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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Registered in Scotland No. SC350397
1 Exchange Crescent, Conference Square, Edinburgh, EH3 8UL
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 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) 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 7 (2012)
Technical Characteristics

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

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

The Axedo inspection 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.

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 (H₂S) and sulphuric acid (H₂SO₄) - 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 CO₂ emissions, costs, time and site traffic. Components are manufactured sustainably and are fully recyclable.

Consistent
The combination of factory production, easy handling, manual installation and less need for wet trades and heavy machinery ensures a consistent system build quality.

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

Angular deflection of up to +/-7.5°

* Axedo 600 315mm swept cross base & 400mm straight base configurations 30kg
Specification

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 complying 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 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.

<table>
<thead>
<tr>
<th>Cover Type</th>
<th>Axedo 200</th>
<th>Axedo 300</th>
<th>Axedo 450-2</th>
<th>Axedo 600</th>
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<tbody>
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<td>00840LUMC3*</td>
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<tr>
<td>B125</td>
<td>0621KD31**</td>
<td>0621KD31**</td>
<td>0621KD3440</td>
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<td>D400</td>
<td>-</td>
<td>-</td>
<td>0621KD100</td>
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<tr>
<td>Paviour</td>
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<td>0622CLXS300SP</td>
<td>0622CLXS405SR</td>
<td>0622CLXS751SR</td>
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* Cover comes with restrictor ring
** Alternative available: 062116C70B

Range

<table>
<thead>
<tr>
<th>Diameter (mm)</th>
<th>Axedo 200</th>
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<th>Cover Types</th>
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<th>Axedo 450-2</th>
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<td>010240MCG3</td>
<td>00840LUMC3*</td>
<td>062161C1</td>
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<tr>
<td>B125</td>
<td>0621KD31**</td>
<td>0621KD31**</td>
<td>0621KD3440</td>
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<tr>
<td>D400</td>
<td>-</td>
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<td>0621KD100</td>
<td></td>
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<tr>
<td>Paviour</td>
<td>0622CLXS300SR</td>
<td>0622CLXS300SP</td>
<td>0622CLXS405SR</td>
<td>0622CLXS751SR</td>
</tr>
</tbody>
</table>

Adaptors
Axedo chambers are adaptable to all pipe types using adaptors from JDP.

<table>
<thead>
<tr>
<th>Pipe Type</th>
<th>110mm</th>
<th>160mm</th>
<th>200mm</th>
<th>315mm</th>
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<td>Polysewer</td>
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<td>Polypipe Twinwall</td>
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<td>Supersleeve</td>
<td>02082081HEP</td>
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<tr>
<td>Densleeve</td>
<td>02082080NAY</td>
<td>02082081NAY</td>
<td>02082081NAY</td>
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</table>

* Cover comes with restrictor ring
** Alternative available: 062116C70B

Covers listed above are compliant with adoptable installation drawings
Axedo 200

Features and Benefits

- 200mm diameter base
- 110 and 160mm (OD) inlet sizes
- SfA7 Type 4 compliant
- SfS3 Section 4.2.32 compliant
- Install up to 2 metres
- A15 and B125 cover types
- 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

<table>
<thead>
<tr>
<th>Base</th>
<th>ID (mm)</th>
<th>OD (mm)</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight</td>
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<td>110</td>
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<td>150</td>
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Certified to EN 1852

Shaft

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<tr>
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<th>OD (mm)</th>
<th>Code</th>
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</table>

Shaft certified to EN 1430-1 & EN 13476-2

Technical Drawings

Drawings compliant with adoptable applications. For non-adoptable applications selected “as dug” material can be used as backfill.
Axedo 300

Features and Benefits

- 300mm diameter base
- 110 and 160mm (OD) inlet sizes
- SFA7 Type 4 compliant
- SFS3 Section 4.2.32 compliant
- Install up to 2 metres
- A15 and B125 cover types
- 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

<table>
<thead>
<tr>
<th>Base</th>
<th>ID (mm)</th>
<th>OD (mm)</th>
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<tbody>
<tr>
<td>45° Branch</td>
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<td>150</td>
<td>160</td>
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</table>

