

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

PRODUCTS

ALL MINOR ITEMS NOT COVERED IN DETAIL IN THIS CATALOGUE TO BE IN ACCORDANCE WITH APPROPRIATE AUSTRALIAN STANDARD.

**Further information on products and materials is available on the WSAA web site
www.wsaa.asn.au**

PIPE MATERIALS USED ON PRESSURE SEWER MAINS ARE TO BE AS SPECIFIED ON THE ENDORSED DESIGN DRAWINGS.

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

Introduction

Construction of a new Pressure Sewer System will be based on the Design Drawings supplied by the consultant and authorised by SA Water which identify the detailed location of the system as well as the pipe materials and accessories to be used. In addition to this general direction, typical construction details can be obtained from the WSAA Pressure Sewerage Code of Australia (WSA 07-2007) and SA Water's supplementary documentation supplied with this document. Based on the information provided in these sets of drawings, contractors can select any of the products listed in this catalogue, provided they are appropriate for the use required, and purchase them directly from the manufacturer or their supplier.

The products listed in this catalogue have been given authorised status based on their conformance with the SA Water Corporation Standard Product Specification for the item and the quality system operating in the factory where the product was manufactured.

Document Update Information

Date	Change Type	Page Number(s)	Details
17 May 13	New manufacturer	4	Zezt Pty Ltd
August 2014	New manufacturer	4	DM Plastics and Steel Pty Ltd
October 2014	New Product	6	Primus Line (PE Liner)

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

Collection Tank and Pump Unit

SA Water has only authorised and will only accept collection tank and pumps which are supplied as a complete unit. This ensures compatibility of support and connection systems.

SA Water will only allow one type/supplier of tank and pump units to be used in a development or local area, because of the difficulty in managing a maintenance and repair system for a number of different types of unit. The maintenance group responsible for the specified locality will maintain spare pumping units and spare parts for their particular type of unit.

SA Water MUST be consulted before a tank and pump system is specified and they will provide details of a unit which meets the operational requirements and can be maintained by the maintenance group responsible for the specified locality.

Authorised Manufacturers

- E-One
Aquatec
Mono
ITT Flygt

Applicable Australian Standards

-

*For more details about these manufacturers refer to the **Manufacturers** section of this manual.*

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

Polyethylene Pipe

Polyethylene pipe will be the predominant piping system used because of its ease of laying and its suitability for directional boring.

Where specified in the PSCM, a detectable underground warning tape shall be laid on top of the embedment material and above the polyethylene pipe to allow the pipe to be located in the future.

Pipe Classification

Pipe to be in accordance with AS/NZS4130

When ordering specify - PE80 pipe - Type B - PN 16 or
- PE 100 pipe – PN 16

Colour

To be in accordance with WSA PS-207S

Cream (preferred) or Black with Cream Stripes (permitted if cream unavailable)

Allowable Pipe Sizes

DN 40	DN 125
DN 50	DN 180
DN 63	DN 250
DN 90	DN 315
DN 110	

Alternate sizes are available and may be used in special applications with SA Water approval

Authorised Manufacturers

Iplex Pipelines	Vinidex	DM Plastics and Steel
PPI (up to DN100)	Cromford Pipe (formally AFPM)	
Poly Pipe	Zezt	

Applicable Australian Standards

- AS/NZS4130 Polyethylene pipes for pressure applications
- AS/NZS4129 Fittings for polyethylene (PE) pipes for pressure applications
- AS2033 Installation of polyethylene pipe systems (For minimum cover refer Water Supply Construction manual)

*For more details about these manufacturers refer to the **Manufacturers** section of this manual.*

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

Polyethylene Fittings

Electrofusion Couplings is the preferred method of jointing. **NOTE** The section pipe to be inserted into the coupling **MUST** be shaved back to virgin material using a commercially available Mechanical Scraper, immediately prior to making the joint. The fittings must not be unwrapped until immediately prior to installation and welding.

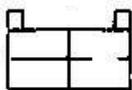
Butt Welding by specialist PE welders is also acceptable and Mechanical Couplings may be used where welding is not practical.

