

Kingspan Water & Energy Owner's Manual for Above Ground Water Tanks



Experts In
Steel Tanks



Congratulations on the purchase of your Kingspan Steel Water Tank

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Kingspan Water & Energy
– Sustainable steel water tanks.
Made to measure. Made to last.

Your home is now fitted with a complete water storage and rainwater harvesting system. This system collects water from the roof and stores it in your rainwater tank for later use in flushing your toilets, feeding your washing machine and one or more external taps for gardening use.

The system fitted to your home has been proven to save over 40 000 litres of water per year on the average sized home and family. This is a significant benefit to the environment and a savings on your water bill.

The complete system is made up of a number of components and like many items around your home requires ongoing care and maintenance.

Please take the time to read and understand the contents of this user manual to ensure you get the best performance from your Kingspan system.



REMEMBER TO:

Register your tank at kingspan.com/au/tankwarranty and please let us know if your details change.

Should you require further assistance please visit kingspan.com.au/service or call **1300 736 562** nationally.

System Overview

Your complete water storage and rainwater harvesting system comprises of the following elements:

1

Gutters to capture the rain from your roof

The gutters on your house capture rainwater running off your roof. These gutters direct the rainwater to the downpipes, which in turn feed into the rainwater collection tank. It is important that these gutters are kept clean and in good order.

2

Pipe work to feed rainwater into your tank

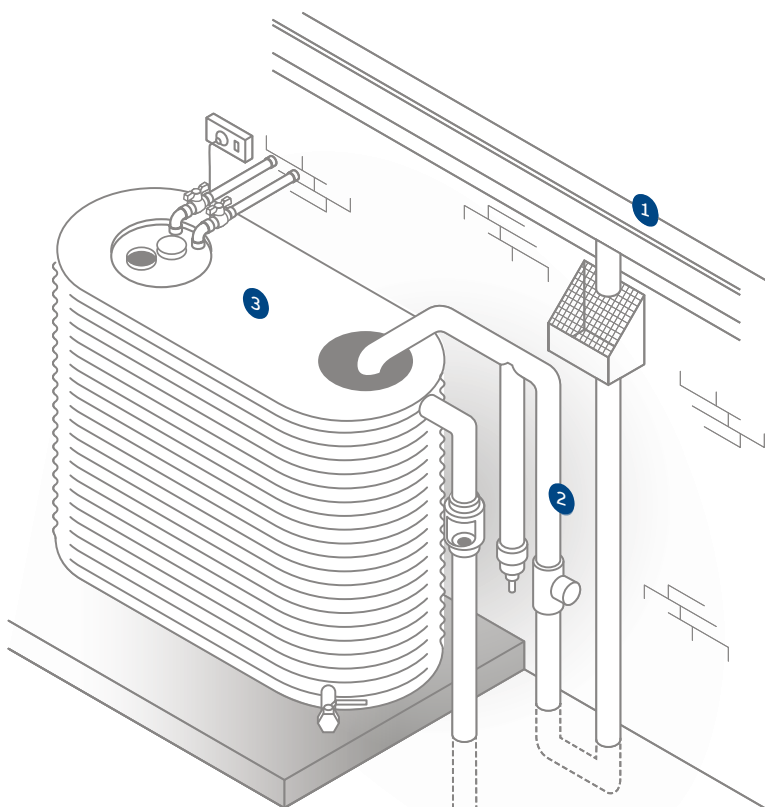
There are two main types of pipe work systems to feed the water to your collection tank:

- i. Charged or wet system - connects most of the down pipes around your home into an underground pipe work system that then feeds into your rainwater tank. You have this type of system if there is pipe work coming out of the ground next to your tank and feeding into the top, or side, of your tank.
- ii. Direct feed system - has the downpipe from the gutter setup to feed directly into your rainwater tank.

3

Rainwater collection

The rainwater tank collects and stores the water. Tanks vary in size and shape depending on the requirements of local council and building authorities. Your Kingspan tank is manufactured from Bluescope AQUAPLATE® material and carries a 10/20 warranty – 10 year construction warranty and 20 year warranty against corrosion. On some occasions your builder may have installed more than one tank on your home. These will normally be connected together and will act as one storage tank.



As the manufacturers, Kingspan recommends a 3 year tank service

A Kingspan service technician will inspect and carry out the following:

- Pump pre-warranty expiry inspection (Evolution MkIII pumps only)
- Checking the functionality of the pump
- A tank desludge (at the 3, 6, 12 and 15 year mark)
- Sanitised tank clean (at the 9 and 18 year mark)
- Cleaning of all filters including:
 - High-flow filter (if applicable)
 - Odour/sediment filters
 - Pump filter
 - Leaf basket
 - First flush filter
- Tank and tank base structure which includes checking for leaks
- Cleaning of charge lines
- Cleaning of the outside of the tank



Don't worry, we'll remind you when the time comes.

