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# **The Voluntary Water Efficiency Labelling Scheme on Water Closets**

**April 2021**



水務署  
Water Supplies Department

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## 1. Purpose

This document serves to give a detailed description on the voluntary Water Efficiency Labelling Scheme (WELS) on Water Closets.

## 2. Background

2.1. The Water Supplies Department of the Government of the Hong Kong Special Administrative Region has adopted the voluntary WELS as one of the water conservation initiatives. The WELS covers common types of plumbing fixtures and water-consuming appliances. Registered products under the WELS will carry a water efficiency label which serves to inform consumers of the products' water consumption level and efficiency rating. Consumers should then be able to take these factors into account in making their purchasing decision.

2.2. In other places, the WELS is in different stages of development and implemented in several forms. For instance, it is compulsory in Australia to provide water efficiency labels for certain kinds of plumbing fixtures and appliances before they can be put on sale in the market. In some other places such as the United Kingdom, the WELS is implemented on a voluntary basis so as to allow a lead time for the market to transform towards more water efficient products. The implementation of WELS in Hong Kong currently adopts a mixed\* approach. The WELS aims to:

- (a) provide consumers with information on the levels of water consumption and efficiency ratings of plumbing fixtures and water-consuming appliances;
- (b) facilitate consumers to select water efficient plumbing fixtures and water-consuming appliances;
- (c) promote public awareness on water conservation and efficiency issues; and
- (d) achieve water savings.

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\* *Mandatory use of some designated water efficient products in new plumbing works and voluntary labelling in the retail market.*

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- 2.3. The voluntary WELS in Hong Kong is being implemented in phases for different groups of plumbing fixtures and water-consuming appliances. The first **six** groups of products for implementation of the WELS are showers for bathing, water taps, washing machines, urinal equipment, flow controllers, **and water closets**, which had been launched in September 2009, September 2010, March 2011, March 2012, August 2014 **and May 2018** respectively.

### **3. Scope**

- 3.1. The Scheme will apply to the water closets manufacturers, importers, or other related parties participating in the Scheme.
- 3.2. **The Scheme registration commenced from 25 May 2018. The revision of the Scheme is effective from 1 May 2021 and expire on 30 April 2026, when re-registration may be necessary subject to the result of the periodic review of the Scheme.**
- 3.3. The Scheme only covers new water closets imported to or manufactured in Hong Kong but does not cover second-hand water closet products, water closet products already in existing use, under trans-shipment or manufactured for export, etc.
- 3.4. The Scheme is operated as a ‘Grading Type’ labelling system. Under the Scheme, participating water closets shall have met the statutory requirements and performance requirements specified in the Scheme, and will be rated to different grades according to their water flush volumes.
- 3.5. The provisions of this Scheme shall apply to the following types of water closets:
- (a) toilet suite (one-piece water closet pan);
  - (b) water closet pan only;
  - (c) water closet cistern only; and
  - (d) a combination of a water closet pan and cistern (close-coupled suite).

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## 4. Definitions

Unless otherwise specified, the following definitions (in alphabetical order) shall apply throughout this document:

*Department* means the Water Supplies Department of the Government of the Hong Kong Special Administrative Region.

*Director* means the Director of Water Supplies.

*Government* means the Government of the Hong Kong Special Administrative Region.

*HKAS* means the Hong Kong Accreditation Service.

*HOKLAS* means Hong Kong Laboratory Accreditation Scheme.

*Inspecting Officer* means the officer authorized by the Director to carry out the inspection as described in Section 11 of this document.

*ISO* means the International Organization for Standardization.

*Label* means the water efficiency label (both full version and simplified version) as described in Section 7 of this document.

*MRA* means a mutual recognition arrangement.

*Participant* means a manufacturer, an importer or other related party of the water closet registered in the Scheme.

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<i>Recognized Laboratory</i>	means a laboratory which complies with the requirements for testing laboratory as stated in Section 8 and is acceptable to the Department for carrying out tests (including re-tests) and issuing test reports on Water Closets.
<i>Scheme</i>	means the Voluntary Water Efficiency Labelling Scheme on Water Closets.
<i>Water Authority</i>	means the Water Authority as defined in the Waterworks Ordinance, Chapter 102, Section 2.
<i>Water Closets</i>	means flushing cisterns, bowl-shaped appliances for reception and flushing away of human solid and liquid excrement, or any combination of aforementioned flushing cisterns and bowl-shaped appliances.

## 5. Testing Methodology and Standard

### Statutory Requirement

- 5.1. The flushing valve of water closet, if applicable, shall be tested in accordance with the relevant requirements as specified in the Waterworks Regulations (Cap. 102A) and comply with the standards specified for the flushing valve of water closet by the Water Authority. Upon completion of the test(s) and compliance with the standards, the approval for the flushing valve of water closet shall also be obtained from the Water Authority prior to the WELS application. The WELS registration record will expire on the expiry date of the General Acceptance of the flushing valves of the corresponding water closets.

### Water Flush Volume

- 5.2. The water flush volume shall be determined in accordance with Section I of Annex 1A, with reference to the testing conditions and requirements specified in the BS EN 997:2018 – WC pans and WC suites with integral trap or other equivalent international standards accepted by the Department. The water efficiencies of the water closets will be rated to different grades according to the water flush volume test results, subject to the compliance with other performance requirements mentioned in Section 5.3 and/or 5.4

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below.

**Other Performance Requirements**

- 5.3. The water closets shall also be tested in accordance with Sections II to IV of Annex 1A, with reference to the testing conditions and requirements specified in the BS EN 997:2018 – WC pans and WC suites with integral trap or other equivalent international standards accepted by the Department, for conformity with all the performance requirements as shown in Table 1 and/or Table 2. A list of international standards comparable to BS EN 997:2018 and accepted by the Department as equivalent testing and acceptance criteria for the purpose of registration of water closets under WELS is provided in Annex 7.

Table 1: Performance Requirements for All Types of Water Closets (for Dual Flush only)

<b>Performance Property</b>	<b>Performance Requirements</b>
Flush Volume - Reduced Flush (for dual flush only)	The measured discharge volume of the reduced flush shall not exceed two-thirds of the full-flush volume

Table 2: Performance Requirements for Toilet Suite, Water Closet Pan only (to be tested with a Flushing Cistern) and Combination of a Water Closet Pan and Cistern

<b>Performance Property</b>	<b>Performance Requirements</b>
Solid Discharge for Maximum Flush	For the first six flush cycles, or for a minimum of eight out of ten flush cycles, each of the four test specimens shall be completely evacuated from the water closet bowl and pan's outlet. The recorded after-flush volume in each flush cycle shall be no less than 40% of the full-flush volume.



Paper Discharge for Reduced Flush Volume (for Dual Flush only)	For the first six flush cycles, or for a minimum of eight out of ten flush cycles, all six sheets of toilet paper shall be flushed out of the water closet pan and outlet.
Liquid Contaminant Dye Retention	For the first five flush cycles, or for a minimum of nine out of ten flush cycles at full-flush volume, the contaminate level shall be not more than 1%. For the first five flush cycles, or for a minimum of nine out of ten flush cycles at reduced-flush volume, when provided, the contaminate level shall be not more than 6%.
<del>Wash of Bowl</del>	<del>The arithmetic average of any unflushed area below the rim and above the surface of the trap shall be no greater than 50 cm<sup>2</sup> after five flushing operations</del>

**Drain Line Transportation Requirement**

- 5.4. All water closet that uses less than 3.5 L of water for full flush shall be tested for waste transportation efficiency. The drain line transportation test shall be conducted in accordance to Section V in Annex 1A, with reference to the testing conditions and requirements specified in the ASME A112.19.2-2018 – Ceramic Plumbing Fixtures.

**Quality Requirement**

- 5.5. The water closets shall be manufactured under a design (if applicable) and production system operating according to a recognized international quality system (such as ISO 9001 or equivalent).

**6. Water Efficiency Grading**

**Water Efficiency Grading**





- 6.1. For a product of toilet suite or combination of a water closet pan and cistern, the water efficiency of the product will be rated to different grades according to the water flush volume of the water closet cistern as shown in Table 3

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provided that the accompanied water closet pan shall also fulfill all performance requirements as specified in Section 5.3 and 5.4. Grade 1 is the most water efficient whereas Grade 4 is the least water efficient.