Electrofusion Fittings (to be in accordance with AS/NZS4129)

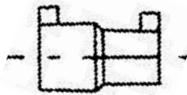
- George Fischer
- Fusion Plast Australia
- Philmac (Durafuse)
- Plasson
- Rollmaplast

Also Available

- Tees
- 45 and 90 Bends
- Stub Flanges (with SS backing flange)



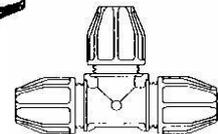
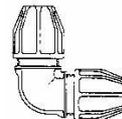
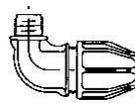
Standard



Reducing

Mechanical Jointing (to AS/NZS4129) - **Sizes 25 mm to 110 mm**

- George Fischer
- Magnum (Iplex)
- Philmac
- Plasson
- STP (Fusion Plast Australia)



- Tita Coupling (Brass)



Butt Welding - All Sizes

- Factory Butt welding only is permitted.

Fabrication of PE pipe Specials

- Fusion Plast Australia

*For more details about these manufacturers refer to the **Manufacturers** section of this manual.*

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

SA Water Product Description

Polyethylene Liner



Nom. Size DN	Renflo (Primus Line)
150 – 500	*

Pipes - Other Pipe Types

While in the smaller diameters (<DN 100), polyethylene pipe will normally be used, for larger schemes where larger diameter pipes (>DN100) other pressure pipe systems can also be used.

If other pipe systems are being considered, “plastic pipe” systems eg PVC-O, PVC-M and GRP or “plastic coated pipe” eg polyethylene lined steel pipe (Sintacoat) and polyurethane lined ductile iron pipe (Ecopur) are suitable alternatives. This is based on the protection the plastic material provides to internal attack by the sewage.

Because of the limited use of “plastic and plastic coated pipe” for pressure sewer applications, cream pressure pipe is not generally available and in these cases the pipe is to be sleeved in cream sleeving or netting marked “Pressure Sewer”.

Because Pressure Sewer Systems operate in a similar fashion to the water supply system, any of the “plastic pipe” or “plastic coated pipe” systems detailed in the “Authorised Items for Water Supply Systems” can be used, providing they meet the following requirements:

- Minimum Pressure rating PN16
- Socket/Spigot Rubber Ring jointed (RRJ) pipe
- Thrust and anchor blocks are installed
- Applicable external corrosion protection systems are used
- Other general requirements specified for the pipe are employed.

Final selection must be confirmed with SA Water before installation.

Fittings - Other Pipe Types

As there are no “plastic” fittings manufactured the only fittings that can be used are FBE coated Ductile Iron (internally and externally) or fabricated Steel pipe with a fully sealed “plastic lining”. Cement lined fittings are NOT to be used.

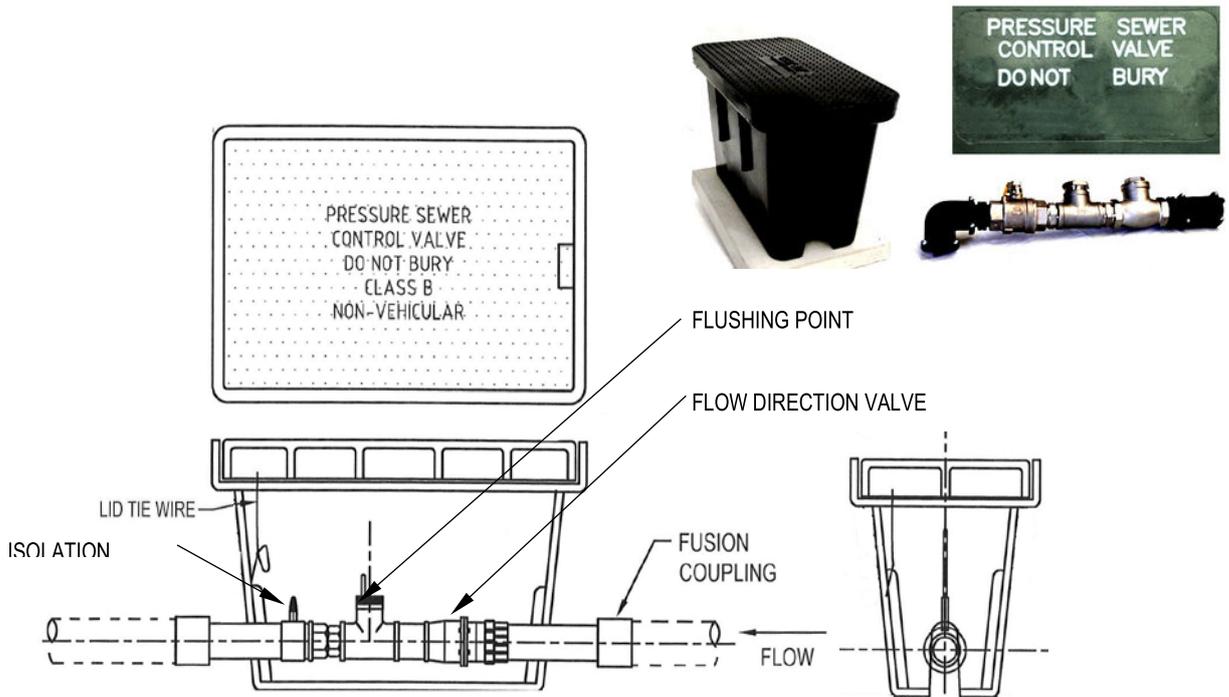
The current range of FBE coated Ductile Iron fittings, as shown in the “Authorised Items for Water Supply Systems”, are acceptable for use in a pressure Sewer System.

