



Plumbing & Drainage



ACCESS AND INSPECTION CHAMBERS

Adoptable and Non-Adoptable Assemblies

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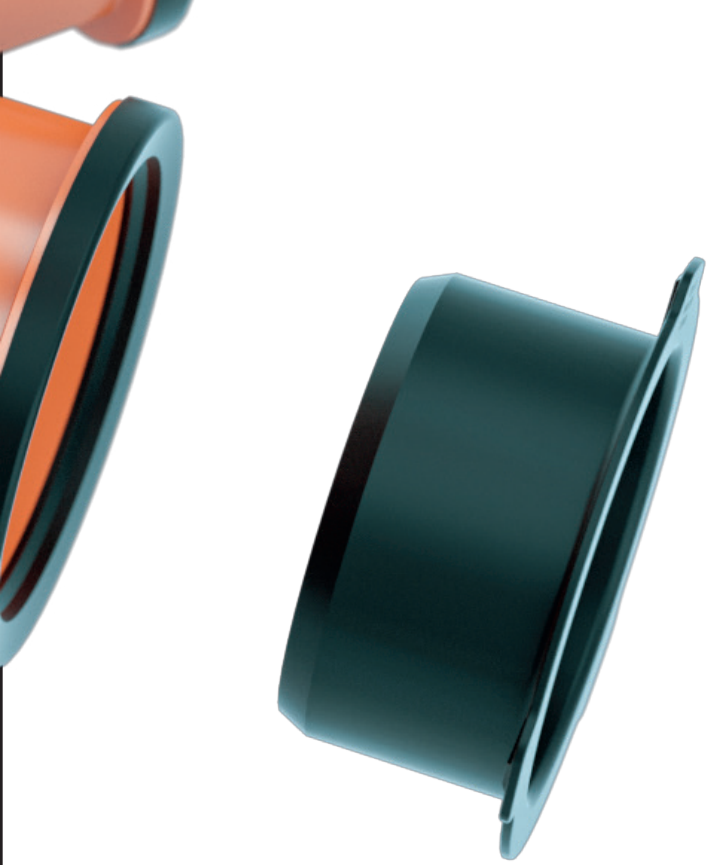


DRAINAGE SYSTEMS

Brett Martin's Plumbing and Drainage range has earned a reputation for quality and performance. The largest independent building products manufacturer in the UK, Brett Martin Plumbing and Drainage supply an extensive range of quality plastic Underground, Rainwater and Plumbing systems including the innovative Cast Iron Style, Cascade Rainwater and Soil System. All products are manufactured to BS EN ISO 9001:2008 and backed by the relevant product certifications and approvals, demonstrating a product range of the highest quality. Combine this with dedicated sales and service professionals for every market, and our customers are guaranteed quality product and service anywhere in the world.

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Shallow Access and Inspection Chambers for Non Adoptable Areas

- 280mm Shallow Access Chamber
- 315mm Shallow Access Chamber
- 450mm Inspection Chamber



Plumbing & Drainage

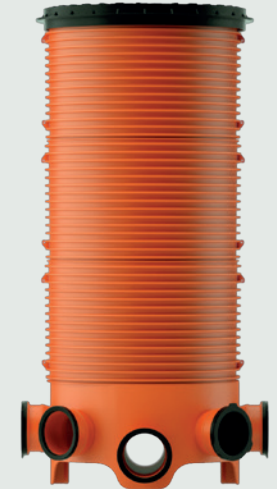
Why Choose Brett Martin Access and Inspection Chambers

At Brett Martin our drainage solutions are designed and developed to achieve compliance with industry regulations and standards. Following the publication of Sewers for Adoption 7 (SfA7) outlining revised performance criteria, newly-defined design detailing and installation standards for all adoptable drainage networks – including manholes and inspection chambers, Brett Martin have developed a range of Adoptable Chamber Assemblies. This ensures our full offering of Access and Inspection Chambers satisfy the requirements set out in Sewers for Adoption 7 (SfA7) and Building Regulations.

Shallow Access and Inspection Chambers for Adoptable Areas



(SfA7) 315mm Shallow Access Chamber EN 13598-1

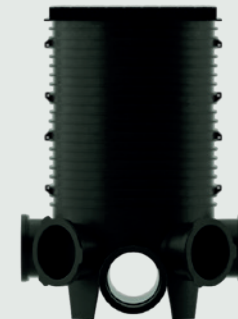


(SfA7) 450mm Inspection Chamber EN 13598-1

Shallow Access and Inspection Chambers for Non-Adoptable Areas



280mm Shallow Access Chamber



315mm Shallow Access Chamber



450mm Inspection Chamber

Regulations and Guidance for Access and Inspection Chambers

In the specification and installation of Shallow Access and Inspection Chambers there are two points of reference:

1. Sewers for Adoption 7 (SfA7)
2. Building Regulations Part H1

These points of reference outline the requirements for the following application areas.

1. Inspection Chambers for Adoptable Applications
Lateral drains and sewers that serve two or more properties, and connect to the public sewerage network, are now the responsibility of the relevant Water and Sewerage Company.