- 6.2. For water closet pan alone, it will be rated to different grades according to their minimum water flush volumes required to fulfill performance requirements in Section 5.3 and 5.4. For water closet cistern alone, it will be rated to different grades according to their water flush volumes as shown in Table 3.

Table 3: Conversion of Water Consumption to Water Efficiency Grades for Water Closets

Water flush volume for full flush: $f_F$ (litres/flush)	Water flush volume for reduced-flush: $f_R$ (litres/flush)	Water Efficiency Grade	Symbolic Presentation on the Water Efficiency Label
$f_F \leq 4.8$	$f_R \leq 3.2$	Grade 1 (Dual Flush)	1 water droplet 
$f_F \leq 3.2$	Not specified	Grade 1 (Single Flush)	
$4.8 < f_F \leq 6.5$	$f_R \leq 3.5$	Grade 2 (Dual Flush)	2 water droplets 
$3.2 < f_F \leq 3.5$	Not specified	Grade 2 (Single Flush)	
$3.5 < f_F \leq 6.5$	Not specified	Grade 3	3 water droplets 
$6.5 < f_F$	Not specified	Grade 4	4 water droplets 

6.3. If a water closet has an integral basin or a basin directly connected to it, and the water from that basin is used to flush the toilet, the water saving merit will be shown on the Label for public information and description of the merited function will be shown in the registration certificate.

6.4. If the water closet cannot fulfill the performance requirements specified in Section 5.3 and 5.4, application for registration under the Scheme will be rejected.

## 7. Water Efficiency Label

### Label Versions and Affixation

7.1. The Label should be self-adhesive or pre-printed onto the packing. There are

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two versions of the Label – full and simplified versions. It is a compulsory requirement for the participant to affix or print the Label(s) to his/her registered water closet or its packing at a prominent location. The participant should also ensure that the registered water closet shall be displayed for sale with the full version Label(s). In order to enhance the awareness of installing the water efficient plumbing fixtures, the simplified version Label is designed to facilitate the participant to affix it to the water closet in case the full version Label is too large to do so. However, the affixation of the simplified version Label to the water closet is optional.

### **Colour Scheme and Dimensions**

- 7.2. The Label should be printed on white-coloured self-adhesive sheet material (for self-adhesive type) in accordance with the figures, **dimensions, Pantone Colour Codes, font sizes and style** as shown in Annex 3. It should be printed in English and Chinese. Soft copy of the Label will be **transmitted by the WSD** to the successful applicants for WELS **soon** after the approval of the respective application.

### **Paper Quality**

- 7.3. The paper used for the Label should be durable and possess good wear and tear characteristics. It should be affixed tightly on the water closet or its packing.

### **Information on the Label**

- 7.4. The information that appears on the Label shall accord with the Label format as indicated in Annex 3 and shall tally with the information listed on the registration certificate issued by the Department.

## **8. Testing Laboratories and Certification Bodies**

- 8.1. The Department will accept the results and certificates of testing specified in Sections 5.2, 5.3 **and 5.4** issued by the testing laboratories as specified in either Sections 8.2, 8.3 or 8.4.
- 8.2. The **testing** laboratory is accredited by the Hong Kong Accreditation Service (HKAS) under the Hong Kong Laboratory Accreditation Scheme (HOKLAS)

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or a testing laboratory accredited by the mutual recognition arrangement<sup>†</sup> partners for HKAS for carrying out the tests stipulated in Sections 5.2, 5.3 and 5.4 of this document; and the test results are issued in an endorsed test report or test certificate bearing the accreditation mark as having the same technical validity as certificates endorsed by HOKLAS.

8.3. A laboratory that achieves HOKLAS accreditation (or is accredited by a scheme with which HKAS has concluded a mutual recognition agreement) for laboratory testing of plumbing fixtures and water consuming appliances other than the tests stipulated in the Scheme, and the laboratory can demonstrate its capability of carrying out tests on water closets in accordance with Annex 1A and 1B.

8.4. An in-house laboratory fulfills the criteria listed below:

- (a) Self-declaration by manufacturer or importer or other related parties that the operations of their in-house laboratory follow the requirements of ISO/IEC 17025; **and**
- (b) The manufacturer or importer or other related parties is currently operating according to a recognised international quality system (such as ISO 9001 or equivalent); **and**
- (c) The manufacturer's or importer's or related parties' in-house laboratory has been successful in carrying out tests on water consumption appliances and where these tests have been evaluated and certified by internationally recognized third party certification organisations; **and**
- (d) The in-house laboratory can demonstrate their capability of carrying out tests on water closets in accordance with Annex 1A and Annex 1B.

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<sup>†</sup> HKAS has concluded mutual recognition arrangements with overseas accreditation bodies for testing laboratory accreditation. The list of mutual recognition arrangement partners may change from time to time and the up-to-date list is available from the HKAS website of [http://www.itc.gov.hk/en/quality/hkas/doc/common/mramla/MRA\\_HOKLAS\\_en\\_ch.pdf](http://www.itc.gov.hk/en/quality/hkas/doc/common/mramla/MRA_HOKLAS_en_ch.pdf). Partners of these arrangements recognise the accreditations granted by one another as equivalent. An up-to-date APLAC MRA list is available from <https://www.apac-accreditation.org/apac-mra/>. An up-to-date ILAC MRA is available from [https://ilac.org/signatory\\_print.php](https://ilac.org/signatory_print.php).

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## 9. Application for Registration

### Application Procedures

- 9.1 All manufacturers, importers and other related parties in the water closets trade are welcome to participate in the Scheme. For known manufacturers and importers, invitation letters will be issued to them. However, any manufacturers, importers and other related parties in the water closets trade may submit applications for registration no matter whether they are invited or not.
- 9.2 The application for registration shall be submitted by means of an application letter together with “Proforma Letter of Application” in Annex 4 by hand, or through post, facsimile or electronic mail to the Department:

Address: Water Supplies Department  
47/F, Immigration Tower  
7 Gloucester Road, Wanchai, Hong Kong

Fax number: 2824 0578

Email: [wsdinfo@wsd.gov.hk](mailto:wsdinfo@wsd.gov.hk)

In order to ensure effective implementation of the Scheme, the participant must commit to full compliance with the obligations set out in the Scheme. A copy of the proforma letter of application which details the obligations is given at Annex 4 and at the [Water Supplies Department’s website \(https://www.wsd.gov.hk/filemanager/en/share/wels/proforma\\_letter\\_of\\_application\\_water\\_closets.pdf\)](https://www.wsd.gov.hk/filemanager/en/share/wels/proforma_letter_of_application_water_closets.pdf). The application can be made in either English or Chinese.

### Information/Documents/Materials to be Submitted for Application

- 9.3 The information/material to be submitted with the application are listed in Annex 5 and recapped as follows:
- (a) Information of the company, i.e. name, address, telephone number, fax number, e-mail address, website address, contact person, and sale distribution network (names and addresses of the distributor(s)), etc.;
  - (b) Information of the water closet being applied for registration in the Scheme, i.e. brand name, model no. and/or name, catalogue (if

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- available), at least three photos (showing the front, side and bottom views of the water closet) and country of origin;
- (c) Parties which will be responsible for making and affixing the water efficiency label (Label);
  - (d) Proposed commencement date to affix the Label to water closet (Year \_\_\_\_\_, Month \_\_\_\_\_);
  - (e) Documentary proof that the design (if any) and production system for the water closet is operating according to a recognised international quality system<sup>‡</sup> (such as ISO 9001 or equivalent). The submission of product drawings extracted from the product manual or design manual, and international quality system certificate on the manufacturer can be considered as documentary proof of recognition of the quality system. Failure to renew the recognised international quality system may render the model registration null and void;
  - (f) Documentary proof of the flushing valve GA issued by the Water Authority;
  - (g) Detailed test report in accordance with the reporting requirements is specified in Annex 2. The test report shall be issued by a recognised laboratory complying with the requirements in Section 8. The required information requested in Sections I, II, III, IV & V of Annex 1A of the Scheme document have to be provided in a single section of the test report;
  - (h) Documentary proof that the testing laboratory appointed by the participant has satisfied the requirement of Section 8. The submission of certificate of accreditation, self-declaration statement that the operation of the testing laboratory meets the requirements of ISO/IEC 17025 can be considered as documentary proof;
  - (i) For the case of water closet of same design but with the variation in colour and finishing, the applicant should consult with the testing laboratory and confirm in writing that such variation will not affect the water flush volume and other performance requirements specified in Section 5.2, 5.3 and 5.4; and
  - (j) Participant shall submit a reference sample for water closet successfully registered under the Scheme upon the request of the Department.