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

SA Water Product Description

Boundary Kit Assembly

NOTE: Only CLOCKWISE CLOSING Isolation Valves to be used



Notes :

1. Boundary kits are normally supplied as a kit by pump manufacturers.
2. Sizes and end connections vary between suppliers as applicable to their units.
3. Alternative boundary kits can be used, but each individual product and the finished assembly must be approved by SA Water's Standards Unit.

Alternative Description: **Property Boundary Assembly**

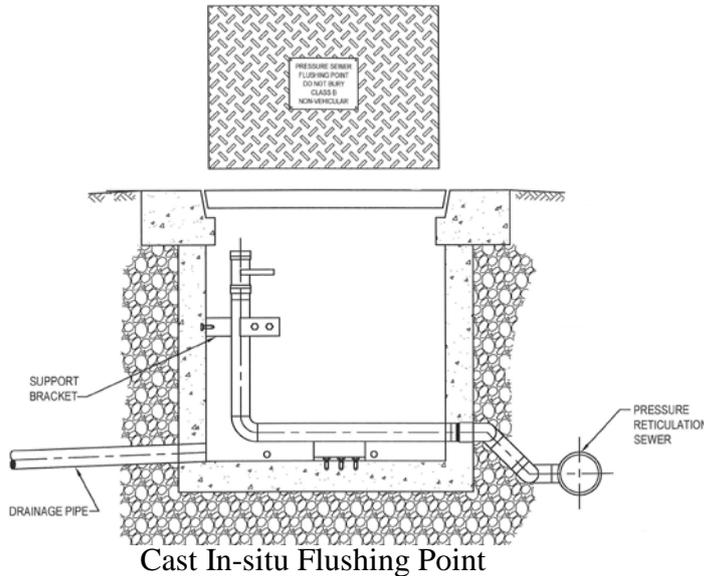
SA Water Stock No.	E-One	Aquatec	Mono	ITT Flygt	Pressure Sewer Services
-----	*	*	*	*	*

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

SA Water Product Description

Flushing Valve Assembly

NOTE: Only CLOCKWISE CLOSING valves to be used



Package Flushing Point

Notes :

1. Flushing Point Packages are available as a kit from some pump manufacturers.
2. Alternatively Flushing Points can be manufactured on site, but each individual product and the finished assembly must be approved by SA Water's Standards Unit.
3. External valve connection point to include a 50 mm or 100 mm (as applicable) polyethylene Camlock coupling and sealing cap.
4. To be installed in accordance with Manufacturer's and SA Water's requirements.
5. Trafficable rated Covers and Boxes to be used when installed in roadways and driveways.