Regulation: Sewers for Adoption 7 (SfA7)

2. Inspection Chambers for Non-adoptable Applications
Drains that only serve individual properties or are installed within the property boundary remain the responsibility of the property owner.

Regulation: Building Regulations Part H1



Standards and Guidance for Access and Inspection Chambers in Adoptable Applications

The design and installation of Access and Inspection Chambers in Adoptable Applications are subject to Sewers for Adoption 7 (SfA7).

FLEXIBLE (PLASTIC) DEEP INSPECTION CHAMBERS

SfA7 now incorporates Typical Access Chamber Details for flexible material (i.e. plastic) versions of Inspection Chambers. Rigid traditional concrete chambers are no longer the only authorised type that may be used for adoptable installations down to 3m for a Type 3 installation and 2m for a Type 4 installation.

CHAMBER DESIGN SPECIFICATIONS

Inspection Chambers manufactured from plastics are now required to comply fully with BS EN 13598

PART 1

- Inspection Chambers: invert depths up to 1.2m
- Shallow Access Chambers: invert depths up to 900mm

PART 2

- Inspection Chambers: invert depths up to 3m

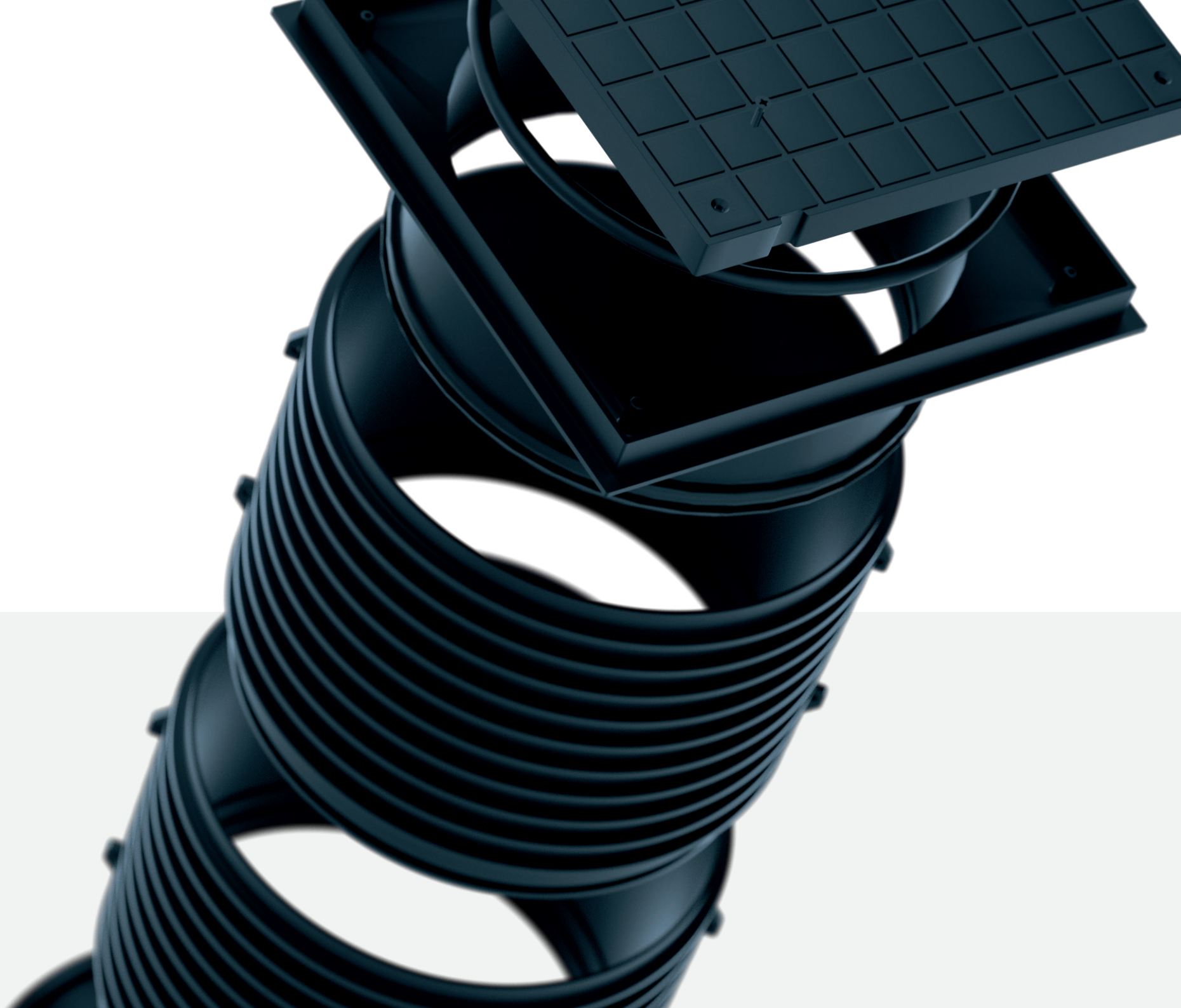


SEWERS FOR ADOPTION (SfA7)

