

**BRL-K615**

2019-09-15

# Evaluation Guideline

for the Kiwa product certificate for  
Float operated valves for flushing cisterns



**Trust  
Quality  
Progress**

# Preface

This evaluation guideline has been accepted by the Kiwa Board of Experts Watercycle (CWK), in which all relevant parties in the field of Drinking water appliances are represented. The Board of Experts also supervises the certification activities and where necessary requires the evaluation guideline to be revised. All references to Board of Experts in this evaluation guideline pertain to the above mentioned Board of Experts.

This evaluation guideline will be used by Kiwa in conjunction with the Kiwa Regulations for Product Certification.

The main changes compared to the previous version are:

- Including clear condition for the testing procedure of water hammer test as specified in EN14124 (clause 6.6).
- Editorial modification in the content of the BRL in relation to the quality objective of Kiwa.

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The use of this evaluation guideline by third parties, for any purpose whatsoever, is only allowed after a written agreement is made with Kiwa to this end.

## **Validation**

This evaluation guideline has been validated by the Director Certification and Inspection of Kiwa on  
**15 September 2019**

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# 1 Introduction

## 1.1 General

This evaluation guideline includes all relevant requirements which are adhered to by Kiwa as the basis for the issue and maintenance of a certificate for products used for float operated valves for flushing cisterns.

This guideline replaces the evaluation guideline BRL-K615/03, dated 01-02-2012. The quality declarations issued and based on that guideline will not lose their validity.

For the performance of its certification work, Kiwa is bound to the requirements as included in NEN-EN-ISO/IEC 17065 "Conformity assessment - Requirements for bodies certifying products, processes and services".

## 1.2 Field of application / scope

The float operated valves are intended to be applied in flushing cisterns which are connected to WC-pans. They have the purpose to open when the cistern is being flushed and shut off the water supply when the required water level is reached.

The float operated valves in flushing cisterns are intended to be installed in a drinking water installation with a maximum working pressure of 1000 kPa and a maximum water temperature of 30 °C.

## 1.3 Acceptance of test reports provided by the supplier

If the supplier provides reports from test institutions or laboratories to prove that the products meet the requirements of this evaluation guideline, the supplier shall prove that these reports have been drawn up by an institution that complies with the applicable accreditation standards, namely:

- NEN-EN-ISO/IEC 17020 for inspection bodies;
- NEN-EN-ISO/IEC 17021 for certification bodies certifying systems;
- NEN-EN-ISO/IEC 17024 for certification bodies certifying persons;
- NEN-EN-ISO/IEC 17025 for laboratories;
- NEN-EN-ISO/IEC 17065 for certification bodies certifying products.

### Remark:

This requirement is considered to be fulfilled when a certificate of accreditation can be shown, issued either by the Board of Accreditation (RvA) or by one of the institutions with which an agreement of mutual acceptance has been concluded by the RvA. The accreditation shall refer to the examinations as required in this evaluation guideline. When no certificate of accreditation can be shown, Kiwa shall verify whether the accreditation standard is fulfilled.

## 1.4 Quality declaration

The quality declaration to be issued by Kiwa is described as a Kiwa product certificate. A model of the certificate to be issued on the basis of this evaluation guideline has been included for information as Annex.

## 2 Terms and definitions

### 2.1 Definitions

In this evaluation guideline, the following terms and definitions apply:

- **Board of Experts:** the Board of Experts Watercycle (CWK).
- **Certification mark:** a protected trademark of which the authorization of the use is granted by Kiwa, to the supplier whose products can be considered to comply on delivery with the applicable requirements and possibly with quality information on the application of the product is added by a specially designed label which is based on the result, as stated in the report issued by Kiwa on the inspection of the prototype.
- **Drinking water:** water intended or partly intended for drinking, cooking or food preparation or other domestic purposes, but does not include hot water, and is made available by pipeline to consumers or other customers.
- **Drinking water installation:** an installation direct or in-direct connected to the public drinking water distribution network of a drinking water company (source Dutch drinking water act);
- **Evaluation Guideline (BRL):** the agreements made within the Board of Experts on the subject of certification.
- **Hot tap water:** water intended or partly intended for drinking, cooking or food preparation or other domestic purposes, which is heated before it is made available for those applications.
- **House hold water:** non-potable water that may only be used within premises for flushing toilets (source Dutch drinking water act);
- **Installation:** configuration consisting the pipe work, fittings and appliances;
- **Inspection tests:** tests carried out after the certificate has been granted in order to ascertain whether the certified products continue to meet the requirements recorded in the evaluation guideline.
- **IQC scheme (IQCS):** a description of the quality inspections carried out by the supplier as part of his quality system.
- **Pre-certification tests:** tests in order to ascertain that all the requirements recorded in the evaluation guideline are met.
- **Private Label Certificate:** A certificate that only pertains to products that are also included in the certificate of a supplier that has been certified by Kiwa, the only difference being that the products and product information of the private label holder bear a brand name that belongs to the private label holder.
- **Product certificate:** a document in which Kiwa declares that a product may, on delivery, be deemed to comply with the product specification recorded in the product certificate.

