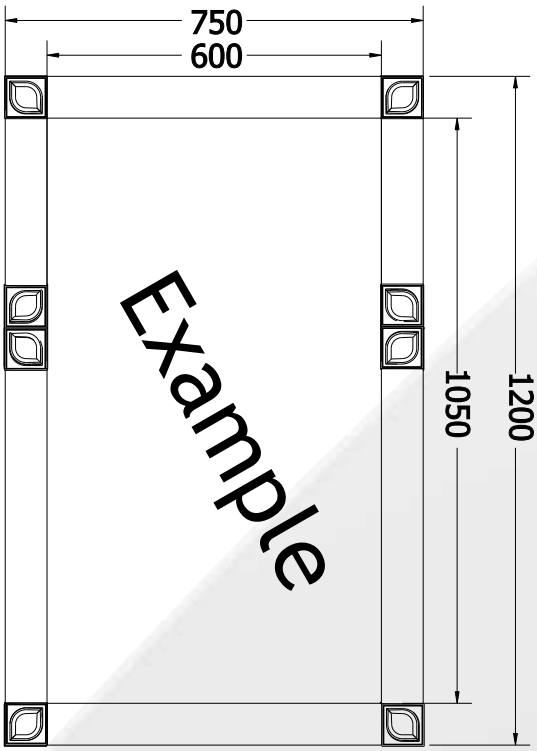
❸ Finish the Assembly- Use Single Joiners to complete the assembly



Product Range

Part requirements for different side lengths:

Side Dimension	Collar Connector	150 Joiner	300 Block	450 Block	600 Block
300	2	0	1	0	0
450	2	0	0	1	0
600	2	0	0	0	1
750	4	1	2	0	0
900	4	1	1	1	0
1050	4	1	1	0	1
1200	4	1	0	1	1
1350	4	1	0	0	2
1500	6	2	2	0	1
1650	6	2	1	1	1
1800	6	2	0	2	1

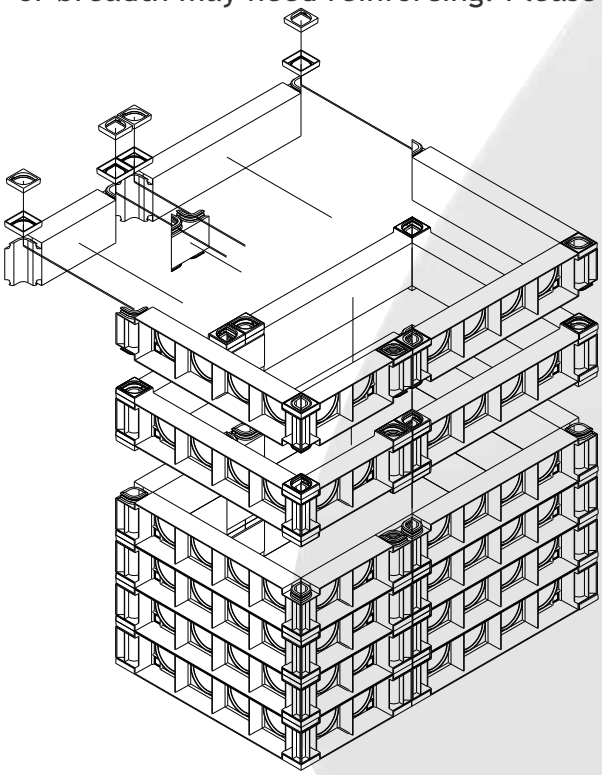


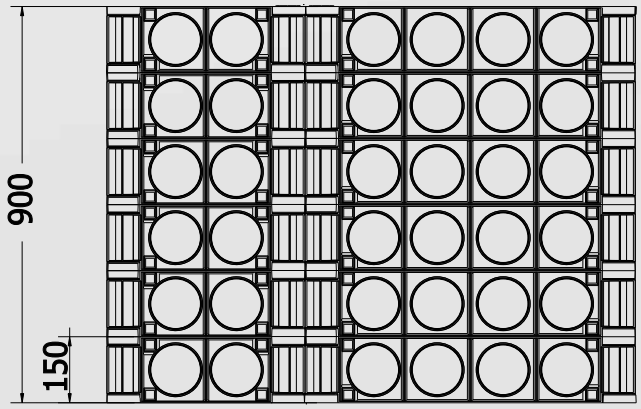
There is a large range of sizes of Atlas chambers available at 150mm increments with a base if required.