Type	Depth to Invert from cover level (m)	Minimum Internal Sizes (mm)		Recommended Brett Martin Chamber Assembly
		Length x width	Circular	
Type 4	≤1.2	225 x 100	180*	(SfA7) Adoptable 315mm Shallow Access Chamber EN 13598-1 (to a max depth of 900mm) (B3156)
	≤2.0			(SfA7) Adoptable 450mm Inspection Chamber EN 13598-1 (B4500/B4506) To follow
Type 3	≤1.2**	450 x 450	450	(SfA7) Adoptable 450mm Inspection Chamber EN 13598-1 (B4500/B4506)
	≤3.0**	450 x 450	450	To follow

* Drains up to 150mm ** Restricted access to max 350mm ≥ 1m deep





Standards and Guidance for Inspection Chambers in Non-Adoptable Applications

In non-adoptable drainage applications Part H1 of the Building Regulations is still applicable. These include minimum dimensions for circular inspection chambers, and for covers, as follows:

BUILDING REGULATIONS PART H1				
Type	Depth to Invert from cover level (m)	Minimum Internal Sizes (mm)		Recommended Brett Martin Chamber Assembly
		Length x width	Circular	
Shallow	≤ 0.6	225 x 100	190*	280mm Shallow Access Chamber (B2800/B2803) 315mm Shallow Access Chamber (B3150)
	≤ 1.2	450 x 450	450	450mm Inspection Chamber (B5494/B5696)
Deep	≥ 1.2**	450 x 450	450	(SfA7) Adoptable 450mm Inspection Chamber EN 13598-1 (B4500/B4506)

* Drains up to 150mm ** Restricted access to max 350mm ≥ 1.2m deep

For further information on regulations please refer to Sewers for Adoption 7 (SfA7) and Building Regulations Part H1



SECTION I

Shallow Access and Inspection Chambers for **Adoptable Areas**

(SfA7) Adoptable 315mm Shallow Access Chamber EN 13598-1

(SfA7) Adoptable 450mm Inspection Chamber EN 13598-1



KM 635998



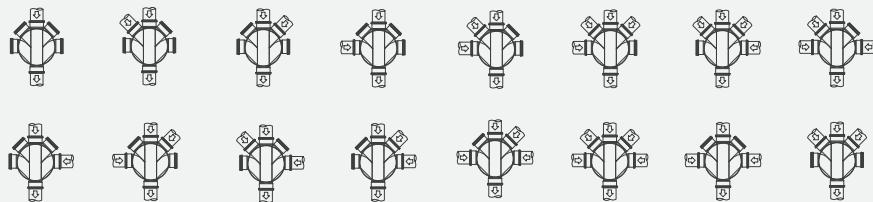
(SfA7) Adoptable 315mm Shallow Access Chamber EN 13598-1

Designed and tested to EN 13598-1 and in accordance with SfA7 and Building Regulations Part H1 the Adoptable 315mm Shallow Access Chamber is suitable for use in adoptable and non-adoptable drainage applications where its superior strength and load bearing capabilities are required. The distinctive terracotta colour provides easy identification of Adoptable Chambers on site.

(SfA7) Adoptable 315mm Shallow Access Chamber EN 13598-1

Socket Diameter	110mm
Chamber Base Diameter	315mm
Invert Depth of Base	190mm
Invert Depth of Base & 1 Riser	375mm
Invert Depth of Base & 2 Risers	560mm
Invert Depth of Base & 3 Risers	745mm
Invert Depth of Base & 4 Risers*	930mm
Effective Depth of Lid and Frame	30-90mm

