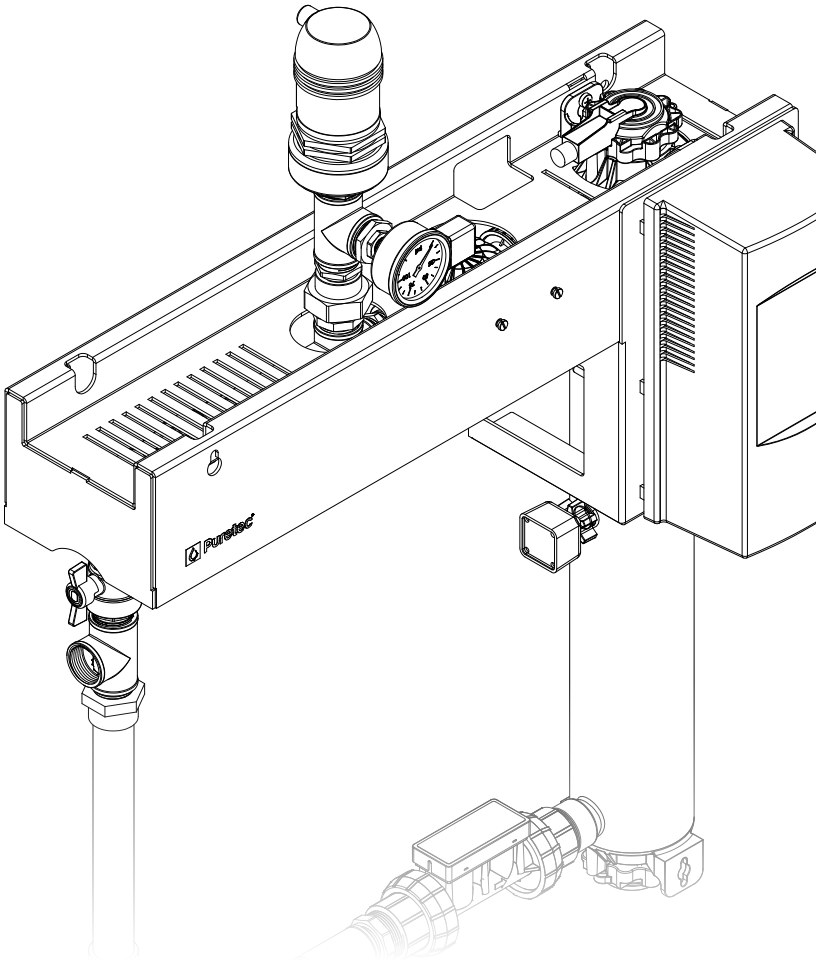
RI-EPAS

Mounted End Point Acceptable Solution for the Water Services Act 2021 User Guide



Puretec
PERFECTING WATER

ULTRAVIOLET

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Puretec Customer Service

Thank you for purchasing a Puretec Water Treatment System. Your system is a proven performer manufactured from only quality materials and components. It will give years of reliability and trouble free operation if installed and maintained properly.

For any assistance please call the Puretec Customer Service Helpline on 1300 140 140 (Australia) or 0800 130 140 (New Zealand).

Introduction

The RI-EPAS Systems are designed to meet the requirements of the New Zealand Water Services Act (2021). As such all components within this kit should be used as specified within this user guide. For instructions on how to use and operate the included RI-NSFA system, please refer to the supplied RI-NSFA user guide.

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Preparing Your System

Please read all instructions carefully as failures caused by incorrect installation or operation are not covered by warranty.

Once your RI-EPAS system has been removed from the cartons, check to ensure all the components are present and have not been damaged in transportation.

TIP: Leave components within labelled bags to assist with the assembly process.

Depending on your model, you should have:

1. RI-NSFA-2K, RI-NSFA-4K or RI-NSFA-6K Unit (depending on chosen kit).
    - ☐ Controller
    - ☐ Lamp Cord
    - ☐ Power Cord
    - ☐ Top Bolt & Wire Form
    - ☐ Lamp
    - ☐ 2 x O-rings
    - ☐ Sleeve
    - ☐ Cool Touch Fan
    - ☐ Sensor
    - ☐ UV Chamber
    - ☐ (A) Flow Meter Sensor
    - ☐ Bottom Bolt (included screw)
    - ☐ Sleeve Removal Tool
    - ☐ RI-NSFA User Guide

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2. RI-REGKIT
   - ☐ (B.) 1 x 1¼" NPT Male to 1" BSP Male Reducing Adaptor
   - ☐ (C.) 6 x 1" Female Tee
   - ☐ (D.) 4 x 1" Female to Male Ball Valve
   - ☐ (E.) 2 x 1" Male to Female Union connector
   - ☐ (F.) 2 x 1" BSPM to 1" PVC-U Toe Nipple
   - ☐ (G.) 3 x 1" BSPM to 1" PVC-U Socket Adaptor
   - ☐ (H.) 1 x 1" PVC-U Pipe at least 0.52m in Length
   - ☐ (I.) 5 x 1" BSPT Nipple
   - ☐ (J.) 1 x 1" Female to Female Elbow
   - ☐ (K.) 1 x 1" Female to Female Check valve
   - ☐ (L.) 1 x 1" BSPM to NPTM Nipple
   - ☐ (M.) 1 x 1" Solenoid Valve
   - ☐ (N.) 1 x 1" NPTM Nipple
   - ☐ (O.) 2 x 1" Male to ½" Female Reducing Bush
   - ☐ (P.) 1 x ½" to ¼" Reducing Bush
   - ☐ (Q.) 1 x ½" to ⅜" Reducing Bush
   - ☐ (R.) 1 x Straight ⅜" Tube to ⅜" NPTM Shut-off Valve
   - ☐ (S.) 1 x Controller Mounting Bracket
   - ☐ (T.) 4 x Controller Mounting Screws
   - ☐ (U.) 4 x M5 x 16mm Pan head screws
   - ☐ (V.) 2 x M6 x 20mm Pan head screws
   - ☐ (W.) 1 x 1" Automatic Air Release Valve
   - ☐ (X.) 1 x ¼" rear mount Pressure Gauge
   - ☐ (Y.) 1 x Mounting Bracket