- **Product requirements:** requirements made specific by means of measures or figures, focussing on (identifiable) characteristics of products and containing a limiting value to be achieved, which can be calculated or measured in an unequivocal manner.
- **Supplier:** the party that is responsible for ensuring that the products meet and continue to meet the requirements on which the certification is based.
- **Tap water** (origin NEN 1006): water intended for drinking, cooking, food preparation or other domestic purposes.
- **Working pressure (pw):** the highest possible effective pressure ( $p_e$ ) in normal circumstances in the water installation or part of it.
- **Effective pressure ( $p_e$ ):** the difference between the nominal pressure ( $p$ ) and the atmospheric pressure ( $p_{amb}$ ). In formula:  $p_e = p - p_{amb}$ .
- **Pressure of use:** pressure directly before the connecting end of the apparatus which is operational.
- **Float operated valve:** float operated valves are intended to be applied in flushing cisterns which are connected to WC-pans. They have the purpose to open when the cistern is being flushed and shut off the water supply when the necessary water level is reached again after the flush.

## 2.2 Types

According to the operating methods of the float operated valve the following types are determined:

- **Level independent of pressure:** float operated valves of which the principle of operation is based on a closing element which seals the outlet bore with a force which is considerably greater than the opposite force as product of the pressure in the water installation and the area surface of the outlet bore.
- **Level dependent of pressure:** float operated valves of which the principle of operation is based on a closing element which seals the outlet bore with a force equal to the opposite force as product of the pressure in the water installation and the area surface of the outlet bore.

## 2.3 Configurations

Float operated valves as mentioned above types are divided by the following configurations:

- **Universal float operated valves:** float operated valves which are inter exchangeable amongst each other.
- **Special float operated valves:** float operated valves which are to be installed specifically, because of a customized construction or mounting method and to be installed in specific designated flushing cisterns. The flushing cistern shall comply with BRL-K620.
- The float special float operated valves and flushing cistern shall be delivered together.

### Note

Mounting in the bottom of the flushing cistern or with a special bracket is considered as a customized mounting method.

# 3 Procedure for granting a product certificate

## 3.1 Initial investigation

The pre-certification tests to be performed are based on the (product) requirements as contained in this evaluation guideline, including the test methods, and comprises the following:

- type testing to determine whether the products comply with the product and/or functional requirements;
- production process assessment;
- assessment of the quality system and the IQC-scheme;
- assessment on the presence and functioning of the remaining procedures.

## 3.2 Granting the product certificate

After finishing the pre-certification tests, the results are presented to the Decision maker (see 9.2) deciding on granting the certificate. This person evaluates the results and decides whether the certificate can be granted or if additional data and/or tests are necessary.

## 3.3 Investigation into the product and/or performance requirements

Kiwa will investigate the to be certified products against the certification requirements as stated in the certification requirements.

The necessary samples will be drawn by or on behalf of Kiwa.

## 3.4 Production process assessment

When assessing the production process, it is investigated whether the producer is capable of continuously producing products that meet the certification requirements.

The evaluation of the production process takes place during the ongoing work at the producer.

The assessment also includes at least:

- The quality of raw materials, half-finished products and end products;
- Internal transport and storage.

## 3.5 Contract assessment

If the supplier is not the producer of the products to be certified, Kiwa will assess the agreement between the supplier and the producer.

This written agreement, which is available for Kiwa, includes at least:

Accreditation bodies, scheme managers and Kiwa will be given the opportunity to observe the certification activities carried out by Kiwa or on behalf of Kiwa at the producer.

# 4 Requirements

## 4.1 General

This chapter contains the requirements that the float operated valves for flushing cisterns have to fulfil.

## 4.2 Regulatory requirements

### 4.2.1 *Requirements to avoid deterioration of the quality of drinking water*

Products and materials which (may) come into contact with drinking water or warm tap water, shall not release substances in quantities which can be harmful to the health of the consumer, or negatively affect the quality of the drinking water. Therefore, the products or materials shall meet toxicological, microbiological and organoleptic requirements as laid down in the currently applicable "Ministerial Regulation materials and chemicals drinking water and warm tap water supply", (published in the Government Gazette). Consequently, the procedure for obtaining a recognised quality declaration, as specified in the currently effective Regulation, has to be concluded with positive results.

Products and materials with a quality declaration<sup>1</sup>, e.g. issued by a foreign certification institute, are allowed to be used in the Netherlands, provided that the Minister has declared this quality declaration equivalent to the quality declaration as meant in the Regulation.