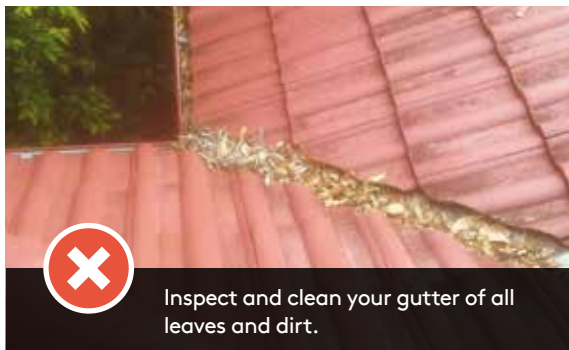
Care and maintenance of your system

Your water storage and rainwater harvesting system will provide many years of faultless operation with regular care and maintenance. It is important that the following care and maintenance is regularly performed.

Cleaning and inspecting your gutters

It is important for the proper functioning of your rainwater system that your gutters are kept clean and clear. Regular inspection and cleaning is required to ensure that leaves and other organic material does not enter your down pipes and collect in the underground pipe work.

If you live in a leafy area it is recommended that you fit a suitable gutter guard to help keep the leaves out of your gutters. Dirty gutters are the main cause of your rainwater developing an unpleasant odour, or becoming discoloured.



NOTE: Cleaning your gutters is a dangerous activity and should be carried out with suitable fall protection. We recommend the use of licensed contractors to perform this function.

Cleaning the tank inlet filter

The inlet filter to your tank must be kept clean, allowing the water from your roof to pass easily into your tank. Cleaning frequency of the inlet filter

varies depending on your location and the amount of debris coming from the roof. Initially, check the filter weekly until you determine the frequency required.



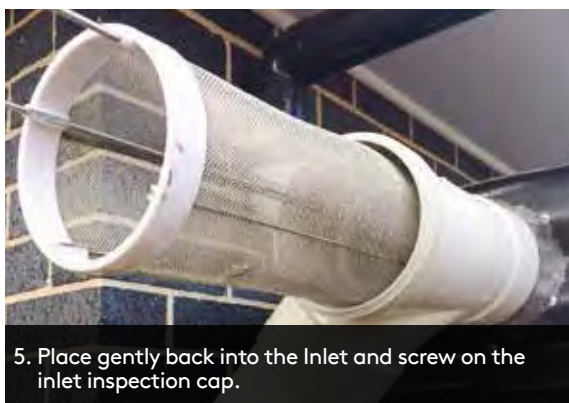
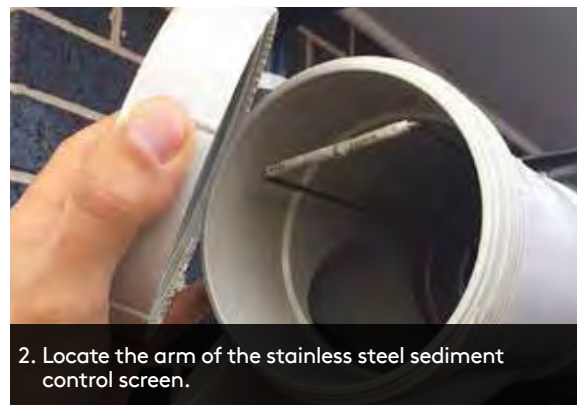
ACTION: Remove the filter and hose clean. The use of a scrubbing brush may be required to remove stubborn or dried on debris.

Care and maintenance of your system

Cleaning a High-Flow filter (optional)

If your tank is fitted with a High-Flow filter system, to maintain and clean the High-Flow filter is simple and requires you to access the stainless steel sediment control screen located inside the Inlet. This should be kept clean on a regular basis to ensure the water from your roof passes easily into your tank. Cleaning frequency of the stainless

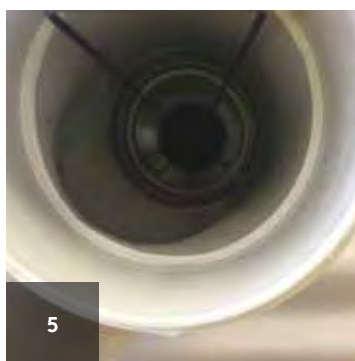
steel sediment control screen will vary depending on the location of the tank and the amount of debris coming from the roof. Initially it is recommended that you check the stainless steel sediment control screen weekly until you determine the cleaning frequency that is required.



Care and maintenance of your system

Optional High-Flow Filter Sleeve

1. Remove the screw cap from the junction.
2. Gently remove the filter from the housing.
3. Carefully peel back the High-Flow Filter Sleeve off the filter ensuring that the High-Flow Filter Sleeve doesn't catch on the stainless steel filter. Carefully lift the tail of the High-Flow Filter Sleeve over the plastic end piece. Handwash the High-Flow Filter Sleeve with soapy, warm water and dry by hanging out. It's preferable to not use a clothes dryer.
4. To refit the High-Flow Filter Sleeve follow the same process as removing.
 - a. Slide the High-Flow Filter Sleeve onto the end of the filter and tuck the end up against the plastic end piece.
 - b. Carefully pull the High-Flow Filter Sleeve over the stainless steel filter ensuring that the High-Flow Filter Sleeve does not get caught on the mesh.
 - c. Pull the High-Flow Filter Sleeve down until it tucks up against the other end piece.
 - d. Rotate the filter while aligning the High-Flow Filter Sleeve to both plastic end pieces. There should be no visible stainless steel mesh showing.
5. Place the filter with the High-Flow Filter Sleeve fitted back in position, ensuring the handle is in the upper position of the filter housing.