All packing materials should be removed prior to use.

As a responsible manufacturer we care about the environment. We urge you to follow the correct disposal procedure for your product and packaging materials according to local laws and regulations.

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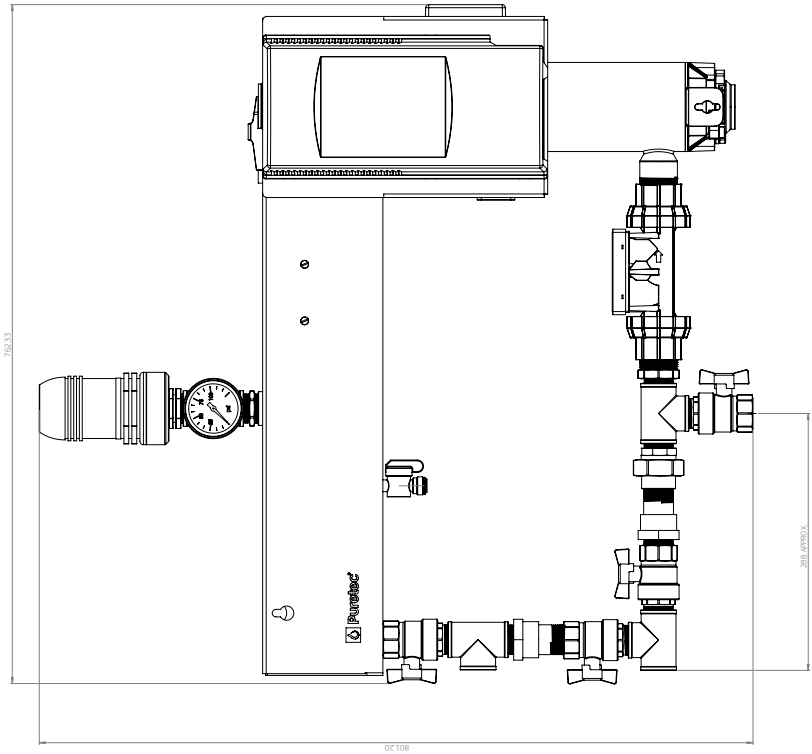
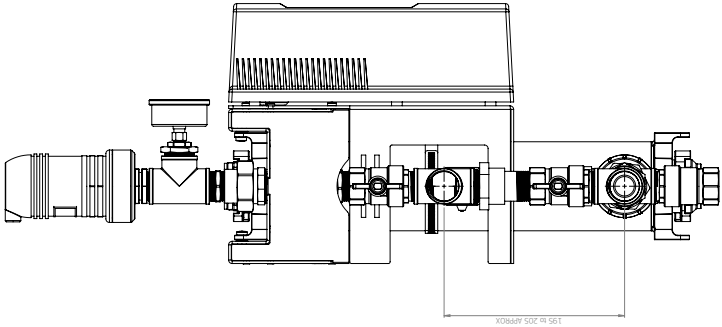
RI-EPAS-2K





Measurements shown in mm.

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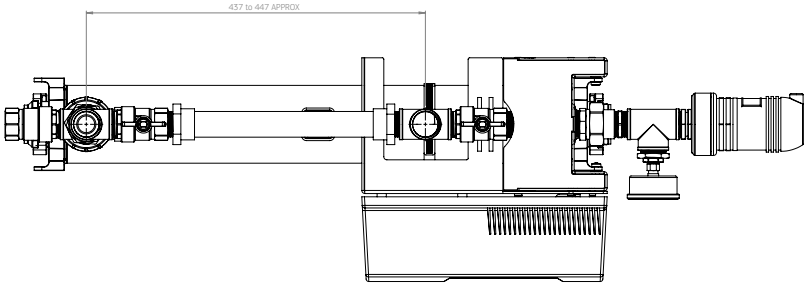
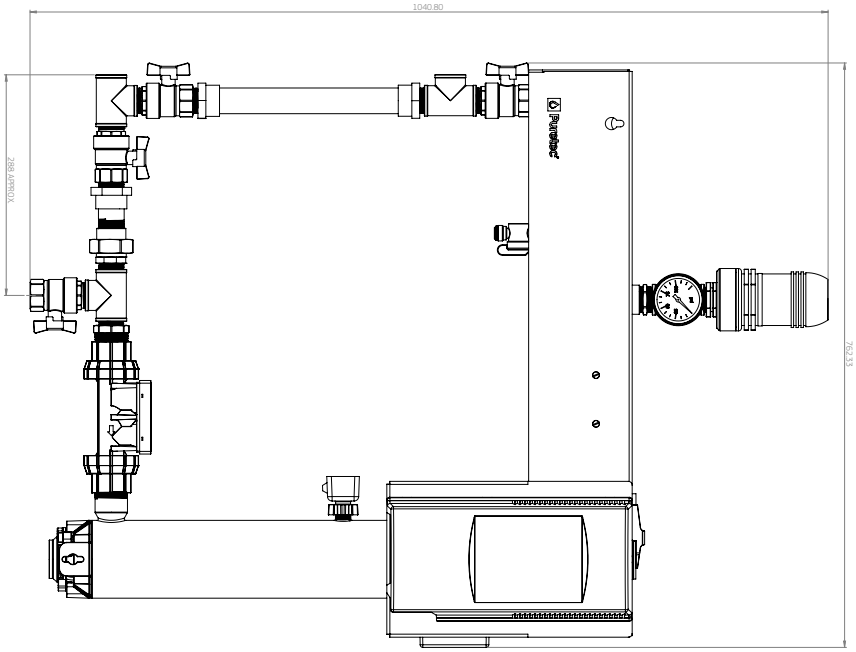
RI-EPAS-4K





