

Philmac

The connection you can trust.

Go with the flow

Philmac Float Valves

For more than 90 years Philmac have been designing and manufacturing tough, reliable float valves that handle Australia's harsh conditions.



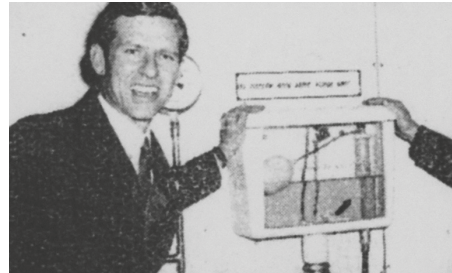


A journey of invention and innovation

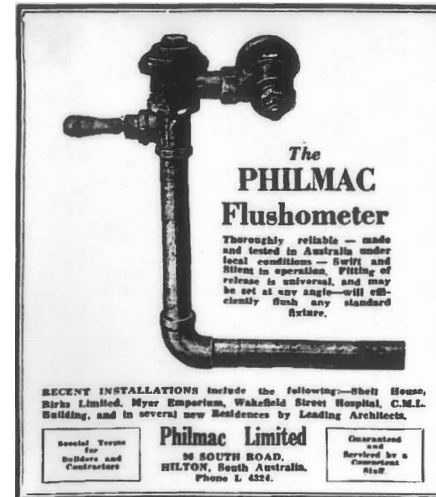
Philmac
The connection you can trust.

1929

"Philmac invents world's first press button toilet cistern"

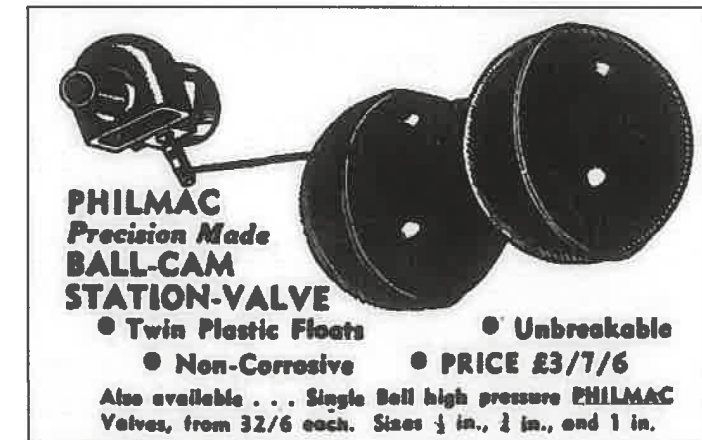


Our story starts with the innovative thinking and determination of one man. Talented engineer, "Mac" Phillipps is a man unafraid of taking risks.....and driven by the philosophy that there is always a better way to do things.



1935

Mac innovates again but on the industrial front this time with the **Philmac Flushometer**, aimed at commercial installations the Flushometer is a big hit with architects designing new commercial buildings. Utilising a new universal handle and the "Silent cistern" technology.



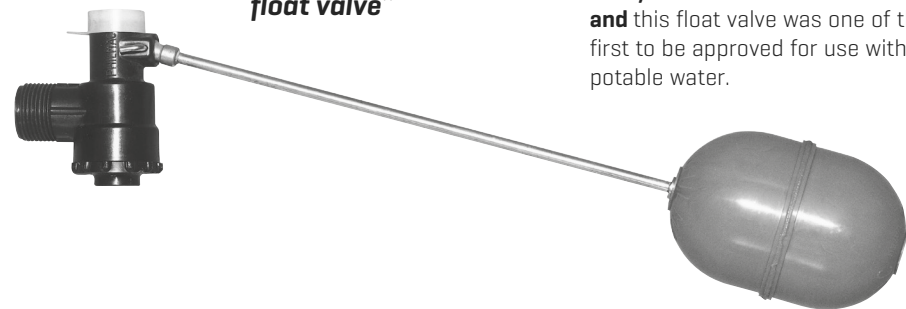
1947

"Philmac develops one of the world's first float valves for agriculture"

Mac and his team have another breakthrough. A simple, but revolutionary, new ball-cam float valve. This alone results in production more than doubling.

1972

"Philmac manufactures its first moulded plastic float valve"



Philmac manufactures the first plastic float valve, moulded from Acetyl with a shut off 1200 kPa and this float valve was one of the first to be approved for use with potable water.

1979

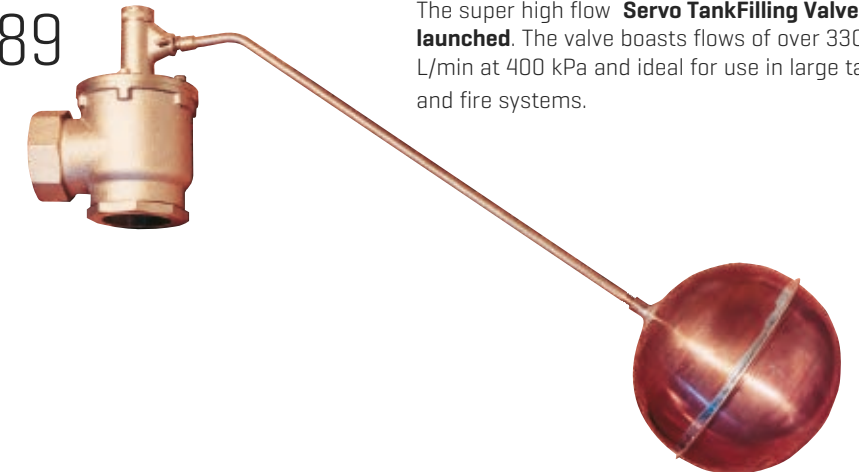
"Philmac release its first precision engineered brass float valve"

The valve is ideal for both plumbing and agriculture.



