TERKO ®

ALAMBRADO ELÉCTRICO & BOMBEO SOLAR
Dividir para multiplicar ®

Óptima

Óptima

. float valves are high-performance, compact, full-flow float valves that are designed for the automatic filling of medium to large, or high-demand troughs, tanks, and cisterns. They are suitable for installation above or below the waterline (side, bottom, and top).

Óptima PRODUCT FEATURES & BENEFITS

SMOOTH-FLO DESIGN
Optimises water flow out of the valve, reducing turbulence, minimizing float bounce, cutting water spray, and saving your pump.

OPTI-FLO TECHNOLOGY
Patent protected, Opti-Flo technology, optimizes water flow through the valve to help prevent blockages & improve performance in dirty water.

SOFT-CLOSE
Patent protected, soft closing design for reliable shut-off & preventing damaging water-hammer.

FULL FLOW
Full flow design, providing flows up to 847 L/min, and preventing pump short cycling, saving your pump and energy.

HIGH VIS FLOAT
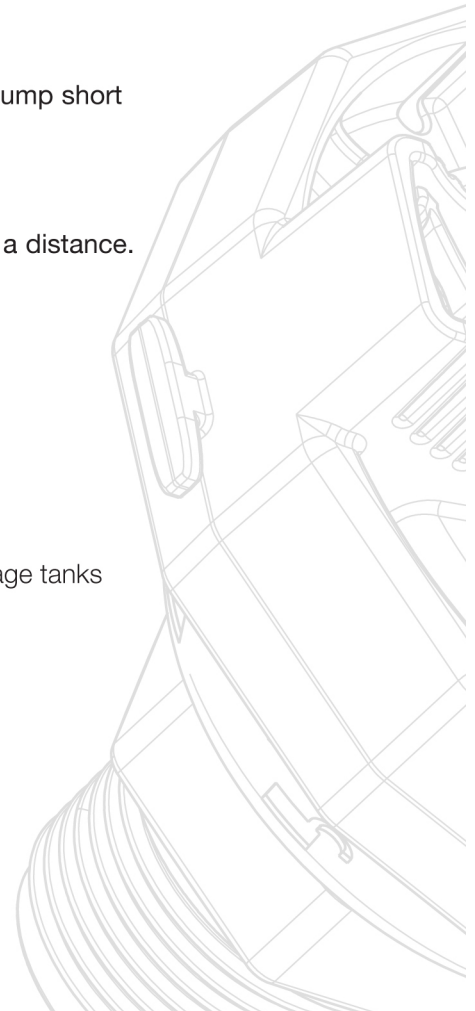High Vis orange float for fast easy identification of water level from a distance.

Óptima APPLICATIONS

Maintaining water levels in:

Animal Drinking Troughs   Water storage tanks

Irrigation Applications
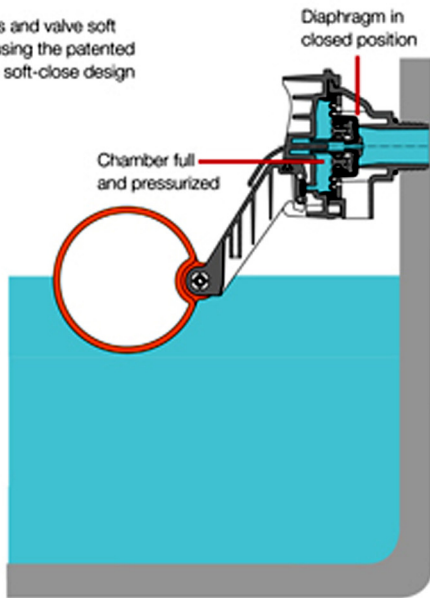
Óptima PRINCIPLES OF OPERATION