Care and maintenance of your system

Cleaning first flush device (optional)

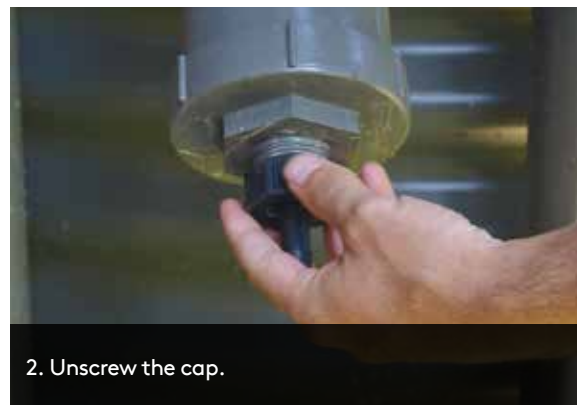
The first flush device is designed to divert the initial water flow away from your tank. This device is optional and may not be installed on your system. If this device has been installed you will find it connected to your charged line or direct feed. Refer to position on diagrams on pages 11 and 12.



ACTION: To check and clean the first flush water diverter, disassemble as shown in the diagram. It may be full of water, so take care when unscrewing the black hose tail. Flush the white strainer and red washer well with clean water. Reassemble, taking care to ensure that the ball is replaced and free to move in the pipe body.



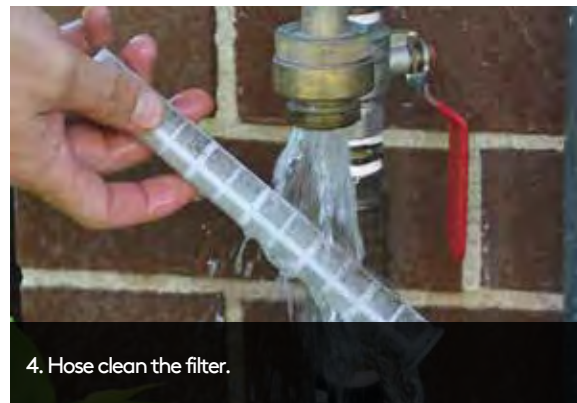
1. Locate the first flush device.



2. Unscrew the cap.



3. Removed the filter.



4. Hose clean the filter.

Wall mount classic system Y-strainer



ACTION: turn off pump power, unscrew filter body, remove filter and clean & replace.



Care and maintenance of your system

Cartridge filter (optional)

The cartridge filter is designed to have an industry standard 10 inch filter cartridge. Filter cartridges can be purchased from Kingspan, or a plumbing and hardware store. The two filter cartridges available from Kingspan are as follows:

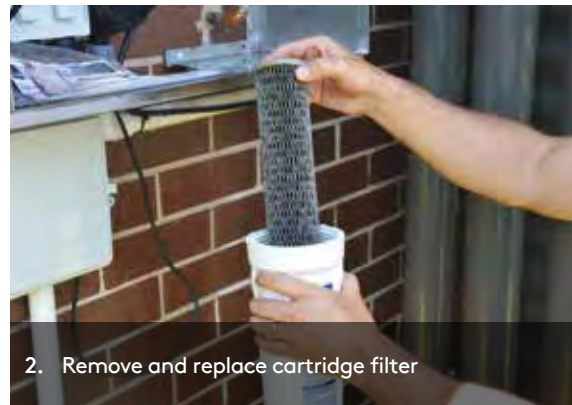
1. 10 micron carbon activated – used to remove colour and odour. This filter cannot be cleaned and has to be replaced when it becomes clogged. Depending on your circumstances this filter needs to be replaced every 6 to 12 months, or when you notice a pressure drop.
2. 50 micron pleated – finer sediment removal down to 50 micron. This filter can be washed and reused. It is recommended that you clean this filter every 6-12 months.



ACTION: Turn off the power point, close mains water valve, unscrew body of cartridge filter, remove cartridge filter and replace it, ensure the cap is tightened.



1. Unscrew body of cartridge filter



2. Remove and replace cartridge filter



3. Screw body of cartridge filter.

Rainwater pipes

Rainwater pipes work to feed the water to your toilets, washing machine and at least one external tap. When your home was built separate water pipes were installed for feeding your toilets, washing machine

(optional) and, one or more, external garden taps. The garden tap that runs from your rainwater tank has a sign indicating rainwater or 'Do Not Drink' symbol.