## 4.3 Product requirements

### 4.3.1 Product

Product requirements are laid down in the following standard:

Standard	Title
EN14124	"Inlet valves for flushing cistern with internal overflow"

The requirements of the product are specified in standard with exception of the aspects where requirements are specified in following clauses.

Concerning materials and functional aspects of the float operated valves further specifications are mentioned in this guideline (BRL).

### 4.3.2 Additional requirements

#### 4.3.2.1 *Hygienic treatment of products in contact with drinking water*

The supplier must have a procedure in place that protects the products in such way, that the hygiene is ensured during storage and transport.

In addition, the supplier shall inform the customer about the handling of products delivered under the certificate, which come into contact with drinking water and warm tap water, from arriving at the construction site through to the realization and commissioning. The primary reason for providing this the information is to contribute to the awareness of the importance of hygienic work as a 'prevention measure'.

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<sup>1</sup> A quality declaration issued by an independent certification institute in another member state of the European Community or another state party to the agreement to the European Economic Area, is equivalent to a recognized quality declaration, to the extent that, to the judgment of the Minister of the first mentioned quality declaration, is fulfilled the at least equivalent requirements as meant in the Regulation materials and chemicals drinking water- and warm tap water supply.

#### 4.3.2.1 *Protection of products during transport and storage*

For the purpose of hygienic handling, products shall be protected against contamination. This is in regards to the surfaces of the product that come into contact with drinking water during the application.

Precautions to protect the product against contamination shall be agreed upon between the supplier and the client and shall be recorded in the quality management system of the supplier.

#### 4.3.2.1 *Other materials*

Materials which are not in contact with drinking water shall be:

- Fit for its purpose<sup>1)</sup>;
- Corrosion resistant;
- Electrochemically corrosion resistant (corrosion by contact);
- Resistant to long term influence by water with a maximum temperature of 30 °C.

#### 4.3.2.1 *Adjustment possibilities and range*

The float operated valves shall be designed in a way that it is possible to adjust the water level in the tank of the flushing cistern in a simple way at water pressure of use between 50 kPa and 1000 kPa.

The manufacturer shall determine the range of adjustability of the float operated valve. The prescribed indication of the producer shall be assessed as specified in article 5.2. The producer shall indicate the range of adjustment in a proper way (e.g. on the package or by means of an instruction sheet delivered with the product).

##### **Note**

The float operated valves shall at least be adjusted to the highest level in the flushing cistern which is marked by the water level line.

The range of adjustability during installation shall guarantee a water level below the connecting end.

The possibility to bend the lever in the correct position for this purpose to which the floater is connected shall comply with the relevant and applicable requirements for this part.

#### 4.3.2.1 *Float*

The float shall be strong and sustainable connected to the lever, without backlash which will stand in the way of the float operated valve to function correctly.

##### **1. Construction and material**

The construction and/or material of the float shall be as such, that an adjusted water level shall not oscillate more than 10 mm uncontrolled. This has to be assessed according clause 5.3.

##### **Note**

Special attention is made to the level of water absorption of floating part made of styrofoam and the dissolving of air in the hollow areas in the floating parts.

##### **2. Hollow floats**

Hollow floating parts shall be sufficiently strong, if applicable the welded seam shall be watertight. The welded seam has to be of good quality without any air or pollution embedded. The material thickness at location of the welded seam shall be at least the same as the thickness elsewhere on the floating part.

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<sup>1)</sup> It is assumed that materials comply provided that the functional product examinations are completed with positive results.

The floating part shall be able to withstand a force of 1250 N perpendicular to the welded seam in the same surface without showing any damage. This has to be assessed according clause 5.4.

After the product examination the float operated valve has to comply with the requirements applicable to construction and material as mentioned in clause 4.3.2.1.

#### 4.3.2.1 *Rubber rings*

Rubber sealing rings (O-rings) are permitted to be applied. Concerning the dimensions we refer to the instructions and standards of the manufacturers of the manufacturers of rubber sealing rings.

#### 4.3.2.1 *Protection thread*

Thread of metallic corrosion resistant connecting ends shall be protected against (crevice) corrosion and pollution.

##### **Note**

Because of long term exposure to moist in a humid environment and deposited dirt and dust particles combined with tension between the bolt and outer thread, this type of corrosion can occur.

#### 4.3.2.1 *Finishing*

Float operated valves shall have a finishing fit to their purpose of use and well cleaned. Internally the valve shall have no undesirable irregularities, which can intolerably block the water flow or endanger correct operating of the float operated valve.

