

SS 671 : 2021
(ICS 91.140.70)

SINGAPORE STANDARD

**Specification for performance of self-closing
delayed-action and sensor taps for water
services**



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The content of this Singapore Standard was approved on 18 March 2021 by the Quality and Safety Standards Committee (QSSC) under the purview of the Singapore Standards Council.

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QSSC set up the Technical Committee on Personal Safety and Health to oversee the preparation of this standard. The Technical Committee consists of the following members:

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The Technical Committee set up the Working Group on Performance of Draw-off Taps with Metal or Plastic Bodies for Water Services to prepare this standard. The Working Group consists of the following experts who contribute in their *individual capacity*:

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Members	: Mr Thomas Ang Moo Keng
	Mr Chen Yu
	Mr Choy Peng Hoong
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The organisations in which the experts of the Working Group are involved are:

Housing & Development Board

Institute of Technical Education

Plastics and Rubber Institute of Singapore

Public Utilities Board

SETSCO Services Pte Ltd

Singapore Laboratory Services Pte Ltd

Singapore Plumbing Society

Singapore Polytechnic

Singapore Sanitary Ware Importers and Exporters Association

TÜV SÜD PSB Pte Ltd

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Foreword

This Singapore Standard was prepared by the Working Group on Performance of Draw-off taps with Metal or Plastic Bodies for Water Services set up by the Technical Committee on Personal Safety and Health under the purview of QSSC.

This standard resulted from the review of SS 448 series (5 parts) on performance of draw-off taps with metal or plastic bodies for water services. This standard incorporates supplementary requirements and recommendations made in the latest relevant overseas standards as well as to ensure relevance with industry practices.

The main differences from the SS 448 series of standards are as follows:

1. Including the following types of taps and mixers:
 - a) Mechanical self-closing delayed-action taps;
 - b) Sensor taps; and
 - c) Sensor self-closing delayed-action taps;
2. Specifying hydraulic characteristic requirements, dimensional, design and physio-chemical characteristics of draw-off taps;
3. Adopting the latest test methods; and
4. Updating of the definitions.

Attention is drawn to the possibility that some of the elements of this standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any 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. Where SSs are deemed to be stable, i.e. no foreseeable changes in them, they will be classified as "Mature Standards". Mature Standards will not be subject to further review, unless there are requests to review such standards.*
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3. *Compliance with a SS or TR does not exempt users from any legal obligations.*

Specification for performance of self-closing delayed-action and sensor taps for water services

1 Scope

This standard specifies the following:

- a) Dimensional and design characteristics
- b) Hydraulic characteristics;
- c) Mechanical characteristics; and
- d) Physio-chemical characteristics

of ½ in and ¾ in nominal size draw-off taps which are suitable for use in water supply systems with continuous line pressures not exceeding 10 bar and at continuous operating temperatures below 90°C.

The following classes of draw-off taps are set out in Table 1:

Table 1 – Classes of taps

Class	Types of taps
A	Mechanical self-closing delayed-action taps
B	Sensor taps
C	Sensor self-closing delayed-action taps

2 Normative references

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

AS/NZS 4020:2005	Testing of products for use in contact with drinking water
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 10088-1	Stainless steels. List of stainless steels
BS EN 10088-2	Stainless steels. Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes
BS EN 10088-3	Stainless steels. Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes
BS EN 12163:2016	Copper and copper alloys. Rod for general purposes
BS EN 12165:2016	Copper and copper alloys. Wrought and unwrought forging stock
BS EN 12420:2014	Copper and copper alloys. Forgings
BS EN 1982:2008	Copper and copper alloys. Ingots and castings

BS EN 200	Sanitary tapware. Single taps and combination taps for water supply systems of type 1 and type 2. General technical specification
BS EN 200:2008	Sanitary tapware. Single taps and combination taps for water supply systems of type 1 and type 2. General technical specification
ISO 228-1	Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation
SS 270	Specification for 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
SS 375-1:2015	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 – Part 1 : Specification