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Accepted use of AXEDO products is not indicative of endorsement by water authorities but approval of the product's suitability, and standards compliance, for use in water networks, in accordance with Sewers for Adoption 7/8 or Sewers for Scotland 4. Limitations may apply. Information correct at time of print.

JDP is more than just a merchant. As part of Tessenderlo Group, a worldwide organisation operating across 21 countries, our manufacturing capabilities, technical knowledge and extensive product knowledge makes us one of the leading experts in your industry.

By continuing to invest in extensive stock levels to ensure local availability of our product range, and combining expertly trained staff, our own specially designed vehicle fleet, a dedicated in-house Technical Support team and a growing nationwide network of branches, JDP is always close to the project and ready to serve.

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AXEDO  
INSPECTION CHAMBERS

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**Planning and designing drainage systems, as well as choosing the right products, is an essential part of every construction project - large or small.**

As an alternative to a traditional concrete chamber the use of AXEDO, the state of the art plastic inspection chamber, can lead to extensive savings in installation time and project costs.



### AXEDO: The Safe Drainage Solution

With multiple configuration options, connections to all pipe types and designed to be installed at depths of up to 6m AXEDO offers adaptable, reliable and safe drainage access.

Used for non-man entry inspection chambers for foul and surface water drainage systems, or as a demarcation chamber, AXEDO replaces some of the need for traditional concrete products in these applications.

#### Features & Benefits

- Fully sealed system
- Lightweight & easy installation
- Chemical & corrosion resistant
- Safe inspection & maintenance
- Fully recyclable
- Adaptors for all pipe types
- Direct connection to BS EN 1401-1 & BS EN 13476-2 sewer pipe
- Install up to 6 metres deep
- Sewers for Adoption 7 (SfA7) & 8 (SfA8) compliant
- Sewers for Scotland 4 (SfS4) compliant

### Manhole & Inspection Chamber Guidance

Access may be provided by manholes (man-entry) and inspection chambers (non-man entry), depending on the depth at which the drain is laid, and should be situated as to allow every length of drain to be accessible for maintenance, inspection and removal of debris.

Generally, manholes or inspection chambers should be provided in the following situations:

1. At all changes of alignment, direction or gradient (except where the change is not too great for cleaning);
2. At all junctions where cleaning is not otherwise possible;
3. Within 22m of any junction or within 45m of the nearest manhole or inspection chamber;
4. At every junction of two or more public sewers;
5. At the head of each length of drain;
6. At all changes of pipe diameter

Where man-entry is not required, replacing concrete chambers with plastic inspection chambers guarantees savings without compromising the drainage system quality or legislative compliance.

JDP's Technical Support department can assist with the design of bespoke drainage systems, or perform value engineering on existing designs, and offer in-depth advice and expertise to specify the best solution for your project.

Source: Sewers for Adoption 8 (2018) & Building Regulations 2010 Approved Document H





Tightness

The leak-tightness of drainage structures is a major requirement for the design and construction of the systems, the objective being to prevent:

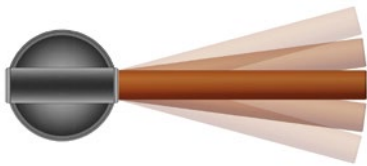
- the pollution of soils and water tables
- the infiltration of clean water likely to disturb the operation of the purification systems

AXEDO inspection chambers have the same tightness qualities as plastic drainage pipes.

The chambers will therefore give total satisfaction during tightness tests carried out, as per the requirements for surface water drainage and mains sewerage.

Ease of installation

The AXEDO inspection chambers are perfectly suited to manual installation (each base unit 25kg or less\*, shaft and concrete cover slab will require mechanical handling). The operation will be up to four times quicker than the installation of a traditional concrete chamber. This results in a considerable saving on installation costs.



Angular deflection of up to +/-7.5°

Chemical inertia, resistance to corrosion

Plastic materials provide excellent resistance to the various chemical compounds (see ISO/TR 10358). The polypropylene used to manufacture AXEDO inspection chambers will be especially effective against attacks externally, from aggressive soils, and internally from the fluids conveyed - in particular hydrogen sulphide (H<sub>2</sub>S) and sulphuric acid (H<sub>2</sub>SO<sub>4</sub>) - which may be given off by the effluent.



