

# FlowVis™

Flow Meter

## INSTRUCTION MANUAL



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**IMPORTANT – PLEASE READ THE FOLLOWING INSTRUCTIONS BEFORE INSTALLING FLOWVIS™**

## 1.0 DESCRIPTION

FlowVis™ is a revolutionary product that converts a standard Check Valve into a Flow Meter and Check Valve.

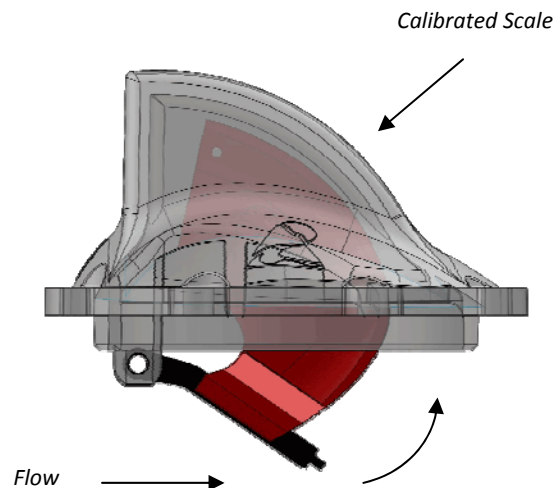
The product is currently available in two formats:

- a) Retrofit to install to an existing Jandy (7305) 2" by 2 1/2" Check Valve body
- b) A complete Check Valve body assembled with FlowVis™

The Retrofit kit comprises a fully assembled FlowVis™ lid, calibrated spring, pin, indicator arm, 'O'-ring and calibrated scale. Installation simply requires the removal of the eight screws securing the existing lid, installing the new 'O'-ring and securing the FlowVis™ with the original eight screws.

## 2.0 CONCEPT

As flow increases, the check valve flapper extends towards its fully open position. The angular position of the flapper is determined by the flow through the valve body. A calibrated scale on the valve lid provides an accurate reading of flow.





### 3.0 APPLICATIONS

FlowVis™ is specifically designed for use in fresh water applications (i.e., swimming pools, spas, fountains, water features, etc). It is not suitable for applications that are contaminated with debris of such a size that it would prevent the check valve flapper from fully seating against the valve body.



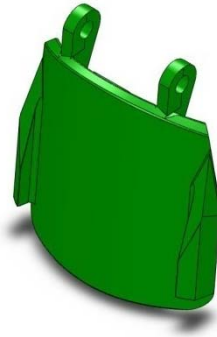
### 4.0 WARNINGS & SAFETY

Check Valves should always be installed in accordance with the original manufacturer's instructions. When purchased as a complete Check Valve & Flow Meter combination, a copy of these instructions will be included with the FlowVis™ packaging. If a FlowVis™ retrofit kit has been purchased, it is the installer's responsibility to ensure that the Check Valve has been installed correctly and does not violate any local or federal codes relating to Check Valves.



The Virginia Graeme Baker Pool & Spa Act requires that all public swimming pools & spas that have a single main drain or multiple drains that are 3 feet or less (center to center) from each other, be fitted with a backup anti-entrapment system. Such systems include, but are not limited to, SVRS and Automatic Pump Shut Off systems. Special consideration must be made when installing a FlowVis™ to such applications. Several of these systems do not allow the use of Check Valves. It is the responsibility of the installer to make sure that the requirements of the specific backup system in use are maintained.