Measurements shown in mm.

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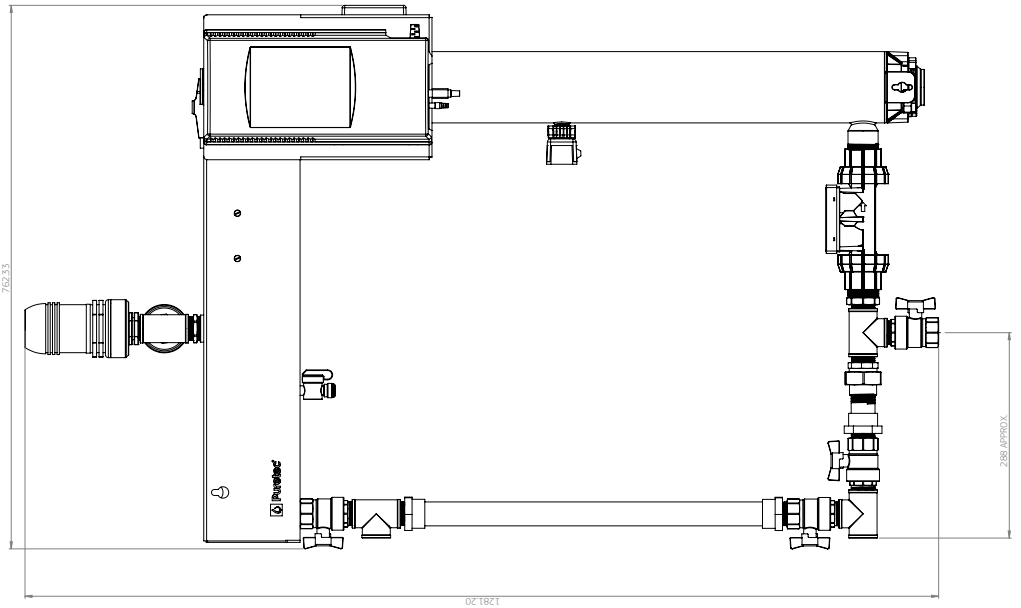
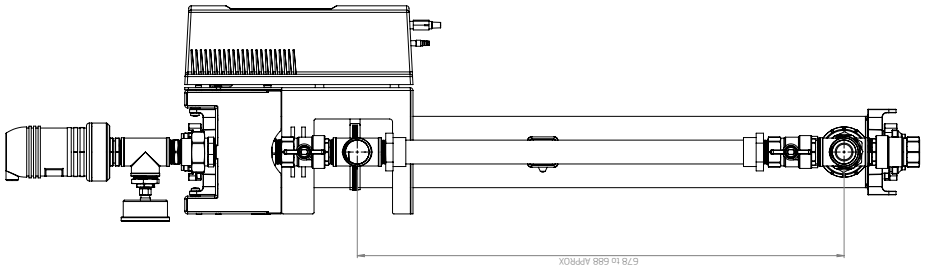
RI-EPAS-6K





Measurements shown in mm.

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Fig. 1 – Top Connections and Bracket Mounting Diagram

(Same layout for RI-EPAS-2K, RI-EPAS-4K & RI-EPAS-6K)