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<sup>‡</sup> The details of a recognised international quality system may change from time to time and the up-to-date list is available from the HKAS website of [https://www.itc.gov.hk/en/quality/psib/standards\\_res.html](https://www.itc.gov.hk/en/quality/psib/standards_res.html)

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## **Streamlining of Application of Combination of Water Closet Cistern and Flushing Valve**

- 9.4 In order to facilitate the registration of water closet cisterns with a variety of flushing valves, the measurement of Water Closet Cistern Volume Curve is introduced. It is an optional procedure in which participants are welcomed to create a flushing volume profile with respect to the water level for a water closet cistern. Once such profile is created, water closet's full and reduced flush volumes could be calculated based on the water level setting of any flushing valve and inlet valve and the resulting flush volumes could be used directly for the grading of the WELS on Water Closets. This would significantly reduce the large amount of flush volume test required under Section I of Annex 1A of the Scheme Document for each combination of water closet cistern and flushing valve, hence streamlining the WELS registration of water closets.

### Procedure for the Formation of Cistern Volume Curve

- 9.5 To facilitate WELS registration of different water closet cistern and flushing valves combinations, an optional cistern volume curve could be formulated according to the testing methods and requirements specified in Annex 1B. The test report shall be issued by a recognized laboratory complying with the requirements in Section 8.

### Procedure for Creating Volume Curve for Cistern and Utilization for Application of WELS Registration for Water Closet Cistern

- 9.6 For new registration of WELS water closets in conjunction with the formulation of the cistern volume curve, application submission includes;
- (i) Form 1B to be filled by accredited laboratories or applicants with the provision of the cistern volume curve formula and the estimated full flush volume and reduced flush volume calculated based on the maximum filled level, reduced flushing level and full flushing level.
  - (ii) Detailed test report of the cistern volume curve issued by a recognized laboratory complying with the requirements in Section 8.
  - (iii) Detailed test report of the maximum filled level, the reduced flushing



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level and the full flushing level measured by a recognized laboratory. These three parameters are specific to each individual flushing valve. By matching the cistern volume curve (a specific identification of the water closet cistern) and the three water levels (a specific identification of the flushing valve), the full and reduced flush volume of any cistern-flushing valve combination could be calculated without the need of discrete laboratory experiment for each cistern-flushing valve combination.

(iv) Detailed test report of the cistern including the required information requested in Section II, III, IV, & V of Annex 1A of the Scheme Document issued by a recognized laboratory complying with the requirements in Section 8.

Use of Established Cistern Volume Curve for Various Combination between Water Closet Cistern and Flushing Valves

9.7 WELS registered water closets with an established cistern volume curve are eligible to register WELS with alternative flushing valves. In order to streamline the registration process and minimize laboratory tests, the new cistern-flushing valve combination with a certified water closet cistern under WELS is exempted from the re-testing of flush volume test and/or performance tests for subsequent application, provided that previous detailed test report of the cistern is submitted.

9.8 For registration of WELS water closets including the component of water closet cistern with an established cistern volume curve, application submission includes;

(i) Documentary proof of the flushing valve GA issued by the Water Authority;

(ii) Detailed test report of the cistern volume curve issued by a recognized laboratory complying with the requirements in Section 8;

(iii) Detailed test report of the maximum filled level, reduced flushing level and full flushing level measured by a recognized laboratory;

(iv) Form 1B to be filled by accredited laboratories or applicants with the

provision of the estimated full flush volume and reduced flush volume calculated based on the three water levels and the cistern volume curve; and

(v) Detailed test report of the cistern including the required information requested in Annex 1A of the Scheme Document issued by a recognized laboratory complying with the requirements in Section 8.

Summary of submission items as described in sub-section (i) – (v) above is summarized in Table 4 below:

Table 4: Summary of Submission Items for Water Closet Cistern with established cistern volume curve

<b>Types of Water Closets</b>	<b>Submission Items</b>
Toilet suite (one-piece water closet pan)	<ol style="list-style-type: none"> <li>1. GA approval</li> <li>2. Lab report of cistern volume curve</li> <li>3. Lab report of flushing valve water level</li> <li>4. Form 1B</li> <li>5. Lab report of Section II, III, IV &amp; V of Annex 1A</li> </ol>
Water closet pan only	<i>Not applicable</i>
Water closet cistern only	<ol style="list-style-type: none"> <li>1. GA approval</li> <li>2. Lab report of cistern volume curve</li> <li>3. Lab report of flushing valve water level</li> <li>4. Form 1B</li> <li>5. Lab report of Section V of Annex 1A</li> </ol>
A combination of a water closet pan and cistern (close-coupled suite)	<ol style="list-style-type: none"> <li>1. GA approval</li> <li>2. Lab report of cistern volume curve</li> <li>3. Lab report of flushing valve water level</li> <li>4. Form 1B</li> <li>5. Lab report of Section II, III, IV &amp; V of Annex 1A</li> </ol>

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9.9 For registration in WELS under the recognition mechanism<sup>§</sup>, valid test report used for application for registration of the water closet under the oversea water efficiency labelling scheme. The test report shall include the required information requested in Section I, II, III, IV & V of Annex 1A of the Scheme Document issued by a recognized laboratory complying with the requirements in Section 8. Should the above information be inadequate, individual local laboratory test shall be required to provide the missing information. Documentation showing valid registration status of the water closet in the respective oversea water efficiency labelling scheme (e.g. registration document, website link, i.e. URL, to the register in respective scheme).

9.10 Company's chop should be stamped on the Proforma Letter of Application and all the document front covers/pages provided by hand, or through post, facsimile or electronic mail to the Water Supplier Department. All photocopy test reports submitted to the Department shall be certified as true copy issued by the testing laboratory appointed by the participant. The participant is also required to provide the original copy of the test reports if requested by the Department.

#### **Acceptance/Rejection of Application**

9.11 On receipt of the application, the Department will assess whether the water closet meets the requirements based on the submitted information and will rate the water closet with a water efficiency grade according to the water closet's water flush volume.

9.12 Upon the request of the Department, the applicant is required to provide additional supporting information/material within the time prescribed by the Department. Failure to comply may render rejection of the application.

9.13 If the application is accepted, the participant will be notified of the result

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<sup>§</sup> *The water closets registered under the Water Efficiency Scheme in Europe can be recognized under WELS. In applying for registration in WELS under the recognition mechanism for water closets registered in Europe, the applicant shall follow the procedures and requirements as stipulated under Section 9 of the Scheme Document of the respective water closets in submitting the application, except the need for local laboratory test is replaced by the submission of valid test report used for the original registration overseas as stated in Section 9.9.*

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within 17 working days upon the receipt of all necessary information requested. A registration certificate listing the information to be displayed on the Label will be issued to the participant by the Department. Soft copies of WELS labels will be transmitted by the WSD to successful applicants for WELS soon after the approval of the respective application. The participant will then be allowed to affix or print the Label to the ‘registered’ water closet or its packing. The participant should ensure that the Label is correctly printed and affixed to the water closet or its packing in accordance with Section 7.

9.14 If the application is rejected, a notification letter with reason(s) of rejection will also be given to the applicant within 17 working days upon receipt of all necessary information requested.

9.15 To ensure a more efficient processing of applications of products for registration under WELS, the deadline for submitting all necessary supporting information will be set at six months from the date of receipt of the application. Upon receipt of application, the Department will vet and, if found necessary, require the applicant to submit outstanding information. For any application that could not be completed in five months due to incomplete information, the Department will issue a final reminder requesting the submission of outstanding application/clarification within one month from the date of such reminder. The application concerned will be rejected automatically without further notification if the required information/clarification is still outstanding after the deadline specified in the reminder.