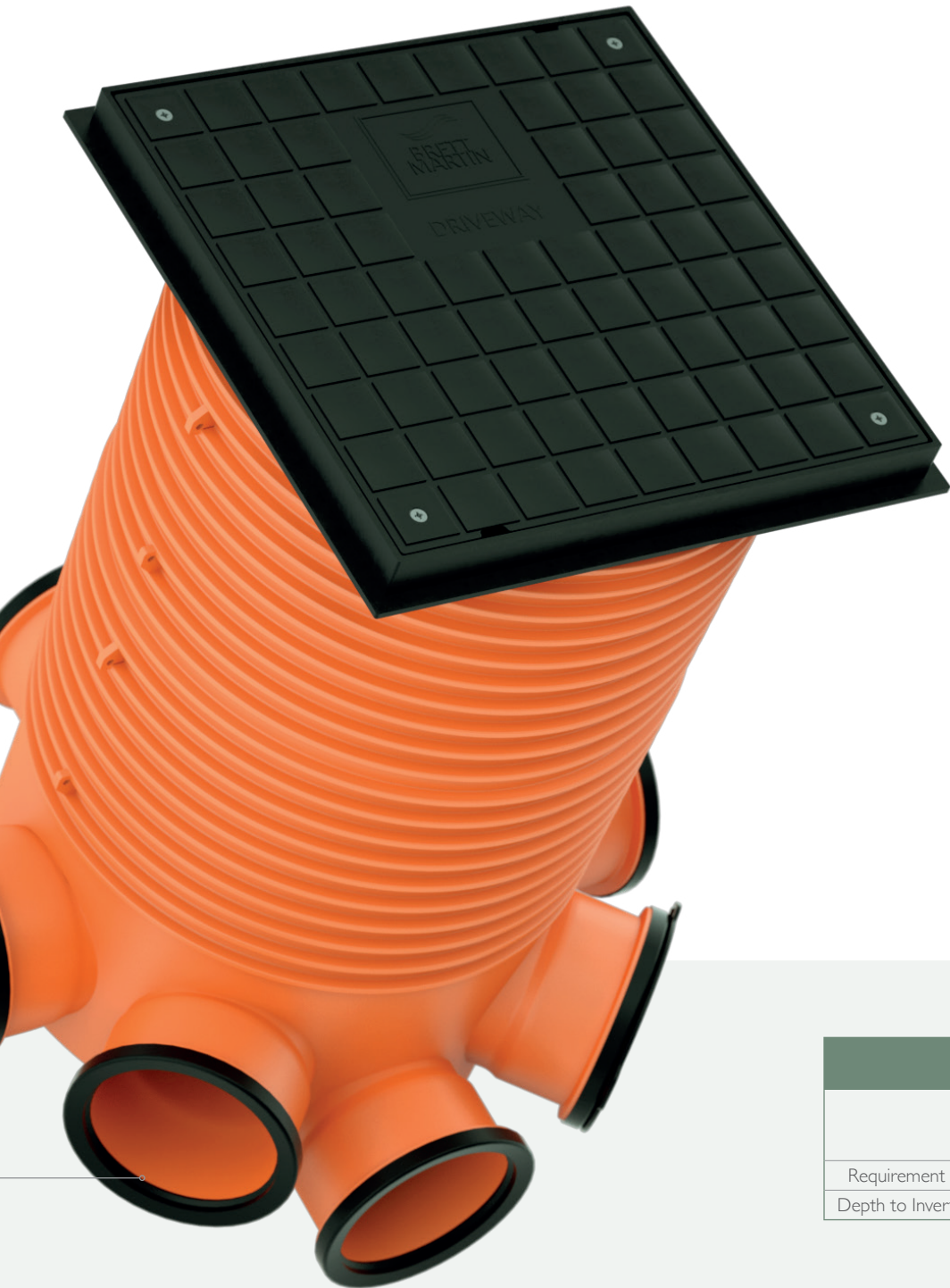
*Top riser may be trimmed to achieve maximum installation depth requirement on 900mm or less (SfA7)



One base provides 16+ CONNECTION POSSIBILITIES

BASE (B3156)

- A stronger base provides enhanced loading capability for long term serviceability
- 5 inlets provide optimal direction of flow and the step down design with built in fall increases flow into the main channel to prevent blockages
- 16+ connection possibilities reduce stock holding requirements for multiple base variants
- Sockets designed in accordance to EN 1401 integrating fully with Brett Martin BSI Kitemarked 110mm drainage pipe and fittings
- Sockets, which are fully compatible with Brett Martin's BSI Kitemarked (EN 1401) underground range
- Connecting lugs on the base and riser provide added stability during installation



HEAVY DUTY DUCTILE LID (B3159 ROUND/B3155 SQUARE)

- Kitemarked to EN 124
- This cover can withstand a 125kN load

COVER AND FRAME (DRIVEWAY B3154/PEDESTRIAN B3153)

- Height and tilt adjustable frame with 110mm spigot can accommodate a surface incline of up to 15°
- Driveway cover withstands 35kN load
- Pedestrian cover for foot traffic areas
- Double sealed for airtight seal riser-frame and frame-cover allows use in internal applications such as garages and outbuildings

SEAL (B3158)

- The innovative broader co-extruded EPDM rubber seal features a stiff backing and softer rubber to the face providing enhanced sealing capability
- Factory fitted, the seal can be removed and replaced on site should it be accidentally damaged

RISER (B3157)

- A heavier duty robust ribbed riser provides superior strength and rigidity
- The secure factory fitted contrasting black seal ensures exceptional base to riser and riser to riser sealing
- Connecting lugs on the base and riser provide added stability during installation

SUMMARY LOCAL BUILDING REGULATION REQUIREMENTS FOR (SfA7)
ADOPTABLE 315MM SHALLOW ACCESS CHAMBER EN 13598-1

	NI Technical Booklet N (2012)	ROI Book H (2010)	Building Control Document H (2015)	Scotland Domestic Handbook 2016	Scotland Non Domestic Handbook 2016	Sewers for Adoption (7 th edition) - Type 4
Requirement						
Depth to Invert	0.6m or less	0.6m or less	0.6m or less	Not Stated	Not Stated	900mm or less