Ease of inspection & maintenance

The flow profile of AXEDO inspection chambers has a long, continuous profile and a long curve radius, thereby facilitating the use of cleaning and inspection tools. The smoothness of the plastic materials that make up the flow profile, and the inside of the shaft, prevent particles and materials sticking to them. This therefore makes the maintenance of the AXEDO inspection chambers much easier and quicker than is the case with structures made of traditional materials.

Plastic vs. Concrete

AXEDO inspection chambers offer real benefits over traditional concrete chambers in time, cost, flexibility to site conditions, and in health and safety for operatives on site.



Safe

Weighing 25kg or less\* AXEDO is the safe drainage option, with less requirement for working within confined spaces and with heavy machinery.



Fast

Being significantly smaller than concrete inspection chambers, less excavation and infill is needed, and system installation time is up to four times quicker.



Versatile

Various configurations and push-fit adaptors for most pipe types are available, AXEDO is flexible to site conditions and suitable for both foul and surface water systems.



Sustainable

Lightweight chambers lead to reduced transport CO<sub>2</sub> emissions, costs, time and site traffic. Components are manufactured sustainably and are fully recyclable.



Consistent

The combination of factory production, easy handling and installation, and no requirement for joints or rocker pipes close to chambers, ensures a consistent system build quality.



Cost Effective

When reduced material, plant and labour costs are considered, installed AXEDO systems save up to 42% of the total system cost when compared to concrete.



Installation

Earthworks

The earthworks will be carried out in accordance with the rules of good practice relating to open-cut earthworks. The general dimensions of the excavation should be at least 300mm wider on each side of the inspection chamber and take into account the characteristics of the natural soil.

These dimensions should enable secure access in accordance with the regulations and the following operations:

- connection of pipes
- backfilling and compacting with appropriate equipment

In all cases, the installation drawings and locations are to be complied with.

Installation bed

An installation bed should be made with a minimum thickness of 100mm.

It will be flat and horizontal; the following provisions shall be complied with:

- in the absence of a water table: use of compacted sand at 95% OPN
- in the presence of a water table: use of a self-placing material free of fines (gravel 5/15 or equivalent)

Installation of inspection chamber

- Preparation
- Installation of base
- Preparation and installation of the shaft & restrictor ring
- Cast in-situ or precast concrete slab
- Brickwork or precast concrete adjusting unit
- Cover & frame to suit location and application

Backfilling

The backfilling should be carried out in accordance with the rules of good practice, in successive compacted layers of 300mm. “As dug” or type 1 backfill can be used as appropriate to the application, ensuring it is free from; stones greater than 40mm, lumps of clay greater than 100mm, timber or other material that could prevent sound compaction.



Covers

A full range of covers and frames are available from JDP, with options including badging.

Cover Type	AXEDO 200	AXEDO 300	AXEDO 450-2	AXEDO 600
A15	01024DIFC1	01024DSMCDS	02084DLMCS*	0621E10C1
B125	0621KD31**	0621KD31**	0621KD31	0621KD3440
D400	-	-	0621KD8	0621KD100
Paviour (Plastic)	0622CLKS300SR	0622CLKS300SR	0622CLKS450SR	0622CLKS791R
Paviour (Metal)	0622BP300X300	0622BP300X300	0622BP450X450	0622BP600X600

\* Cover comes with restrictor ring  
\*\* Alternative available: 0621UDC700

Covers listed above are compliant with adoptable installation drawings

Range

	AXEDO 200	AXEDO 300	AXEDO 450-2	AXEDO 600
Diameter (mm)	200	300	450	600
SfA8 Compliance	Type E	Type E	Type D	Type D
SfA7 Compliance	Type 4	Type 4	Type 3	Type 3
SfS4 Compliance	✓	✓	✓	✓
Other Standards	EN 1852	EN 13598-2 Complies with BS EN 13598-2	BS EN 13598-2 Kitemarked	BS EN 13598-2 Kitemarked
Cover Types	A15, B125	A15, B125	A15, B125, C250, D400	A15, B125, C250, D400
Max. Invert Depth (m)	2.0	2.0	6.0*	6.0*
Inlet Sizes (mm OD)	110, 160	110, 160	110, 160	160, 250, 315, 400
Base Configurations	Straight	45° Double Branch	Swept Cross (with 45° Double Branch)	Straight Swept Cross

Sewers for Adoption 8 (SfA8), Sewers for Adoption 7 (SfA7)  
& Sewers for Scotland 4 (SfS4) compliance

\* Adoptable AXEDO 450-2 & AXEDO 600 max. invert depth 3.0m

Adaptors

AXEDO chambers connect directly to ULTRA3 adoptable sewer pipe without the need for adaptors, but adaptors are available for connections to all pipe types.

