

EPS 501 – List of Approved Non-Standard Products for Networks

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Revision details

Version No.	Clause	Description of revision
1	All	New revision

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Acronyms

Acronym	Definition
Al	Aluminium
CAC	Calcium aluminate cement mortar lined
CC-GRP	Centrifugally cast -- glass reinforced plastic
CIOD	Cast iron outside diameter
CML	Cement mortar lined
Cu	Copper
DI	Ductile iron
FW-GRP	Filament wound -- glass reinforced plastic
GB	General blended
GP	General purpose
GRP	Glass reinforced plastic
MC	Maintenance chambers
MH	Maintenance holes
MS	Maintenance shafts
OD	Outside diameter
PE	Polyethylene
PP	Polypropylene
PU	Polyurethane

Acronym	Definition
PVC-M	Polyvinylchloride modified
PVC-O	Polyvinylchloride oriented
PVC-U	Polyvinylchloride unplasticised
RC	Reinforced concrete
RRJ	Rubber ring jointing
SR	Sulphate resisting
VC	Vitrified clay
WSAA	Water services association of Australia
Zn	Zinc

1. Introduction

This Specification is for the design, supply and construction of network pipes and fittings for Sydney Water assets. It contains a list of engineering products that do not have third party product certification but have been deemed suitable for general use in Sydney Water's drinking water, recycled water, sewerage and stormwater networks. They are classified as non-standard products.

This specification must be read in conjunction with the associated Australian Standards, International Standards, Water Services Association of Australia (WSAA) Product Specifications, Water Industry Standards and relevant Sydney Water specifications.

It remains the responsibility of the pipe network designer to apply appropriate engineering judgement to the application and appropriate use of the product in the design. This product specification must be read in conjunction with any specific contract documentation for the relevant project.

This document replaces the List of Approved Non-Standard Products (BMIS no. CPDMS0019).

2. Scope

This specification applies to non-standard products used in Sydney Water's drinking water, recycled water, sewerage and stormwater networks. For standard pipe and fittings, refer to EPS 500 – Engineering Product Specification for Standard Pipes and Fittings for Networks.

This specification does not apply to pipes and fittings associated with treatment plants.

3. Quality assurance

Manufacturers of products covered by this specification must be capable of demonstrating certification of their quality management system to ISO 9001 and environmental management system to ISO 14001 by conformity assessment bodies that are certified by the national accreditation authority.

All items must be suitable for the purpose intended and must be standard commercial items proven in actual service conditions in similar applications. Only manufacturers who are fully experienced, reputable and qualified in the manufacture of such items must supply items specified herein.

4. Water quality

Pipes and fittings that are intended for conveyance of drinking water must comply with the requirements of AS/NZS 4020. Evidence of compliance to AS/NZS 4020 must be less than 5 years old. A scaling factor of 1 for pipe and 0.05 for fittings must be used.

Compliance must apply to pipe and fittings in the finished condition considering all coatings, linings, joint seals, flange gaskets, O-rings, and joint lubricants, which come into contact with the water in the pipeline.

Sydney Water is considering mandating all pipes of DN300 and less that are used for conveying drinking water be supplied, delivered and stored with end caps. For pipes that are produced in Australia, the caps must be fitted at the manufacturing facility. Overseas made pipes must be fitted with caps at the manufacturing facility or the first storage facility in Australia after customs.

Sydney Water is considering transitioning toward lead free products that are used as part of property service connections for drinking water. These products include tapping bands, main taps, fittings, water meters and valves for DN20 and DN25 property services. Lead free products have a maximum lead (Pb) content of 0.25%. Acceptable product testing standards to demonstrate compliance to lead free requirement include, but not limited to, NSF/ANSI 372.