Fully Closed

Float lifts and valve soft closes using the patented Philmac soft-close design

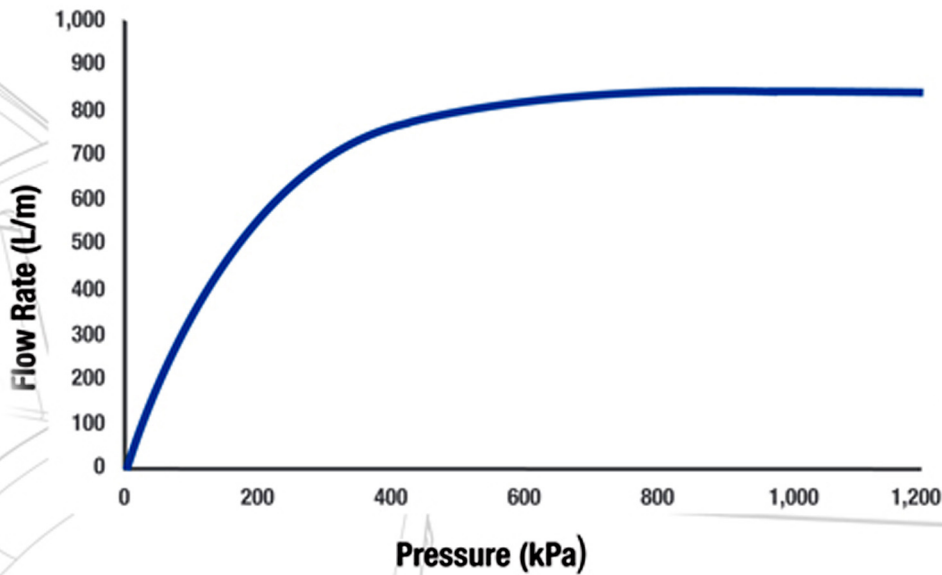Diaphragm in closed position

Chamber full and pressurized

Fully Open

Float drops and valve opens water flows with reduced turbulance through the unique smooth-flo design.

Diaphragm in open (retracted) position

Chamber empty and de-pressurized
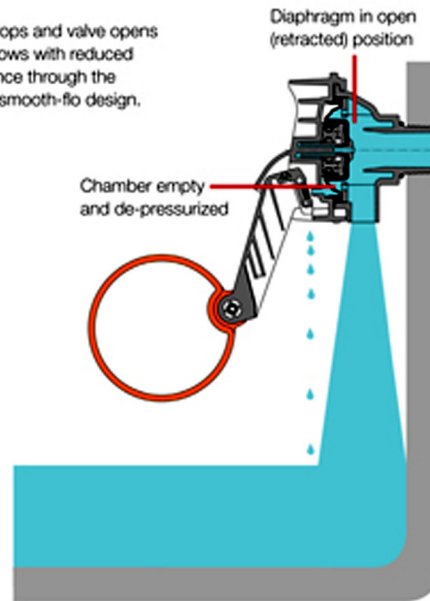
Óptima PERFORMANCE DATA

* Independently tested by University of South Australia (AFMG), NATA accredited laboratory