Pipe Type	110mm	160mm	250mm	315mm
UltraRib	-	02082081UR	02082083UR	02082084UR
Polysewer	-	02082081PS	02082083PS	02082084PS
JFC Twinwall	-	02082081TW	02082083JFC	02082084JFC
Naylor Twinwall	-	02082081TW	02082083MET	02082084MET
Polypipe Twinwall	-	02082081TW	02082083PP	02082084PP
Supersleeve	02082080HEP	02082081HEP	02082083HEP	02082084HEP
Densleeve	02082080NAY	02082081NAY	02082083NAY	02082084NAY

Reducers

Chamber Outlet Diameter	110mm	160mm
250mm	02082083EN110	02082083EN160
315mm	02082084EN110	02082084EN160

Reducers connect directly to the chamber to allow smaller pipes to be connected



Features and Benefits

- 200mm diameter base
- 110 and 160mm (OD) inlet sizes
- SfA7 Type 4, SfA8 Type E compliant
- SfS4 Section 4.2.32 compliant
- Install up to 2 metres
- A15 and B125 cover types
- Direct connection to ULTRA3 pipework
- Adaptable to most pipe types using separate adaptors available from JDP
- Stabilising feet and ribs for additional strength and ease of installation

Product Range

Base Components

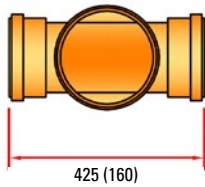
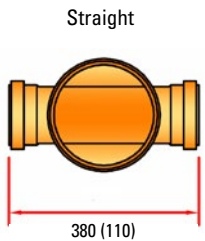
Base	ID (mm)	OD (mm)	Code
Straight	100	110	02080028811
	150	160	02080028821

Certified to EN 1852

Shaft

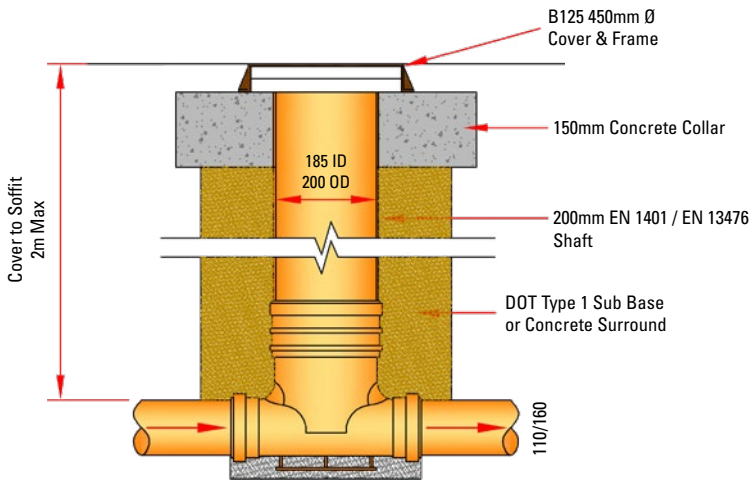
Height (m)	ID (mm)	OD (mm)	Code
1.0	185	200	02080020001
2.0	185	200	02080020002

Shaft certified to EN 1401-1 & EN 13476-2



Technical Drawings

Drawings compliant with adoptable applications.  
For non-adoptable applications selected “as dug” material can be used as backfill.



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## Features and Benefits

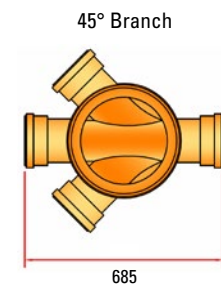
- 300mm diameter base
- 110 and 160mm (OD) inlet sizes
- SfA7 Type 4, SfA8 Type E compliant
- SfS4 Section 4.2.32 compliant
- Install up to 2 metres
- A15 and B125 cover types
- Direct connection to ULTRA3 pipework
- Adaptable to most pipe types using separate adaptors available from JDP
- Stabilising feet and ribs for additional strength and ease of installation

## Product Range

## Base Components

Base	ID (mm)	OD (mm)	Code
45° Branch	100	110	02080034111
	150	160	02080034112

Base requires shaft sealing ring  
Certified to EN 13598-2  
Complies with BS EN 13598-2