Water pump + controller

There are number of configurations for the pump and controller, but they all perform the same basic function.

Controller

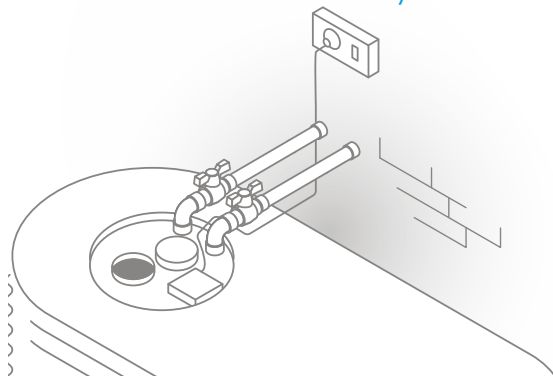
If there is sufficient water in your tank the controller switches the pump on when water is required. If there is insufficient water in your tank the controller switches back to mains water automatically. This controller does not add water to your tank, but simply allows the mains water to feed through when your tank is empty.

Pump

The Pump will typically be a sump pump mounted within your tank or, in some cases, an external pump. When the pump is switched on by the controller the tank water is pumped from your tank.

Kingspan supplies two types of pump controller configurations:

A Evo MkIII tank mounted system



Refer to page 10 for details.

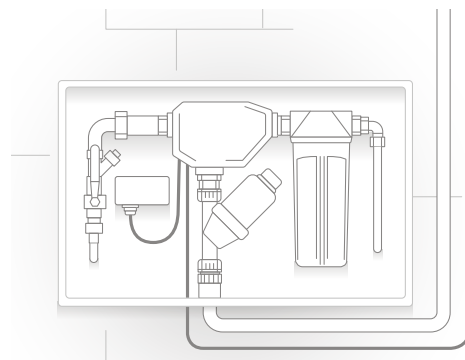
The Evolution MkIII comes with a powerful Grundfos submersible pump and PM rain controller as an integrated unit. This offers the advantage of when the tank runs out of water, or when there's a power outage the PM rain controller automatically opens the main line to the internal appliances.

The Evolution MkIII features a changeover device that comfortably sits in the recess of the tank and a quality Grundfos SB submersible pump.

By integrating your tank with a powerful, high pressure, submersible Evolution MkIII water tank pump and controller you will enjoy the following benefits:

- » quick and easy to install
- » cost savings through lower power consumption and efficient use of water
- » automatic switching to main water when rainwater runs out or power is off
- » savings on space
- » improved appearance of the system
- » pump is silent once submerged

B Classic mounted system



Refer to page 10 for details.

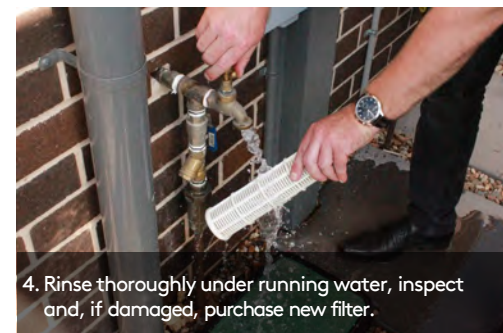
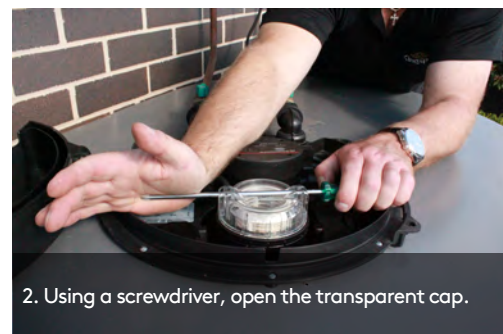
Wall mounted main diverter switch. Sump pump in tank.

Filters

All systems contain filters that require regular cleaning and maintenance to ensure your system performs at its best. The filters are designed to clean the rainwater to a level that will ensure appliances, such as your toilet cistern and washing machine valves, are kept clean. In some cases