1989

The super high flow **Servo TankFilling Valve** is launched. The valve boasts flows of over 3300 L/min at 400 kPa and ideal for use in large tanks and fire systems.



1991

"The inventive team at Philmac release the uniquely designed Stock Proof Trough Valve"

Responding to market feedback Philmac engineers develop the **Stock Proof Trough Valve**. Its compact design & underwater installation eliminated damage from large animals and is ideal for use in round troughs.



2002

"Responding to customer feedback Philmac deliver a new - Tough as nails - float valve"

The unique new **High Flow Float Valve** is launched and it is designed to stand up to the tough treatment large animals exert.



2012

The redesigned Philmac float valve is released to the market the new design increases flow and shut off pressure and includes features to enable easy maintenance.



2022

The Philmac OptiPHIL float valve is launched. The design features patent protected, soft closing design for reliable shut-off & preventing damaging water-hammer saving your pump and energy.



Philmac a float valve for every application



Philmac OPTI PHIL

From: 3/4" to 1"
High performance, compact, float valve for large and medium troughs with high demand

UNDER WATER

Philmac OPTI PHIL

From: 3/4" to 1"
High performance, compact, float valve for large and medium troughs with high demand

ABOVE WATER

Philmac EASY PHIL

From: 1/2" to 3/4"
Compact plastic float valve that suits small to medium troughs and tanks



Philmac VERSA PHIL

From: 3/4" to 1"
Versatile tapered BSP and long parallel thread float valves. Suited to a wide range of applications in troughs and tanks

Philmac ULTRA PHIL

From: 3/8" to 2"
Premium, robust brass float valve, suited to a wide range of applications



Philmac MEGA PHIL

From: 1" to 2"
Tough, dependable brass float valve that delivers high flow rates, even at low pressures. Ideal for use with large animals

Philmac STOCK PHIL

From: 3/4" to 1-1/4"
Stock-proof design to deliver high flow in low pressure resists damage from large animals

Philmac TANK PHIL

From: 1-1/4" to 2"
Super high flow float valve, ideal for the fast filling of large reservoirs and header tanks

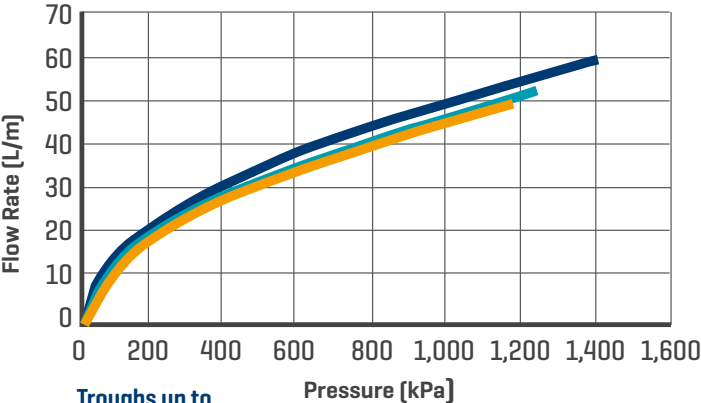
Philmac EASY PHIL

1/2" & 3/4" LONG PARALLEL THREAD FLOAT VALVE

Compact plastic float valve that suits small to medium troughs and tanks

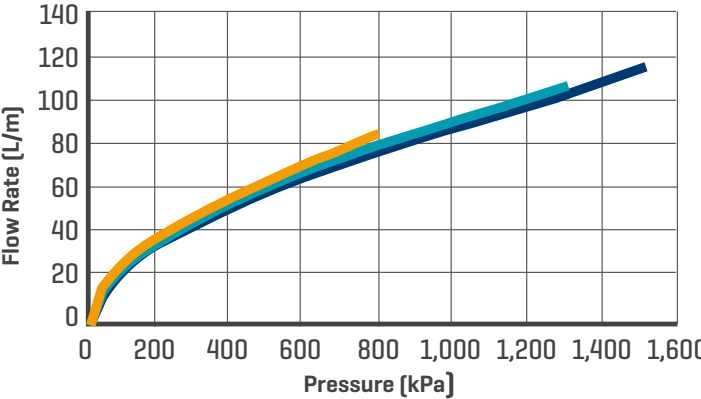


Philmac EasyPHIL Float Valve Performance Data*



Pressure [kPa]

1/2" Float Valve 250mm lever
1/2" Float Valve 200mm lever
1/2" Float Valve 125mm lever



3/4" Float Valve 250mm lever
3/4" Float Valve 200mm lever
3/4" Float Valve 125mm lever

Corrosion Resistant DZR Brass

Lever assembly and pivot pin made from high-quality, DZR brass (dezincification resistant) providing increased strength, corrosion resistance, and longevity.

Easy Maintenance

The valves have been designed for easy disassembly, by simply removing the pivot pin, lever assembly, and body end cap which allow servicing in place. A full range of spare parts is available.

Body

High-performance thermoplastic material, with excellent UV, impact, corrosion, and chemical resistance

*High Pressure Shut-Off

Independently tested static shut-off up to 1,500 kPa for 3/4" using the standard lever and recommended float

Long Parallel Thread

The parallel (fastening) thread with back nut makes this float valve ideally suited to poly and thin walled troughs and tanks.

Flow Rate

*Flow performance giving up to 115 L/min (3/4") and 59 L/min (1/2").

Inlet Thread Sizes

Available in 1/2" and 3/4" to suit varying inlet sizes.