Pennine can deliver Atlas chambers either pre-accembled or flat packed.

The sizes are given for the internal length or width of the chambers. The unit of measurement is millimetres.

Any depth is available, although reinforcement may be necessary for chambers with a large width or breadth may need reinforcing. Please ask for further details.



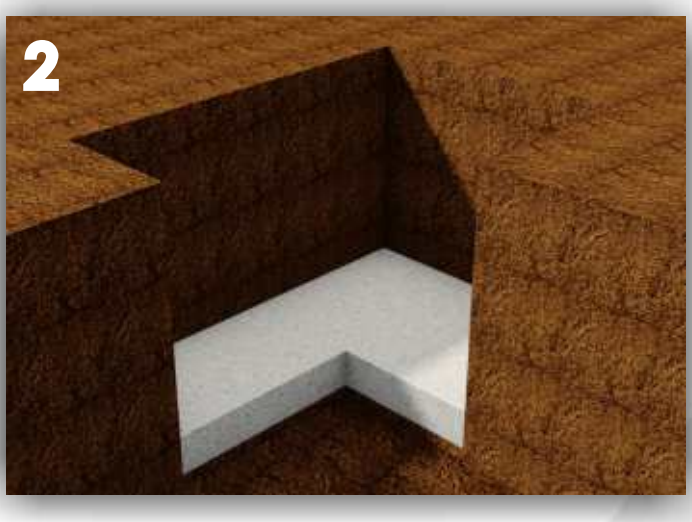


Installation Method

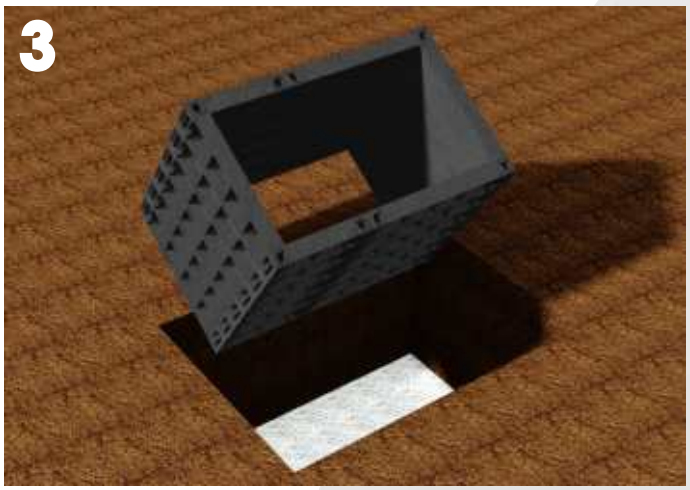
First excavate a hole in the ground.

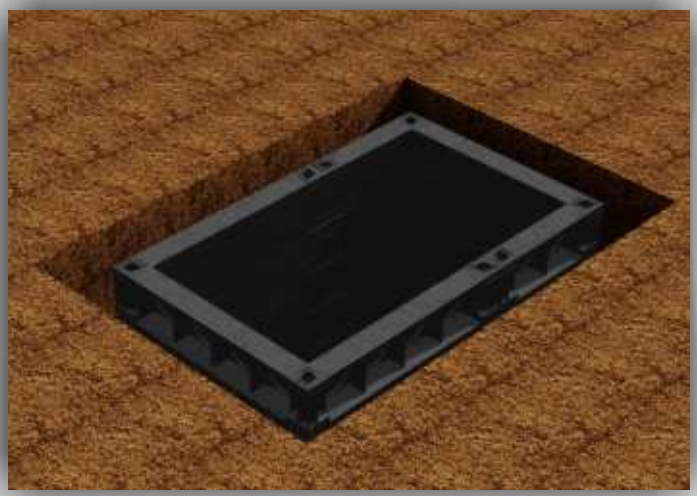
Dimensions of hole :

Length x Width x Height. Allow 175-200 mm for the chamber wall thickness and additional depth for cover and frame required for the mortar bed.



