

PLEASE ADDRESS ANY CORRESPONDENCE TO WATER SUPPLY (NETWORK) DEPARTMENT

**Our Ref :** WSN 92413/90/012021/COMM-EQPMT

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To all commercial equipment suppliers, manufacturers, distributors, test laboratories, certification bodies for WELS, associations and government agencies:

Dear Sir/Madam

**MANDATORY SALE AND SUPPLY OF THREE TYPES OF COMMERCIAL EQUIPMENT WITH SPECIFIC WATER EFFICIENCY REQUIREMENTS**

This circular is to inform the relevant suppliers, manufacturers, test laboratories, certification bodies for WELS, associations and government agencies on the new water efficiency initiatives.

2. **With effect from 1 Jan 2022**, the Mandatory Water Efficiency Labelling Scheme (MWELS) will be extended to include three types of commercial equipment listed in the Table below. Only commercial washer extractors, commercial dishwashers and high pressure washers (for general cleaning) which fulfil the water efficiency requirements shown in the Table below shall be offered, displayed, or advertised for sale or supply in Singapore. This new initiative is part of PUB's on-going efforts to promote water conservation in Singapore.

Commercial Equipment	Affected Types	Water Efficiency Requirements
Commercial Washer Extractor	Front load Top load	≤ 8.0 L / kg
Commercial Dishwasher	Undercounter Hood	≤ 2.4 L / rack
High Pressure Washer	For general cleaning	≤ 11.0 L / min

3. Suppliers, manufacturers and distributors shall ensure that the three types of commercial equipment listed in the Table are supported with the relevant test reports and that the models are registered under MWELS before they are offered, displayed or advertised for sale or supply in Singapore. There is no plan to introduce tick ratings and labels for these commercial equipment under MWELS for now.

Amendments to the legislations

4. The Public Utilities (Water Supply) Regulations will be amended to give effect to the requirements mentioned in paragraph 2 and 3, and anyone found not complying with the requirements shall be guilty of an offence and liable for prosecution.

## Testing, registration and certification

5. Every model of the three types of commercial equipment listed in the Table is to be submitted for MWELS registration and shall be tested for water consumption in accordance with the standards stipulated by PUB in the **Appendix** and certified by an accredited certification body for MWELS. All models shall be 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.
6. The following preparations for implementation are currently underway:
- PUB's WELS website registration portal will be enhanced to allow accredited certification bodies for WELS to submit their applications to register the three types of commercial equipment listed in the Table. The WELS Guidebook will also be amended to incorporate the new requirements for these commercial equipment.
  - PUB is currently working with interested test laboratories and certification bodies on the testing and certification of the three types of commercial equipment listed in the Table. PUB would also like to encourage all testing laboratories and accredited certification bodies for WELS to include these commercial equipment in their scope for testing and/or product certification.

PUB will inform the industry as soon as the registration portal is ready and details of the accredited test laboratories and certification bodies for WELS that can test / certify the three types of commercial equipment listed in the Table have been firmed up.

7. For more information on existing MWELS, please refer to PUB's WELS website at [www.pub.gov.sg/wels](http://www.pub.gov.sg/wels).

8. Please disseminate the information in this circular to your relevant staff, distributors, suppliers and other industry partners for their information and compliance. A copy of this circular is also available for download from PUB's WELS website at [www.pub.gov.sg/wels](http://www.pub.gov.sg/wels). If you have any queries concerning this circular or need further clarification or assistance, please contact any of the officers listed below.

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Yours faithfully



TAN KAI RONG  
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**PUB's Stipulated Standards & Requirements for Testing & Determining Water Consumption for Selected Commercial Equipment**

Commercial equipment	Type	Test method or standard	Determination of water consumption & water efficiency requirement
Washer extractor intended for commercial use	Front load Top load	<p>Clause 9.1 and 9.2 of BS EN 17116-4:2019 relating to measurement of water consumption.</p> <p>The water consumption is determined in accordance with paragraph 1A.</p>	<p>1A. The water consumption for a washer extractor is to be measured using the wash programme or other associated settings recommended in the manufacturer's product literature for a <u>nominal load</u> at rated load capacity, and the following are <u>not required</u> as a test condition:</p> <ul style="list-style-type: none"> <li>(a) the use of a reference washer extractor;</li> <li>(b) the use of specific:               <ol style="list-style-type: none"> <li>1. Ambient temperature &amp; humidity</li> <li>2. Fresh water properties – hardness</li> <li>3. Fresh water temperature</li> <li>4. Water pressure</li> <li>5. Energy supply</li> <li>6. Electricity supply</li> <li>7. Compressed air supply</li> <li>8. Steam supply</li> <li>9. Condition of the machine</li> </ol> </li> <li>(c) the use of stain and soil monitors, wash process control sheets and rinse performance fabrics;</li> <li>(d) the use of detergent; and</li> <li>(e) determination of wash performance.</li> </ul> <p>1B. Washer extractor intended for commercial use (front load and top load) must be of such a design as to use <b>not more than 8.0 litres of water per kilogram.</b></p>

Dishwasher intended for commercial use	Undercounter Hood	<p>Clause 7 of IEC 63136:2019 relating to measurement of water consumption.</p> <p>The water consumption is determined in accordance with paragraph 2A.</p>	<p>2A. The water consumption for a commercial dishwasher is to be measured using the wash programme as specified in Clause 5.4 of IEC 63136:2019, and the following are <u>not required</u> as a test condition:</p> <ul style="list-style-type: none"> <li>(a) cleaning and resoiling performance test;</li> <li>(b) the use of: <ul style="list-style-type: none"> <li>(i) conditioning of the machine under test and sequence of test procedures;</li> <li>(ii) electricity supply at a specific voltage;</li> <li>(iii) specific ambient conditions;</li> <li>(iv) specific water supply temperature, hardness &amp; pressure;</li> <li>(v) detergent;</li> <li>(vi) rinse aid;</li> <li>(vii) temperature measurement.</li> </ul> </li> </ul> <p>2B. Dishwasher intended for commercial use (undercounter and hood) must be of such a design as to use <b>not more than 2.4 litres of water per rack</b>.</p>
High Pressure Washer intended for general cleaning only	<i>For general cleaning only</i>	The test method for determining the flow rate set out in paragraph 3A	<p>3A. The flow rate for a high pressure washer (HPW) is to be measured with the following test method and test parameters:</p> <ul style="list-style-type: none"> <li>(i) Water supply with delivery flow of not less than 20 litres per minute at 3 bars from a bib tap;</li> <li>(ii) HPW is connected to a stable power supply (230±10V and 50Hz) with an ammeter</li> </ul> <p>The bib tap must be fully opened after connected securely via a 5/8" inlet hose to the HPW. Connect the flow meter and pressure gauge to the outlet hose of the HPW and adjust the pressure setting of HPW to maximum. Measure and record the flow rate, pressure and current reading.</p> <p>3B. High pressure washer intended for general cleaning must be of such a design as to use <b>not more than 11.0 litres of water per minute</b>.</p>