9.16 The flow chart for registration is shown in Annex 6.

### **Participant’s Obligations**

9.17 In order to ensure effective implementation of the Scheme, the participant must understand and be committed to full compliance with the obligations set out in the Scheme. The participant is obliged to:

- (a) submit application for registration by means of an application letter together with “Proforma Letter of Application”, the information/material required in Section 9.3 and the test results which follow the reporting requirements set out in Annex 2;

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- (b) at his/her own costs, produce the Label and affix or print the Label either to the water closet or its packing at a prominent location in accordance with Section 7;
  - (c) ensure that the registered water closet shall be displayed for sale with the full version Label(s);
  - (d) fully inform other related parties (such as sales agents, retailers, etc.) in the participant's sale distribution network once the water closet is registered under this Scheme and notify them that the Department may request to enter their premises to carry out the **compliance monitoring and inspections** as stated in Section 11;
  - (e) allow annual/ad-hoc inspection/**re-inspection** to be conducted by Inspecting Officers authorized by the Director on the registered water closet at his/her premises **such as the warehouse and/or its retailing spots**;
  - (f) allow the tested and performance data of the registered water closet to be uploaded to the Department's website for public information;
  - (g) upon the request of the Department, **a reference sample** for each **water closet** to be participated in the Scheme shall be submitted by the participant **at his/her own cost**;
  - (h) conduct re-test(s) at his/her own costs at a recognized laboratory **complying with the requirements in Section 8 of the scheme document** if non-compliance is found on the registered water closet. The result of re-test(s) shall reach the Department within the time specified by the Department;
  - (i) provide additional supporting information/material upon request of the Department within the time prescribed. Failure to comply may render rejection of the application (**see Section 9**);
  - (j) notify the Department by means of a notification letter (in either English or Chinese with the company's chop stamped on **the Proforma Letter of Application and all submitted documents front covers**) by post, facsimile or electronic mail of any changes of the company information (e.g. company name). The notification should be made not less than 14 working days before the change. Failure to comply may render the model registration null and void. Changes of water closet information (e.g. brand name, model no.) will be considered as major changes that require new applications for registration in the Scheme;
  - (k) remove within three months all Labels from the water closet and/or its packing if it has been de-registered; **and**

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- (l) The participant shall return the corresponding registration certificate to the Department within one month upon receipt of the notification letter of de-registration.

The details of water closets registered under the Scheme will be kept in a register maintained by the Department. The registration records will be regularly uploaded to the Department's website for public information.

### **Termination**

9.18 Under circumstances of poor performance such as:

- (a) the participant failing to fulfill the obligations set out in the Scheme; or
- (b) the water closet failing to perform in accordance with rated water efficiency grade and/or the performance requirements of the Scheme and the participant not being able to rectify the non-compliance within the time frame specified by the Department; or
- (c) where the Director is of the opinion that registration of a water closet is contrary to the public interest.

The Department may de-register a water closet from the Scheme with immediate effect by giving the participant notice in writing. Once a water closet is de-registered, it is not allowed to affix a Label to it. The participant shall remove all Labels from the de-registered water closet and/or its packing within three months from the notice. The participant shall return the registration certificate to the Department soon after the termination of registration under the Scheme.

9.19 Participant who decides to discontinue participating in the Scheme or to withdraw any registered water closet from the Scheme shall give at least three months' advance notice to the Department, in writing with the reason(s) for de-registration. The participant shall return the corresponding registration certificate to the Department within one month after de-registration under the Scheme.

### **Arrangement and Procedures upon expiry of the General Acceptance (GA) Approval**

9.20 As stated in Section 5.1, the flushing valve of water closet, if applicable, shall

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be tested in accordance with the relevant requirements as specified in the Waterworks Regulations (Caps. 102A) and comply with the standards specified for the flushing valve of water closet by the Water Authority. Upon completion of the test(s) and compliance with the standards, the approval for the flushing valve of water closet shall also be obtained from the Water Authority prior to the WELS application. The WELS registration record will expire on the expiry date of the General Acceptance of the flushing valves of the corresponding water closets.

- 9.21 The detailed arrangement and procedures for handling WELS registered water closet upon expiry of its flushing valve GA is described as below:
- (a) The WELS registration record will expire instantly on the expiry date of the GA of flushing valves;
  - (b) The WELS on water closets register on the Water Supplies Department's website (<https://www.wsd.gov.hk/en/plumbing-engineering/water-efficiency-labelling-scheme/wels-on-water-closets/register-water-closet-/index.html>) will be updated accordingly;
  - (c) Notification will be given to the participant upon the expiry of the WELS registration;
  - (d) Once the WELS registration record of a water closet is expired, it is not allowed to affix a Label to it;
  - (e) The participant shall remove all Labels from the water closet expired under WELS registration as well as its packing and/or the swing tag securely fastened to the product/packing within three months from the notice;
  - (f) Participant who decides to discontinue participating in the Scheme should inform the Department with written notice and return the corresponding registration certificate to the Department within one month upon receipt of the notification. Should no notice be received under this time-frame, the participant is deemed to discontinue his/her participation;
  - (g) Participant who decides to continue registering a water closet (of expired flushing valve GA) with the Scheme shall submit a notification letter through post, facsimile or electronic mail within one month of the date of the corresponding letter of the renewed GA of the flushing valve. The notification letter shall include its WELS registration number, manufacturer, brand and model number, together with the documentary

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proof the renewed GA issued by the Water Authority with the new validity period. If the application is accepted, the participant will be notified of the result within 17 working days upon the receipt of all necessary information requested.

## **10. Legal Provisions**

- 10.1 Without prejudice to any remedy a purchaser may have against the party under the Laws of Hong Kong, a culpable party may be subject to the following sanctions.
- 10.2 This Scheme is a voluntary scheme. However, a participant who abuses the Scheme by giving false information on the Label may constitute an offence under the Trade Descriptions Ordinance (Cap. 362).
- 10.3 Unauthorized use of the Label(s) may constitute an offence under the Copyright Ordinance (Cap. 528).

## **11. Compliance Monitoring and Inspection**

### **Purpose**

- 11.1 To uphold credibility of the Scheme and to maintain continuous confidence of the consumers, compliance check on the Labels on those water closets registered in the Scheme is necessary. In addition, to avoid the unsatisfactory situation that unauthorized Labels are used on non-registered water closets, the Department may also carry out suitable form of inspection on those water closets which have not been registered under the Scheme.

### **Scope**

- 11.2 The scope of inspection includes, but not limited to, sample checking and testing for the following items:
- (a) whether the Label is affixed/printed to registered water closets or their packing as required in Section 7;
  - (b) whether the Label being displayed is of correct format in accordance with Section 7;
  - (c) whether the water efficiency grade rated by the Department based on the data submitted by the participant is in line with the grade rated from



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the results of testing conducted by the Department **in compliance monitoring and inspection;**

- (d) whether the data shown on the Label tally with the information listed on the registration certificate; and
- (e) whether unregistered water closets display unauthorized Labels.

11.3 The participants will be requested to take immediate remedial action and report the follow-up action taken if non-compliance is found on their registered water closets such as incorrect information shown on the Label.

11.4 The Department may appoint a recognised laboratory to conduct annual testing on the registered water closets in accordance with the requirements specified in Sections I, II, III, IV and V of **Annex 1A and/or in Annex 1B**. For a registered water closet which is found to fall within either one of the following cases, the Department may request the participant to conduct separate test at his/her own cost on the registered water closets, in accordance with the testing methodology as stated in **Annex 1A and Annex 1B** in a recognised laboratory agreed by the Department.

- (a) The water closet is found not meeting the performance requirements specified in Section 5.3 **and Section 5.4;** or
- (b) The water closet is found not meeting the water efficiency grade rated based on the data **of the water closet samples** previously submitted by the participant in the application; or
- (c) The measured water flush volume of water closet is found **deviated** to the registered water flush volume by more/less than 20% **specified in Section 5.2.**

The re-test should be carried out on at least three further samples of the water closet provided by the WELS registrant. **The WELS registrant shall submit the reference samples for testing within one month upon the request of the Department.**

For case 11.4(a) above, the performance test results of the three water closets **samples** should meet the requirements specified in Section 5.3. If the test results fail to meet such requirements, the Department may either require the participant to withdraw his/her registration or de-register the water closet rated from the Scheme. The participant shall return the registration certificate

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to the Department soon after the termination of registration under the Scheme.