Philmac Code	Body Material	Inlet Size	Thread Type	Lever Length	Recommended Float Size		Max. Shutoff*	Max. Flow*	Watermark Approved
					AS1910	Agricultural	[kPa]	[L/min]	
90 3002 00	Acetyl	1/2" BSP	Long Parallel	250mm	4" (100mm)	4" (100mm)	1,388	59	Yes
90 3003 00	Acetyl	1/2" BSP	Long Parallel	200mm	4" (100mm)	4" (100mm)	1,223	56	Yes
90 3004 00	Acetyl	1/2" BSP	Long Parallel	125mm	-	4" (100mm)	1,177	55	No
90 3002 20	Acetyl	3/4" BSP	Long Parallel	250mm	4" (100mm)	4" (100mm)	1,508	114	Yes
90 3003 20	Acetyl	3/4" BSP	Long Parallel	200mm	4" (100mm)	4" (100mm)	1,310	106	Yes
90 3004 20	Acetyl	3/4" BSP	Long Parallel	125mm	-	4" (100mm)	810	82	No

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

ASNZ4020 & Watermark Approvals

Watermark and ASNZ 40420 approved valve, ensuring consistent quality of production and safety for use in drinking water (potable water) applications. [125mm lever valves are not Watermark approved]



Philmac VERSA PHIL

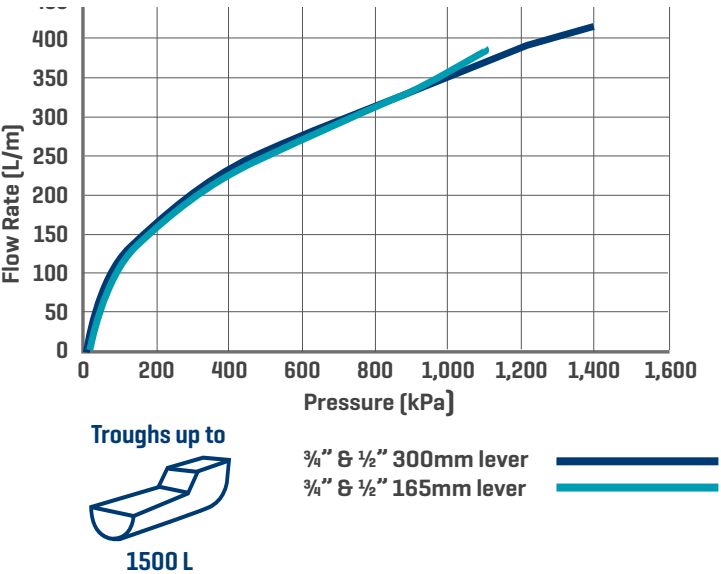
3/4" & 1" TAPERED THREAD FLOAT VALVE

Versatile tapered BSP float valve. Suited to a wide range of applications in troughs and tanks

Standard BSP Thread
Float valve comes with 1" to 3/4" adaptor allowing the one float valve to cover the 2 inlet sizes. This float valve is ideally suited to either concrete or poly troughs and tanks with tapered inlets.



Philmac VersaPHIL Float Valve Performance Data*



Inlet Thread Sizes
Available in 3/4" and 1" to suit varying inlet sizes.

Dual Inlet
The VersaPHIL tapered BSP Thread float valve comes standard with a 3/4" BSP male inlet and a 1" BSP male inlet. This means one valve suits troughs with 3/4" or 1" connections. This means less valves need to be stocked.

Body
High-performance thermoplastic material, with excellent UV, impact, corrosion, and chemical resistance

Dedicated Cam
Wider, stronger, dedicated cam to provide greater durability & resistance to damage

***High Pressure Shut-Off**
Independently tested static shut-off up to 1,400 kPa using the standard lever and recommended float, making this valve suitable for a wide range of installation situations.

Corrosion Resistant DZR Brass
Lever assembly and pivot pin made from high-quality, DZR brass (dezincification resistant) providing increased strength, corrosion resistance, and longevity.

Easy Maintenance
The valves have been designed for easy disassembly, by simply removing the pivot pin and lever assembly which allow servicing in place. A full range of spare parts is available.

Locking Nut
Each lever has a nut fitted to the end, locking the float in place and preventing it from coming undone. This gives you greater assurance that the float cannot come loose and precious water lost.

***High Flow Rates**
Independently tested flow performance giving up to 426 L/min.

Outlet Cap
The outlet cap has engineered, moulded flow directors to minimize the rosette effect, helping to reduce unnecessary splashing & save water.

Troughs up to 1500 L

3/4" & 1/2" 300mm lever
3/4" & 1/2" 165mm lever

Philmac Code	Body Material	Inlet Size	Thread Type	Lever Length	Recommended Float Size AS1910	Agricultural	Max. Shutoff* (kPa)	Max.Flow* [L/min]
91 4703 20	Acetyl	3/4" & 1" BSP	Tapered	300mm	-	6" (150mm)	1,400	426
91 4703 21	Acetyl	3/4" & 1" BSP	Tapered	165mm	-	6" (150mm)	1,100	390