## Shaft

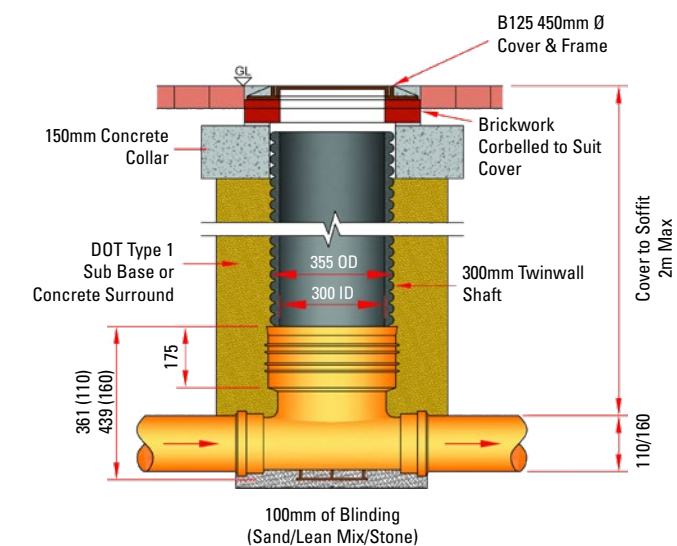
Height (m)	ID (mm)	OD (mm)	Code
1.0	300	355	02080030001
2.0	300	355	02080030002

Shaft Sealing Ring	02080030010
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Shaft certified HAPAS BBA  
Full range of covers and frames available upon request from JDP

## Technical Drawings

Drawings compliant with adoptable applications.  
For non-adoptable applications selected "as dug" material can be used as backfill.



**SITED IN LANDSCAPED/PAVED AREAS & DRIVEWAYS**





Features and Benefits

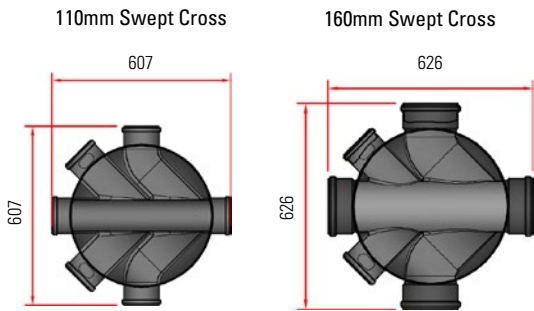
- 450mm diameter base
- 110 and 160mm (OD) inlet sizes
- Certified (Kitemarked) to BS EN 13598-2
- SfA7 Type 3, SfA8 Type D compliant
- SfS4 Section 4.2.32 compliant
- Install up to 3 metres (adoptable)
- Install up to 6 metres (non-adoptable)\*
- A15, B125, C250 and D400 cover types
- Direct connection to ULTRA3 pipework
- Adaptable to most pipe types using separate adaptors available from JDP
- Stabilising feet and ribs for additional strength and ease of installation

Product Range

Base Components

Base	45°	90°	Code
110mm Swept Cross with 110mm 45° Double Branch	110mm	110mm	020820048078
160mm Swept Cross with 110mm 45° Double Branch	110mm	160mm	020820048079

Complies with BS EN 13598-2



Shaft System

One piece construction. Use up to 3m in adoptable systems or up to 6m in non-adoptable systems.

Height (m)	ID (mm)	OD (mm)	Code
1.5	450	512	02080040001
3.0	450	512	02080040002
6.0	450	512	0425450TPU