Alternative Description

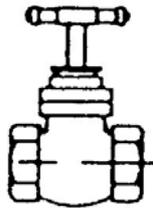
Nom. Size DN mm	SA Water Stock No.	Package Unit		Isolation (Flushing) Valves		
		Pressure Sewer Services	Aquatec	Iplex AVK (see Isolating valves section)	George Fischer	Tyco
50	-----	As Available	★	★	★	★
63	-----		★	★	★	★
75	-----		★	★	★	★
90	-----		★	★	★	★
110	-----		★	★	★	★
125	-----	On Request	★	★	★	★
140	-----		★	★	★	★
160	-----		★	★	★	★
180	-----		★	★	★	★
200	-----		★	★	★	★
Larger sizes			★	★	★	★

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

SA Water Product Description

Valves - Isolating DN20 – DN50

NOTE: Only CLOCKWISE CLOSING valves to be used



Brass with Screwed
BSP End Connections



03/0



03/4



03/30



16/50

DI Valves with BSP
End Connection(s)

DI & POM Valves with
PE End Connections

Alternative Description

Valve Size End Connection BSP / PE	BSP End Connections			Combination	PE End Connections	
	Wadhams	Galvin To AS3496	Iplex AVK Series 03/0X	Iplex AVK Series 03/4 or 03/6	Iplex AVK Series 03/30	Iplex AVK Series 16/50
			<i>Ductile Iron FBE Coated</i>			
20 / 25			★	★	★	★
25 / 32	★	★	★	★	★	★
32 / 40	★	★	★	★	★	★
40 / 50	★	★	★	★	★	★
50 / 63	★	★	★	★	★	★

Note: Handwheel, extension spindle and/ or stem cap to be used as applicable. Buried valves to have extension spindle and/ or stem cap.

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

SA Water Product Description

***Valves - Resilient Seat Gate Valve
with PE Pipe Connection Ends
(Pressure Rating 1.6 MPa
Square drive and clockwise closing)***



Series 36/80



Series 01/70

Suitable for Buried Applications

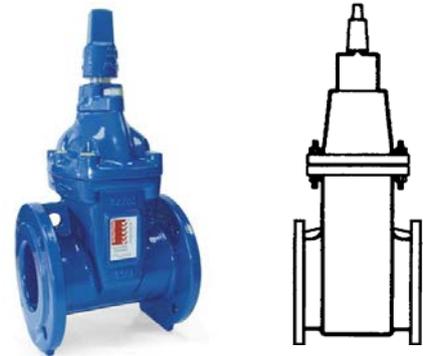
Alternative Description

Nom. PE Pipe Size (Equivalent Valve size)	SA Water Stock No.	AVK (Iplex)
SERIES 36/80 (Fusion or Butt welded applications)		
75		*
90		*
110		*
125 (DN100 equiv)		*
180 (DN150 equiv)		*
250 (DN200 equiv)		*
315 (DN250 equiv)		*
SERIES 01/70 (Tensile Resistant PE ends – Restrained Joint)		
90		*
110		*
125 (DN100 equiv)		*
180 (DN150 equiv)		*
250 (DN200 equiv)		*
315 (DN250 equiv)		*

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

SA Water Product Description

***Valves - Resilient Seat Gate Valve
Double Flanged
(Manually Operated Valve to AS2638 Part 2
Square drive and clockwise closing)***



For Buried Applications

Alternative Description

Sluice Valve - Flanged

Stop Valve - Flanged

Nom. Size DN (Pressure)	SA Water Stock No. (1.6 MPa)	AVK (Iplex) Series 57/40 (1.6 MPa)	Tyco (1.6 MPa)
50 (1.6 MPa)		*	
65 (1.6 MPa)		*	
80 (1.6 MPa)	4820-2001	*	*
100 (1.6 MPa)	4820-2002	*	Auslite
150 (1.6 MPa)	4820-2003	*	Auslite
200 (1.6 MPa)	4820-2004	*	*

Highlighted items are included in SA Water's Valve Contract PC1111

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

SA Water Product Description

***Valves – Butterfly - Lugged Type
Pressure Rating 1.6 MPa***



Note : **Not for buried applications**

Size DN Pipe	Without Gearbox SA Water Stock No.	AVK (Iplex)	Keystone Tyco
80	4820-3071	*	*
100	4820-3073	*	*
125	4820-3075	*	*
150	4820-3077	*	*
200	4820-3079	*	*

Highlighted items are included in SA Water's Valve Contract PC1111

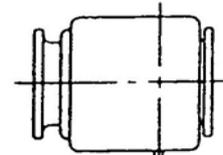
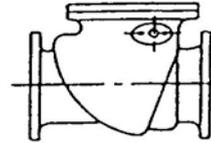
Notes:

1. Primarily used as isolating valves for removal and repair of Gas/Air Release valves. **ONLY lugged (or double flanged) butterfly valves are to be used for this application.**
2. Gearbox not required for this application.
3. Due to the potential for fibrous material to get caught around the disc these valves are not suitable for use as in-line isolation valves.