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

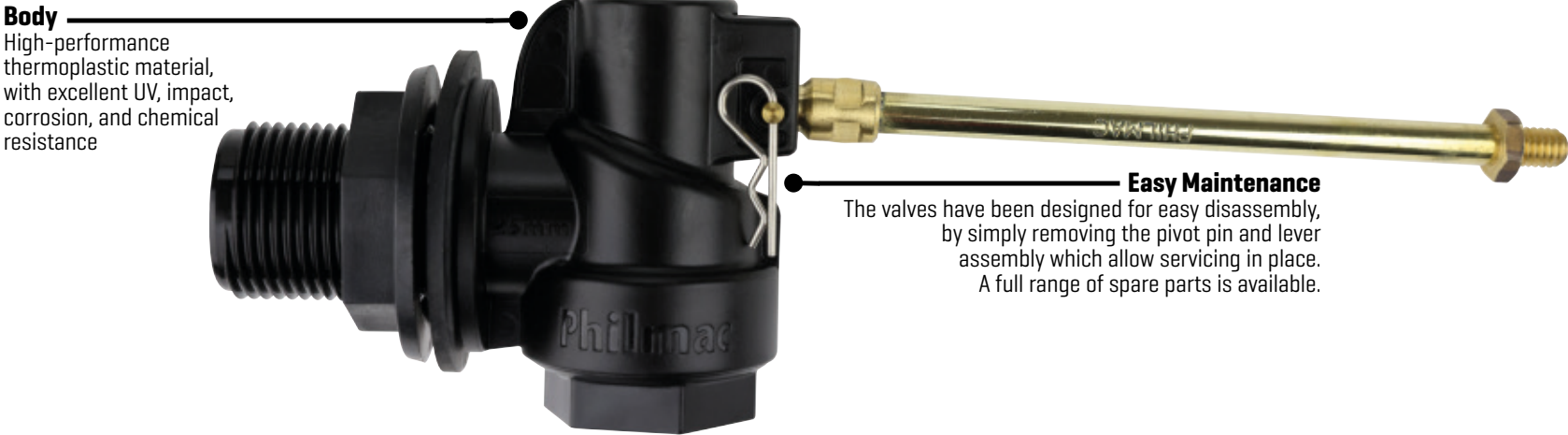
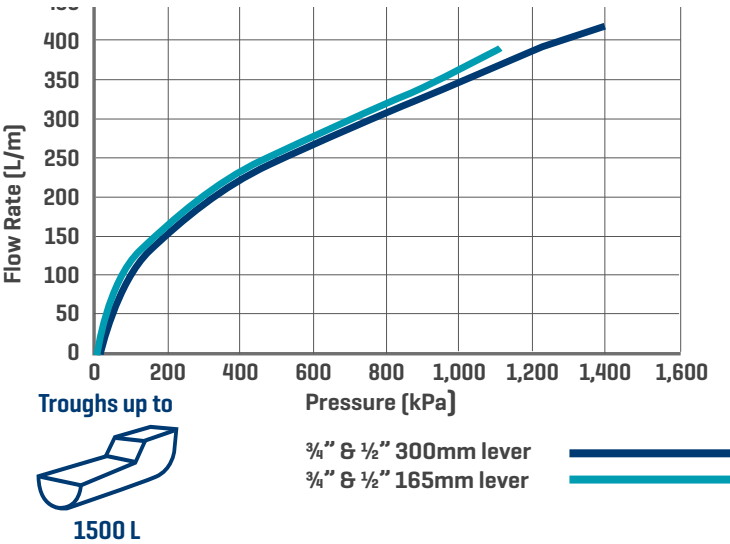
Philmac VERSA PHIL

3/4" & 1" LONG PARALLEL THREAD FLOAT VALVE

Versatile long parallel BSP float valve.
Suited to a wide range of applications in
troughs and tanks



Philmac VersaPHIL Float Valve Performance Data*



Body
High-performance thermoplastic material, with excellent UV, impact, corrosion, and chemical resistance

Easy Maintenance
The valves have been designed for easy disassembly, by simply removing the pivot pin and lever assembly which allow servicing in place. A full range of spare parts is available.

***High Flow Rates**
Independently tested flow performance giving up to 426 L/min.

Dedicated Cam
Wider, stronger, dedicated cam to provide greater durability & resistance to damage

Corrosion Resistant DZR Brass
Lever assembly and pivot pin made from high-quality, DZR brass (dezincification) providing increased strength, corrosion resistance, and longevity.

***High Pressure Shut-Off**
Independently tested static shut-off up to 1,400 kPa using the standard lever and recommended float, making this valve suitable for a wide range of installation situations.

Inlet Thread Sizes
Available in 3/4" and 1"

Outlet Cap
The outlet cap has engineered, moulded flow directors to minimize the rosette effect, helping to reduce unnecessary splashing & save water

Locking Nut
Each lever has a nut fitted to the end, locking the float in place and preventing it from coming undone. This gives you greater assurance that the float come loose and precious water lost.

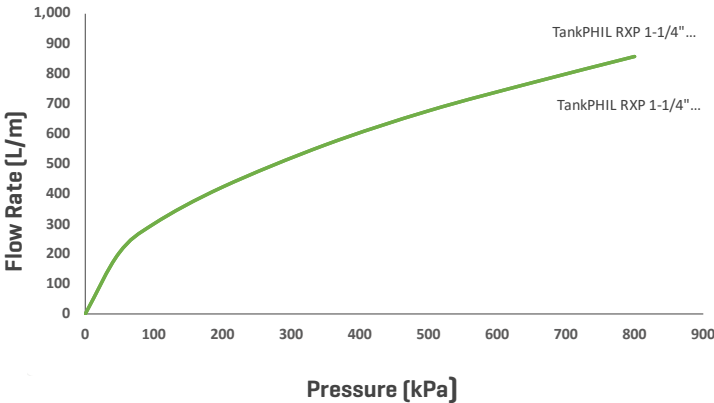
Philmac Code	Body Material	Inlet Size	Thread Type	Lever Length	Recommended Float Size		Max. Shutoff* [kPa]	Max.Flow* [L/min]
91 4203 00	Acetyl	3/4" BSP	Long Parallel	300mm	AS1910	6" [150mm]	1,400	426
91 4201 00	Acetyl	3/4" BSP	Long Parallel	165mm	-	6" [150mm]	1,100	390
91 4253 00	Acetyl	1" BSP	Long Parallel	300mm	-	6" [150mm]	1,400	426
91 4251 00	Acetyl	1" BSP	Long Parallel	165mm	-	6" [150mm]	1,000	390

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

1 1/4" to 2" TAPERED THREAD
FLOAT
VALVE

Extreme flow float valve for fast filling and control of water into large header tanks and reservoirs

Philmac TankPHIL Float Valve Performance Data



Standard BSP Thread
Ideally suited to a wide variety of tanks with either tapered BSP inlets or tank adaptors.

Body
High-performance thermoplastic material, with excellent UV, impact, corrosion, and chemical resistance.

Inlet Thread Size
Available in 1 1/4", 1 1/2" and 2" to suit varying inlet sizes.