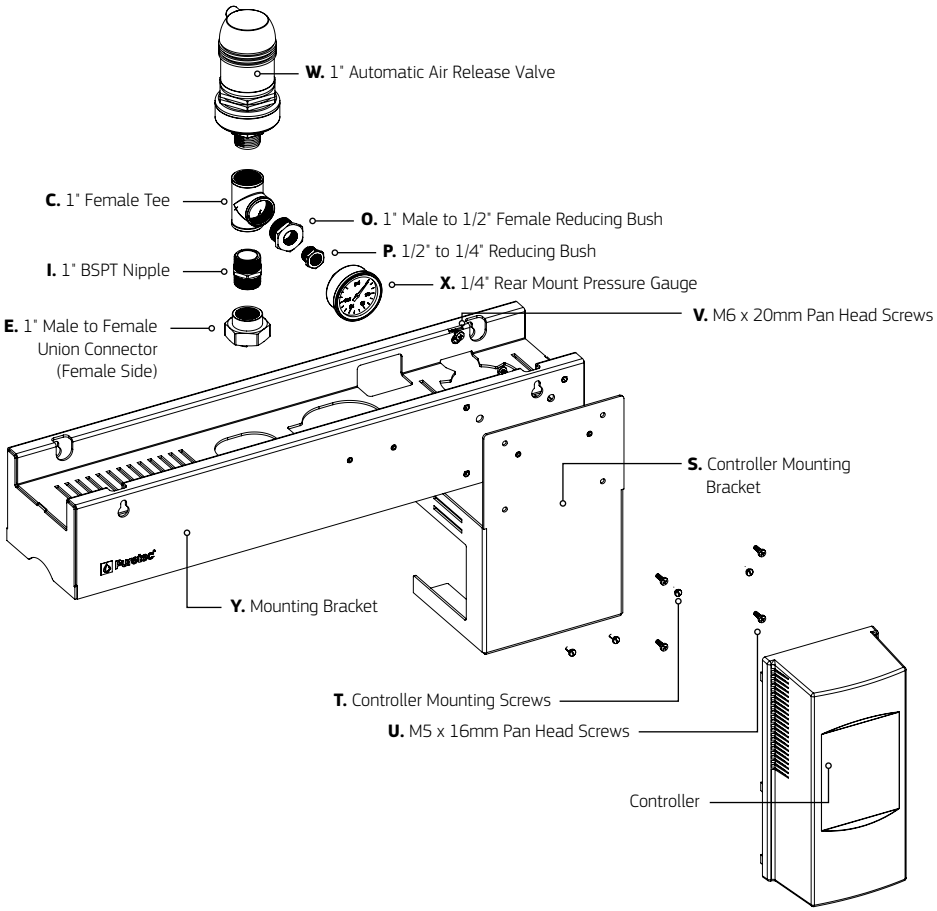

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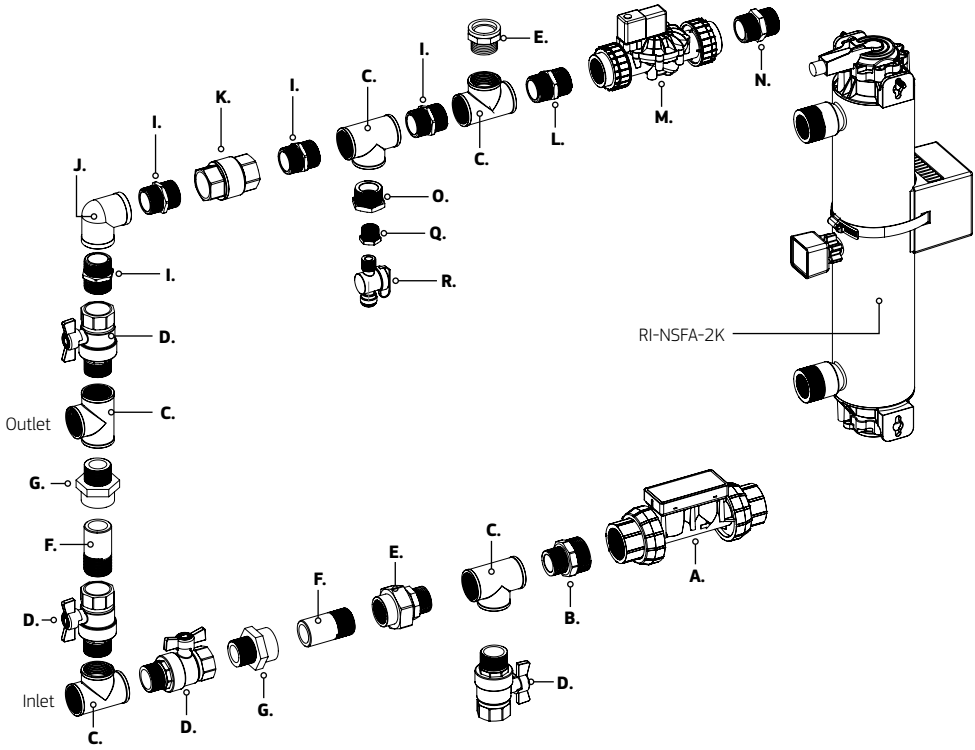
Fig. 2 - RI-EPAS-2K Plumbing System Diagram



A. Flow Meter
B. 1¼" NPT Male to 1" BSP Male Reducing Adaptor
C. 1" Female Tee
D. 1" Female to Male Ball Valve
E. 1" Male to Female Union Connector
F. 1" BSPM to 1" PVC-U Toe Nipple
G. 1" BSPM to 1" PVC-U Socket Adaptor
I. 1" BSPT Nipple
J. 1" Female to Female Elbow
K. 1" Female to Female Check Valve
L. 1" BSPM to NPTM
M. 1" Solenoid Valve
N. 1"NPTM Nipple
O. 1" Male to ½" Female Reducing Bush
Q. ½" to ⅜" Reducing Bush
R. ⅜" Tube Shut-off Valve