For cases 11.4(b) above, the water efficiency grading rated from the average water flush volume of the three water closet samples should be the same as the grading on the Label. Otherwise, the Department will require the participant to take appropriate remedial action including re-registering in the Scheme by replacing a Label with correct grading and water flush volume for the registered water closet **at his/her own cost**. The participant shall return the former registration certificate to the Department soon after the termination of previous registration.

For case 11.4(c) above, the water flush volume of the water closet samples shall be determined in accordance with Annex 1A and rated to the corresponding water efficiency grades as shown in Table 3. **If water closet cannot fulfil the performance requirement specified in Section 5.2, the Department may require the participant to take appropriate remedial action including re-registering in the Scheme by replacing a Label with correct grading and low rate for the registered water closet at his/her own cost.**”

- 11.5 **If no remedial action against the non-compliance is taken by the participant within the time prescribed by the Department, the Department may notify the participant of the de-registration of the concerned water closet from the Scheme. Once a water closet is de-registered, it is not allowed to affix or print a Label to it. The participant shall remove all Labels from the de-registered water closet and its packing within three months from the Department’s notice. Failure to remove the Labels from the de-registered water closet may contravene the relevant ordinances as mentioned in Section 10 above. At the same time, the participant shall return the corresponding certificate to the Department within one month after the termination of registration under the Scheme.**

**Inspecting Officers**

- 11.6 The Director will authorize Inspecting Officers to carry out water closet compliance monitoring and inspection. The officers will carry proper identification cards which will be produced during their inspection. However, the officers will not inform the participants in advance of their inspection.

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- 11.7 It is the participants' obligation to allow the Inspecting Officers to gain access to their premises to carry out the inspection. Failure to comply may render the model registration null and void.

**Mode of Inspection**

- 11.8 Annual inspections will be carried out on registered water closets under the Scheme. Based on the record of the registration, annual inspection programmes will be developed. Inspection will also be conducted on the non-registered water closets with unauthorized Labels.
- 11.9 In addition to the annual inspections, the Inspecting Officers will carry out ad-hoc inspections in response to complaints. The items to be inspected in such a case will depend upon the nature of complaints and may include the items as stated in Section 11.2.
- 11.10 Inspections will normally be carried out at the retail outlets and water closet showrooms. Where necessary, inspection will also be done at warehouses.
- 11.11 When necessary, re-inspection of non-compliance identified in water closet in the annual/ad-hoc inspection will be carried out.
- 11.12 The inspection results will be properly recorded for future analysis as well as on evaluation of the effectiveness of the Scheme to provide information on the levels of water consumption and efficiency ratings, to facilitate consumers to select water efficient plumbing fixtures and water consuming appliances and to provide confidence on the registered products under the Scheme.

**12. Complaints and Appeals**

- 12.1 The Department will be responsible for dealing with complaints from participants and other parties against matters related to the Scheme.

**Complaints Handling Procedure**

- 12.2 The Department shall ensure that complaints are properly recorded and handled without undue delay.

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12.3 The Department shall carry out investigation on complaints and reply to them within a reasonable time. For complaints that require site inspection and laboratory test, the complainant shall be notified through an interim reply.

12.4 The Department shall inform the complainant of the result or decision made on the complaint.

**Appeal Procedure**

12.5 A participant may appeal against the decision or action taken by the Department in writing to the Director stating the reason for the appeal.

12.6 The Director may decide to suspend the decision or action taken by the Department from the day on which the appeal is made until such appeal is disposed of, withdrawn or abandoned unless such suspension would, in the opinion of the Director, be contrary to public interest.

12.7 The Director may, by notice to the appellant, require the appellant to attend meeting(s) with him or his representatives and provide documents and give evidence relevant to the appeal.

12.8 The Director shall notify the appellant of his decision and reasons for it. The decision will be final.

**13. Maintenance of Scheme**

13.1 To ensure that the Scheme can continue to operate effectively and efficiently, the Scheme will be maintained as follows:

(a) Continuous updating of the Register of water closets registered in the Scheme as follows:

(i) registered water closets with details such as registration numbers in the Scheme, dates of registration, flush volume data, performance data, makes, models and other related information; and;

(ii) manufacturers, importers or other related parties of the registered water closets with details such as addresses, telephone numbers, e-

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mail addresses, etc.

- (b) Periodic review of the **Scheme Document**, including testing methodologies, procedures for registration application and compliance monitoring etc.
- (c) Continuous evaluation of the effectiveness of the Scheme and assessment of the changes, if any, are necessary.

## Testing Guidelines for Water Closets

### Condensed Testing Requirements with reference to the BS EN 997:2018 and ASME A112.19.2-2018 Standard

-Note-

*This Annex is a guideline to facilitate the participant to grasp the context of water efficiency testing requirements and it should be read in conjunction with the reporting requirements in Annex 2. This Annex makes reference to some of the chapters of the captioned standard and focuses on flush volume – full flush and reduced flush (for dual flush only), solid discharge for maximum flush, paper discharge for reduced flush volume (for dual flush only), liquid contaminant dye retention and drain line transportation distance. The participant should be able to obtain from the text a good appreciation of the testing requirements. On the other hand, the captioned standard is much more comprehensive and detailed and contains exact definitions. Due to condensed size, this Annex cannot replace the captioned standard nor is there any intention to do so. In case of doubt, the captioned standard should always be consulted.*

*Section I of this Annex describes the methodology for determination of flush volume. The performance tests for water closets are elaborated in Section II, III, IV and V.*

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## **Section I Methodology for Determination of the Flush Volume of Water Closets**

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### **A1 Scope**

This section sets out the method for determining the flush volume of a water closet.

### **A2 Principle**

The test is to determine the flush volume of water closets by operating the flushing device and collecting the water in the measuring vessel.

### **A3 Testing Apparatus**

*Please refer to Clause 6.17.3.1 in BS EN 997:2018.*

### **A4 Procedure**

*Please refer to Clause 6.17.3.2 in BS EN 997:2018.*

### **A5 Expression of Results**

*Please refer to Clause 6.5.2 in BS EN 997:2018 on the ratio of reduced flush volume against full flush volume and record compliance or any failure.*

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## **Section II Solid Discharge and After-flush Volume for Maximum Flush Volume test for Water Closets**

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### **B1 Scope**

This section sets out the method for performing solid discharge and after-flush volume for maximum flush volume test for water closets.

### **B2 Principle**

The tests are to determine the performance requirements for water closets with respect to solid discharge and after-flush volume for maximum flush volume.

### **B3 Testing Apparatus**

*Please refer to Clause 6.17.7.1 in BS EN 997:2018.*

### **B4 Procedure**

*Please refer to Clause 6.17.7.2 in BS EN 997:2018.*

### **B5 Expression of Results**

*Please refer to Clause 6.9 in BS EN 997:2018 to record compliance or any failure.*



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### **Section III Liquid Contaminant Dye Retention test for Water Closets**

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#### **C1 Scope**

This section sets out the method for performing liquid contaminant dye retention test for water closets.

#### **C2 Principle**

The test is to determine the performance requirements for water closets with respect to liquid contaminant dye retention.

#### **C3 Testing Apparatus**

*Please refer to Clause 6.17.9.1 in BS EN 997:2018.*

#### **C4 Procedure**

*Please refer to Clause 6.17.9.2 in BS EN 997:2018.*

#### **C5 Expression of Results**

*Please refer to Clause 6.11 in BS EN 997:2018 to record compliance or any failure.*

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## **Section IV Paper Discharge for Reduced Flush Volume for Water Closets (for Dual Flush only)**

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### **D1 Scope**

This section sets out the method for performing paper discharge for reduced flush volume test for water closets (for dual flush only).

### **D2 Principle**

The test is to determine the performance requirements for water closets (for dual flush only) with respect to paper discharge for reduced flush volume.

### **D3 Testing Apparatus**

*Please refer to Clause 6.17.8.1 in BS EN 997:2018.*

### **D4 Procedure**

*Please refer to Clause 6.17.8.2 in BS EN 997:2018.*

### **D5 Expression of Results**

*Please refer to Clause 6.10 in BS EN 997:2018 to record compliance or any failure.*

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## Section V Drain Line Transportation test for Water Closets

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### **E1 Scope**

This section sets out the method for testing the drain line transportation capacity of a water closet. All water closet that uses less than 3.5 L of water for full flush shall be tested for waste transportation efficiency using this test.