**An optional non-sealing flapper is available for these installations.**



## 5.0 MODELS

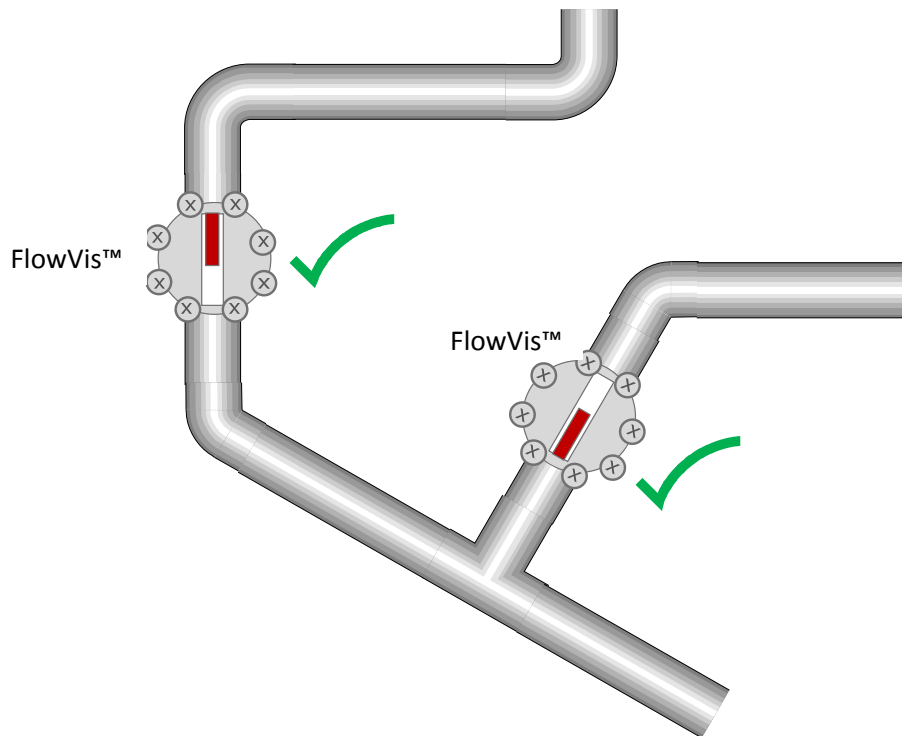
FlowVis™ is available in two different models:

Model #	Description
<b>FVJ-R</b>	Retrofit kit for existing Jandy 7305 Check Valve
<b>FVJ-C</b>	Fully-assembled FlowVis™

## 6.0 INSTALLATION

Installation of the FlowVis™ should be in accordance with the original installation instructions supplied with the Check Valve. A copy of the appropriate OEM instructions will be included in the FlowVis™ shipping box.

Unlike other flow meters, FlowVis™ does not require specific straight pipe lengths (10 x pipe diameter before and 5 x pipe diameter after). FlowVis™ can be installed close to or even adjacent to other plumbing fittings such as Elbows, Tees, 45's etc. FlowVis™ can be installed either horizontally or vertically.

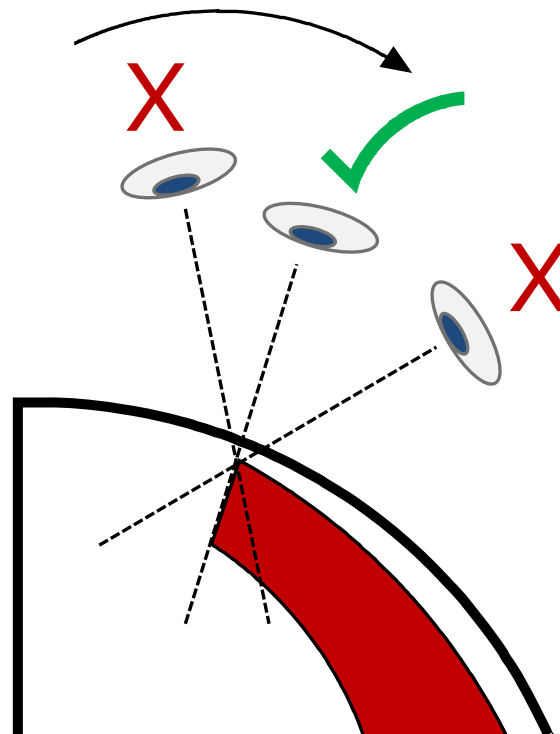


When selecting a physical location to install FlowVis™, be sure to allow accessibility to read the scale on the lid.

## 7.0 OPERATION

The FlowVis™ is factory-calibrated to be extremely accurate across its full operating range. Any 'inaccuracy' is related to the angle in which the scale is read. To avoid so-called 'parallax error', it is important to position your eye so that you are looking squarely at the tip of the indicator arm. To achieve this, simply move your head so that you just lose sight of the vertical leading edge of the red arm.