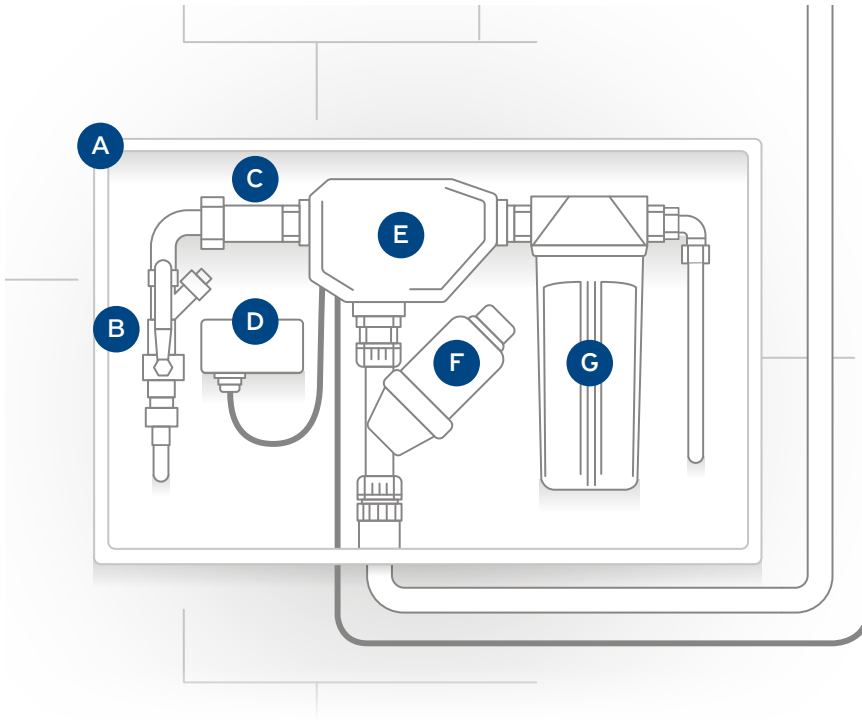
additional filtration may be required if you have leaves or other organic matter collecting on your roof and gutters. Refer to the Care and Maintenance section for further information on cleaning filters.

Cleaning controller filters on the Evo MkIII system



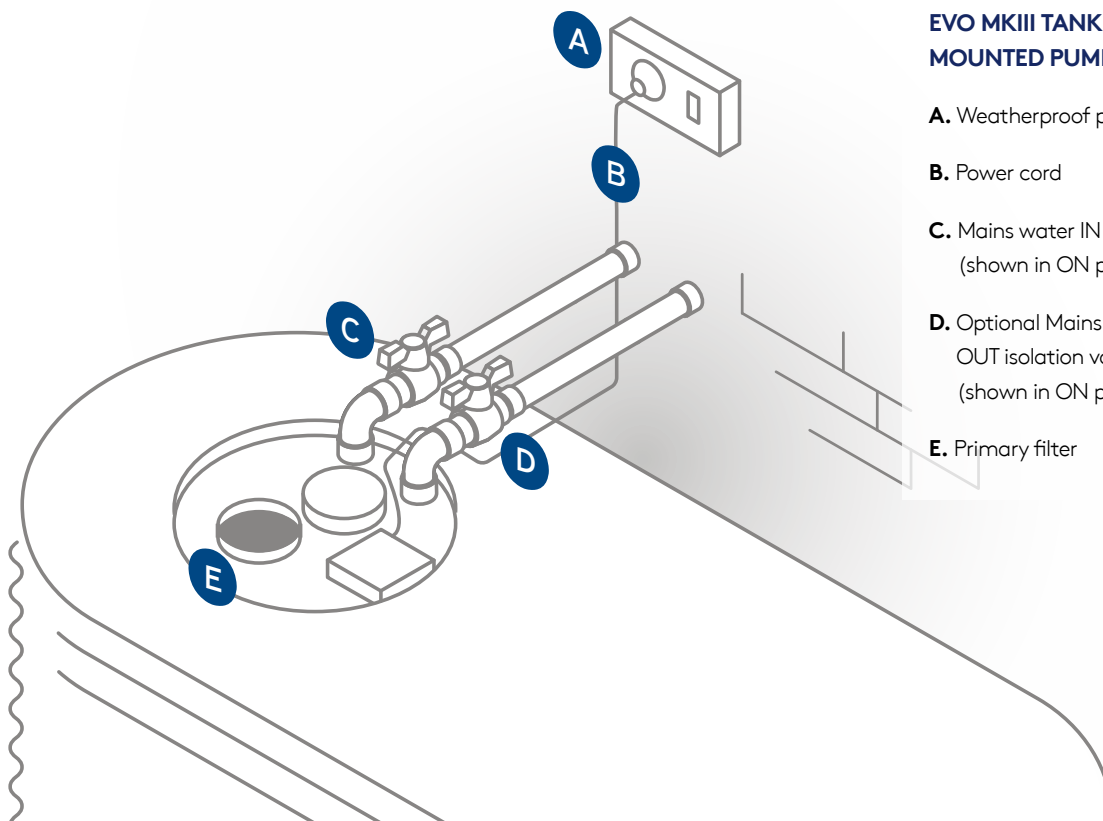
The filter pot is designed to have an industry standard 10 inch filter cartridge. Filter cartridges can be purchased from Kingspan or a plumbing and hardware store. Filter cartridges can be purchased from Kingspan or a plumbing and hardware store.