### **4.3.3 *Deviating requirements***

#### 4.3.2.1 *Closure at high pressure*

Additionally to the requirements mentioned at article 6.7 of EN 14124 the closure at static pressure of 1600 kPa shall not cause an increase of the water level of more than 20 mm compared with the water level during the closure at a pressure of 1000 kPa.

The float operated valves shall be watertight at the given pressures and:

- the part which is under pressure shall not be in contact with the water in tank;
- there shall be no leakage.

#### 4.3.2.1 *Water hammering*

Additionally to the requirements mentioned in article 7.7 of the EN14124 the water hammering test shall be conducted at 600 Hz.

#### 4.3.2.1 *Opening after closure at high pressure*

Float operated valves shall, after closure at a pressure of 1600 kPa because of an increasing water level, open again when the water level is sufficiently lowered.

This has to be assessed according clause 5.5.

#### 4.3.2.1 *Material connecting end*

The connecting end of the float operated valve shall not be made of plastic (because of possible risk of breaking or damage).

#### 4.3.2.1 *Connecting ends*

Float operated valves can be supplied with the following types of connecting ends:

- a) Compressing ends according Kiwa guideline BRL-K640;
- b) Connecting ends according Kiwa guideline BRL-K639;
- c) Copper pipe end according Kiwa guideline BRL-K760.

Depending on the type of connection between the float operated valve and the drinking water installation (side, bottom or rear and in or on the tank) the connecting end shall be of the following types:

- a) Connecting ends with metallic screw thread shall meet the requirements as mentioned in EN 14124;
- b) Connecting end suitable for compression fitting for copper pipes shall have an outside diameter of 10 mm or 12 mm (Kiwa guideline BRL-K639).

#### **4.3.2.1** *Opening after slight decrease of water level*

Deviating from the requirement mentioned in art. 6.5 of EN 14124 float operated valves after closing at pressures of 50 kPa and 1000 kPa, shall open at a maximum decrease of 30 mm of the water level. This shall be assessed according to clause 5.5.2.

# 5 Test methods

## 5.1 General

### 5.2 Determination of adjustment range of float operated valve

#### 5.2.1 Apparatus

In order to determine the adjustment range a test installation as described in article 7.4.1 of the EN 14124 is used. The water tank shall be equipped with measuring equipment which is able to measure the different required water levels.

The measurements shall be done in room temperature environment; the water temperature shall be  $20 \pm 5$  °C. The float operated valve test sample shall be connected with a transparent piece of pipe to the water supply, in which using a pump the required water pressures can be delivered. The pressures shall be measured with a precision pressure gauge.

#### 5.2.2 Procedure

- a) Install the float operated valve in the regular position in the water tank and connect to the water supply.
- b) Supply water through the float operated valve with a dynamic pressure of  $50 \pm 5$  kPa until the water supply is shut off through the float operated valve because of the raising water level in the tank. In the meantime the static pressure shall not be higher than 60 kPa at any moment.
- c) Determine the distance between the water level and the bottom side of the connecting end.
- d) Adjust the float operated valve in such a way that the determined distance at point c.) is equal to the highest possible value of the adjustment range as intended by the manufacturer. If needed repeat procedure steps a.) to c.) to achieve the required set up.
- e) Repeat step b.) to d.), but under different pressures subsequently  $1000 \pm 50$  kPa and 1100 kPa.
- f) Execute steps b.) to e.), but with the distance measured set equal to the lowest possible position in the adjustment range of the float operated valve as intended by the manufacturer.

### 5.3 Determination effectiveness of the float

#### 5.3.1 Apparatus

For the determination of the effectiveness of the floating part a test reservoir is needed. This reservoir shall be equipped with measuring equipment which are able to measure water levels in the reservoir with an accuracy of  $\pm 1$  mm. The measurements shall be done in room temperature environment.

The float operated valve test sample shall be connected to the water supply, in which using a pump the required water pressures can be delivered. The water pressures shall be measured with precision pressure gauges. Before the test is started all air shall be purged out of the test installation.

#### 5.3.2 Test sample

For every test a new test sample of the float operated valve and floating part shall be used.

#### 5.3.3 Procedure

- a) Install the float operated valve in the regular position in the water tank and connect to the water supply.

- b) Supply water through the float operated valve with a dynamic pressure of  $50 \pm 5$  kPa and purge all air out of installation, until the water supply is shut off through the float operated valve because of the raising water level in the tank. In the meantime the static pressure shall not be higher than 60 kPa at any moment.
- c) Determine the distance between the water level and the bottom side of the connecting end.
- d) Maintain this position of the float operated valve at least for 336 hours.
- e) Determine the distance between the water level and the bottom side of the connecting end.
- f) Shut off the water supply to the float operated valve.
- g) Submerge the floating part fully under water for at least 336 hours without adjusting the original setup.
- h) Empty the reservoir, open the water supply to the float operated and follow step b.) and c.) of this procedure.
- i) Determine the distance between the water level and the bottom side of the connecting end.
- j) Check if the float operated valve meets the requirements concerning the adjustment range.