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

SA Water Product Description

Valves - Swing Check
(Ductile Iron, FBE Coated - Flange/Flange to AS4794
Pressure Rating 1.6 MPa and with enclosed spindle)



Note : **Not for buried applications**

Size DN Pipe	SA Water Stock No.	AVK (Iplex) #	Tyco Water
<i>Resilient Seated</i>			
80		*	
100	4820-2035	*	*
150	4820-2036	*	*
200	4820-2037	*	

Highlighted items are included in SA Water's Valve Contract PC1111

SA Water Product Description

Valves - Gas/Air Release

Note :

- To meet the requirements of WSA PS-275
- To be mounted in above or below ground Chamber



ARI



Vent-o-mat

Alternative Description - **Combination Air Valve for Sewage**

Nom. Size DN mm	SA Water Stock No.	Assemblies		Individual Units	
		Pressure Sewer Services	Aquatec	Amiad ARI Mod. D-020	Vent-O-Mat Series RGX
50	-----			*	*
80	-----			*	*
100	-----	As Available	As Available	*	*
150	-----			*	*
200	-----			*	*

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

SA Water Product Description
Material - Polyethylene

Camlock Couplings



Alternative Description

Nom. Size DN mm	SA Water Stock No.	Austrahose	Philmac	Banjo
Coupling (with BSP Male Thread)				
50	-----	*	Type F	*
100	-----	*	Type F	
Dust Cap				
50	-----	*	Type DC	*
100	-----	*	Type DC	

SA Water Product Description

Valve - Spindle Extension



Alternative Description
Spindle Extension Valve

Extension Nominal Length (mm)	SA Water Stock No.	Iplex	Hadaway	Tyco
150	4820-0016	*	*	*
300	4820-0017	*	*	*
450	4820-0019	*	*	*

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

SA Water Product Description

***Jointing Kits with
Stainless Steel or Galvanised Bolts***



Alternative Description
Gasket Set

Includes EPDM Gasket plus Bolts, Nuts and Washers to suit

Size DN Pipe	316 Stainless	Galvanised	High Tensile	Iplex	Keystone Tyco
	Steel Bolts	Bolts	Bolts		
	SA Water Stock No.	SA Water Stock No.	SA Water Stock No		

To suit PN16 (1.6MPa) Flanges

50	5330-2024	5330-2001		*	
65	5330-2025	5330-2002		*	
80	5330-2026	5330-2003		*	*
100	5330-2027	5330-2004		*	*
125	5330-2028	5330-2005		*	
150	5330-2029	5330-2006		*	*
200	5330-2030	5330-2007		*	*

Highlighted items are included in SA Water's Valve Contract PC1111

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

SA Water Product Description

**Valve Cover Systems
Small Non-Trafficable**

Note: –



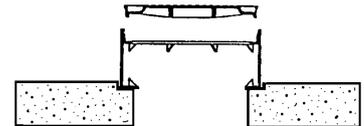
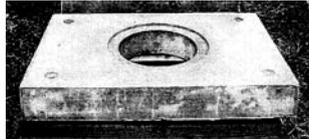
Item	Iplex Crevet	Tyco Water
Lid (DI - Marked SV)	★	★
Surround (Recycled Plastic)	★	★
Shroud	★	★
Base Plate (DI)	★	★

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

SA Water Product Description **Valve Cover System – Large Trafficable**

Note: –

1. Lid to be marked “SEWER”
2. Purchased as a unit from Concrete Manufacturer



CLASS D –TRAFFICABLE USE (to AS 3996)