### **E2 Principle**

The water closet to be tested is secured and installed with an outer drain pipe with a minimum distance of 18 m. 100 polypropylene balls act as the test medium and are flushed from the water closet. The average carry distance by each ball in three separate runs shall be at least 10.0 m.

### **E3 Testing Apparatus**

*Please refer to Clause 7.7.1 and 7.7.2 in ASME A112.19.2-2018. Please note that the vent pipe shall be located at 0.3m from the outlet of the water closet pan.*

### **E4 Procedure**

*Please refer to Clause 7.7.3 in ASME A112.19.2-2018.*

### **E5 Expression of Results**

*Please refer to Clause 7.7.4 in ASME A112.19.2-2018.*

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*Note:*

*The design and construction of the drain pipe of water closet subject to compliance of the relevant building statutory and regulatory requirements.*

## Testing Guidelines for Water Closet Cistern Volume Curve

*-Note-*

*This Annex is a guideline to facilitate the participant to grasp the context of water efficiency testing requirements and it should be read in conjunction with the reporting requirements in Annex 2. The participant should be able to obtain from the text a good appreciation of the testing requirements. This Annex describes the principles, methodology and procedures for determining the cistern volume curve for water closet cistern. The construction of a volume curve for each water closet cistern would allow the findings of both the full flushing volume and reduced flushing volume of the water closet cistern under any given flushing valve with water level readings. This testing would in the long term simplify the procedures needed for any flushing valve changes in the water closet cistern.*

## **A1 Scope**

This section sets out the method for determining the volume curve of a water closet cistern.

## **A2 Principle**

The water closet cistern to be tested is secured and installed with a flushing valve and an inlet valve. Water is filled to the water closet cistern in a controlled manner to the test sample. The water levels contained in the water closet cistern at each volume increment are measured to generate a cistern volume curve. The water level contained in the water closet cistern at (i) every 500 ml volume increment for water closet cistern with total volume equal or greater than 7L or (ii) every 300 ml volume increment for water closet cistern with total volume small than 7L, are measured to generate a cistern volume curve.

## **A3 Apparatus**

The following apparatus is required:

- (a) A water supply capable of delivering water.
- (b) A water closet cistern into which the outlet hole is sealed for subsequent water filling and containment.
- (c) A flushing valve and an inlet valve of manufacturers' choice.
- (d) A water volume measuring device with an accuracy of  $\pm 0.30\%$ .
- (e) A water level measuring device with an accuracy of  $\pm 1$  mm.

## **A4 Procedure**

The procedure shall be as follows:

- (a) The water closet cistern shall be mounted firmly and installed with a flushing valve and inlet valve.

- (b) Connect the water supply to the water closet cistern, if necessary.
- (c) Set the interface between the water closet cistern and the flushing valve as the datum of the cistern volume curve (as shown in Figure A1).
- (d) Gradually fill the water closet cistern with water at (i) every 500 ml volume increment for water closet cistern with total volume equal or greater than 7L or (ii) every 300 ml volume increment for water closet cistern with total volume small than 7L with an accuracy of  $\pm 0.30\%$  using appropriate measuring equipment.
- (e) Record the water level in the cistern with an accuracy of  $\pm 1$  mm using appropriate measuring equipment for each water volume increment.
- (f) Continue the recording procedure for each volume increment until the maximum operational water level of the cistern being tested is reached.
- (g) Empty the water closet cistern and repeat steps (d) to (g) to obtain a second and third set of readings of the water level contained in the water closet cistern at each water volume increment.
- (h) An average water level is calculated for each water volume increment based on the results of the three runs.

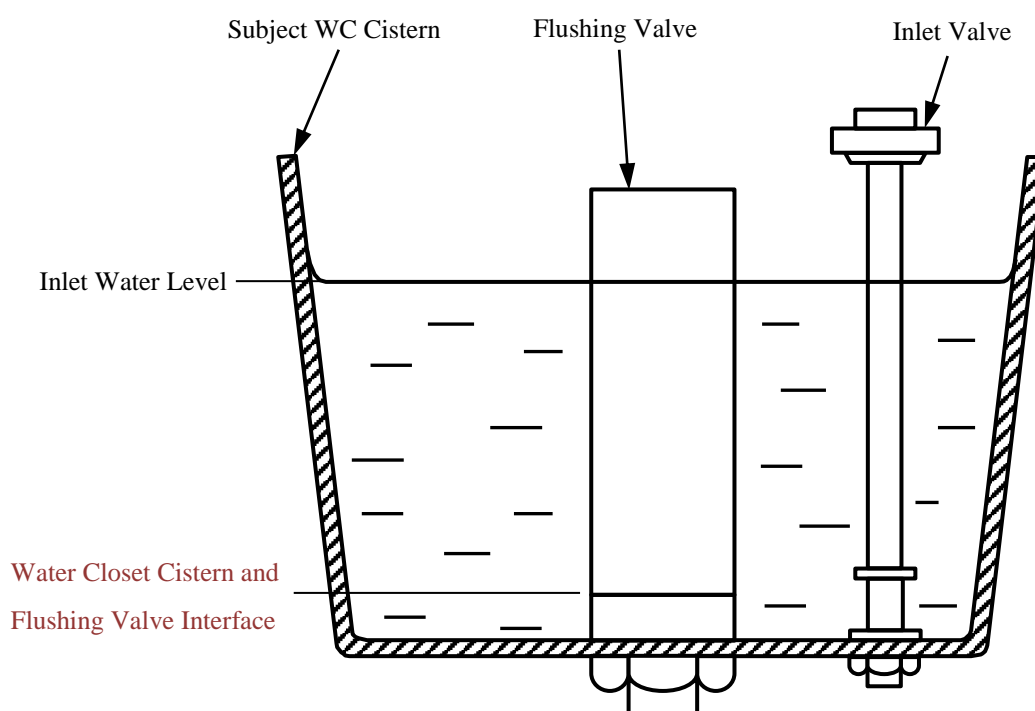


Figure A1. WC Cistern Testing Apparatus Arrangement

**A5 Expression of Results**

The following shall be reported and attached:

- (a) Manufacturer, brand name, model name and model number, if applicable, of the water closet cistern.
- (b) A sample table showing the average water level contained in the water closet cistern at the water volume of:

Water Volume (cm <sup>3</sup> )	1st Test Water Level (mm)	2nd Test Water Level (mm)	3rd Test Water Level (mm)	Average Water Level (mm)
0				
500				
1000				
1500				
2000				
2500				
...				

- (c) The device used in measuring the water level and the water volume contained in the water closet cistern and their respective accuracy range.
- (d) A plot showing the change in water level against water volume in the water closet cistern. The plot should be marked with a formula in the form  $y = f(x)$ , in which  $y$  denotes the water level of the water closet cistern and  $x$  represents the water volume of the water closet cistern.



## **Calculation of Water Closet Cistern Flushing Volumes for WELS Application**

This form is to be filled by accredited laboratories or applicants and submitted for the application of WELS water closets including the component of water closet cistern with an established cistern volume curve, along with the detailed laboratory test report of the cistern volume curve and the flushing valve GA issued by the Water Authority.

The calculation of the flushing volume using a cistern volume curve formula could be performed given the following parameters: (i) Inlet Water Level, (ii) Reduced Flush Level and (iii) Full Flush Level. The inlet water level, the reduced flush level and full flush level will be determined through laboratory testing based on the associated flushing valve and inlet valve choice. Three measurements are to be recorded for each of (i) Inlet Water Level, (ii) Reduced Flush Level and (iii) Full Flush Level. An average water level is calculated based on the three measurements and will be used as the final water level for each of the three parameters.

### **Part 1 – Cistern Volume Curve Formula**

(as stated from the laboratory test report for cistern volume curve determination)

$$y = \underline{\hspace{10em}}$$

in which  $y$  denotes the water level of the water closet cistern and  $x$  represents the water volume of the water closet cistern.