Shaft certified HAPAS BBA

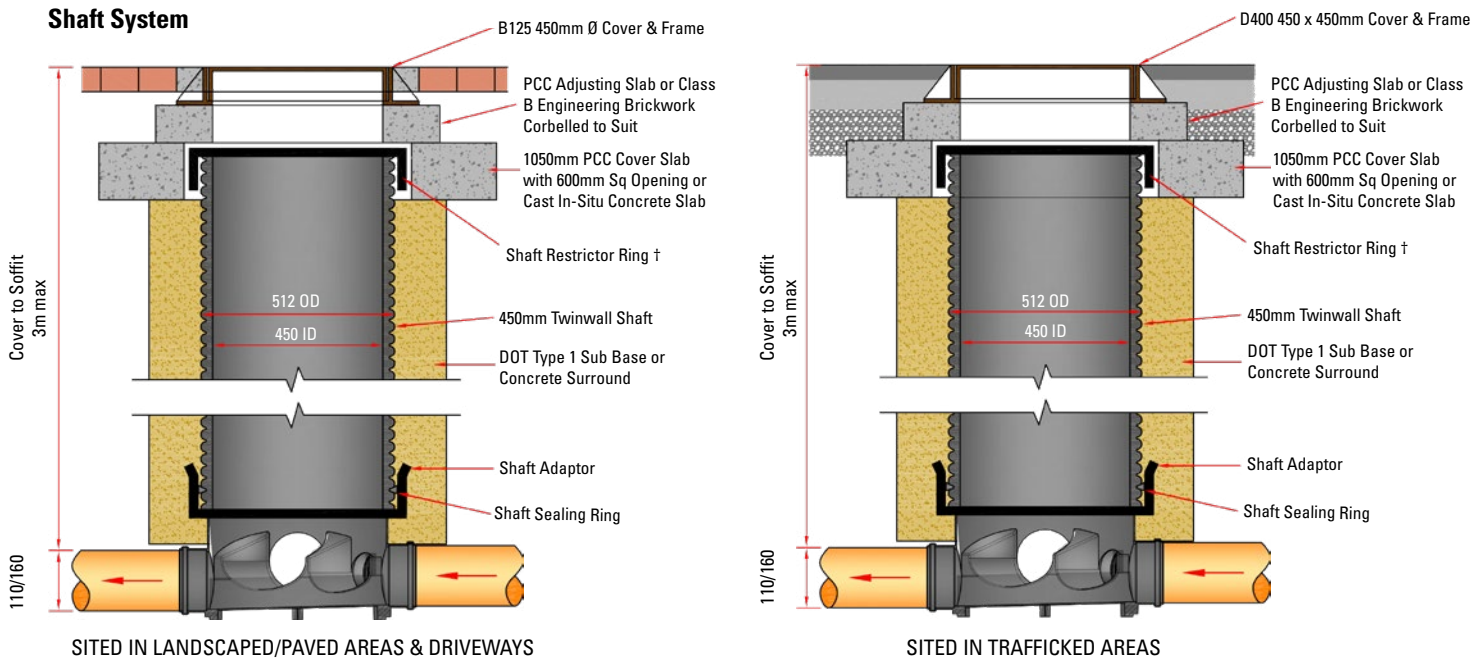
Shaft Adaptor	020820048769
Shaft Sealing Ring	02080040010
Shaft Restrictor Ring	01024DLMRR

Adaptor complies with EN 13598-2  
Full range of covers and frames available upon request from JDP

Standard risers, instead of one-piece shafts, may be used to build to the required height, up to 3m in adoptable and non-adoptable systems. Consult the AXEDO installation guide for further details.

Technical Drawings

Drawings compliant with adoptable applications.  
For non-adoptable applications selected “as dug” material can be used as backfill.

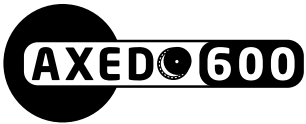


Accepted for use in S104 projects in the following water authority areas in accordance with SfA7/8 or SfS4: Yorkshire Water; Scottish Water; Severn Trent; United Utilities; Welsh Water; & Wessex Water.

\* Maximum buried depth 6m in non-adoptable projects subject to ground conditions

† Restrictor ring required for installations greater than 1.2m according to Building Regulations or greater than 1m according to SfA7/SfA8 to restrict access





Features and Benefits

- 600mm diameter base
- 160, 250, 315 and 400mm (OD) pipework
- Certified (Kitemarked) to BS EN 13598-2
- SfA7 Type 3, SfA8 Type D compliant
- SfS4 Section 4.2.32 compliant
- Install up to 3 metres (adoptable)
- Install up to 6 metres (non-adoptable)\*
- A15, B125, C250 and D400 cover types
- Direct connection to ULTRA3 pipework
- Adaptable to most pipe types using separate adaptors available from JDP

Product Range

Base Components

Base	Pipe Diameter ID/OD (mm)			
	150/160	225/250	300/315	375/400
Straight	020820048418	020820048419	-	020820034241
Swept Cross	020820048421	020820048422	020820048423	-

Base requires shaft sealing ring  
Certified to EN 13598-2  
Complies with BS EN 13598-2 & BS EN 752:2008