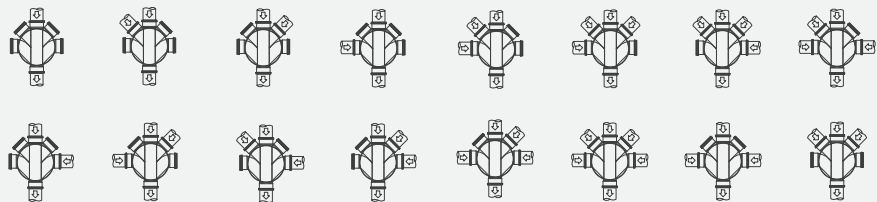


(SfA7) Adoptable 450mm Inspection Chamber EN 13598-1

Brett Martin's Adoptable 450mm Inspection Chambers are suitable for use in adoptable applications down to 1.2m and non-adoptable applications to 3m. With base options for 110mm and 160mm drainage layouts, the assembly is designed and tested to EN 13598-1 and in accordance with SfA7 and Building Regulations Part H1. The distinctive terracotta colour provides easy identification of Adoptable Chambers on site.

110mm DRAINAGE LAYOUTS	
Socket Diameter	110mm
Chamber Base Diameter	450mm
Invert Depth of Base	225mm
Invert Depth of Base & 1 Riser	525mm
Invert Depth of Base & 3 Risers	1125mm
Effective Depth of Lid and Frame	30mm
Internal Diameter	450mm
Internal Diameter with Chamber Reducer**	350mm

160mm DRAINAGE LAYOUTS	
Socket Diameter	4 x 160mm, 2 x 110mm
Chamber Base Diameter	450mm
Invert Depth of Base	255mm
Invert Depth of Base & 1 Riser	555mm
Invert Depth of Base & 3 Risers	1155mm
Effective Depth of Lid and Frame	30mm
Internal Diameter	450mm
Internal Diameter with Chamber Reducer**	350mm



One base provides 16+ CONNECTION POSSIBILITIES

BASE (B4500 110MM/B4506 160MM)

- Two stronger base options for 110mm and 160mm drainage layouts each allow 16+ connection possibilities
- Superior strength and resilience provides enhanced loading capability for long term serviceability
- 5 inlets provide optimal direction of flow and the step down design with built in fall increases flow into the main channel to prevent blockages
- Sockets, which are fully compatible with Brett Martin's BSI Kitemarked (EN 1401) underground range
- Sockets feature twin shot captive seals preventing seal dislodgement and enhanced sealing capability
- Enhanced cross foot design provides added stability
- Connecting lugs on the base and riser provide added stability during installation





HEAVY DUTY DUCTILE LID (B6256 ROUND/B6257 SQUARE)

- Kitemarked to EN 124
- This cover can withstand a 125kN load

DRIVEWAY COVER AND FRAME (B6255 ROUND/B6260 SQUARE)

- Secure lid in frame screwed into place to reduce risk of accidents, injury and removal
- 35 kN load for driveway use (light vehicular traffic)
- Ideal for tarmac, grass or gravel areas

CHAMBER REDUCER (B6350)

- Compliant with SfA7 for inverts greater than 1m and Part H1 Building Regulations for inverts in excess of 1.2m.

SEAL (B4503)

- The innovative broader co-extruded EPDM rubber seal features a stiff backing and softer rubber to the face providing enhanced sealing capability
- Factory fitted, the seal can be removed and replaced on site should it be accidentally damaged

RISER (B4502)

- A heavier duty robust ribbed riser provides superior strength and rigidity
- The secure factory fitted contrasting black seal ensures exceptional base to riser and riser to riser sealing
- Connecting lugs on the base and riser provide added stability during installation

SUMMARY LOCAL BUILDING REGULATION REQUIREMENTS FOR (SfA7)
ADOPTABLE 450MM INSPECTION CHAMBER EN 13598-1

	NI Technical Booklet N (2012)	ROI Book H (2010)	Building control Document H (2015)	Scotland Domestic Handbook 2016	Scotland Non Domestic Handbook 2016	Sewers for Adoption (7 th Edition) -Type 4	Sewers for Adoption (7 th edition) -Type 3
Requirement							
Depth to Invert	1m or less	1m or less	3m or less**	1m or less	1.2m or less	1.2m or less**	1.2m or less**