**Part 2 – Flushing Valve and Inlet Valve Information**

Table 2.1 – Details of Subject Flushing Valve and Inlet Valve

	Flushing Valve	Inlet Valve
Manufacturer		
Country of Origin		
Brand Name		
Model Name		
Model Number		
GA Registration Number		/

Table 2.2 – Measurement of Flushing Valve and Inlet Valve Water Levels as stated in the test report

	1 <sup>st</sup> Measurement (mm)	2 <sup>nd</sup> Measurement (mm)	3 <sup>rd</sup> Measurement (mm)	Average Measurement (mm)
Inlet Water Level (H <sub>1</sub> )				
Reduced Flush Water Level (H <sub>2</sub> )				
Full Flush Water Level (H <sub>3</sub> )				

Based on Table 2.2, the water levels, with respect to the interface between the flushing valve and the water closet cistern as shown in Figure F1, to be used in the given cistern volume curve formula in Part 1 are:

H<sub>1</sub>: Inlet Water Level \_\_\_\_\_ mm

H<sub>2</sub>: Reduced Flush Level \_\_\_\_\_ mm

H<sub>3</sub>: Full Flush Level \_\_\_\_\_ mm

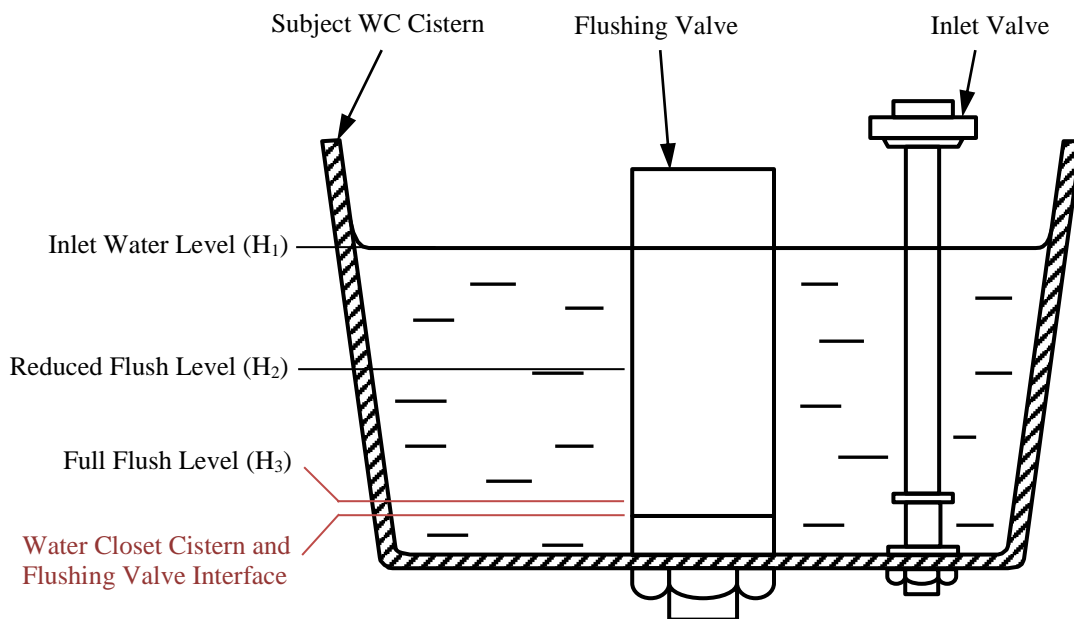


Figure F1. WC Cistern Testing Apparatus Arrangement and Water Levels Indication

**Part 3 – Flushing Volume Determination**

Based on the information in Part 1 and Part 2:

(A) Water Flush Volume for Full Flush:

= Inlet Water Volume – Remaining Water Volume at Full Flush Level

= \_\_\_\_\_ L

(B) Water Flush Volume for Reduced Flush:

= Inlet Water Volume – Remaining Water Volume at Reduced Flush Level

= \_\_\_\_\_ L

## Reporting Requirements for Water Closets

The testing report shall contain the following information:

- (a) Manufacturer, country of origin, brand name, model name, model number of water closet pan, water closet cistern and flushing device (if these are applicable) of water closets;
- (b) At least three photos clearly showing the front, side and bottom views of water closets;
- (c) The full flush volume, calculated as the mean of the average of five full flush volume obtained in paragraph A4 of [Annex 1A](#) in 1 decimal place;
- (d) If dual flush setting is available, the reduced flush volume, calculated as the mean of the average of five reduced flush volume obtained in paragraph A4 of [Annex 1A](#) in 1 decimal place;
- (e) Record compliance or any failure to comply with the ratio of reduced-flush volume against full-flush volume according to paragraph A5 of [Annex 1A](#);
- (f) Record compliance or any failure to comply with the solid discharge and after-flush volume for maximum-flush volume test according to paragraph B5 of [Annex 1A](#);
- (g) Record compliance or any failure to comply with the liquid contaminant dye retention test according to paragraph C5 in [Annex 1A](#);
- (h) Record compliance or any failure to comply with the paper discharge for reduced flush volume (for dual flush only) according to paragraph D5 in [Annex 1A](#);
- (i) Record compliance or any failure to comply with the drain line transportation test (for water closet with full flush volume less than 3.5 L) according to paragraph E5 of [Annex 1A](#); and
- (j) The cistern volume curve (optional) according to paragraph A5 of [Annex 1B](#).

## Water Efficiency Label



Full Version Grade 1 WELS Label



Simplified Version Grade 1 WELS Label



Full Version Grade 2 WELS Label



Simplified Version Grade 2 WELS Label



Full Version Grade 3 WELS Label



Simplified Version Grade 3 WELS Label



Full Version Grade 4 WELS Label



Simplified Version Grade 4 WELS Label

## Notes:

1. Dimensions of the full and simplified versions of the water efficiency label are 120mm x 50mm and 40mm x 20mm respectively.
2. Pantone Color: Green (Grade 1): 390C; Brown (Grade 2): 471C; Purple (Grade 3): 2583C; Red (Grade 4): 214C; WSD logo: 293C
3. The water consumption figure shown in the water efficiency label is the water flush volume of the Water Closet as determined in accordance with the Scheme.

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**Proforma Letter of Application**

Our ref.

Tel.

Fax.

Date

Water Supplies Department  
47/F, Immigration Tower  
7 Gloucester Road, Wanchai  
Hong Kong

Dear Sir/Madam,

**Application for Registration in the Voluntary Water Efficiency Labelling Scheme on Water Closets**

Our company is the (manufacturer / importer / other related parties (please specify)\*) of \_\_\_\_\_ (brand name, model number and/or name of water closet) in Hong Kong. We would like to apply for registration of the water closet in the above Scheme.

We understand fully our obligations as stated in the document of “**Voluntary Water Efficiency Labelling Scheme on Water Closets**” (Scheme Document) and will comply with all relevant requirements, in particular those specified below:

- (a) submit application for registration by means of an application letter together with “**Proforma Letter of Application**”, the information/material required in Section 9.3 of the Scheme document and the test report in accordance with the reporting requirements specified in Annex 2;
- (b) at our own costs, produce the water efficiency label and affix/print the full version water efficiency label either to the water closet or its packing at a prominent location in accordance with Section 7 of the Scheme Document;
- (c) ensure that the registered water closet shall be displayed for sale with the full version Label(s);
- (d) fully inform other related parties (such as sales agents, retailers, etc.) in the participant’s sale distribution network once the water closet is registered

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under this Scheme and notify them that the Water Supplies Department (Department) may request to enter their premises to carry out the **compliance monitoring** inspections as stated in Section 11 of the Scheme document;

- (e) allow annual/ad-hoc inspection/**re-inspection** to be conducted by Inspecting Officers authorized by the Director of Water Supplies on the registered water closet at our premises **such as the warehouse and/or its retailing spots**;
- (f) allow the tested and performance data of the registered water closet to be uploaded to the Department's website for public information;
- (g) **submit a reference sample of the registered water closet for testing at his/her own cost upon the request of the Department**;
- (h) conduct re-test(s) at our own costs at a recognized laboratory **complying with the requirements in Section 8 of the scheme document** if non-compliance is found on the registered water closet. The result of re-test(s) shall reach the Department within the time specified by the Department;
- (i) provide additional supporting information/ material upon request of the Department within the time prescribed. Failure to comply may render rejection of the application (**see Section 9**);
- (j) notify the Department by means of a notification letter (in either English or Chinese with the company's chop stamped on **the Proforma Letter of Application and all submitted documents front covers**) by post, facsimile or electronic mail of any changes of the company information (e.g. company name). The notification should be made not less than 14 working days before the change. Failure to comply may render the model registration null and void. Changes of water closet information (e.g. brand name, model no.) will be considered as major changes that require new applications for registration in the Scheme;
- (k) remove within three months all Labels from the water closet and/or its packing if it has been de-registered; and
- (l) The participant shall return the **corresponding** registration certificate to the Department **within one month upon receipt of the notification letter of de-registration**.