## 5.4 Determination strength hollow float

### 5.4.1 Apparatus

For the determination of the strength a pressure bench is needed which can deliver the required forces on the floating part.

### 5.4.2 Procedure

Fix the float in the pressure bench in such a way a force perpendicular to welding seam in the floating part can be applied.

Apply a pressing force of  $1250 \pm 50$  N to the floating part and maintain this force for at least 60 seconds.

Determine the effectiveness of the floating part according article 5.3.

## 5.5 Procedure for determining opening of the float operated valve

### 5.5.1 Apparatus

To determine the opening of a float operated valve a test installation as described in art. 7.4.1 of

the European Standard EN 14124 is used. The reservoir shall be equipped with measuring equipment which is able to measure the required water levels.

The measurements shall be executed in a room temperature environment, the water temperature shall be  $20 \pm 5$  °C. The float operated valve test sample shall be connected with a transparent piece of pipe to the water supply, in which using a pump the required water pressures can be delivered. The pressures shall be measured with a precision pressure gauge.

### 5.5.2 Procedure determination opening after closing under high pressure

- Install the float operated valve in the regular position in the water tank and connect to the water supply.
- Supply water through the float operated valve with a dynamic pressure of  $50 \pm 5$  kPa and purge all air out of installation, until the water supply is shut off through the float operated valve because of the raising water level in the tank. In the meantime the static pressure shall not be higher than 60 kPa at any moment.
- Maintain this position of the float operated valve at rest for  $300 \pm 10$  seconds.
- Increase the pressure in the water supply pipe to  $1000 \pm 50$  kPa and wait until float operated valve has shut off the water supply again.
- Determine the distance between the water level and the bottom side of the connecting end.

- Increase the pressure in the water supply to  $1600 \pm 50$  kPa and wait until float operated valve has shut off the water supply again.
- Maintain this position of the float operated valve at rest for  $300 \pm 10$  seconds.
- Determine the distance between the water level and the before setup water level.
- Determine if parts of the float operated valve in which the pressure is equal to the increased pressure of  $1600 \pm 50$  kPa in the water supply pipe, can contact the water in the tank or reservoir.
- Lower the water level and determine if the float operated valve opens again.

### **5.5.3 Procedure determination opening after slight decrease of water level**

- Install the float operated valve in the regular position in the water tank and connect to the water supply.
- Note the distance between the water level and the bottom side of the connecting end. Set the float operated valve to the highest possible value in its adjustment range as stated by the manufacturer.
- Supply water through the float operated valve with a dynamic pressure of  $1000 \pm 50$  kPa until the water supply is shut off through the float operated valve because of the raising water level in the tank.
- Open the outlet of the tank or reservoir to release all the water.
- Determine the distance between the water level obtained when the water supply through the float operated valve meets the flow rate requirements as mentioned in the European Standard EN 14124 and the earlier determined water level under point b.).

# 6 Marking

## 6.1 General

The products shall be marked with following indelible marks and indications:

- name or logo of the manufacturer;
- data or code indicating the date of production;
- type indication (if applicable)

or:

For indications and markings see product standard EN14124.

## 6.2 Certification mark

After concluding a Kiwa certification agreement, the certified products shall be indelible marked with the certification mark:

For products which come in contact with drinking water: Kiwa Water Mark **KIWA** .

# 7 Requirements in respect of the quality system

This chapter contains the requirements which have to be met by the supplier's quality system.

## 7.1 Manager of the quality system

Within the supplier's organizational structure, an employee who will be in charge of managing the supplier's quality system must have been appointed.

## 7.2 Internal quality control/quality plan

The supplier shall have an internal quality control scheme (IQC scheme) which is applied by him.

The following must be demonstrably recorded in this IQC scheme:

- which aspects are checked by the supplier;
- according to what methods such inspections are carried out;
- how often these inspections are carried out;
- in what way the inspection results are recorded and kept.

This IQC scheme should at least be an equivalent derivative of the model IQC scheme as shown in the Annex.

## 7.3 Control of test and measuring equipment

The supplier shall verify the availability of necessary test and measuring equipment for demonstrating product conformity with the requirements in this evaluation guideline.

When required the equipment shall be kept calibrated ( e.g. recalibration at interval).

The status of actual calibration of each equipment shall be demonstrated by traceability through an unique ID.

The supplier must keep records of the calibration results.

The supplier shall review the validity of measuring data when it is established at calibration that the equipment is not suitable anymore.

## 7.4 Procedures and working instructions

The supplier shall be able to submit the following:

- procedures for:
  - dealing with products showing deviations;
  - corrective actions to be taken if non-conformities are found;
  - dealing with complaints about products and/or services delivered;
- the working instructions and inspection forms used.