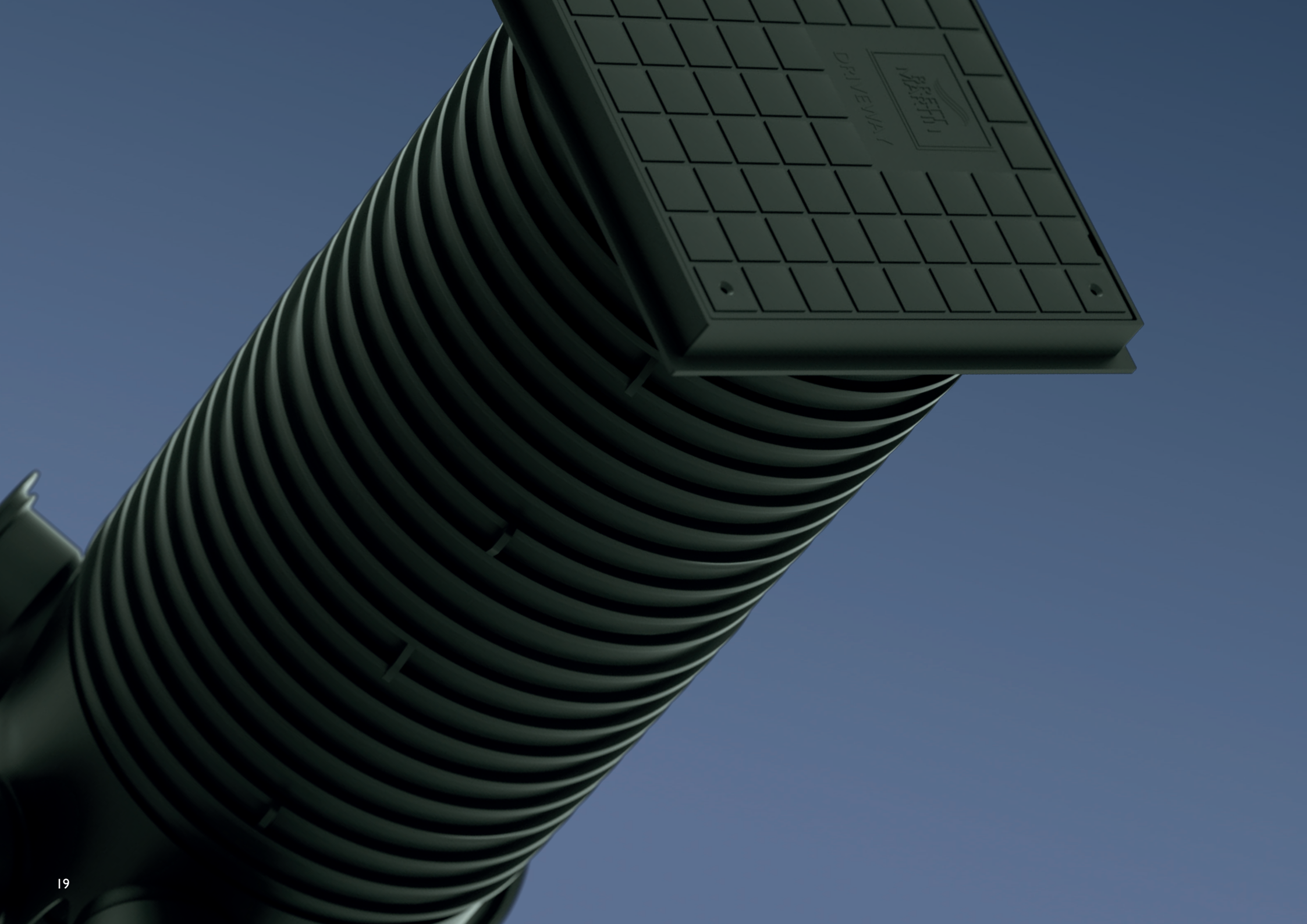
**Restricted access to max 350mm \geq 1m deep (SfA7) and \geq 1.2m deep (Building Regulations Part H1)

(SfA7) Adoptable Chamber Range

315mm SHALLOW ACCESS CHAMBER					
					
<p>(SfA7) 315mm DIA CHAMBER BASE EN 13598-1 Invert 190mm Channel Size 110mm Code B3156 (inc. 2 socket plugs)</p>	<p>(SfA7) 315mm DIA CHAMBER RISER EN 13598-1 185mm Effective Height Code B3157</p>	<p>315mm PEDESTRIAN SEALED LID Code B3153</p>	<p>315mm DRIVEWAY SEALED LID Code B3154 (35kN load, recommend bedding frame in concrete).</p>	<p>(SfA7) 315mm HEAVY DUTY DUCTILE LID EN 124 Code B3159 (Round) Code B3155 (Square) (125kN load, recommend bedding frame in concrete)</p>	<p>(SfA7) 315mm DIA CHAMBER SEAL Code: B3158</p>

Adoptable 450mm CHAMBER ASSEMBLY							
							
<p>(SfA7) 450mm DIA. INSPECTION CHAMBER BASE Invert 255mm Channel Size 160mm Code B4506 (inc. 3 socket plugs)</p>	<p>(SfA7) 450mm DIA. INSPECTION CHAMBER BASE EN 13598-1 Invert 225mm Channel Size 110mm Code B4500 (inc. 3 socket plugs)</p>	<p>(SfA7) 450mm DIA. CHAMBER RISER EN 13598-1 300mm Effective Height Code B4502</p>	<p>450mm DIA SECURED COVER AND FRAME Code B6255 (Round) Code B6260 (Square) (125kN load, recommend bedding frame in concrete)</p>	<p>(SfA7) 450mm HEAVY DUTY DUCTILE LID EN 124 Code B6256 (Round) Code B6257 (Square) (125kN load, recommend bedding frame in concrete)</p>	<p>CHAMBER REDUCER Code B6350 Compliant with SfA7 for inverts greater than 1m and Part H1 Building Regulations for inverts in excess of 1.2m.</p>	<p>(SfA7) 450mm DIA. CHAMBER RISER SEAL Code B4503</p>	<p>SPARE SOCKET PLUG Code B5000 Size 110mm Code B5100 Size 160mm</p>