Flow Rate
Tested flow performance giving up to 858 L/min.

Easily Adjustable
Easy to adjust lever arm using 316 Stainless Steel bolt.

Easy Maintenance
The valves have been designed for easy disassembly, by simply removing the pivot pin, lever assembly, and body end cap which allow servicing in place. A full range of spare parts is available.

Single Lever Option
For use with dual floats, simple to use giving extreme flow in gravity-fed and low pressure systems

Dual Lever Option
Allows the user to set max/min water levels, reducing pump cycling and motor overload while saving energy and increasing pump life.

Full Flow Operation
Dual lever option has unrestricted operation until the tank is full.

Corrosion Resistant DZR Brass
Lever assembly and pivot pin made from high-quality, DZR brass (dezincification resistant) providing increased strength, corrosion resistance, and longevity.

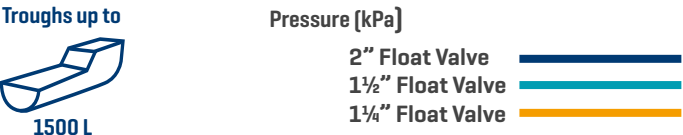
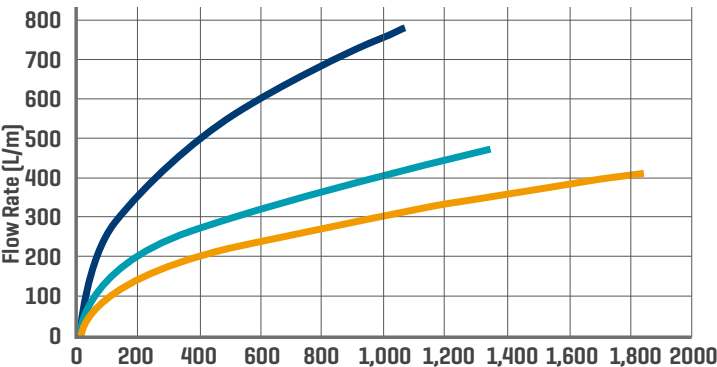
Philmac Code	Body Material	Inlet Size	Thread Type	Lever Length	Recommended Float Size		Max. Shutoff [kPa]	Max.Flow [L/min]
					AS1910	Agricultural		
91 4704 00	Acetyl	1-1/4" BSP	Long Parallel	400mm	-	2 x 6" (150mm)	800	858
91 4704 10	Acetyl	1-1/4" BSP	Long Parallel	440mm	-	2 x 6" (150mm)	800	858
91 4705 00	Acetyl	1-1/2" BSP	Long Parallel	400mm	-	2 x 6" (150mm)	800	858
91 4705 10	Acetyl	1-1/2" BSP	Long Parallel	440mm	-	2 x 6" (150mm)	800	858
91 4706 00	Acetyl	2" BSP	Long Parallel	400mm	-	2 x 6" (150mm)	800	858
91 4706 10	Acetyl	2" BSP	Long Parallel	440mm	-	2 x 6" (150mm)	800	858

3/8" & 2" TAPERED/PARALLEL THREAD
FLOAT VALVES

Premium, robust brass float valve, suited to a comprehensive of applications



Philmac UltraPHIL Float Valve Performance Data*



Inlet Thread Sizes
Available in a comprehensive range of sizes from 3/8" to 2" (DN10 to DN50), meaning there is a size to suit your application.

Standard BSP and Long Parallel Threads
Comes in both standard BSP and long parallel (fastening) threads with back-nut, making this valve ideally suited to a range of trough, tank, and reservoir installation types.

***High Flow Rates**
Independently tested flow performance giving 280 L/min in the 1" and up to 800 L/min in the 2".

Easy Maintenance
The valves have been easy disassembly, by simply removing the pivot pin and lever assembly which allow servicing in place. A full range of spare parts is available.

***High Pressure Shut-Off**
Independently tested static shut-off up to 1,570 kPa [3/4" valve] using the standard lever and recommended float, making this valve suitable for a wide range of installation situations.

Stainless Steel Seat
The seat of the valve is made from high-quality 316 stainless steel for increased chemical and corrosion resistance and longer life.

Locking Nut
3/4" and above size valve levers have a nut fitted to the end, locking the float in place and preventing it from coming undone. This gives you greater assurance that the float cannot come loose and precious water lost.

Corrosion Resistant DZR Brass
The valve body, lever assembly, and pivot pin are all made from high-quality, DZR brass (dezincification resistant) providing increased strength, corrosion resistance, and longevity.



ASNZ4020 & Watermark Approvals
Watermark and ASNZ 40420 approved valve, ensuring consistent quality of production and safety for use in drinking water [potable water] applications

Philmac Code	Body Material	Inlet Size	Thread Type	Lever Length	Recommended Float Size AS1910	Recommended Float Size Agricultural	Max. Shutoff* (kPa)	Max.Flow* (L/min)	Watermark Approved
90 3005 00	Brass	3/8" BSP	Short Parallel	125mm	4" [100mm]	4" [100mm]	1,500	11	Yes
90 3007 00	Brass	1/2" BSP	Tapered	200mm	4" [100mm]	4" [100mm]	1,200	63	Yes
90 3013 00	Brass	1/2" BSP	Long Parallel	250mm	4" [100mm]	4" [100mm]	1,500	71	Yes
90 3015 00	Brass	1/2" BSP	Long Parallel	200mm	4" [100mm]	4" [100mm]	1,200	63	Yes
90 3023 00	Brass	1/2" BSP	Long Parallel	200mm	4" [100mm]	4" [100mm]	1,200	63	Yes
90 3031 00	Brass	1/2" BSP	Short Parallel	200mm	4" [100mm]	4" [100mm]	1,200	63	Yes
90 3044 00	Brass	3/4" BSP	Tapered	250mm	6" [150mm]	6" [150mm]	1,570	193	Yes
90 3046 00	Brass	1" BSP	Tapered	355mm	6" [150mm]	6" [150mm]	1,400	261	Yes
90 3048 00	Brass	1-1/4" BSP	Tapered	355mm	8" [200mm]	8" [200mm]	1,800	420	Yes
90 3049 00	Brass	1-1/2" BSP	Tapered	425mm	8" [200mm]	8" [200mm]	1,338	479	Yes
90 3050 00	Brass	2" BSP	Tapered	455mm	9" [225mm]	10" [255mm] Cu	1,053	802	Yes