*Slowly move your head in this direction to the point where the leading edge of the indicating arm is not visible.*



## 8.0 MAINTENANCE

Although FlowVis™ is designed to be maintenance-free, periodic checks should be made to the following:

Item	Check for	Remedy
<b>'O' ring seal</b>	Check for leaks	Replace 'O' ring
<b>Valve Body</b>	Check for cracks or damage	Replace entire FlowVis™
<b>Lid</b>	Check for cracks or damage	Replace entire FlowVis™
<b>Indicator Arm</b>	Check to see if sticking due to build up of debris	Remove lid and flush out debris
<b>Lid</b>	Air bubbles in lid	Check plumbing system for air leak

## 9.0 SPECIFICATIONS

Materials used:

Item	Material / Comments
<b>Valve Cover Screws</b>	Stainless Steel
<b>Valve Body</b>	CPVC Plastic, Chlorine, Acid resistant
<b>Valve Lid</b>	CPVC Plastic, Chlorine, Acid, Ozone resistant



<b>Calibrated Spring</b>	Stainless Steel
<b>Pivot Pin</b>	Stainless Steel
<b>'O' Ring</b>	Silicone-Lubricated Elastomer

**Operation:**

<b>Function</b>	<b>Comments</b>
<b>Design Accuracy</b>	+/- 2 GPM over operating range
<b>Design Life</b>	Greater than 7 years
<b>Minimum operating ambient temperature</b>	32°F (0°C)
<b>Maximum operating ambient temperature</b>	140°F (60°C)
<b>Periodic Calibration</b>	None required



## 10.0 WARRANTY

**IMPORTANT, please read and keep this document on record.**

**1. Definition:** H2flow Controls Inc. warrants that the products that it manufactures and sells will be free from defects in material and workmanship for a period of 12 months from the date of shipment.

Should the product prove defective during the warranty period, H2flow Controls Inc, at its discretion, either will repair the defective product or replace it with an equivalent product in exchange for the defective unit without charge for parts, labor, carriage and insurance.

**2. Eligibility** This warranty extends to the original purchaser only or to the end-user client of an H2flow Controls Inc authorized affiliate.

### 3. How to obtain service

To obtain service under the terms of this warranty, the customer is required to notify H2flow Controls Inc. before the expiration of the warranty period and to return the item in accordance with H2flow Controls Inc's product return policy. Any product returned for warranty repair must be accompanied by a full fault report specifying the symptoms and the conditions under which the fault occurs. Should H2flow Controls Inc incur additional cost as a result of a failure to complete the appropriate paperwork, an administrative charge may be levied.

### 4. Exclusions

This warranty shall not apply to any defect, failure or damage caused by improper use or improper or inadequate care. H2flow Controls Inc shall not be obligated to provide service under this warranty if:

- a) damage has been caused by a failure to make a full and proper inspection of the product (as described by the documentation enclosed with the product at the time of shipment) on initial receipt of the product following shipment;
- b) damage has been caused by the attempts of individuals, other than H2flow Controls Inc staff to repair or service the product;
- c) damage has been caused by the improper use of the product

### 5. Charges

Under cover of this warranty, H2flow Controls Inc will pay the carriage and insurance charges for the shipment of defective product back to H2flow Controls Inc and for its return to the client's original site of despatch except when:

- a) H2flow Controls Inc's product return policy has not been followed.
- b) product failure is caused by any of the exclusions described at paragraph 4 above, when the customer will be liable for the full cost of the repair (parts and labor) plus all carriage and insurance costs to and from H2flow Controls Inc's premises.
- c) the product is damaged in transit and a contributory cause is inadequate packaging. It is the customer's responsibility to ensure that the packaging used to return equipment to H2flow Controls Inc is the same, or has equivalent protective qualities, to that used to ship the product to the customer in the first instance. Any damage resulting from the use of inadequate packaging will nullify H2flow Controls Inc's obligations under this warranty.

Should the customer's product be damaged in transit following a repair at H2flow Controls Inc's site, a full photographic record of the damage must be obtained (packaging and the product) to support any claim for recompense. Failure to present this evidence may limit H2flow Controls Inc's obligations under this warranty.

**THIS WARRANTY IS GIVEN BY H2FLOW CONTROLS INC IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY, NON INFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE. H2FLOW CONTROLS INC SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES. WE SPECIFICALLY DISCLAIM ANY AND ALL WARRANTIES TO CUSTOMERS OF THE CUSTOMER. THE CUSTOMER'S SOLE REMEDY FOR ANY BREACH OF WARRANTY IS THE REPAIR OR REPLACEMENT, AT H2FLOW CONTROLS INC'S DISCRETION, OF THE FAILED PRODUCT.**

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