

SINGAPORE STANDARD

**Specification for dual flush low capacity
water closet (WC) up to 4.5/3.0 litres
capacity**

– Part 1 : WC flushing cisterns

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Housing & Development Board

Institution of Engineers Singapore

Public Utilities Board

Real Estate Developers' Association of Singapore

SETSCO Services Pte Ltd

Singapore Sanitary Ware Importers & Exporters Association

Singapore Plumbing Society

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Foreword

This Singapore Standard was prepared by a Working Group appointed by the Technical Committee on Building Maintenance and Management which is under the purview of the Building and Construction Standards Committee.

The principal objective of this part of this Singapore Standard is to stipulate the quality and standard required of low capacity water closet (WC) flushing cisterns with full flush volumes of up to 4.5 litres and reduced flush volumes of up to 3.0 litres that are used in Singapore. This part of the Singapore Standard shall be used in conjunction with SS 574 : Part 2 : 2012 'Specification for dual flush low capacity water closet (WC) up to 4.5/3.0 litres capacity – WC pans'.

SS 574 : Parts 1 and 2 replace SS 378 : 1996 – 'Low capacity WC flushing cisterns up to 4.5 L maximum' and SS 379 : 1996 – 'Vitreous china WC pans for use with low capacity WC flushing cisterns up to 4.5 L maximum'.

In the preparation of this standard, reference was made to the following publications:

1. AS 1172.1 : 2005 Water closets (WC), Part 1 : Pans
2. AS 1172.2 : 1999 Water closets (WC) pans of 6/3 L capacity or proven equivalent, Part 2 : Pans
3. AMSE A112.19.2-2008/CSA B45.1-08 Ceramic plumbing fixtures
4. ASME A112.19.14-2006 Six-liter water closet equipped with a dual flushing device
5. BS 1125 : 1987 WC flushing cisterns (including dual flush cisterns and flush pipes)
6. BS 1212 : 1991 Float operated valves, Part 4 : 1991 Specification for compact type float-operated valves for WC flushing cisterns (including floats)
7. BS 3402 : 1969 Quality of vitreous china sanitary appliances
8. BS EN 33 : 2003 Pedestal WC pans with close-coupled flushing cistern – Connecting dimensions
9. BS EN 37 : 1999 Pedestal WC pans with independent water supply – Connecting dimensions
10. BS EN 997 : 2003 WC pans and WC suites with integral trap
11. BS EN 997 : 2012 WC pans and WC suites with integral trap
12. BS EN ISO 877 : 2010 Plastics – Methods of exposure to solar radiation
13. BS EN ISO 4892 series Plastics – Methods of exposure to laboratory light sources
14. ISO 4582 : 2007 Plastics – Determination of changes in colour and variations in properties after exposure to daylight under glass, natural weathering or laboratory light sources

- | | | |
|-----|---------------------|---|
| 15. | SS 69 : 1981 (1996) | Specification for floats (plastics) for float operated valves for cold water cisterns |
| 16. | SS 378 : 1996 | Low capacity WC flushing cisterns up to 4.5 L maximum |
| 17. | SS 379 : 1996 | Vitreous china WC pans for use with low capacity WC flushing cisterns up to 4.5 L maximum |

Acknowledgement is made for the use of information from the above publications.

At the time of publication, this standard is expected to be used by the national water agency PUB, manufacturers, suppliers and retailers of water closets, water closet flushing cisterns and water closet pans, testing bodies, professional engineers, licensed water service plumbers and qualified persons for building projects.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.*
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Specification for dual flush low capacity water closet (WC) up to 4.5/3.0 litres capacity – Part 1 : WC flushing cisterns

1 Scope

Part 1 of this standard specifies requirements for dual flush low capacity water closet (WC) flushing cisterns with full flush volumes of up to 4.5 litres and reduced flush volumes of up to 3.0 litres equipped with a side or bottom inlet supplied with a water inlet valve, valve-type flushing device and the necessary flush pipes.

2 Normative references

The following referenced documents are indispensable for the application of this standard. The latest edition of the referenced document (including any amendments) applies.

AS/NZS 4020	Testing of products for use in contact with drinking water
BS 1212 series	Float operated valves
BS 2779	Specification for pipe threads for tubes and fittings where pressure-tight joints are not made on the threads (metric dimensions)
BS 3402	Quality of vitreous china sanitary appliances
BS 6920 series	Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water
BS EN 1057	Copper and copper alloys - Seamless, round copper tubes for water and gas in sanitary and heating applications
BS EN 10088-2	Stainless steels - Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes
BS EN ISO 4892 series	Plastics – Methods of exposure to laboratory light sources
SS 213	Unplasticised PVC pipes and fittings for soil, waste and vent applications
SS 270	Elastomeric seals for joints in pipework and pipelines
SS 375 series	Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water