* Independently tested by University of South Australia [AFMG], NATA accredited laboratory

Philmac OPTI PHIL

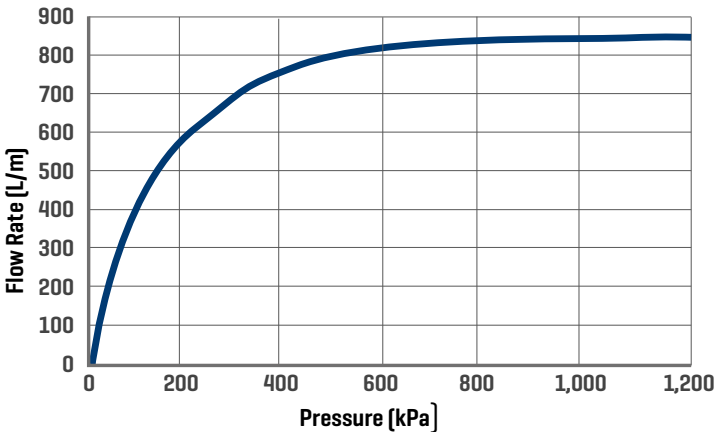
1" TAPERED THREAD FLOAT VALVE

includes 3/4" and 1-1/4" adaptors

The ultimate compact high flow float valve



Philmac OptiPHIL Float Valve Performance Data*



Shut-off
Pressure

Max. Flow
847 L/min

Large or high
demand troughs

ABOVE WATER

UNDER WATER

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

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

Smooth-Flo Design
Optimizes water flow out of the valve, reducing turbulence, minimizing float bounce, cutting water spray, and saving your pump.

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.

Product Number	Body Material	Inlet Size	Thread Type	Lever Length	Installation Position	Float Size	Max. Shutoff* [kPa]	Max.Flow* [L/min]
93 6001 10	Acetyl	1" BSP†	Tapered	n/a	Above Water	4" [100mm]	1,200	847
93 6001 20	Acetyl	1" BSP†	Tapered	n/a	Under Water	4" [100mm]	1,200	847

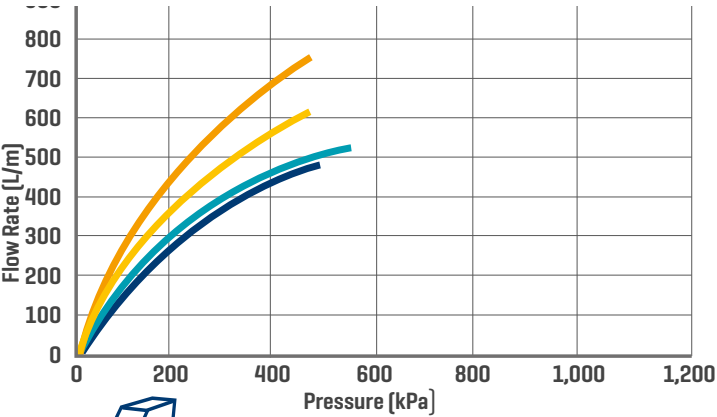
† Supplied with 3/4" and 1-1/4" Adaptors * Independently tested by University of South Australia [AFMG], NATA accredited laboratory

1" to 2" TAPERED THREAD
FLOAT VALVE

Tough and dependable brass float valve that delivers high flow rates, even at low pressures. Ideal for use with large animals

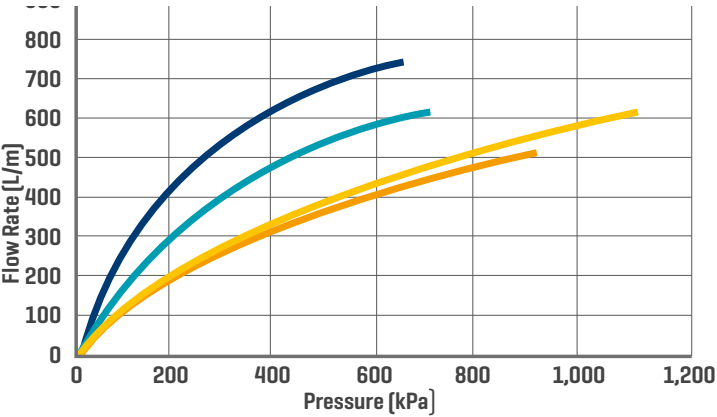


Philmac MegaPHIL Float Valve Performance Data*



Large or high demand troughs

- 2" Float Valve 275mm Lever
- 1 1/2" Float Valve 275mm Lever
- 1 1/4" Float Valve 275mm Lever
- 1" Float Valve 275mm Lever



- 2" Float Valve 275mm Lever
- 1 1/2" Float Valve 275mm Lever
- 1 1/4" Float Valve 275mm Lever
- 1" Float Valve 275mm Lever

Stainless Steel Pins and Clips

The clevis pins and R-Clips of the valve are made from high-quality 316 stainless steel for increased chemical and corrosion resistance and longer life.

Easy Maintenance

The valves have been designed for easy disassembly, by simply removing the R-Clips and Clevis Pins that hold the lever assembly in place, providing access to the internal working of the valve. A full range of spare parts is available.