## 7.5 Other requirements

The supplier shall be able to submit the following:

- the organisation's organogram;
- qualification requirements of the personnel concerned.

## 8 Summary of tests and inspections

This chapter contains a summary of the following tests and inspections to be carried out in the event of certification:

- **Pre-certification tests;** The assessment to verify if all requirements of the BRL is met;
- **Inspection test;** The audit after granting certificate in order to verify if the certified products shows continuous compliance to the requirements of the BRL; Also is indicated to which frequency the surveillance audit is be conducted by the Certification Institute;
- **Inspection of the quality system of the supplier;** Verification of compliance with the IQC scheme and procedures.

### 8.1 Test matrix

Description of requirement	Article no. of BRL	Tests within the scope of:	
		Pre-certification	Inspection by Kiwa after granting of certificate a,b)
<b>Product requirements</b>			
Requirements to avoid deterioration of the quality of the drinking water	4.2.1	X	X
Normative requirements (see Table EN 14124)	4.3	X	X
Design	5	X	
Backflow prevention	6.2	X	
Leak tightness	6.3	X	X
Flow rate and filling time	6.4	X	X
Re-opening inlet valve	6.5	X	X
Water hammer	6.6	X	X
Resistance to pressure	6.7	X	X
Endurance	6.8	X	Every 2 years
Acoustic characteristics	8	X	
Marking	9	X	X
<b>Additional requirements</b>			
Material requirements	4.3.2.1	X	X
<b>Additional product requirements</b>			
Adjustment possibilities and range	4.3.2.1	X	
Floating part	4.3.2.1	X	
Rubber rings	4.3.2.1	X	
Protection screw thread	4.3.6.1	X	
Finish	4.3.2.1	X	X
Closure at high pressure	4.3.2.1	X	X
<b>Deviating product requirements</b>			
Material connecting end	4.3.2.1	X	X
Connecting ends	4.3.2.1	X	X
Opening after slight decrease water level	4.3.2.1	X	X

Description of requirement	Article no. of BRL	Tests within the scope of:	
		Pre-certification	Inspection by Kiwa after granting of certificate <sup>a,b)</sup>
Opening after closure at high pressure	4.3.2.1	X	X
Marking and certification mark	6	X	X

- a) In case the product or production process changes significantly, it must be determined whether the performance requirements are still met.
- b) All product characteristics that can be determined within the visiting time (maximum 1 day) are determined by the inspector or by the supplier in the presence of the inspector. In case this is not possible, an agreement will be made between the certification body and the supplier about how the inspection will take place. The frequency of inspection visits is defined in chapter 9.6 of this evaluation guideline.

## 8.2 Inspection of the quality system of the supplier

The quality system of the supplier will be checked by Kiwa on the basis of the IQC scheme. The inspection contains at least those aspects mentioned in the Kiwa Regulations for Product Certification.

# 9 Agreements on the implementation of certification

## 9.1 General

Beside the requirements included in these evaluation guidelines, the general rules for certification as included in the Kiwa Regulations for Product Certification also apply. These rules are in particular:

- the general rules for conducting the pre-certification tests, in particular:
  - the way suppliers are to be informed about how an application is being handled;
  - how the test are conducted;
  - the decision to be taken as a result of the pre-certification tests.
- the general rules for conducting inspections and the aspects to be audited,
- the measures to be taken by Kiwa in case of Non-Conformities,
- the measures taken by Kiwa in case of improper use of Certificates, Certification Marks, Pictograms and Logos,
- terms for termination of the certificate,
- the possibility to lodge an appeal against decisions of measures taken by Kiwa.

## 9.2 Certification staff

The staff involved in the certification may be sub-divided into:

- Certification assessor (**CAS**): in charge of carrying out the pre-certification tests and assessing the inspectors' reports;
- Site assessor (**SAS**): in charge of carrying out external inspections at the supplier's works;
- Decision maker (**DM**): in charge of taking decisions in connection with the pre-certification tests carried out, continuing the certification in connection with the inspections carried out and taking decisions on the need to take corrective actions.

### 9.2.1 Qualification requirements

The qualification requirements consist of:

- qualification requirements for personnel of a certification body which satisfies the requirements EN ISO / IEC 17065, performing certification activities
  - qualification requirements for personnel of a certification body performing certification activities set by the Board of Experts for the subject matter of this evaluation guideline
- Education and experience of the concerning certification personnel shall be recorded demonstrably.