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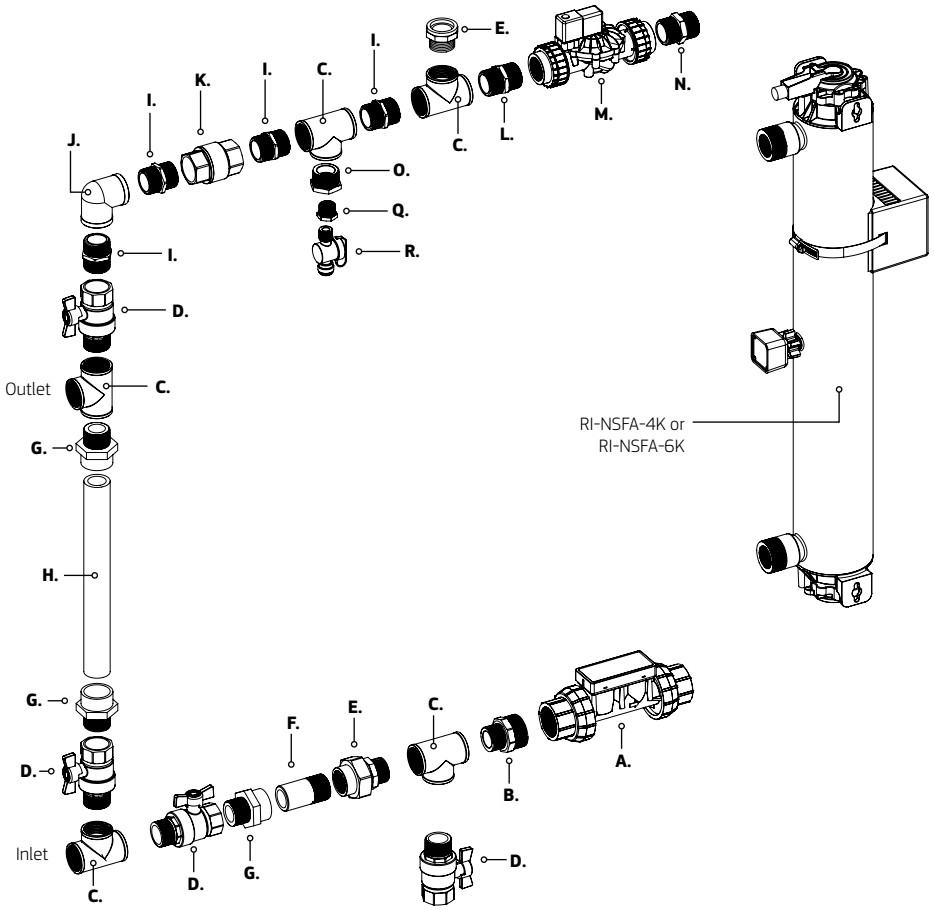
Fig. 3 - RI-EPAS-4K & RI-EPAS-6K Plumbing System Diagram



A. Flow Meter
B. 1¼" NPT Male to 1" BSP Male Reducing Adaptor
C. 1" Female Tee
D. 1" Female to Male Ball Valve
E. 1" Male to Female Union Connector
F. 1" BSPM to 1" PVC-U Toe Nipple
G. 1" BSPM to 1" PVC-U Socket Adaptor
H. 1" PVC-U Pipe
Approx. 520mm for RI-NSFA-6K
Approx. 280mm for RI-NSFA-4K
I. 1" BSPT Nipple
J. 1" Female to Female Elbow
K. 1" Female to Female Check Valve
L. 1" BSPM to NPTM
M. 1" Solenoid Valve
N. 1" NPTM Nipple
O. 1" Male to ½" Female Reducing Bush
Q. ½" to ⅜" Reducing Bush
R. ⅜" Tube Shut-off Valve

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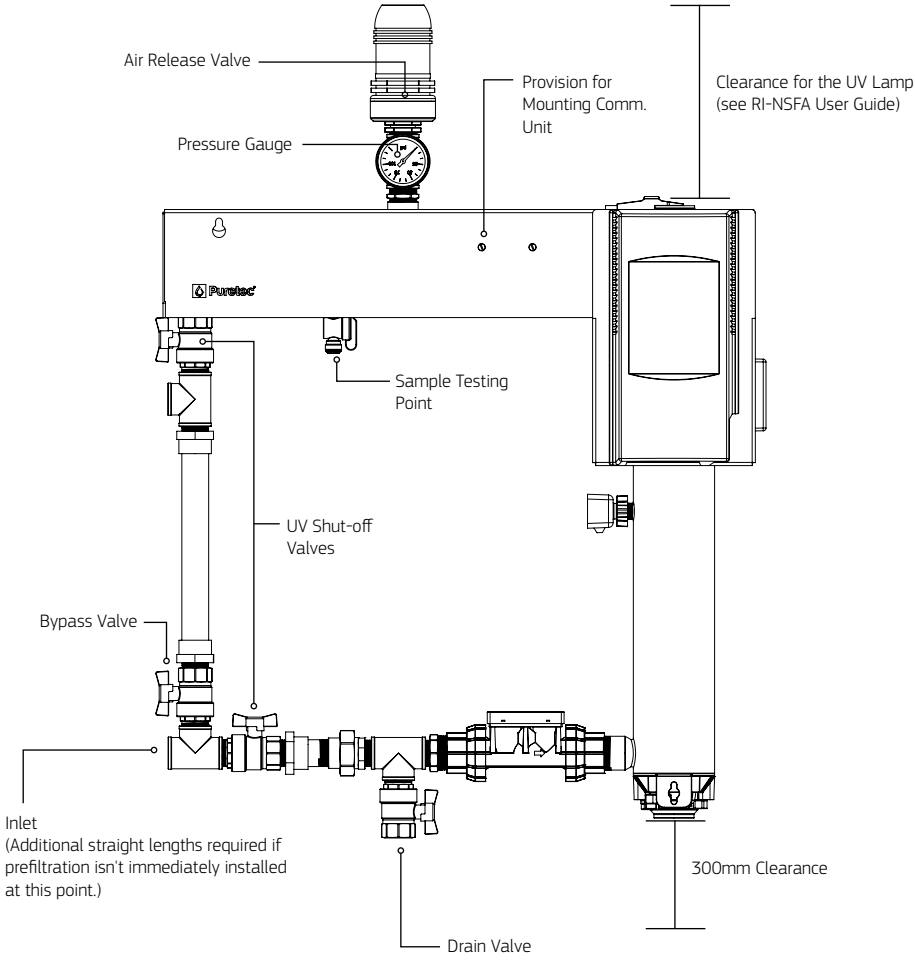
Fig. 4 - Installation Diagram