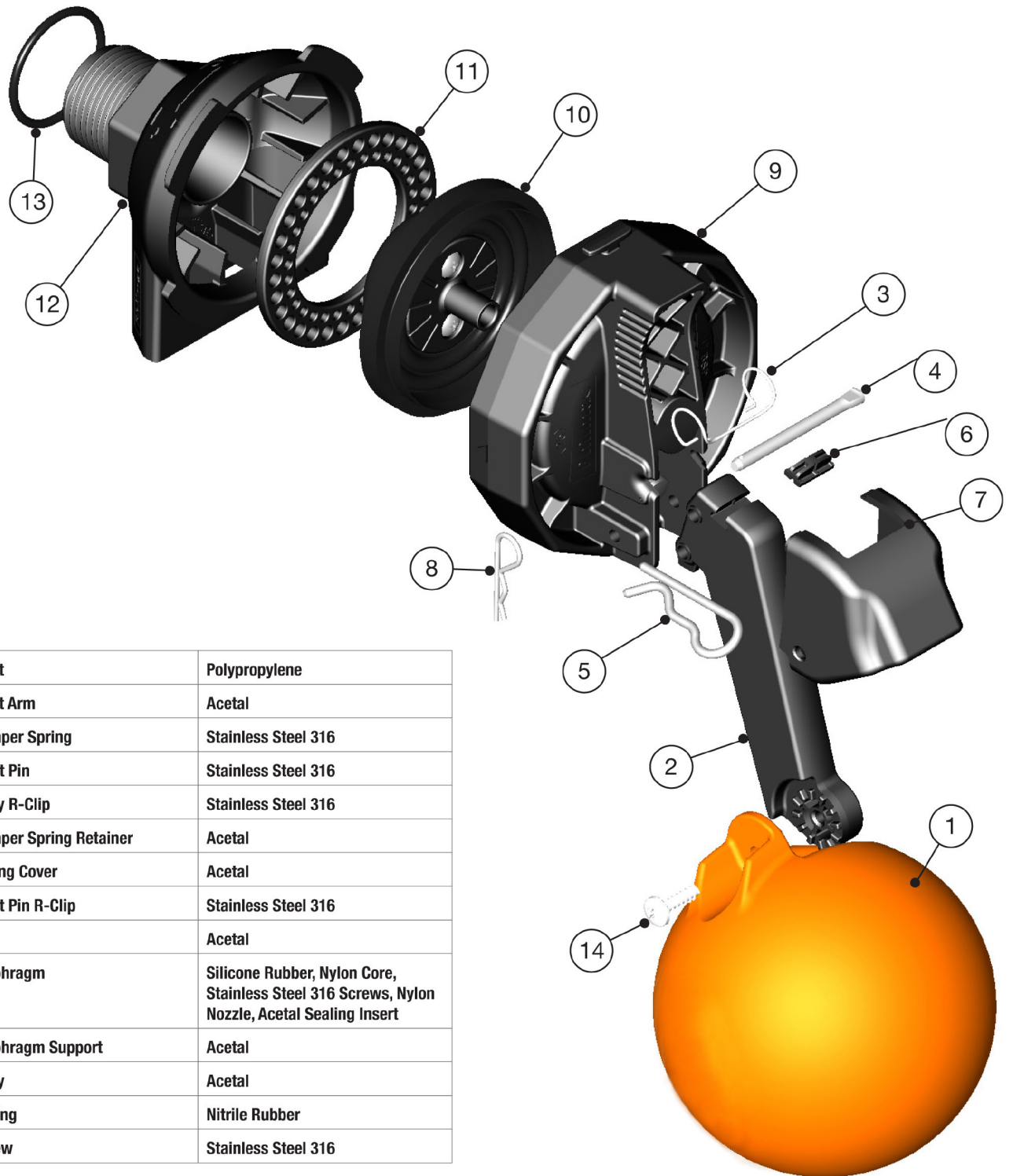**Flow Rate:** 847 L/min @ 1,200 kPa

Static Shut-off: 1,200 kPa

Temperature: suitable for cold water applications (1° to 60° Celsius)

Working Pressure: 10 – 1,200 kPa (1.5 – 175 psi), with a minimum water flow of 1L/min
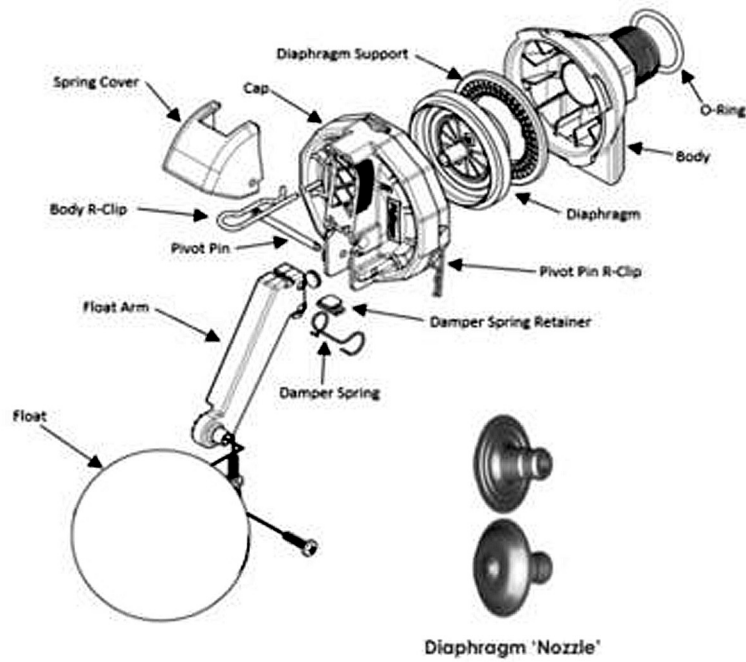
Óptima PARTS & MATERIALS

1	**Float**	**Polypropylene**
2	**Float Arm**	**Acetal**
3	**Damper Spring**	**Stainless Steel 316**
4	**Pivot Pin**	**Stainless Steel 316**
5	**Body R-Clip**	**Stainless Steel 316**
6	**Damper Spring Retainer**	**Acetal**
7	**Spring Cover**	**Acetal**
8	**Pivot Pin R-Clip**	**Stainless Steel 316**
9	**Cap**	**Acetal**
10	**Diaphragm**	**Silicone Rubber, Nylon Core, Stainless Steel 316 Screws, Nylon Nozzle, Acetal Sealing Insert**
11	**Diaphragm Support**	**Acetal**
12	**Body**	**Acetal**
13	**O-Ring**	**Nitrile Rubber**
14	**Screw**	**Stainless Steel 316**