Basic requirements	Evaluation criteria
Knowledge of company processes Requirements for conducting professional audits on products, processes, services, installations, design and management systems.	<i>Relevant experience: in the field</i> <b>SAS, CAS</b> : 1 year <b>DM</b> : 5 years inclusive 1 year with respect to certification Relevant technical knowledge and experience on the level of: <b>SAS</b> : High school <b>CAS, DM</b> : Bachelor
Competence for execution of site assessments. Adequate communication skills (e.g. reports, presentation skills and interviewing technique).	<b>SAS</b> : Kiwa Audit training or similar and 4 site assessments including 1 autonomic under review.

Basic requirements	Evaluation criteria
Execution of initial examination	<b>CAS:</b> 3 initial audits under review.
Conducting review	<b>CAS:</b> conducting 3 reviews

Technical competences	Evaluation Criteria
Education	<b>General:</b> Education in one of the following technical areas: <ul style="list-style-type: none"> <li>• Civil Engineering;</li> <li>• Engineering.</li> </ul>
Testing skills	<b>General:</b> <ul style="list-style-type: none"> <li>• 1 week laboratory training (general and scheme specific) including measuring techniques and performing tests under supervision ;</li> <li>• Conducting tests (per scheme).</li> </ul>
Experience - specific	<b>CAS</b> <ul style="list-style-type: none"> <li>• 3 complete applications (excluding the initial assessment of the production site) under the direction of the <b>PM</b></li> <li>• 1 complete application self-reliant (to be evaluated by <b>PM</b>)</li> <li>• 3 initial assessments of the production site under the direction of the <b>PM</b></li> <li>• 1 initial assessment of the production site self-reliant (witnessed by <b>PM</b>)</li> </ul> <b>SAS</b> <ul style="list-style-type: none"> <li>• 5 inspection visits together with a qualified <b>SAS</b></li> <li>• 3 inspection visits conducted self-reliant (witnessed by <b>PM</b>)</li> </ul>
Skills in performing witnessing	<b>PM</b> Internal training witness testing

Legenda:

- Certification assessor (**CAS**)
- Decision maker (**DM**)
- Product manager (**PM**)
- Site assessor (**SAS**)

### 9.2.2 Qualification

The qualification of the Certification staff shall be demonstrated by means of assessing the education and experience to the above mentioned requirements. In case staff is to be qualified on the basis of deflecting criteria, written records shall be kept.

The authority to qualify staff rests with the:

- **PM:** qualification of **CAS** and **SAS**;
- management of the certification body: qualification of **DM**.

- 

### 9.3 Report initial investigation

The certification body records the results of the pre-certification tests in a report.

This report shall comply with the following requirements:

- completeness: the report provides a verdict about all requirements included in the evaluation guideline;
- traceability: the findings on which the verdicts have been based shall be recorded and traceable;
- basis for decision: the **DM** shall be able to base his decision on the findings included in the report.

### 9.4 Decision for granting the certificate

The decision for granting the certificate shall be made by a qualified Decision maker which has not been involved in the pre-certification tests. The decision shall be recorded in a traceable manner.

### 9.5 Layout of quality declaration

The product certificate shall be in accordance with the model included in the Annex.

### 9.6 Nature and frequency of third party audits

The certification body shall carry out surveillance audits on site at the supplier at regular intervals to check whether the supplier complies with his obligations. The Board of Experts decides on the frequency of audits.

At the time this BRL entered into force, the frequency of audits amounts 2 audit(s) on site per year for suppliers with a quality management system in accordance with ISO 9001 for their production, which has been certified by an acknowledged body (in accordance with ISO/IEC 17021) and where the IQC scheme forms an integral part of the quality management system.

In case the supplier is not in possession of any product certificate (issued by Kiwa or any other accredited certification body), the frequency is increased to 3 visits for the duration of one year.

The audit program on site shall cover at least:

- the product requirements;
- the production process;
- the suppliers IQC scheme and the results obtained from inspections carried out by the supplier;
- the correct way of marking certified products;
- compliance with required procedures;
- handling complaints about products delivered.

For suppliers with a private label certificate the frequency of audits amounts to one audit per two years. These audits are conducted at the site of the private label certificate holder. The audits are conducted at the site of private label holder and focussed on the aspects inserted in the IQC scheme and the results of the control performed by the private label holder. The IQC scheme of the private label holder shall refer to at least:

- the correct way of marking certified products;
- compliance with required procedures for receiving and final inspection;
- the storage of products and goods;
- handling complaints.

The results of each audit shall be recorded by Kiwa in a traceable manner in a report.

## **9.7 Non conformities**

When the certification requirements are not met, measures are taken by Kiwa in accordance with the sanctions policy as written in the Kiwa Regulation for Certification.

The Sanctions Policy is available through the “News and Publications” page on the Kiwa website ["Kiwa Regulation for Certification"](#).