SECTION 2

Shallow Access and Inspection Chambers for **Non Adoptable Areas**

280mm Shallow Access Chamber

315mm Shallow Access Chamber

450mm Inspection Chamber

280mm Shallow Access Chamber

For use in 110mm drainage layouts, the 280mm Shallow Access Chamber Assembly includes a choice of straight through and 90° 280mm Shallow Access Chamber Bases. Only 2 risers, chamber base and lid are required to satisfy the nominal invert depth 600mm.

- Choice of straight through and 90° chamber base
- Watertight push-fit assembly
- Heavy duty ribbed riser
- Double seals on square cover provide a completely airtight unit for use in areas such as garages
- For inverts up to 600mm, 110mm drainage layouts



280mm SHALLOW ACCESS CHAMBER ASSEMBLY – KEY DIMENSIONS

Socket Diameter	110mm
Chamber Base Diameter	280mm
Invert Depth of Base	205mm
Invert Depth of Base & 1 Riser	390mm
Invert Depth of Base & 2 Risers	575mm
Effective Depth of Lid and Frame	25mm

SUMMARY LOCAL BUILDING REGULATION REQUIREMENTS FOR 280MM SHALLOW ACCESS CHAMBERS

	NI Technical Booklet N (2012)	ROI Book H (2010)	Building control Document H (2015)	Scotland Domestic Handbook 2016	Scotland Non Domestic Handbook 2016
Requirement					
Depth to invert	0.6m or less	0.6m or less	0.6m or less	Not Stated	Not Stated

315mm Shallow Access Chamber

For use in 110mm drainage layouts with inverts up to 600mm, the 315mm diameter shallow access chamber combines maximum performance and ease of installation in one high specification drainage assembly. Complementing an already comprehensive range of access chambers, the Multi-inlet 315mm diameter assembly has been intelligently designed to reduce the need for a large number of chamber base variants, simplifying stock management on site and in the merchant's yard.

- One base with 16+ connection possibilities
- Watertight push-fit assembly
- Airtight pedestrian and driveway covers
- Height 'n' tilt adjustable frame
- For inverts up to 600mm, 110mm drainage layouts

315mm SHALLOW ACCESS CHAMBER – KEY DIMENSIONS

Socket Diameter	110mm
Chamber Base Diameter	315mm
Invert Depth of Base	190mm
Invert Depth of Base & 1 Riser	375mm
Invert Depth of Base & 2 Risers	560mm
Effective Depth of Lid and Frame	30-90mm

Assembly Benefits

BUILDING SITE EFFICIENCIES

- Featuring five inlets, the Chamber Base allows for multiple connections and variation in direction reducing the need for a large number of base variants
- Streamlines stockholding requirements
- Providing a singular solution simplifying on-site installation

ON-SITE FLEXIBILITY

- The adjustable 110mm deep spigot on the cover frame provides more flexibility at installation
- Height adjustments can be made to achieve alignment with finished ground level
- The frame can be tilted for installation in slopes of up to 15°
- There is a choice of two covers for either pedestrian or driveway use

STRENGTH AND DURABILITY

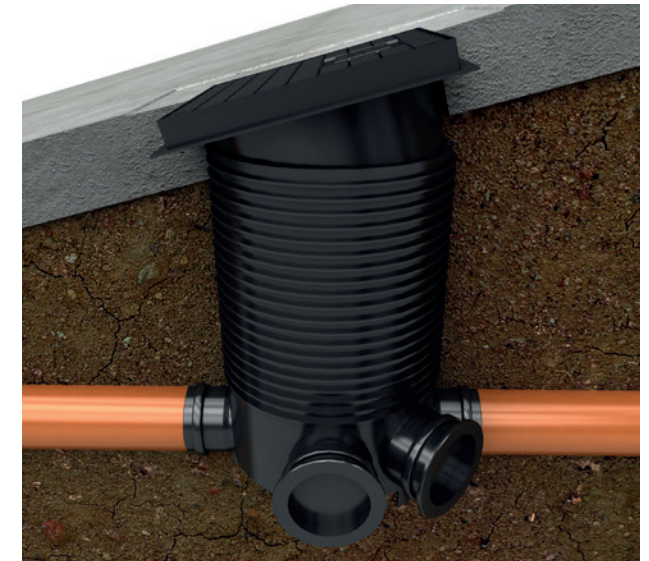
- Robust ribbed riser for added strength
- Manufactured from durable polypropylene and PVC
- Heavier cover option for driveway use

INVERTS

- Maximum invert depth of 600mm achieved with chamber base, two risers, cover and frame

