Sales & Contact Centre

Ph: 1800 755 899
Fax: 1800 244 688
sales_orders@philmac.com.au
collect_orders@philmac.com.au

Sales & Distribution Centres

NORTHERN TERRITORY
3846 Marjorie Street,
Pinelands, NT 0829

SOUTH AUSTRALIA
47 Deeds Road
North Plympton 5037

NEW SOUTH WALES
288 Woodpark Road
Smithfield 2164

QUEENSLAND
42 Perrin Place
Salisbury 4107

TASMANIA
15 Thistle Street
South Launceston 7250

WESTERN AUSTRALIA
10 Sainsbury Road
O'Connor, WA 6163

Head Office Philmac Pty Ltd

47-59 Deeds Road
North Plympton SA 5037
Australia
ABN: 17 007 873 047

www.philmac.com.au

Online Resources

www.philmac.com.au
www.youtube.com/user/PhilmacAustralia

PHI1162-07/22

Philmac
The connection you can trust.

OPTI PHIL

1" FLOAT VALVE

HIGH PERFORMANCE, COMPACT FLOAT VALVE FOR LARGE AND MEDIUM TROUGHS WITH HIGH DEMAND

TECHNICAL MANUAL

Philmac
The connection you can trust.

OPTI PHIL

Philmac OptiPHIL 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).

OPTI PHIL 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.

OPTI PHIL APPLICATIONS

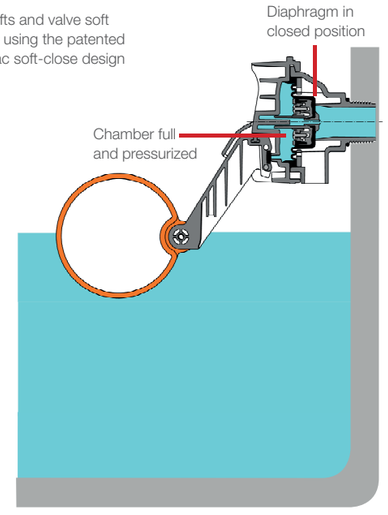
Maintaining water levels in:

- Animal Drinking Troughs
- Irrigation Applications
- Water storage tanks

OPTI PHIL PRINCIPLES OF OPERATION

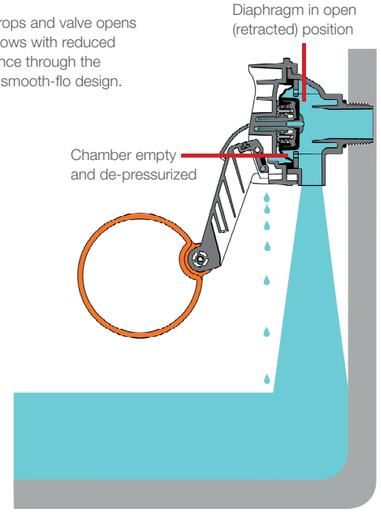
Fully Closed

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

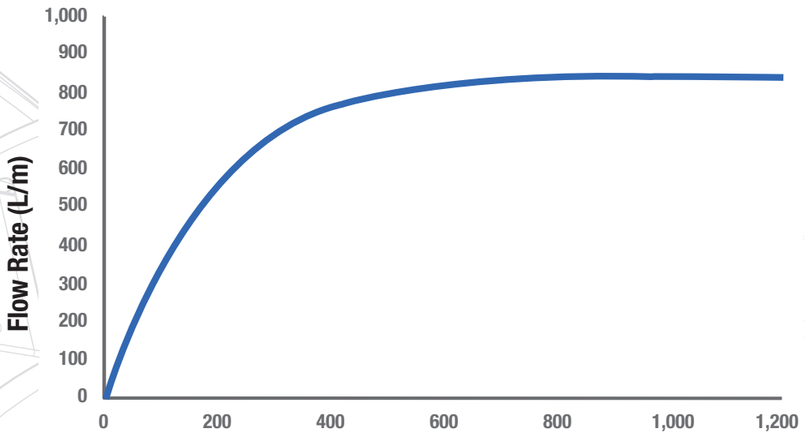


Fully Open

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



OPTI PHIL PERFORMANCE DATA



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

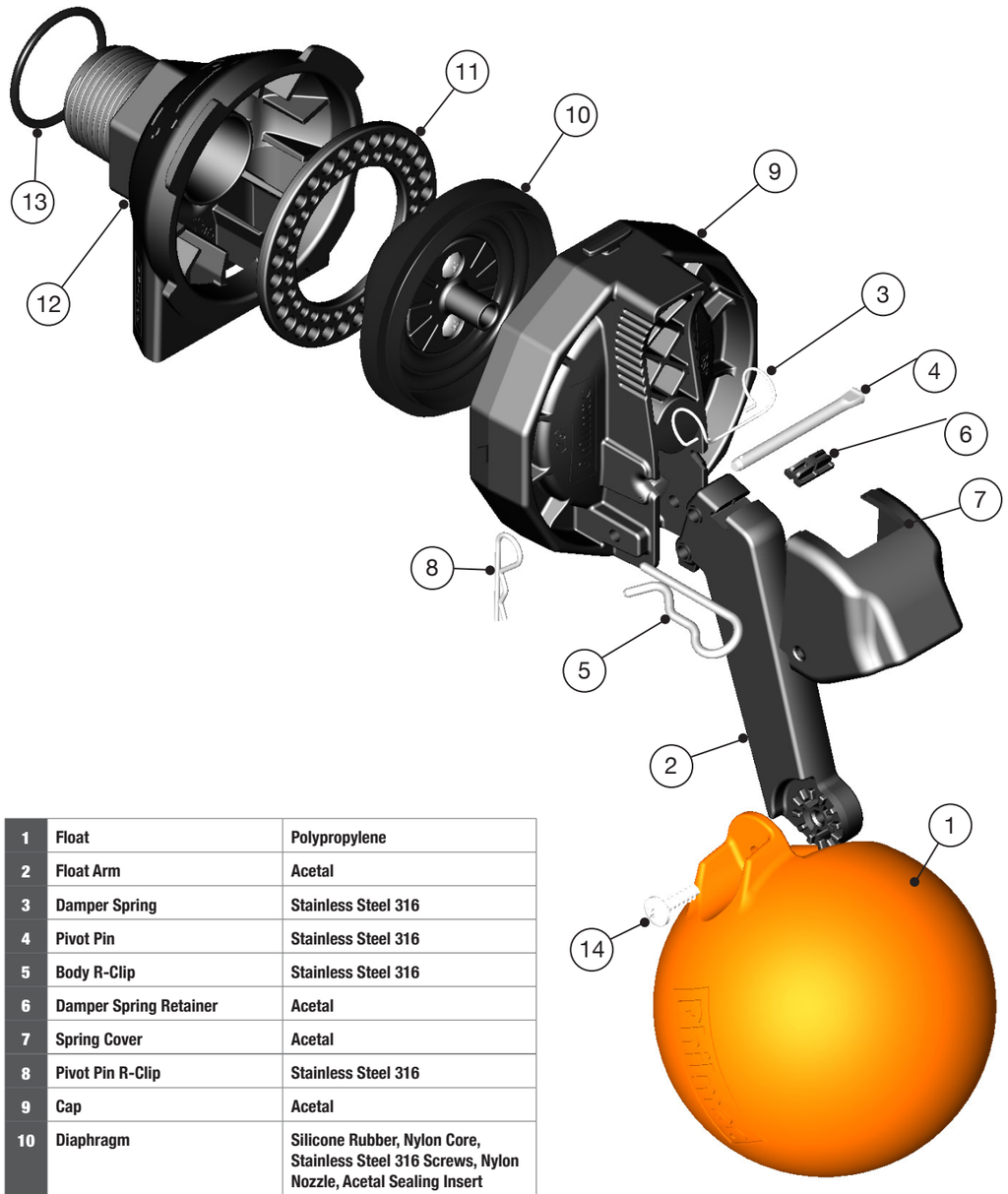
Flow Rate: 847 L/min @ 1,200 kPa

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

OPTI PHIL 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

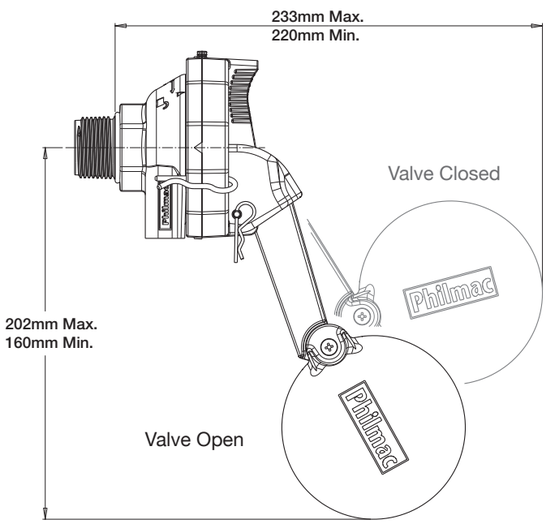
OPTI PHIL CHEMICAL RESISTANCE

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	

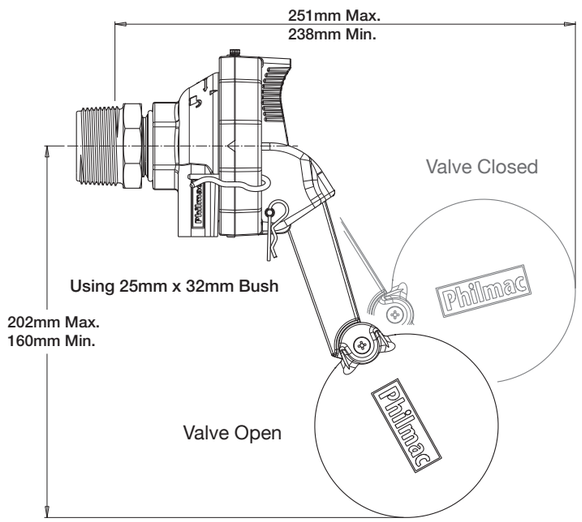