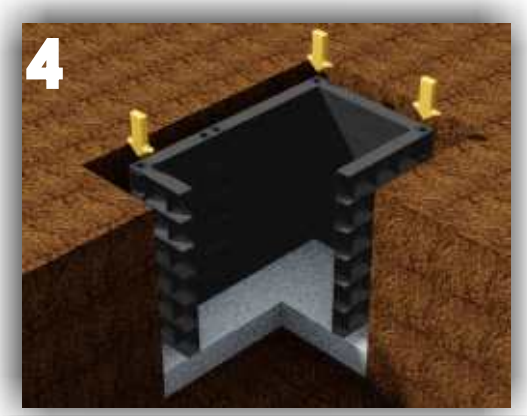
Once the hole is excavated, pour a concrete base to act as the foundation for the chamber. The onsite engineer will decide the base thickness . A 150mm base is sufficient in most cases.





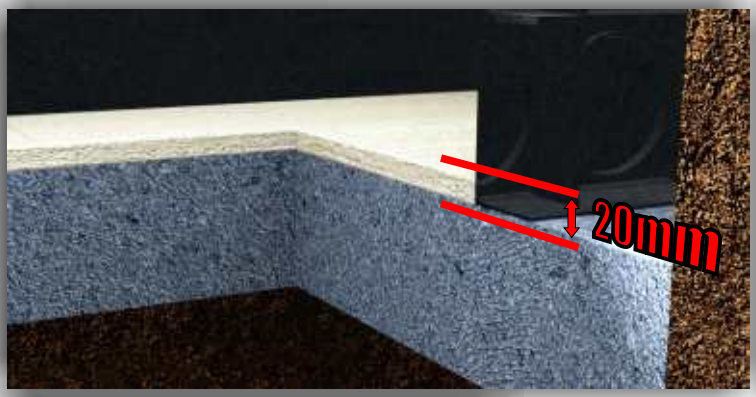
Lower the chamber into the excavation making sure that it is centered.

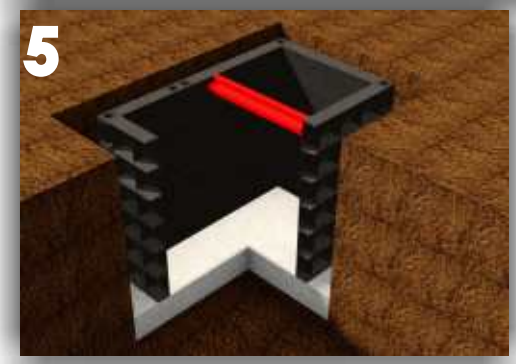
Installation Method



Important: To prevent the walls bowing inwards.
If the access chamber is being installed onto wet concrete then ensure that it sinks in to this concrete to a minimum depth of 20mm. The weight of the structure itself may accomplish this sinkage but, if not, the weight of a man standing at various points on the rim will suffice.

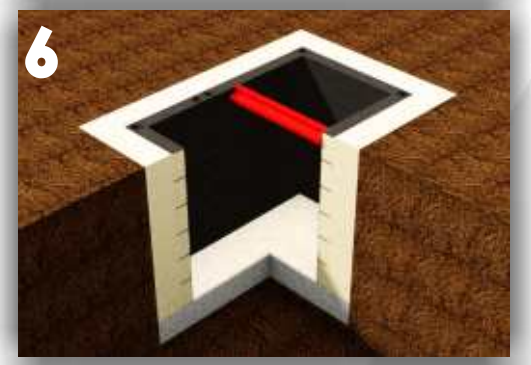
If it is being installed onto set concrete then a layer of concrete must be poured inside the inspection chamber, to fill its base to a depth of 20mm minimum.





Once positioned and top caps put in place, the chamber must be braced by a strut/struts to prevent the backfilling process to cause side wall deflection.

Note: braces are only required for chamber wall lengths of 750 mm or more. For long chambers wall 2 or 3 braces may be required.



Once the chamber is braced, fill the cavity around the chamber with concrete in successive 300mm layers.

A cover frame can be fixed to chamber, once the concrete has hardened the bracing can be removed and the cover can be installed in the frame.

For D400 we recommend resin mortar to be used between chamber and frame on D400 loadings.