

PLEASE ADDRESS ANY CORRESPONDENCE TO WATER SUPPLY (NETWORK) DEPARTMENT

Your Ref :

Our Ref : WSN 92413/90/202105/VALVES/SS Tel : 65172925

Date : 1 Mar 2021

E-mail : noryati_abdullah@pub.gov.sg

To water fittings suppliers, testing laboratories, Singapore Sanitary Ware Importers & Exporters Association (SSWIEA), Singapore Plumbing Society, Professional Engineers and Licensed Plumbers.

Dear Sir/Madam

UPDATED PUB'S STIPULATION OF STANDARDS AND REQUIREMENTS FOR WATER SERVICE INSTALLATIONS FOR THE FOLLOWING TYPES OF WATER FITTINGS:

- DUCTILE IRON GLOBE VALVES
- COPPER ALLOY GATE VALVES
- COLLER ALLOY SOLENOID VALVES
- STAINLESS STEEL PIPES (SEAMLESS TUBES)
- STAINLESS STEEL PIPES (WELDED TUBES)

Currently, the above-mentioned valves and stainless steel pipes for water service installations shall be tested to comply with the current stipulations in the PUB's Stipulation of Standards & Requirements for Water Fittings (PUB S&R) before they are allowed for supply or offer, display or advertise for supply in Singapore.

2. We wish to inform you that **with effect from 1 Mar 2022 (date of test reports)**, only valves and stainless steel pipes as listed above which have been tested to comply with the stipulated standards and met the requirements as stipulated by PUB in the attached **Appendices 1 to 5**, shall be allowed for allowed for supply or offer, display or advertise for supply for water service installations in Singapore.

3. All valves and stainless steel pipes as listed above which have been tested to the current stipulations in the PUB S&R can continue to be supplied **until 28 Feb 2022**. With effect from **1 Mar 2022**, such pipes and pipe fittings shall no longer be allowed for supply in Singapore.

4. Valves and stainless steel pipes as listed above which have been tested **before 1 Mar 2022 (date of test report)** and met the requirements in the respective Appendices can be supplied or offered, displayed or advertised for supply in Singapore. The updated stipulations will be incorporated in the PUB S&R which is downloadable from PUB's website at <https://www.pub.gov.sg/compliance/watersupplyservices/standards> under Fittings & Standards webpage.

5. We wish to remind that a water fitting is deemed to comply with the stipulated Standards if it is tested as complying with such Standards by a testing laboratory accredited by the Singapore Accreditation Council (SAC) or its Mutual Recognition Arrangement (MRA) partners. For more information, please visit SAC's website at www.sac-accreditation.gov.sg. Test reports issued by a testing laboratory accredited by the SAC or its MRA partners must bear the SAC-SINGLAS

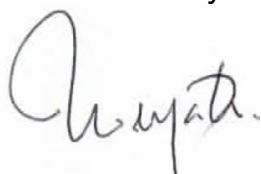
mark or the mark of the International Laboratory Accreditation Cooperation Mutual Recognition Arrangement (ILAC-MRA) respectively. Please note that PUB will not accept any test report issued by a testing laboratory (notwithstanding that the testing laboratory is accredited by the SAC or its MRA partners) if the test report or certificate does not bear the SAC-SINGLAS mark or the mark of the ILAC-MRA partner.

6. The above-mentioned water fitting must be supported with valid, complete and full test reports. Suppliers shall ensure that the test reports of water fittings which they offer-for-sale, advertise, display, sell or supply are properly kept and must be produced for verification upon request by PUB. PUB continues to conduct checks and will take action against non-compliance.

7. A copy of this circular is also downloadable from PUB's website at <https://www.pub.gov.sg/compliance/industry/circulars>. Please disseminate this circular to your relevant staff, members, distributors, retailers and other industry partners for their information and compliance. If you have any queries concerning this circular or need further clarification or assistance, please do not hesitate to email to pub_waterfittings@pub.gov.sg or email to any of the officers listed below.

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Yours faithfully



NORYATI ABDULLAH
SENIOR ENGINEER (INSPECTORATE)
for DIRECTOR
WATER SUPPLY (NETWORK) DEPARTMENT

cc Distribution (via email) – for information.

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PUB's Stipulated Standards and Requirements for Ductile Iron Globe Valves (DN10 – DN400)

Standard(s) to comply with.	Requirements
BS EN 13789 : 2010 <i>Industrial valves – cast iron globe valves</i>	1) Dimensions
	2) Pressure ratings
	3) Shell design strength
	4) Flow characteristics
	5) Allowable differential pressure
	6) Seat tightness
	7) Sizing the operating element
	8) Flow characteristics
	9) Sizing the operating element
	10) Marking
	11) Microstructural examination of ductile iron
Other requirements to comply with:	
12) The valve and its associated parts, coatings, linings, etc. shall comply with the stipulation standards and requirements in <u>Clause 4</u> , where applicable, which can be found in the PUB S&R downloadable from Fittings & Standards webpage at https://www.pub.gov.sg/compliance/watersupplyservices/standards .	
13) Every valve of different size for each brand and model and shall be fully tested, unless otherwise supported with reference test reports of the same brand and manufacturer's declaration that the samples tested are made from same material grade, came from the same source, body design, manufactured and assembled—as the tested sample and reported in the reference test report.	
Please also see PUB's Circular dated 1 Mar 2021 - "Updated PUB's Stipulated Standards & Requirements for Valves & Stainless Steel Pipes" which is downloadable from PUB's website at https://www.pub.gov.sg/compliance/watersupplyservices/standards .	