Pump diagrams



CLASSIC WALL MOUNT

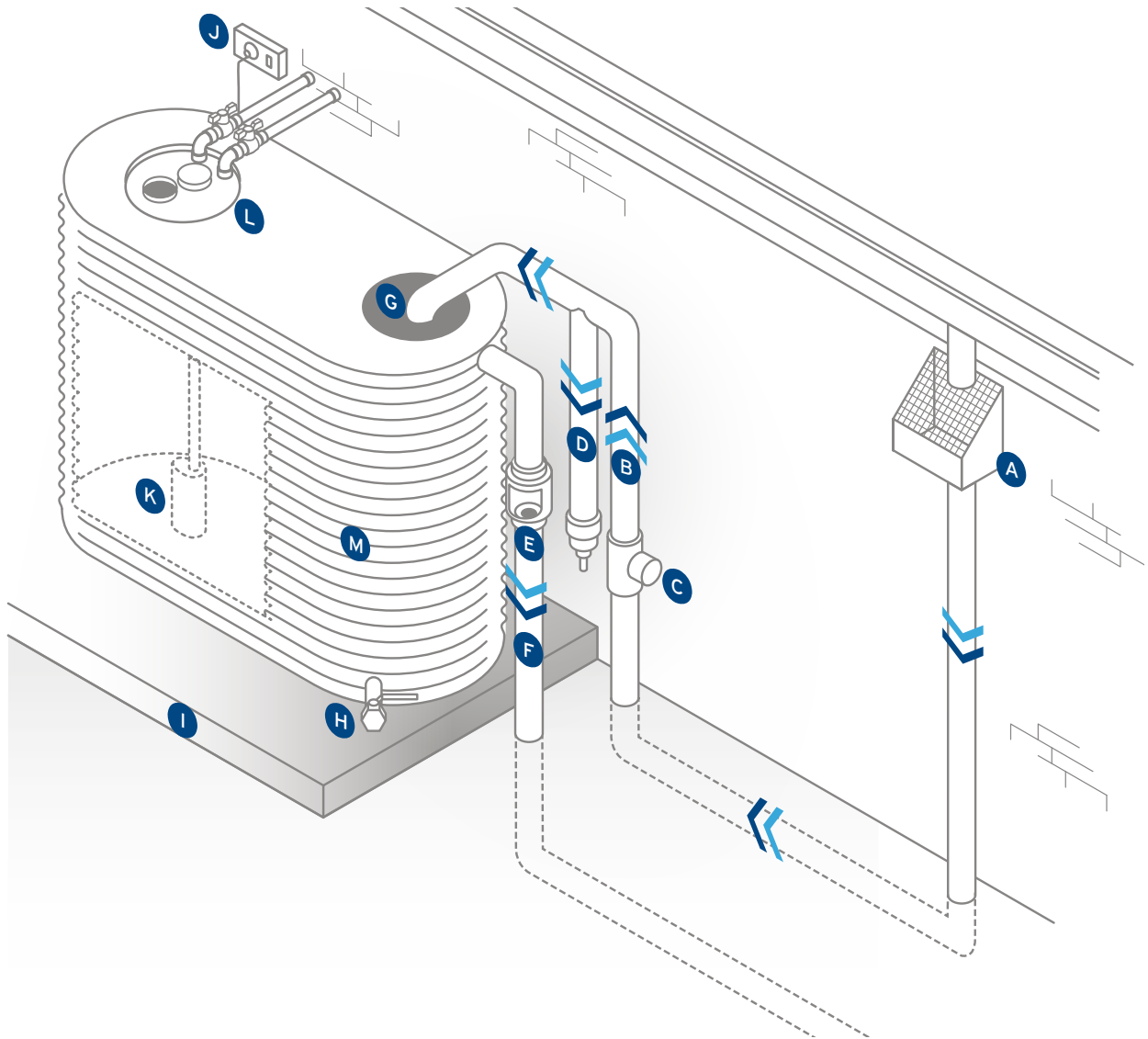
- A. Enclosure box (optional)
- B. Mains water isolation valve
- C. Mains line strainer (optional)
- D. Weatherproof power outlet
- E. Mains backup controller
- F. Pump line strainer
- G. Cartridge filter (optional)



EVO MKIII TANK MOUNTED PUMP

- A. Weatherproof power outlet
- B. Power cord
- C. Mains water IN isolation valve (shown in ON position)
- D. Optional Mains/Rain water OUT isolation valve (shown in ON position)
- E. Primary filter