CHEMICAL RESISTANCE

Chemical	Suitable	Not Recommended
Fresh Water	x	
Sea Water	x	
Brine	x	
Chlorine Water (5-10 ppm)		x
Acetic Acid (10%)		x
Acetic Acid (50%)		x
Alochol (ethanol)	x	
Ethyl Alcohol (ethanol)	x	
Ammonium Nitrate		x
Calcium Carbonate	x	
Calcium Chloride		x
Calcium Nitrate		x
Calcium Sulphate		x
Citric Acid	x	
Copper Sulphate >5%		x
Silicone Oil	x	
Diesel (fuel)		x
Petrol		x
Kerosene		x
Fuel Oil (Diesel)		x
Fuel Oil		x
Turbine Oil		x
Hydraulic Oil (Petro)	x	
Hydraulic Oil (Synthetic)	x	
Mineral Oil	x	
Hydrochloric Acid (10%)		x
Hydrochloric Acid (30%)		x
Magnesium Nitrate	x	
Magnesium Sulphate	x	
Nitric Acid (10%)		x
Nitric Acid (40%)		x
Phosphoric Acid (85%)		x
Potassium Chloride	x	
Potassium Nitrate	x	
Potassium Sulphate	x	
Sodium Bicarbonate	x	
Sodium Hypochlorite (<10%)		x
Sulphuric Acid (10%)		x
Sulphuric Acid (30%)		x
Urea	x	
Zinc Nitrate	x	
Zinc Suphate	x	

* The Float valve is intended for use in agricultural stock watering and other water applications. The advice provided above is general in nature only and not intended to replace specific chemical guidance.

Óptima - Components

Spring Cover
Cap
Diaphragm Support
O-Ring
Body
Body R-Clip
Pivot Pin
Diaphragm
Pivot Pin R-Clip
Float Arm
Damper Spring Retainer
Damper Spring
Float

Diaphragm 'Nozzle'

Óptima - What's in the Box

The Óptima float valve comes as a complete item including float, underwater kit & adaptors
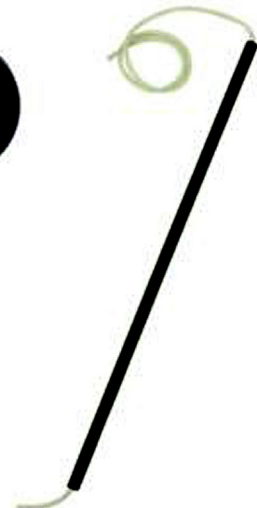

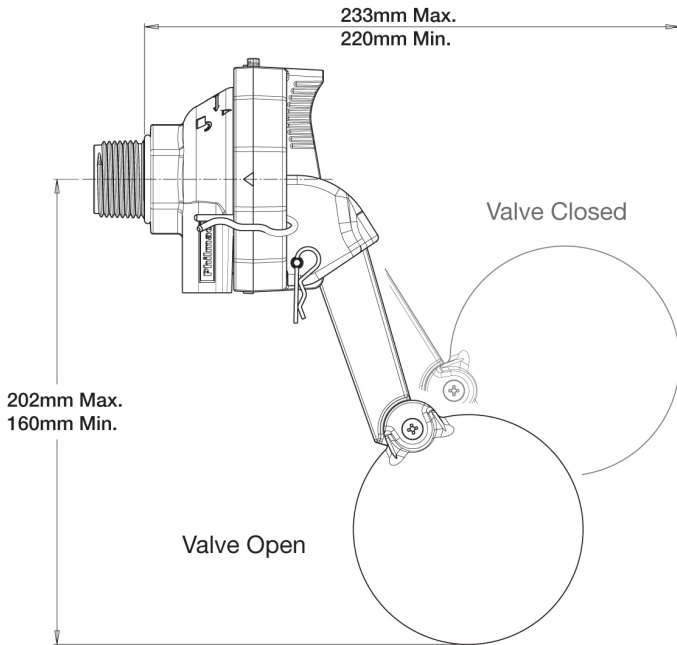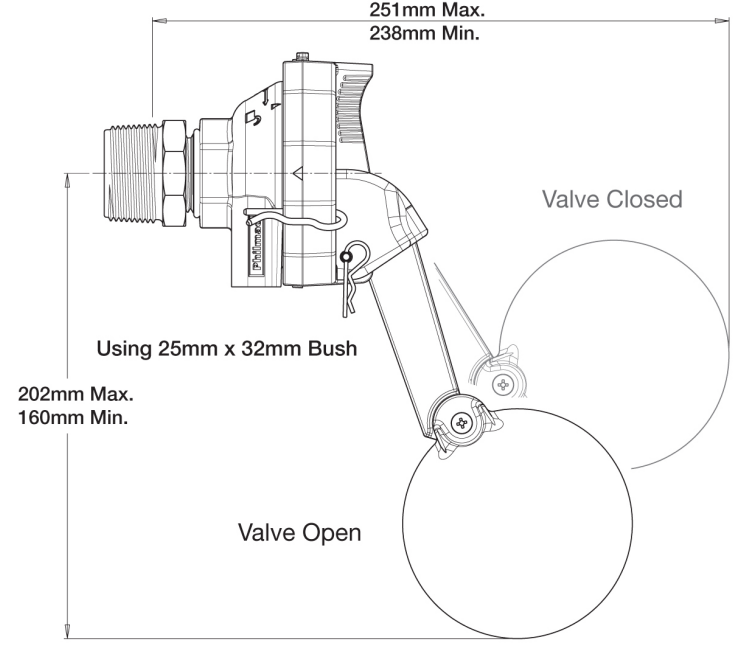| 1" Óptima float valve, complete with float | 11470153 1" FI x ¾" MI FV Adaptor | 90414300 1 ¼" x 1" Bush | AG-020 & AG-018 Tube Float & Cord |