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Installation Requirements

- Thoroughly read through and consult the RI-NSFA user manual provided, ensuring to follow the installation requirements and instructions carefully when installing the UV unit.
- The following is a guide but the installer is responsible to comply with any local regulations that may be applicable to this type of installation.
- Avoid areas exposed to excessive heat, humidity, rain, saltwater, snow or direct contact with water spray or splashing.
- Avoid positions of direct sunlight or solar heat.
- Install only on flat, level and well supported surfaces.
- Ensure adequate prefiltration is installed prior to this system.
- Ensure connections are appropriately sealed. Use the supplied liquid sealant for metal to metal joins, ensuring fittings are threaded tight. Use the supplied PTFE tape for plastic to metal joins. Use appropriate PVC-U solvent for PVC-U components (not supplied).

Installation Procedure

1. Layout all components in their bags to clearly read the labels so that the correct components are used.
2. Connect the plumbing components in the layout shown in Figure 2 or 3 (depending on your chosen system). Make use of the union connections to allow for easier installation. Ensure the appropriate sealing methods are used and connections are wound tight (failure to do so, might result in poor fitment within the mounting bracket). Use the supplied liquid sealant for metal to metal connections. Use the supplied PTFE tape for plastic to metal joins. Use PVC-U Solvent for PVC-U connections.
3. Connect the flow meter (A) union connection to the inlet port of the UV chamber (ensure the arrow direction on the flow meter points towards the inlet of the UV chamber) and then all the components shown inline after that.

   Note: Hold off from gluing the PVC-U toe nipple to the PVC-U socket to allow for easier final assembly at step 6.

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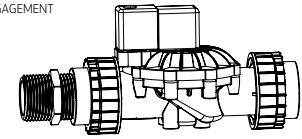
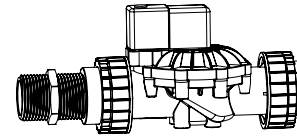
4. Connect the NPT nipple (N) to the outlet port of the solenoid valve (M) and all the components shown inline after that (ensure the arrow of the solenoid valve (M) and check valve (K) points away from the UV chamber outlet). Include the female half of the union connection (E) for the top assembly.

Care should also be taken when connecting the 1" BSPM / NPTM nipple (L) **ensuring the NPT side of the fitting mates with the solenoid valve (M)**. There should be sufficient thread engagement if the correct side of the fitting is used.

CORRECT SIDE OF FITTING
SUFFICENT ENGAGEMENT





WRONG SIDE OF FITTING
NOT ENOUGH ENGAGEMENT

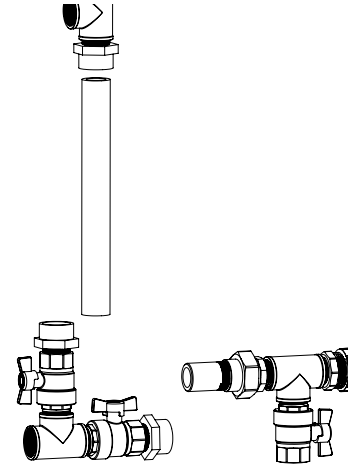
5. For **RI-EPAS-2K** Systems

Connect the components on the vertical line using the 1" PVC-U toe nipple (F) as the last item to be connected (as shown in the RI-EPAS-2K diagram).

For **RI-EPAS-4K** or **RI-EPAS-6K** Systems

Connect the components on the vertical line using the 1" PVC-U pipe (H) as the last item to be connected. The 1" PVC-U Pipe (H) needs to be measured and cut to size to fit the gap depending on whether it's an RI-EPAS-4K or RI-EPAS-6K system.

6. The PVC-U connections can now be joined and glued into place using appropriate PVC-U solvent.



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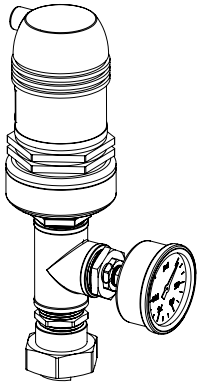
7. Build up the top pressure gauge and air release valve assembly shown in Figure 1, using the appropriate sealant for specific connections. Use liquid sealant (provided) for metal connections and PTFE tape for plastic to metal connections as well as the pressure gauge connection.