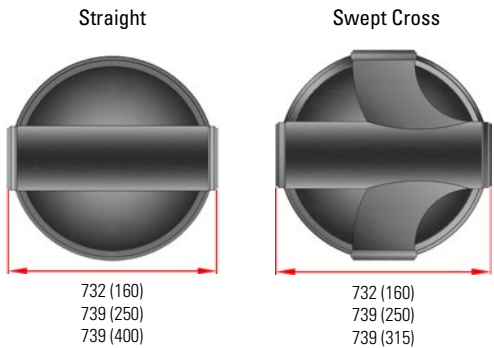
Shaft

Height (m)	ID (mm)	OD (mm)	Code
1.5	600	678	02082090001
3.0	600	678	02082090003
6.0	600	678	0425600TPU

Shaft certified HAPAS BBA

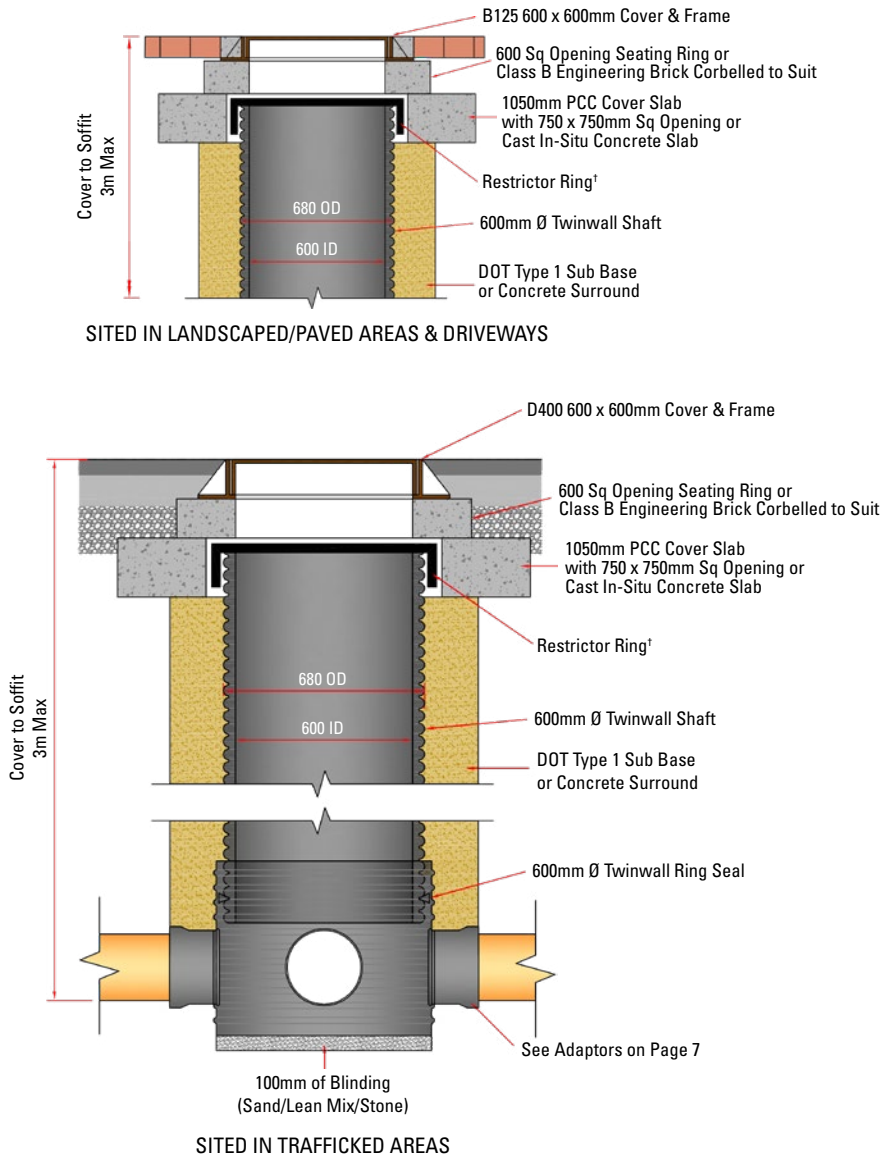
Shaft Sealing Ring	02082090010
600mm Restrictor Ring	02082090011
Concrete Cover Slab (Square Opening)	18011050CS750
600mm Seating Ring	1801600SEATRING
675mm Seating Ring	1801675SEATRING

Full range of covers and frames available upon request from JDP



Technical Drawings

Drawings compliant with adoptable applications.  
For non-adoptable applications selected “as dug” material can be used as backfill.



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