* The OptiPHIL Float valve is intended for use in agricultural stock watering and other water applications. The advice provided above is general in nature only and not intended to replace specific chemical guidance. Philmac makes every endevour to ensure the accuracy of its information For any specific questions or chemical advice, please contact Philmac.

OPTI PHIL DIMENSIONS

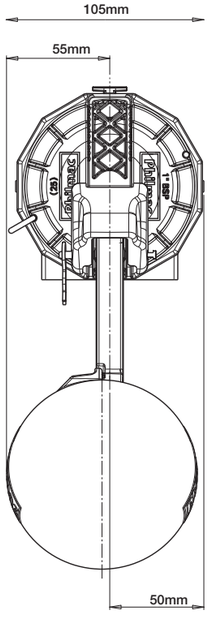
Standard Float Valve Side View Dimensions



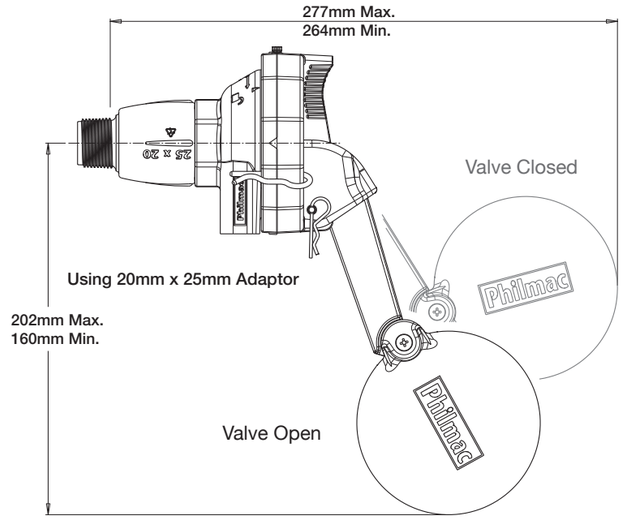
Standard Float Valve Side View Dimensions 1-¼" Adaptor



Standard Float Valve Front View Dimensions

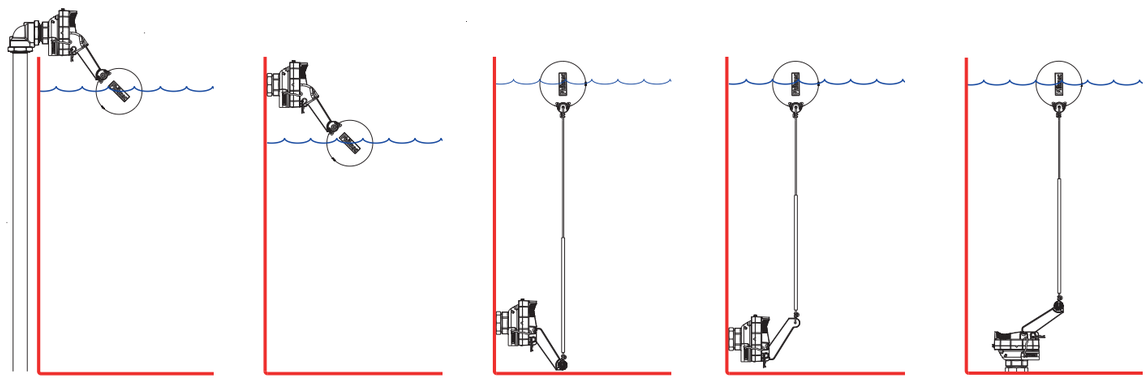


Standard Float Valve Side ViewDimensions ¾" Adaptor



OPTI PHIL 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