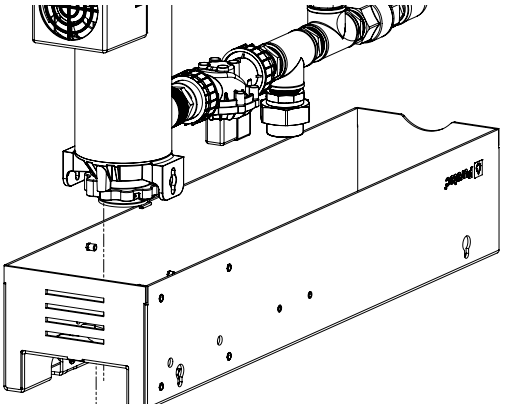


8. Prior to mounting the plumbing assembly to the aluminium mounting bracket, It is **highly advised** to let the liquid sealant set (refer to sealant manufacturer instructions), plug any openings and conduct a pressure test of the system using an air pressure testing method to check for any potential leaks. This allows for the leaks to be resolved prior to complete installation.

   Failure to do so might result in additional downtime upon system initialisation. It is the responsibility of the installer to ensure that no leaks are present in the system.

9. Place the aluminium bracket (Y) upside down and place the UV chamber and outlet line onto the bracket, slotting the UV chamber into the designated location.

   Push the assembly down into the bracket to ensure it is seated properly.



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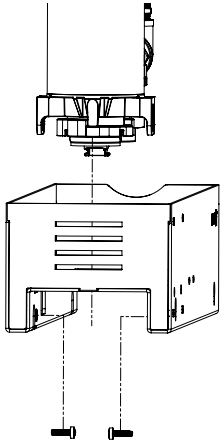
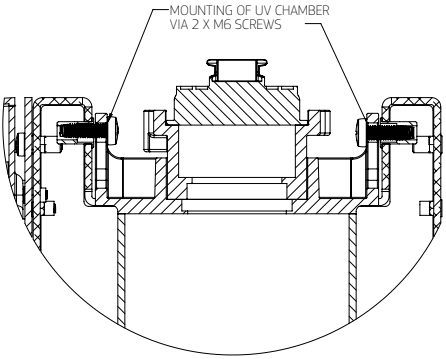
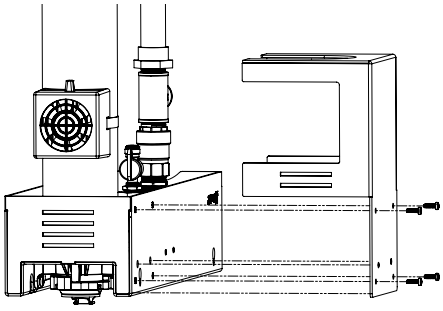
10. With the bracket still upside down, secure the UV chamber in place with the M6 screws (V) fastened into the nutserts in the aluminium bracket.

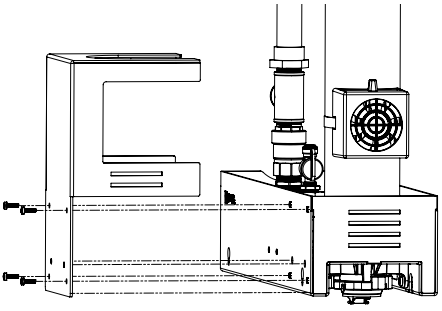




11. Attach the UV controller bracket to the main aluminium bracket using the M5 screws (U). The height of the heatsink might need to be adjusted to fit within the designated space of the UV controller bracket. The inlet and outlet can be located on either the left or right, depending on your requirements. The direction the inlet and outlet faces when mounted, is determined by which side the controller bracket is mounted. If it is mounted on the right side of the bracket, the inlet and outlet will be on the left side. If the controller bracket is mounted on the left side of the bracket, then the inlet and outlet will be on the right side of the system.



Inlet & outlet on the left side. Controller mounted on the right side.



Inlet & outlet on the right side. Controller mounted on the left side.

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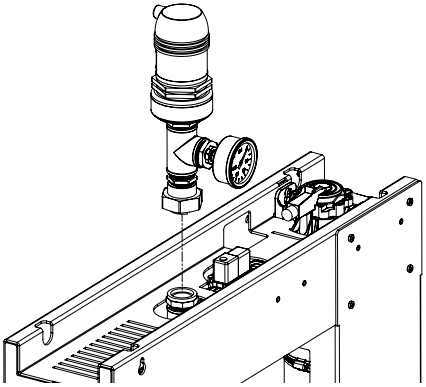
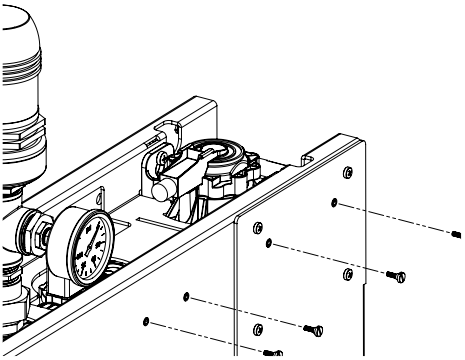
12. The pressure gauge and air release valve assembly can now be mounted onto the top side of the bracket using the union connection (E).