PUB's Stipulated Standards and Requirements for Copper Alloy Gate Valves (DN8 to DN500)

Standard(s) to comply with.	Requirements
BS EN 12288 : 2010 <i>Industrial valves – copper alloy gate valves</i>	1) Dimensions
	2) Pressure ratings
	3) Shell design strength
	4) Obturator design strength
	5) Shell tightness
	6) Seat tightness
	7) Flow characteristics
	8) Sizing the operating element
	9) Marking
Other requirements to comply with:	
10) The valve and its associated parts, coatings, linings, etc. shall comply with the stipulation standards and requirements in <u>Clause 4</u> , where applicable, which can be found in the PUB S&R downloadable from Fittings & Standards webpage at https://www.pub.gov.sg/compliance/watersupplyservices/standards .	
11) Every valve of different size for each brand and model shall be fully tested, unless otherwise supported with reference test reports of the same brand and manufacturer's declaration that the samples tested are made from same material grade, came from the same source, body design, manufactured and assembled—as the tested sample and reported in the reference test report.	

PUB's Stipulated Standards and Requirements for Copper Alloy Solenoid Valves (DN8 to DN500)

Standard(s) to comply with.	Requirements
BS EN 12288 : 2010 <i>Industrial valves – copper alloy gate valves</i>	1) Dimensions
	2) Pressure ratings
	3) Shell design strength
	4) Obturator design strength
	5) Shell tightness
	6) Seat tightness
	7) Flow characteristics
	8) Sizing the operating element
	9) Marking
<p>Other requirements to comply with:</p> <p>10) The valve and its associated parts, coatings, linings, etc. shall comply with the stipulation standards and requirements in <u>Clause 4</u>, where applicable, which can be found in the PUB S&R downloadable from Fittings & Standards webpage at https://www.pub.gov.sg/compliance/watersupplyservices/standards.</p> <p>11) Every valve of different size for each brand and model and shall be fully tested, unless otherwise supported with reference test reports of the same brand and manufacturer's declaration that the samples tested are made from same material grade, came from the same source, body design, manufactured and assembled—as the tested sample and reported in the reference test report.</p> <p>Please also see PUB's Circular dated 1 Mar 2021 - "Updated PUB's Stipulated Standards & Requirements for Valves & Stainless Steel Pipes" which is downloadable from PUB's website at https://www.pub.gov.sg/compliance/watersupplyservices/standards</p>	

PUB's Stipulated Standards and Requirements for Stainless Steel Pipes (for seamless tubes)

Standards to comply with.	Test Requirements
BS EN 10216-5:2013 <i>Seamless steel tubes for pressure purposes – Technical delivery conditions</i> <i>Part 7- Stainless steel tubes</i>	1) Chemical composition – grade 304 or better
	2) Material identification
	3) Visual inspection
	4) Dimension
	5) Tensile test at room temperature
	6) Flattening test, or Ring tensile test, or Drift expanding test, or Ring expanding test.
	7) Leak tightness test
	8) Impact test at room temperature
	9) Intergranular corrosion test
	10) Marking
<p>Other requirements to comply with:</p> <p>11) Stainless steel pipe shall be of minimum grade 304 or better.</p> <p>12) The pipe shall also comply with the stipulation standards and requirements in <u>Clause 4</u>, where applicable, which can be found in the PUB S&R downloadable from Fittings & Standards webpage at https://www.pub.gov.sg/compliance/watersupplyservices/standards.</p> <p>13) Every pipe of different size and thickness (if applicable) for each brand and material grade shall be fully tested, unless otherwise supported with reference test reports of the same brand and manufacturer's declaration that the samples tested are made from same material grade, came from the same source, body design, manufactured and assembled as the tested sample and reported in the reference test report.</p> <p>Please also see PUB's Circular dated 1 Mar 2021 - "Updated PUB's Stipulated Standards & Requirements for Valves & Stainless Steel Pipes" which is downloadable from PUB's website at https://www.pub.gov.sg/compliance/watersupplyservices/standards.</p>	

PUB's Stipulated Standards and Requirements for Stainless Steel Pipes (for longitudinally welded tubes)

Standards to comply with	Test Requirements
BS EN 10217-7 : 2014 <i>Welded steel tubes for pressure purposes – Technical delivery conditions</i> <i>Part 7- Stainless steel tubes</i>	1) Chemical composition – grade 304 or better
	2) Material identification
	3) Visual inspection
	4) Dimension
	5) Tensile test at room temperature
	6) Flattening test, or Ring tensile test, or Drift expanding test, or Ring expanding test, or Weld bend test.
	7) Leak tightness test
	8) Impact test at room temperature
	9) Intergranular corrosion test
	10) Marking
<p>Other requirements to comply with:</p> <p>11) Stainless steel pipe shall be of minimum grade 304 or better.</p> <p>12) The pipe shall also comply with the stipulation standards and requirements in <u>Clause 4</u>, where applicable, which can be found in the PUB S&R downloadable from <u>Fittings & Standards</u> webpage at https://www.pub.gov.sg/compliance/watersupplyservices/standards.</p> <p>13) Every pipe of different size and thickness (if applicable) for each brand and material grade shall be fully tested to PUB's stipulated standards, unless otherwise supported with reference test reports of the same brand and manufacturer's declaration that the samples tested are made from same material grade, came from the same source, body design, manufactured and assembled—as the tested sample and reported in the reference test report.</p> <p>Please also see PUB's Circular dated 1 Mar 2021 - "Updated PUB's Stipulated Standards & Requirements for Valves & Stainless Steel Pipes" which is downloadable from PUB's website at https://www.pub.gov.sg/compliance/watersupplyservices/standards.</p>	