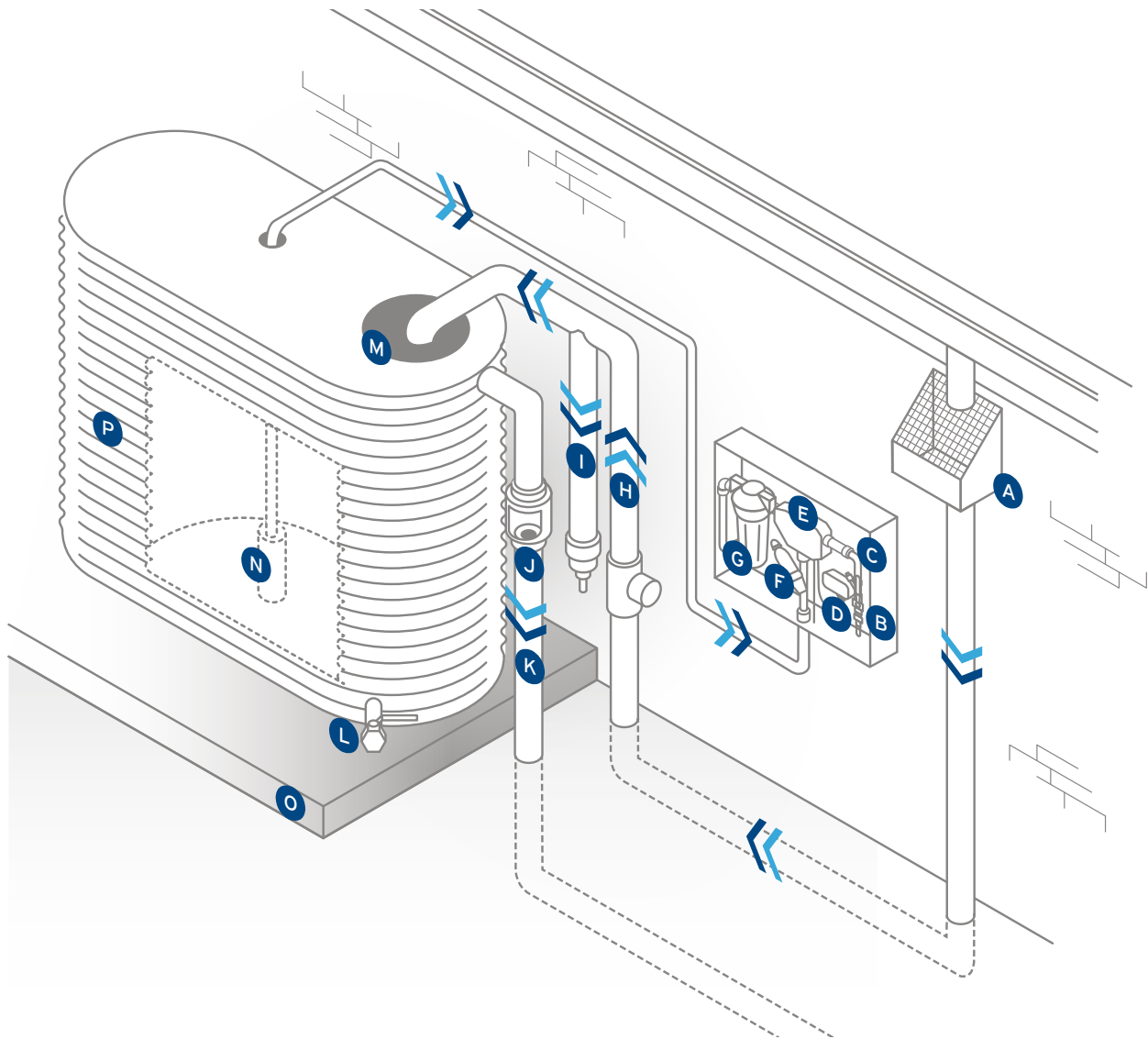
Evolution MkIII tank mounted system



EVO MKIII TANK MOUNTED SYSTEM

- | | | |
|---------------------------------------|---|--|
| A. Leaf eater (optional) | F. Overflow stormwater | K. Submersible pump |
| B. Charged stormwater pipe | G. Inlet screen and light guard | L. Evo MkIII – for detail see p10 |
| C. Inspection outlet | H. Tank drain valve | M. Tank |
| D. First flush water diverter | I. Tank base – concrete or similar | |
| E. Overflow air-gap (optional) | J. Weatherproof power outlet | |

Classic wall mount system



CLASSIC WALL MOUNT

- | | | |
|--|---------------------------------------|---|
| A. Leaf eater (optional) | G. Cartridge filter (optional) | M. Inlet screen and light guard |
| B. Mains water isolation valve | H. Charged stormwater pipe | N. Submersible pump |
| C. Mains line strainer (optional) | I. First flush water diverter | O. Tank base – concrete or similar |
| D. Weatherproof power outlet | J. Overflow air-gap (optional) | P. Tank |
| E. Mains backup controller | K. Overflow stormwater | |
| F. Pump line strainer | L. Tank drain valve | |



NOTE: Filters and Wall Mounted Box is Optional

Fault finding

Please use the following guide before making a service call.