13. Fasten the 4 Controller mounting screws (T) into the available M4 nutserts on the brackets and mount the UV controller onto the controller mounting bracket.



14. Mount the full system using the mounting holes located on the aluminium bracket onto a suitable, sturdy flat surface. **Note:** Mounting hole distance is 600mm.
15. Ensure sealant is **fully set** prior to the introduction of water into the system (refer to sealant manufacturer instructions).
16. Conduct a **full leak test of the system** and resolve any potential leaks that arise.
17. Set up the RI-NSFA UV system following the instructions supplied in the RI-NSFA user guide.
18. The optional RI-COM unit can also be mounted and connected at this stage to the spare mounting point on the bracket.

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Operation & Maintenance

- For operation and maintenance of the RI-NSFA UV Chamber, please refer to the associated RI-NSFA user guide.
- On a new installation where no other form of sterilisation has been in use, we strongly recommend flushing the pipe work with a suitable sanitiser such as TankSafe™ (for dosage refer to TankSafe™ product instructions). This solution should be left in the pipework for at least an hour (preferably overnight).

  The sanitising solution can be added into the water tank or if necessary, added in as a shock dose into the bowl of the pre-filter housing (ensure any filter cartridges have been removed) and slowly flushed through the piping. If added as a shock dose, the system and pipework should be rinsed thoroughly by opening a downstream tap.

  Step by step details on flushing the system can be found in the Cleaning Procedure section of the RI-NSFA user guide.
- Periodic inspection is required of all components in the system to ensure the system is performing optimally.

Lamp Replacement

For instructions on how to replace the UV lamp, or any associated RI-NSFA components, please refer to the RI-NSFA User Guide.

Use Guidelines

- Do not allow exposure to temperatures below 0 °C, protect from freezing
- System must be installed according to local plumbing codes on the cold water line only.
- This system requires regular replacement of the UV lamp and Quartz Sleeve to maintain proper operation. Varying chlorine, sediment, or organic substance levels may affect replacement frequency.
- Be sure to change the UV Lamp every 18,000 hours or as required according to UVT maintenance logs whichever comes first.
- Min/Max operating pressure : 103 - 861 kPa.
- Min/Max influent water temperature : 2 - 40 °C (protect from freezing).
- Nominal flow rate : Refer to model specific specification details.

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Troubleshooting

For faults relating to the UV Chamber, Flowmeter, UV intensity monitor, refer to the associated RI-NSFA user guide.

Problem	Possible Cause	Solution
Leak within plumbing line.	Threaded pipe fittings are leaking.	Isolate the unit by using the shutoff valves. Turn off the power for the unit. Ensure a qualified plumber isolates the leak, and fixes the issue.
Water flowing from the air release valve.	Debris or damage is located on the air release valve.	Isolate the unit by using the shutoff valves. Turn off the power for the unit. Remove the air release valve and remove the grey casing to inspect for damage. The silicone components within the casing should not be disassembled.

In the event of any other breakdown, please call Puretec

Specifications

Model	RI-EPAS-2K	RI-EPAS-4K	RI-EPAS-6K
Rated flow for NSF Std 55, Class A	38 Lpm (2.2 m3/hr)	76 Lpm (4.5 m3/hr)	113 Lpm (6.8 m3/hr)
Inlet Connection	1" BSPT Female		
Outlet Connection	1" BSPT Female		

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Warranty

Any claim under this warranty must be made within 1 year of the date of purchase of the product. This product is warranted to be free of defect of material and workmanship for 1 year from date of purchase. 1 year warranty is 1 year parts and labour. Excludes consumables.

Puretec is renowned for its quality and after-sales support so if you have any issues please call 1300 140 140 (AU) or 0800 130 140 (NZ). To make a warranty claim, contact us directly or the place of original purchase. All costs relating to a warranty claim must be approved by Puretec prior to any work being carried out.

Puretec will pay your reasonable, direct expenses of claiming under this warranty. You may submit details and proof of your expense claim to place of purchase for consideration.

The warranty only applies if the product was used and/or installed in accordance with the user guide and/or installation instructions. This warranty is given in lieu of all other express or implied warranties and manufacturer shall in no circumstance be held liable for damages consequential or otherwise or delays caused or faulty manufacturing except as excluded by law.

Applicable to all above, is that the warranties need to be approved by Puretec to ensure product was not incorrectly used, installed or claimed. False and incorrect claims will be pursued at Puretec's discretion, including chargeable inspection and labour costs incurred.

Warranty/Australia

This warranty is given by Puretec Pty Ltd, ABN 44 164 806 688, 37-43 Brodie Road Lonsdale SA 5160, telephone no. 1300 140 140 and email at sales@puretec.com.au.

This warranty is provided in addition to other rights and remedies you have under law: Our goods come with guarantees which cannot be excluded under the Australian Consumer Law. You are entitled to replacement or refund for a major failure and to compensation for other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Warranty/New Zealand

This warranty is given by Puretec NZ LP, Reg. No 50081773, PO Box 875 Cambridge 3450 NZ, telephone no. 0800 130 140 and email at sales@puretec.co.nz.

This warranty is provided in addition to other rights and remedies you have under law: Our goods come with guarantees which cannot be excluded under the Consumer Guarantees Act. You are entitled to replacement or refund for a major failure and to compensation for other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

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