Óptima DIMENSIONS

Standard Float Valve Side View Dimensions

233mm Max.
220mm Min.

Valve Closed

202mm Max.
160mm Min.

Valve Open

Standard Float Valve Side View Dimensions 1-¼" Adaptor

251mm Max.
238mm Min.

Valve Closed

Using 25mm x 32mm Bush

202mm Max.
160mm Min.

Valve Open

Standard Float Valve Front View Dimensions

105mm

55mm

50mm

Standard Float Valve Side ViewDimensions ¾" Adaptor

277mm Max.
264mm Min.

Valve Closed

Using 20mm x 25mm Adaptor

202mm Max.
160mm Min.

Valve Open
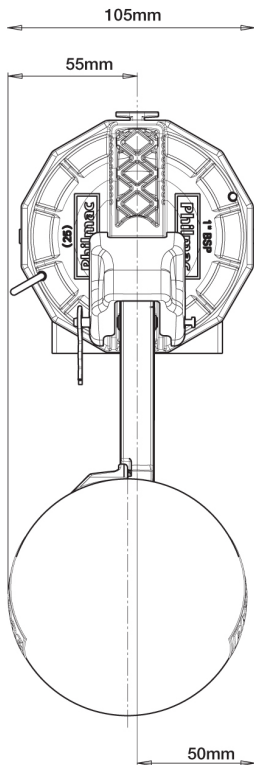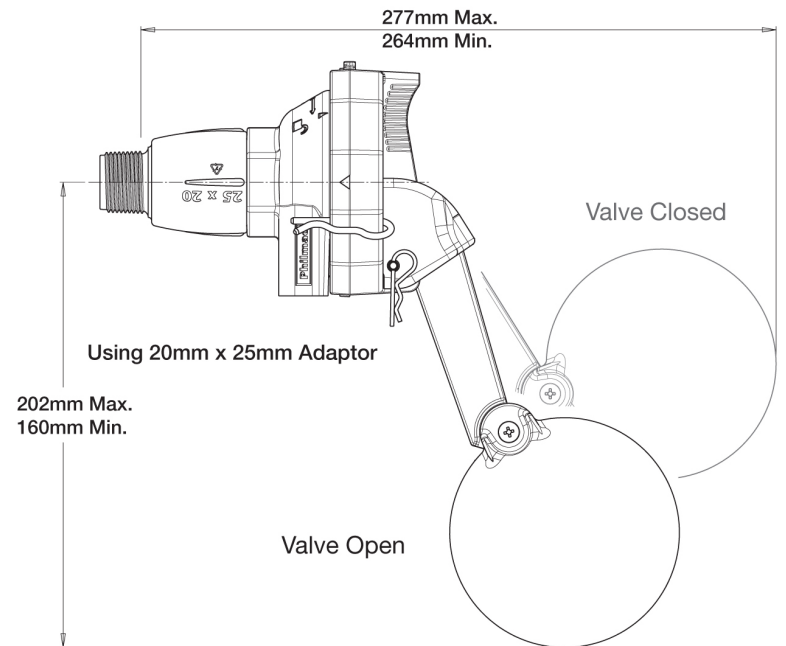
Óptima INSTALLATION INSTRUCTIONS