FAULT	ACTION
Pump not running	<ul style="list-style-type: none"> » Check water level in tank. Water level must be a minimum of 400mm. » Check power cord plugged in and turned on. » Check LED lights are displayed on controller. » Check power to power point. Can use a portable light or other device to check if power is available at power point. » Turn the power off for 10 seconds and then pump on again » Pump or controller is faulty. Contact Kingspan on 1300 736 562.
Water overflow from top of tank when raining	<ul style="list-style-type: none"> » Check and clean inlet screen. » Check overflow line is clear. » Call Kingspan on 1300 736 562 if problem continues.
Water leaking from first flush diverter	<ul style="list-style-type: none"> » This is normal function and is expected. You will lose a small amount of water while it is raining and for a period after rainfall has stopped. The water can be directed to a drain or similar using 13mm garden hose.
Poor pressure when pump is running	<ul style="list-style-type: none"> » Inspect and clean controller filter. Test briefly without filter installed to see if pressure improves. » Inspect tank controller connections to house for leaks. » Ensure all valve are fully open on inbound and house feed lines.
Pump running continuously	<ul style="list-style-type: none"> » Check power cord from pump is plugged into the controller and not the power point on wall (classic system only). » Check no leaking taps, toilet or washing machine connections. » Turn off system and contact Kingspan on 1300 736 562.
Noisy pump	<ul style="list-style-type: none"> » Pump is designed to be almost silent in operation. Contact Kingspan on 1300 736 562.
Water smells /bad odours	<ul style="list-style-type: none"> » Odour is caused from organic material (leaves and de-bris) in your gutters, pipe work and water tank. » Clean gutters and debris from roof. » Upgrade to Grundfos Carbon Filter for Evolution MkIII. Refer to Spare Parts. » Add Rain water tank purifier to your tank. Can be purchased from Kingspan or plumbing and hardware stores. » If problem persist your charged line system may require flushing to remove debris.

Have a service or maintenance problem? Contact us

kingspan.com.au/service | 1300 736 562 | service.au@kingspan.com

Spare parts

Visit shop.kingspan.com to purchase tank accessories and pumps

PART	ITEM CODE
GRUNDFOS 20 MICRON FILTER (Optional Evolution MkIII)	FIL-GRUNDFOS20MICRON
GRUNDFOS 250 MICRON FILTER (Standard Evolution MkIII Filter)	FIL-GRUNDFOS250MICRO
GRUNDFOS CARBON FILTER (Optional Evolution MkIII)	FIL-GRUNDFOSCARBON
400mm 100 micron Sock Filter (HIGH-FLOW FILTER SLEEVE)	FIL-SOCK FILTER
400mm strainer + light guard (Standard)	400 STRAINER + GUARD
500mm Strainer + Light Guard (Suitable for Round Tanks over 2m in diameter only)	500 STRAINER + GUARD
90mm First Flush w-brkt	FLUSH 90
100mm First Flush Kit	FLUSH 100
Carbon Impregnated 10" (Standard Classic System)	10 MICRON FILTER
Pleated washable 10" (Standard Classic system)	50 MICRON FILTER
Rainwater Tank Purifier	AQUASAFE

Service record

Replace cartridge after 6 months.

SERVICE PERFORMED	SERVICE DATE	REPLACEMENT DATE
3 year tank service		
6 year tank service		
9 year tank service + tank sanitise clean		
12 year tank service		
15 year tank service		
18 year tank service + tank sanitise clean		

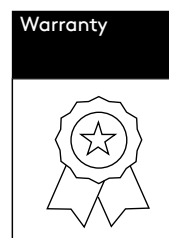
Warranty

- All Kingspan rainwater tanks are covered by a 10 year construction warranty.
- All tanks made from Bluescope AQUAPLATE® steel are covered by the Bluescope 20 year corrosion warranty.
- All pumps and mains water backup controllers are covered by a two year standard warranty issued by the manufacturer.
- Warranties do not cover the following:
 - Service calls not related to faults with the products included in the rainwater harvesting system.
 - Faults caused by accidental damage, misuse or acts of nature.
 - Maintenance as detailed in this manual.

Tank warranty form can be found at: kingspan.com/au/tankwarranty

Register for a bonus 2 years extended pump warranty

If you have a Kingspan Evolution MkIII pump installed as part of your Kingspan tank system, don't forget to register online for your Bonus 2 Years Extended Warranty. Register here: kingspan.com/au/tankwarranty



Have a service or maintenance problem? Contact us
kingspan.com.au/service | 1300 736 562 | service.au@kingspan.com



OUR LOCATIONS

We manufacture at each of our three locations:

SYDNEY

02 8889 5400
3 Herbert Place
Smithfield NSW 2164

Deniliquin Warehouse/Depot
Lot 2 Wakool Road
Deniliquin NSW 2710

MELBOURNE

03 8364 0800
55 Ricky Way
Epping VIC 3076

BRISBANE

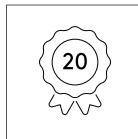
07 3089 1000
Unit 2/59 Link Drive
Yatala QLD 4207

PERTH

14 Ballantyne Road
Kewdale WA 6106

1300 736 562

kingspan.com.au/water
sales.au@kingspan.com



PRODUCT WARRANTY*

With a Kingspan tank, you can rest assured that you have support for the long term. Kingspan Water & Energy Pty Limited warrants the AQUAPLATE® range of steel water tanks as follows:

- 20 year minimum life prior to perforation due to corrosion, as detailed in the AQUAPLATE® product warranty*.
- 10 year construction warranty* covering the assembly and sealing of the tank.