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

Shaft

<table>
<thead>
<tr>
<th>Height (m)</th>
<th>ID (mm)</th>
<th>OD (mm)</th>
<th>Code</th>
</tr>
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<tr>
<td>2.0</td>
<td>300</td>
<td>355</td>
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</table>

Shaft Sealing Ring
Code 02000033010

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
- 5 inlets for multiple application use
- SFA Section 4.2.32 compliant
- Install up to 3 metres (adopterable)
- Install up to 6 metres (non-adopterable)
- A15, B125, C250 and D400 cover types
- Utilises standard 450mm diameter risers or solid shaft system
- Stabilising feet and ribs for additional strength and ease of installation

Product Range

Base Components

<table>
<thead>
<tr>
<th>Base Components</th>
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<th>90°</th>
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<tbody>
<tr>
<td>110mm Swept Cross with 110mm 45° Double Branch</td>
<td>110mm</td>
<td>110mm</td>
<td>02060040001</td>
</tr>
<tr>
<td>160mm Swept Cross with 110mm 45° Double Branch</td>
<td>110mm</td>
<td>160mm</td>
<td>02060040002</td>
</tr>
</tbody>
</table>

Shaft System

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

<table>
<thead>
<tr>
<th>Height (m)</th>
<th>ID (mm)</th>
<th>OD (mm)</th>
<th>Code</th>
</tr>
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<tbody>
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<td>3.0</td>
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<tr>
<td>6.0</td>
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</table>

Riser System

Use standard risers to build to the required height, up to 3m in adoptable and non-adopterable systems.

<table>
<thead>
<tr>
<th>Height (mm)</th>
<th>ID (mm)</th>
<th>OD (mm)</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
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<td>467</td>
<td>504</td>
<td>01024DLMRR</td>
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</tbody>
</table>

Shaft System

- PCC Adjusting Slab or Class B Engineering Brickwork
- Shaft Adaptor
- Shaft Sealing Ring

Riser System

- PCC Adjusting Slab or Class B Engineering Brickwork
- Shaft Restrictor Ring
- Shaft Adaptor
- Shaft Sealing Ring

Technical Drawings

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

Shaft System

- 450mm Ø Cover & Frame
- PCC Adjusting Slab or Class B Engineering Brickwork
- Shaft Adaptor
- Shaft Sealing Ring
- Shaft Restrictor Ring

Riser System

- PCC Adjusting Slab or Class B Engineering Brickwork
- Shaft Adaptor
- Shaft Sealing Ring
- Shaft Restrictor Ring

Adaptor complies with EN 13598-2

Full range of covers and frames available upon request from JDP

Shaft certified HAPAS BBA

Minimum buried depth 6m in non-adopterable 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 to restrict access
### Axedo 600

#### Features and Benefits
- **600mm diameter base**
- **160, 250, 315 and 400mm (OD) pipework**
- **SfA7 Type 3 compliant**
- **SFS3 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**
- **Adaptable to most pipe types using separate adaptors available 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**

**SITED IN TRAFFICKED AREAS**

### Product Range

#### Base Components

<table>
<thead>
<tr>
<th>Base</th>
<th>Pipe Diameter ID/OD (mm)</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight</td>
<td>150/160 225/250 300/315 375/400</td>
<td>020620048418 020620048419 - 020620048421</td>
</tr>
<tr>
<td>Swept Cross</td>
<td>150/160 225/250 300/315 375/400</td>
<td>020620048422 020620048423</td>
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Base requires shaft sealing ring.
Certified to EN 13598-2
Complies with BS EN 13598-2 & BS EN 752:2008

#### Shaft Components

<table>
<thead>
<tr>
<th>Height (m)</th>
<th>ID (mm)</th>
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Shaft certified HAPAS BBA.

####Shaft Sealing Rings
- 600mm Restrictor Ring: 020620090011
- 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.

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*Maximum buried depth for 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 to restrict access.