MOUNTING POSITIONS

Above water - Overhead

Above water - Side wall

Below water - Side wall

Below water - Side wall lever reverse*

Below water - Bottom mount

* Water outlet position can be adjusted by removing the cap and rotating the body 90°
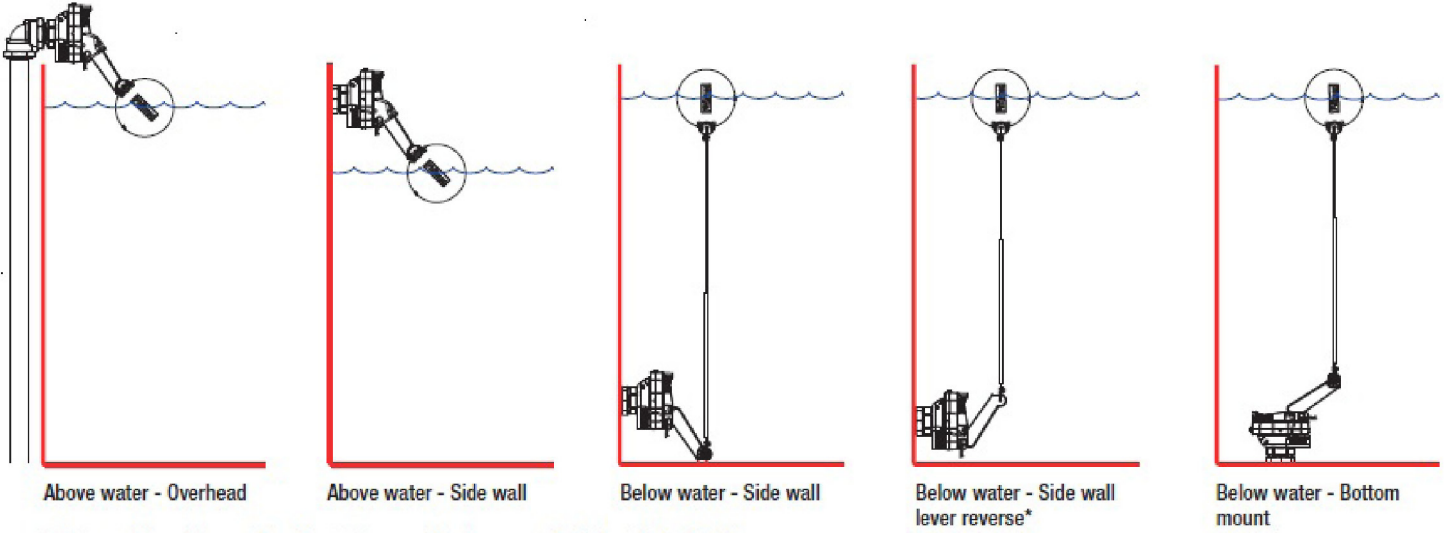
ABOVE WATER INSTALLATION

1 Apply PTFE tape in a clockwise direction

2 Screw in the float valve by hand, valve is suitable for final tightening with a wrench

3 Ensure float valve is in the vertical position

BELOW WATER INSTALLATION

1 Remove small R-Pin that holds the pivot pin in place

2 Remove pivot pin, dispose of spring cover

3 Unclip damper spring from cap

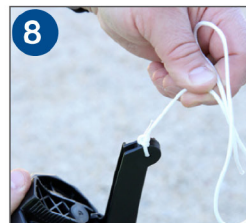**4** Remove spring retainer from float arm and remove damper spring

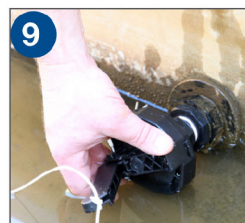**5** Spring retainer and damper spring are not required for underwater installation

6 Reinstall float frm using pivot pin and replace the R-Pin

7 Using a Phillips head screwdriver unscrew Float

8 Attach float to float arm using supplied cord and anti-tangle tube (trimmed to suit)

9 Screw float valve into position and thread string through plastic tube and attach to float

10 Adjust length of Cord to suit application