Built-In Water Level Adjustment

The valve allows for simple adjustment of the water level by turning the bolt on the front of the valve body, instead of the traditional bending of the [reinforced] arm.

*High Pressure Shut-Off

Independently tested static shut-off up to 1,100 kPa (1" valve) and 635 kPa (2" valve) using the standard lever and recommended float, meaning that this valve will cover the maximum pressure tolerable in most rural pipe systems.

Corrosion Resistant DZR Brass

The valve body, lever assembly, flapper, and locking nut are constructed from high-quality, DZR brass (dezincification resistant) providing increased strength, corrosion resistance, and longevity.

Reinforced Cam

The cam has been reinforced easing resistance to stock-damage and long-term performance and durability.

Locking Nut

Each lever has a nut fitted to the end. This nut locks the float in place to prevent it from coming undone. This provides peace of mind that the float cannot come loose and precious water be lost.

*High Flow

Particularly effective in low-pressure applications, with independently tested flow performance giving 727 L/min at 200 kPa with the 2" LP, but also equally effective in higher pressure systems with max flow recorded at 535 L/min at 635 kPa in the 2" HP.

High Pressure Adaptor

1 1/2" and 2" valves come with a high-pressure adaptor which can be removed for low-pressure applications to significantly increase the flow, meaning one valve can cover a wide range of pressure applications, and ensuring the customer does not have to worry about the pressure of their system.

Philmac Code	Body Material	Inlet Size	Thread Type	Lever Length	Recommended Float Size AS1910 Agricultural		Max. Shutoff* (kPa)	Max.Flow* (L/min)
90 3223 00	Brass	1" BSP	Tapered	400mm	–	9" [225mm]	1,100	622
90 3223 10	Brass	1" BSP	Tapered	275mm	-	9" [225mm]	605	468
90 3224 00	Brass	1-1/4" BSP	Tapered	400mm	-	9" [225mm]	917	513
90 3224 10	Brass	1-1/4" BSP	Tapered	275mm	-	9" [225mm]	741	468
90 3225 20	Brass	1-1/2" BSP	Tapered	400mm	-	9" [225mm]	700	609
90 3225 30	Brass	1-1/2" BSP	Tapered	275mm	-	9" [225mm]	558	532
90 3226 20	Brass	2" BSP	Tapered	400mm	-	9" [225mm]	635	728
90 3226 30	Brass	2" BSP	Tapered	275mm	-	9" [225mm]	485	490

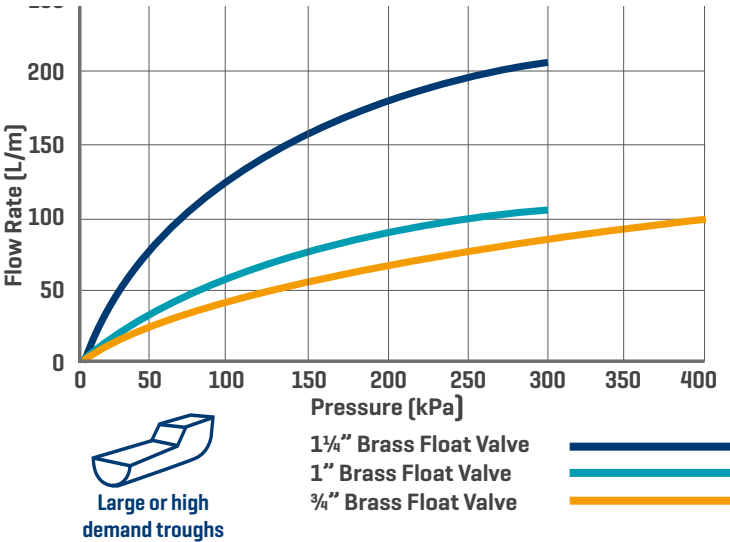
* Independently tested by University of South Australia [AFMG], NATA accredited laboratory

3/4" & 1" FLOAT VALVE

Stock-proof designed to deliver high flow in low pressures and resist damage from large animals



Philmac StockPHIL Float Valve Performance Data*



Anti-Fouling
Utilising a specially designed plastic float cord protector, the cord is prevented from wrapping around the valve body when the water level drops, ensuring reliable, trouble-free operation.

Corrosion Resistant DZR Brass Body
The valve body is constructed from high-quality, DZR brass (dezincification resistant) providing increased strength, corrosion resistance, and longevity.

Inlet Thread Sizes
Available in a range of sizes from 3/4" to 1 1/4".

***Flow Rates**
Independently tested flow performance giving 206 L/min at 300 kPa with the 1 1/4" brass valve, providing reliable water flow.

Product Number	Body Material	Inlet Size	Thread Type	Lever Length	Recommended Float Size		Max. Shutoff [kPa]	Max.Flow* [L/min]
					AS1910	Agricultural		
AQ100B	Brass	3/4" BSP	Tapered	n/a	-	Supplied with valve	400	100
AQ200B	Brass	1" BSP	Tapered	n/a	-	Supplied with valve	300	106
AQ300B	Brass	1-1/4" BSP	Tapered	n/a	-	Supplied with valve	300	206
AQ400P	Acetyl	3/4" BSP	Tapered	n/a	-	Supplied with valve	300	120
AQ500P	Acetyl	1" BSP	Tapered	n/a	-	Supplied with valve	300	127
AQ600P	Acetyl	1-1/4" BSP	Tapered	n/a	-	Supplied with valve	300	206

* Independently tested by University of South Australia [AFMG], NATA accredited laboratory