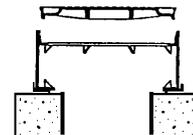
Item	SA Water Stock Number	Cooke Pre Cast (WASA)	Bianco Precast (BIA)	Webforge
Concrete Support Slab (1200 x 800 x 170 mm high)	5680-0050	★	400044	
Cover	5680-0407	★	400601	★
Street Box - DI (Full Height)	5680-0061	★	★	★
Street Box - DI (1/2 Height)	5680-0230	★	400586	★

SA Water Product Description

Valve Cover System – Large Non-trafficable

Note :-

1. Lid to be marked “SEWER”
2. Purchased as a unit from Concrete Manufacturer



CLASS B – NON-TRAFFICABLE USE (to AS 3996)

Item	SA Water Stock Number	Cooke Pre Cast (WASA)	Bianco Precast (BIA)	Webforge
Concrete Support Ring 600ø x 140 mm thick	5680-0049	★	400223	
Cover	5680-0407	★	400601	★
Street Box - DI (Full Height)	5680-0061	★	★	★
Street Box - DI (1/2 Height)	5680-0230	★	400586	★



**NETWORK INFRASTRUCTURE
STANDARDS**

250 Victoria Square, ADELAIDE SA 5000
GPO Box 1751, ADELAIDE SA 5001
Phone (08) 7424 2009 Fax (08) 7003 2009



Government
of South Australia

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

Issue 01

1 Apr 2010

PRESSURE SEWERS

South Australian Water Corporation ©

Issue 03

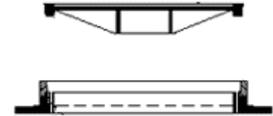
October 2014

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

SA Water Product Description

***Air Valve Cover & Frame
Trafficable***

CLASS D – TRAFFICABLE USE (to AS 3996)



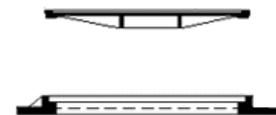
Note : These items have a clear internal opening of 600mm.

Item	SA Water Stock Number	Cooke Pre Cast (WASA & Havestock)	Bianco Precast (BIA)	Webforge
Cover		★		
Frame		★		
Cover and Frame Assy		★	400040	★

SA Water Product Description

***Air Valve Cover & Frame
Non-Trafficable***

CLASS B – NON-TRAFFICABLE USE (to AS 3996)



Note : These items have a clear internal opening of 600mm.

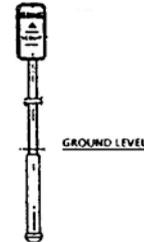
Item	SA Water Stock Number	Cooke Pre Cast (WASA & Havestock)	Bianco Precast (BIA)	Webforge
Cover		★		
Frame		★		
Cover and Frame Assy		★	400042	★

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

SA Water Product Description

Signs and Markers

Alternative Description



METAL MARKERS

Item Description	SA Water Stock No.	Peninsular Castings#	Ottoway Engineering
PRESSURE SEWER STOP VALVE Sign with 32mm Galv. Post	-----	★	★
PRESSURE SEWER FLUSHING POINT Sign with 32mm Galv. Post	-----	★	★
PRESSURE SEWER AIR VALVE Sign with 32mm Galv. Post	-----	★	★
PRESSURE SEWER STOP VALVE Sign only	-----	★	
PRESSURE SEWER FLUSHING POINT Sign only	-----	★	
PRESSURE SEWER AIR VALVE Valve only	-----	★	

Can manufacture signs with alternate wording as required

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

SA Water Product Description

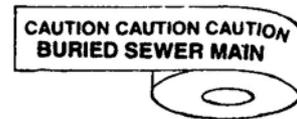
Tape - Underground Warning

NOTE : Tape to be Cream in colour.

Non-detectable tape to be placed on overlay sand above pipe.

Detectable tape to be placed 100 - 150mm below finished ground level above pipe.

Tape or mesh can be used but it must be a minimum of 100mm wide



Alternative Description

Item Description	Heatech	Romac Trading	Tapex	Boddingtons
Non Detectable 'DANGER BURIED SEWER MAIN BELOW'	★	★	★	★
Detectable 'DANGER BURIED SEWER MAIN BELOW'	★	★	★	★

AUTHORISED ITEMS for PRESSURE SEWER SYSTEMS

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