## **9.8 Report to the Board of Experts**

De certification body shall report annually about the performed certification activities. In this report the following aspects are included:

- mutations in number of issued certificates (granted/withdrawn);
- number of executed audits in relation to the required minimum;
- results of the inspections;
- required measures for established Non-Conformities;
- received complaints about certified products.

## **9.9 Interpretation of requirements**

The Board of Experts may record the interpretation of requirements of this evaluation guideline in one separate interpretation document.

## **9.10 Specific rules set by the Board of Experts**

By the Board of Experts the following specific rules have been defined. These rules shall be followed by the certification body.

# 10 Titles of standards

## 10.1 Public law rules

BJZ2011048144  
29 June 2011

Regeling van de staatssecretaris van Infrastructuur en Milieu<sup>1</sup>

## 10.2 Standards / normative documents

Number	Title
NEN-EN ISO/IEC 17020	Conformity assessment - General criteria for the operation of various types of bodies performing inspection
NEN-EN ISO/IEC 17021	Conformity assessment - Requirements for bodies providing audit and certification of management systems
NEN-EN ISO/IEC 17024	Conformity assessment - General requirements for bodies operating certification of persons
NEN-EN ISO/IEC 17025	General requirements for the competence of testing and calibration laboratories
NEN-EN ISO/IEC 17065	Conformity assessment - Requirements for bodies certifying products, processes and services
EN 14124	Inlet valves for flushing cisterns with internal overflow
EN 248	General technical specifications for electrode posited nickel chrome coatings
NEN 1006	General requirements for water supply installations
BRL-K 620	Flushing cisterns
BRL-K 639	Compression fittings for the use with copper pipes
BRL-K 640	Compression, press and push fit fittings as part of an apparatus or installation
BRL-K 760	Copper pipes

When no date of issue has been indicated, the latest version of the document is applicable.

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<sup>1</sup> Valid from 1 July 2017

# I Model certificate (informative)



Product certificate  
Kxxxxx/xx

Issued Date

Replaces Kxxxxx/xx

Page 1 of 2

CERTIFICATE

## Float operated valves

### STATEMENT BY KIWA

With this product certificate, issued in accordance with the Kiwa Regulations for Certification, Kiwa declares that legitimate confidence exists that the products supplied by

### Name supplier

as specified in this product certificate and marked with the Kiwa®-mark in the manner as indicated in this product certificate may, on delivery, be relied upon to comply with Kiwa evaluation guideline

BRL-K615 "WC-pans" dated 15.09.2024

which covers the requirements of

EN 14124: 2004 "Inlet valves for flushing cisterns with internal overflow".

Ronald Karel  
Kiwa

Publication of this certificate is allowed.

Advice: consult [www.kiwa.nl](http://www.kiwa.nl) in order to ensure that this certificate is still valid.

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2280 AB RUSWIJK  
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Tel. +31 88 998 44 00  
Fax +31 88 998 44 20  
[info@kiwa.nl](mailto:info@kiwa.nl)  
[www.kiwa.nl](http://www.kiwa.nl)

Company  
Name supplier  
Address  
Zip code City  
Country  
Telephone number  
email  
internet site

Certification process  
consists of initial and  
regular assessment of:

- quality system
- product

## II Model IQC-scheme (informative)

Subjects	Aspects	Method	Frequency	Registration
Raw materials or materials supplied: Incoming inspection raw material  Parts	<ul style="list-style-type: none"> <li>• Material</li> <li>• Composition</li> <li>• Specifications</li> <li>• Fys. char.</li> </ul> <ul style="list-style-type: none"> <li>• Material</li> <li>• Composition</li> <li>• Specifications</li> <li>• Fys. char.</li> </ul>			
Production process, production equipment, material: <ul style="list-style-type: none"> <li>• procedures</li> <li>• work instructions</li> <li>• equipment</li> <li>• release of product</li> </ul> Assembly	<ul style="list-style-type: none"> <li>• Injection moulding</li> <li>• Temperature</li> <li>• Injection time</li> <li>• Checks</li> <li>• Dimensions</li> <li>• Strength</li> <li>• Finish</li> <li>• Hollow parts</li> <li>• (Welding)seams</li> <li>• Parts</li> <li>• Fixing body</li> <li>• Leaktightness</li> <li>• Finishing (smoothness)</li> </ul>			
Finished-products Marking  Functional aspects	<ul style="list-style-type: none"> <li>• Type</li> <li>• Correctness</li> <li>• Position</li> </ul> <ul style="list-style-type: none"> <li>• EN14124</li> <li>• Deviating requirements</li> <li>• Additional requirements</li> </ul>			
Measuring and testing equipment <ul style="list-style-type: none"> <li>- measuring equipment</li> <li>- calibration</li> <li>- Testing equipment</li> </ul>	<ul style="list-style-type: none"> <li>• EN 14124</li> <li>• Kiwa requirements</li> </ul>			
Logistics				