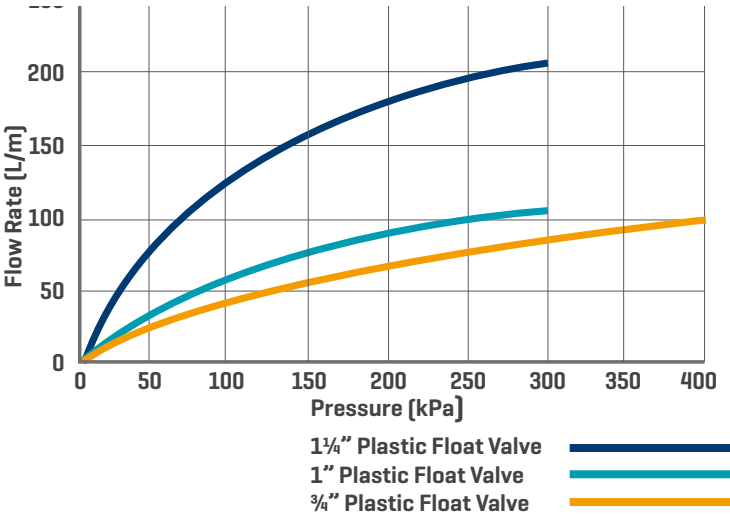


Pressure Shut-Off
Static shut-off up to 300 kPa using the standard lever and recommended float, meaning that this is suited to low-pressure applications.

Stainless Steel Pins and Clips
The clevis pins and R-Clips of the valve are made from high-quality 316 stainless steel for increased chemical and corrosion resistance and longer life.

Corrosion Resistant High-Performance Thermoplastic Body
Body and plunger are manufactured from high-performance thermoplastic material, with excellent UV, impact, corrosion, and chemical resistance.

***Flow Rates**
Independently tested flow performance giving 206 L/min at 300 kPa with the 1 1/4" plastic valve, providing reliable water flow.





Philmac offer a range of floats to suit your valve and application

Efficient water system design considerations

Matching the correct Philmac float valve to your available pressure, trough and herd size. While taking into account that larger pipes give more volume and reduce your system pressure at the pump will ensure your system works efficiently and lasts for generations.

A good water supply on a farm is very important, currently in many instances, water supply is far from satisfactory. From our years of experience working with farmers across the country we have found that, in most cases, the issue with poor water supply around the farm is due to small pipe size. The most common pipe sizes used are ½” and ¾” which restrict the water supply from the pump to the trough. To overcome the problem of small pipe size some farmers install bigger pumps and increase the system pressure to the troughs. This has little effect as the flow restriction still exists due to the small-bore pipe. Pipe size is a lot more important than trough size. We recommend that you should use a minimum 1” diameter pipe for short distances (under 200 meters) and small herd sizes. For herd sizes of 100 cows or more, we recommend sizes of 1¼” to 2” diameter pipe depending on distance.

Hot Water Floats



Cold Water Floats



Philmac Code	Float Description	Connection	Suits Valve Types	Additional Information
90 4893 10	3” Natural hot water	5/16”	3/8” UltraPHIL Brass float valves	Suitable to 1,000 kPa shut-off. Does not comply with AS1910*
90 4894 10	4” Natural hot water	5/16”	½” UltraPHIL brass & EasyPHIL plastic float valves	
90 4893 00	3” Black cold water	5/16”	3/8” UltraPHIL Brass float valves	OK up to 1,000 kPa shut-off. Does not comply with AS1910*
90 4894 00	4” Black cold water	5/16”	½” UltraPHIL brass & EasyPHIL plastic	
90 4895 00	5½” Black cold water	5/16”	VersaPHIL plastic float valves	Suitable for smaller chamber poly troughs. Reduces shut-off pressure on standard lever to 1150 kPa and short lever to 950 kPa
90 4896 00	6” Black cold water	5/16”	¾” and 1” UltraPHIL brass, VersaPHIL and TankPHIL plastic float valves	Can be used on 1-¼” UltraPHIL brass to achieve 1250 kPa shut-off but does not comply with AS1910
90 4898 00	8” Black cold water	3/8”	1-¼” and 1-½” UltraPHIL Brass float valves	
90 4898 20	8” Orange cold water	1/2”	1” and 1-¼” MegaPHIL High Flow Float Valves	Can be used with 1-½” and 2” MegaPHIL High Flow Float Valves but reduces the shut-off pressure
90 4899 20	9” Orange cold water	1/2”	All MegaPHIL High Flow Float Valves	Can be used with 2” UltraPHIL brass valve to achieve 1250 kPa shut-off but does not comply with AS1910
0 4890 20	9½” Orange Turbo cold water	1/2”	1-½” and 2” MegaPHIL High Flow Float Valves	Has 28% more volume than the 9” float and therefore will provide an increased shut-off pressure

Trough size
Is dependent on how fast it fills
Trough size is directly related to the type and number of animals using the trough. Trough head space is only a factor if pipe size and float valve selected is not sufficient.

Pressure
Gravity fed or pump
Pressure plays a part but volume is the major factor. Larger pipe has less flow restriction, thus reducing the working pressure required for the system.

Float valve selection
Flow and pressure are major factors
Philmac has a range of float valves suited to both low and high pressure applications that will optimise the system performance.

Philmac Ball Valve
Makes trough and float valve maintenance easy or for when the trough is not in use.

Pipe size
Selection is critical
Main line 1¼” to 2” volume is important. Branch of in ¾” or 1” up to 100m. Take into account distance, elevation, herd type and size.

Ground works
Trench and backfill
Pipe depth minimum 450mm below ground. Backfill with sand in heavy soil to ensure the system will last for generations.

Flow rate comparison at L/m at 300 kPa example

Pipe Size	¾”	¾”	% Difference
Coils of pipe	1 coil (150m)	2 coils (300m)	1 coil vs 2 coils
½” EasyPHIL	18.5	14.5	-22%
¾” EasyPHIL	22.2	16	-28%

Pipe Size	1½”	1½”	% Difference
Coils of pipe	1 coil (150m)	2 coils (300m)	1 coil vs 2 coils
½” EasyPHIL	27	26.8	-1%
¾” EasyPHIL	41	39	-5%



The connection you can trust.

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