The detailed information of the water closet which we apply for registration is shown in the attached documents (see Annex 5 for the list of information to be submitted) for your processing.

Yours faithfully,

(Manufacturer/Importer/Agent's Name and Company Chop)

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\* *delete as appropriate*



**Information/Material to be Submitted**  
**to the Water Supplies Department**

**General**

1. Information of the company, i.e. name, address, telephone number, fax number, e-mail address, website address, contact person, and sale distribution network (names and addresses of the distributor(s)), etc.;
2. Information of the water closet being applied for registration in the Scheme, i.e. brand name, model no. and/or name, catalogue (if available), at least three photos (showing the front, side and bottom views of the water closet) and country of origin;
3. Parties which will be responsible for making and affixing the water efficiency label (Label);
4. Proposed commencement date to affix the Label to water closet (Year \_\_\_\_\_, Month \_\_\_\_\_);
5. Documentary proof that the design (if any) and production system for the water closet is operating according to a recognised international quality system (such as ISO 9001 or equivalent). The submission of product drawings extracted from the product manual or design manual, and international quality system certificate on the manufacturer can be considered as documentary proof of recognition of the quality system. Failure to renew the recognised international quality system may render the model registration null and void;
6. Documentary proof of the flushing valve GA issued by the Water Authority;
7. Detailed test report in accordance with the reporting requirements is specified in Annex 2. The test report shall be issued by a recognised laboratory complying with the requirements in Section 8. The required information requested in Sections I, II, III, IV & V of Annex 1A of the Scheme document have to be provided in a single section of the test report;
8. Documentary proof that the testing laboratory appointed by the participant has satisfied the requirement of Section 8. The submission of certificate of accreditation, self-declaration statement that the operation of the testing laboratory meets the requirements of ISO/IEC 17025 can be considered as documentary proof;
9. For the case of water closet of same design but with the variation in colour and finishing, the applicant should consult with the testing laboratory and confirm in writing that such variation will not affect the water flush volume and other performance requirements specified in Section 5.2, 5.3 and 5.4; and
10. Participant shall submit a reference sample for water closet successfully registered under the Scheme upon the request of the Department.

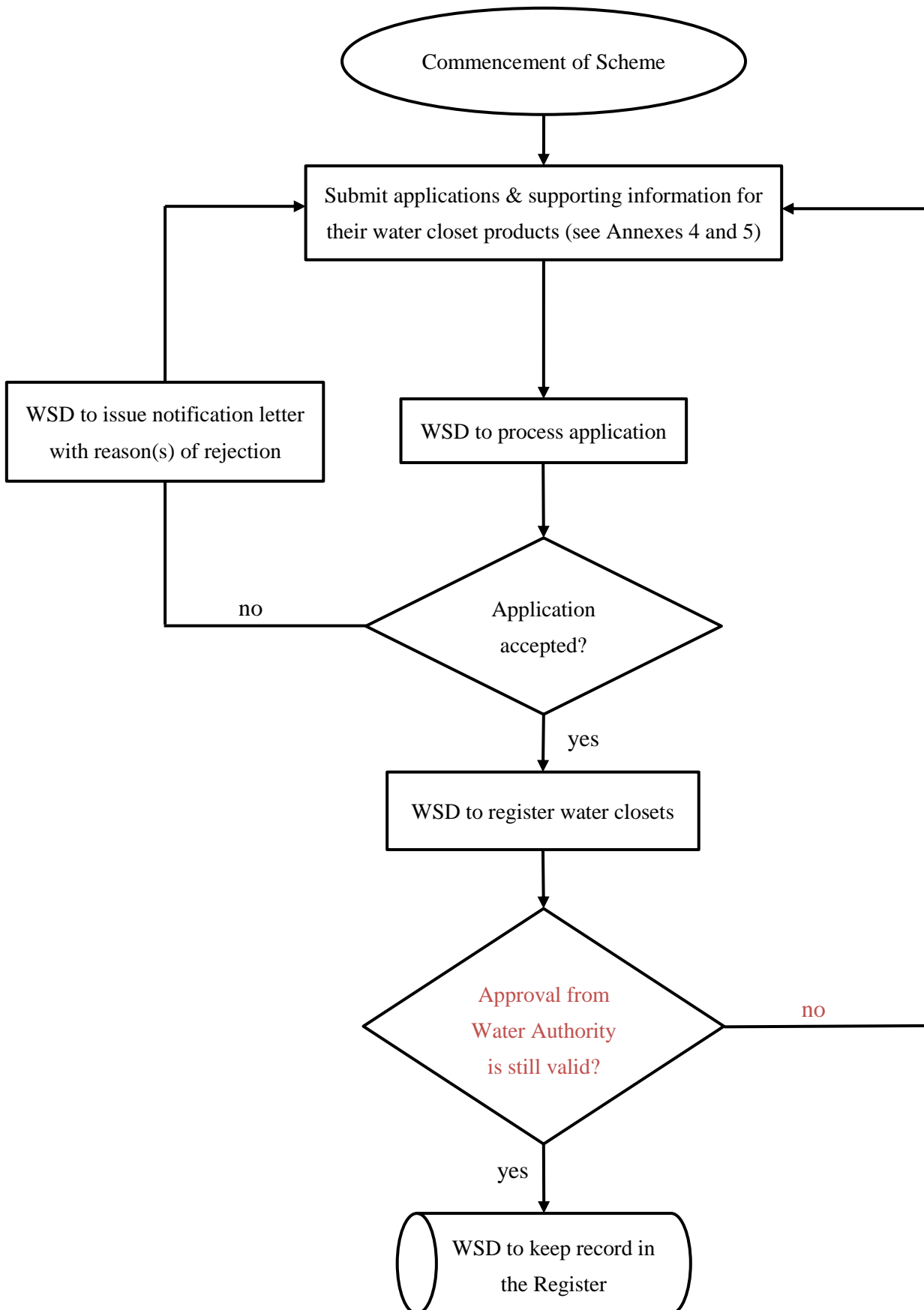
**Combination of Cistern and Flushing Valve**

11. General Item no. 1 – 10;
12. Form 1B that includes the provision of the estimated full flush volume and reduced flush volume calculated based on the cistern volume curve, inlet water level, reduced volume water level and full flush volume level;
13. Detailed test report of the cistern volume curve issued by a recognized laboratory complying with the requirements in Section 8; and
14. Detailed test report of the flushing valve maximum filled level, the reduced flushing level and the full flushing level measured by a recognized laboratory.

**Overseas Recognition**

15. General Item no. 1 – 10;
16. Detailed test report used for application for registration of the water closet under the overseas water efficiency labelling scheme;
17. Documentation showing valid registration status of the water closet in the respective overseas water efficiency labelling scheme (e.g. registration document, website link, i.e. URL, to the register in respective scheme); and
18. Website link showing the recognized laboratory under HKAS MRA or equivalent

**Note:** *Company's chop should be stamped on the Proforma Letter of Application and all the document front covers/pages provided by hand, or through post, facsimile or electronic mail to the Water Supplies Department. All photocopy test reports submitted Department shall be certified as true copy issued by the testing laboratory appointed by the participant. Upon the request of the Department, the participant is required to provide the original copy of the test reports.*

**Flow Chart for Registration**

**List of International Standards accepted by the Water Supplies Department as equivalent testing and acceptance criteria for the purpose of registration of water closets under Water Efficiency Labelling Scheme**

Note:

This is a non-exhaustive list of international standards comparable to **BS EN 997:2018** and accepted by the Water Supplies Department as equivalent testing and acceptance criteria for the purpose of registration of water closets under Water Efficiency Labelling Scheme.

1. BS EN 997:2003
2. **BS EN 997:2012+A1:2015**