5. Gate valves for underpressure linestopping – water supply

5.1 Reference standards

Standard no.	Document title
WSA PS-283	Gate valves, resilient seated, for underpressure linestopping – water supply
BMIS0209	Sydney Water Technical Specification - Mechanical

5.2 Approved products

Supplier	Product name	Conditions of use
CNS Engineering	S-Gate Valve	-

6. Air valves for drinking water supply network

6.1 References

Standard no	Document title
WSA PS-265	Air valves for pressure applications - water supply
BMIS0209	Sydney Water Technical Specification Mechanical

6.2 Approved products

Supplier	Product name	Conditions of use
Ventomat Australia	Vent-O-Mat (Series RBX)	-

7. Air valves for wastewater network

7.1 References

Standard no	Document title
WSA PS-275	Air valves for pressure applications - sewerage
BMIS0209	Sydney Water Technical Specification Mechanical

7.2 Approved products

Supplier	Product name	Conditions of use
Ventomat Australia	Vent-O-Mat (Series RGX)	-
GFR Group	Vent Master (Standard & PX)	-

8. Automatic control valves

8.1 References

Standard no	Document title
WSA PS-268	Automatic control valves for pressure applications - water supply
BMIS0209	Sydney Water Technical Specification Mechanical

8.2 Approved products

Supplier	Product name	Conditions of use
AVFI	Dorot (S300)	-

9. Isolation valves with air valves and hydrants

9.1 Reference standards

Standard no	Document title
SWC PS-277	Isolation valves with air valves and hydrants – water supply
BMIS0209	Sydney Water Technical Specification Mechanical

9.2 Approved products

Supplier	Product name	Conditions of use
AVK	AVK isolation valve 29/00	-
Betta	Betta isolation valve BIV42X1	-

10. Access covers and frames

10.1 Reference standards

Standard no	Document title
WSA PS-290	Ductile Iron access covers and frames for water supply and sewerage to WSA 132
WSA PS-292	Macro-composite access covers and frames for water supply and sewerage to WSA 133
WSA PS-293	Thermoplastic access covers and frames for water supply and sewerage
WSA PS-294	Composite access covers and frames for water supply and sewerage

10.2 Approved products

Supplier	Product name	Conditions of use
ACO Polycrrete	Saku (Class B)	Non-trafficable areas and not for fire prone areas

Supplier	Product name	Conditions of use
Durham	Solid top round cover with Sydney Water graphic	-

11. Maintenance Hole Make-up Rings

11.1 Reference standards

Standard no	Document title
WSA PS-323	Maintenance Holes (MH) - Pre-Cast Concrete for Non-Pressure Applications - Gravity Sewerage
WSA PS-345	Polymeric Make-up Rings for Sewerage Access Chambers.

11.2 Approved products

Supplier	Product name	Conditions of use
ISC Services	Cretex Pro-Ring	Non-trafficable areas and not for fire prone areas

12. Surface cover and frame for stop valves

12.1 Reference standards

Standard no.	Document title
AS 3996	Access covers and grates
EPS-352	Stop valve - surface cover and frame

12.2 Approved products

Supplier	Product name	Conditions of use
Hygrade Water	SB002, SB002R, SB003, SB003R	-

13. Surface cover and frame for spring hydrant

13.1 Reference standards

Standard no.	Document title
AS 3996	Access covers and grates
EPS-354	Spring hydrant - surface cover and frame

13.2 Approved products

Supplier	Product name	Conditions of use
Hygrade Water	SB004, SB004R, SB004ET SB005, SB005R, SB005ET SB006, SB006R, SB006ET	-

14. Surface cover and frame for isolation valve with hydrant and air valve

14.1 Reference standards

Standard no.	Document title
AS 3996	Access covers and grates
WAT-1305-V and WAT-1306-V	Typical surface fitting installation - hydrants

14.2 Approved products

Supplier	Product name	Conditions of use
Crevet/Gatic	445x310mm, Class D, CO310	-
Durham	430x230mm, Class D, CO230	-

15. Plastic surround for spring hydrant and stop valve covers

15.1 Reference standards

Standard no.	Document title
EPS-359	Plastic surround for spring hydrant and stop valve covers
WAT-1305-V and WAT-1306-V	Typical surface fitting installation - hydrants

15.2 Approved products

Supplier	Product name	Conditions of use
Repeat Plastic Australia (Replas)	HC452, VC453, VC462	-
Daemco	SV round cover surround, hydrant square cover surround	-

Document ownership and change history

Ownership

Role	Title
Group	Urban Design and Engineering (UD&E)
Owner	Manager, UD&E
Author	Jerry Sunarho, Senior Engineer

Change history

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Appendices

Attachment	Title