AIRTIGHT AND WATERTIGHT

- Integral seals provide a completely watertight joint from base to riser and riser to riser
- The sealing in the cover and frame form a completely airtight unit for use in internal areas such as garages



SUMMARY LOCAL BUILDING REGULATION REQUIREMENTS FOR 315MM SHALLOW ACCESS CHAMBERS

	NI Technical Booklet N (2012)	ROI Book H (2010)	Building control Document H (2015)	Scotland Domestic Handbook 2016	Scotland Non Domestic Handbook 2016
Requirement					
Depth to invert	0.6m or less	0.6m or less	0.6m or less	Not Stated	Not Stated

450mm Inspection Chamber

Combining flexibility with ease of installation, the 450mm Inspection Chamber Assembly includes 450mm diameter chamber base, 315mm deep riser, cover and frame, sealing rings and chamber reducer. Providing more on site solutions the 450mm Chamber Base options are available for both 110mm and 160mm drainage layouts, with branch inlets designed to optimise flow direction.

110mm DRAINAGE LAYOUTS

Socket Diameter	110mm
Chamber Base Diameter	450mm
Invert Depth of Base	225mm
Invert Depth of Base & 1 Riser	540mm
Invert Depth of Base & 3 Risers	1170mm
Effective Depth of Lid and Frame	30mm
Internal Diameter	450mm
Internal Diameter with Chamber Reducer	350mm
Maximum Depth - Can satisfy inverts up to	1.2m

160mm DRAINAGE LAYOUTS

Socket Diameter	4 x 160mm, 2 x 110mm
Chamber Base Diameter	450mm
Invert Depth of Base	255mm
Invert Depth of Base & 1 Riser	570mm
Invert Depth of Base & 3 Risers	1200mm
Effective Depth of Lid and Frame	30mm
Internal Diameter	450mm
Internal Diameter with Chamber Reducer	350mm
Maximum Depth - Can satisfy inverts up to	1.2m

Assembly Benefits

INVERTS

- Effective depth per riser of 315mm
- Achieves 1.2m invert with only 3 risers

BUILDING SITE EFFICIENCIES

- Fewer risers per Inspection Chamber
- Assembly provides significant reductions in unit costs
- Reduced on-site labour time
- Optimises stock inventory

BUILDING REGULATIONS

- Designed to satisfy the requirements of 1.2m invert depth as set down in Part H1 Building Regulations.

STRENGTH AND DURABILITY

- Robust ribbed riser possesses high deformation resistance
- Manufactured in highly stable polypropylene for durability
- Moulded connecting lugs enhance stability of deep system assemblies prior to backfilling.


















SUMMARY LOCAL BUILDING REGULATION REQUIREMENTS FOR 450MM INSPECTION CHAMBERS

	NI Technical Booklet N (2012)	ROI Book H (2010)	Building control Document H (2015)	Scotland Domestic Handbook 2016	Scotland Non Domestic Handbook 2016
Requirement					
Depth to invert	1m or less	1m or less	1.2m or less*	1m or less	Not Stated

* Restricted access to max 350mm ≥ 1.2m deep

Non Adoptable Chamber Range

280mm SHALLOW ACCESS CHAMBER				315mm SHALLOW ACCESS CHAMBER			
							
<p>280mm DIA. CHAMBER BASE Invert 205mm Channel Size 110mm Code B2800 (inc. 2 socket plugs)</p>	<p>280mm DIA. 90° CHAMBER BASE Invert 205mm Channel Size 110mm Code B2803</p>	<p>280mm DIA. CHAMBER BASE RISER 185mm Effective Height Code B2801</p>	<p>280mm DIA. SQUARE DOUBLE SEAL LID & FRAME (PEDESTRIAN) Code B2802</p>	<p>315mm DIA CHAMBER BASE Invert 190mm Channel Size 110mm Code B3150 (inc. 2 socket plugs)</p>	<p>315mm DIA CHAMBER RISER 185mm Effective Height Code B3151</p>	<p>315mm PEDESTRIAN SEALED LID Code B3153</p>	<p>315mm DRIVEWAY SEALED LID Code B3154 (35kN load, recommend bedding frame in concrete).</p>
450mm CHAMBER ASSEMBLY							
							
<p>450mm DIA. INSPECTION CHAMBER BASE Invert 225mm Channel Size 110mm Code B5494 (inc. 3 socket plugs)</p>	<p>450mm DIA. INSPECTION CHAMBER BASE Invert 255mm Channel Size 160mm Code B5696 (inc. 3 socket plugs)</p>	<p>450mm DIA. CHAMBER RISER 315mm Effective Height Code B5397</p>	<p>450mm DIA SECURED COVER and FRAME Code B6255 (Round) Code B6260 (Square) (35kN load, recommend bedding frame in concrete)</p>	<p>CHAMBER REDUCER Code B6350 Compliant with Part H1 Building Regulations for inverts in excess of 1.2m.</p>	<p>450mm DIA. CHAMBER RISER SEAL Code B5398</p>	<p>SPARE SOCKET PLUG Code B5000 Size 110mm Code B5100 Size 160mm</p>	



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