

GalvinCare® Pneumatic Concealed Dual Flush Cistern

PRODUCT CODE

- 123.33.12.90



SPECIFICATIONS

- Dual flush 4.5/2.9 litre inwall cistern; Average flush 3.2L
- Pneumatic activation
- Polypropylene (PP) cistern
- Inwall installation (framed wall or brick wall construction)

IMPORTANT: The cistern is intended for use with a toilet pan and a pneumatic push button.

NOTE: Toilet pan and flush buttons are not included. Galvin recommends pairing this pneumatic cistern with Galvin flush buttons for pneumatic cisterns and Wallgate toilet pans, both available for purchase at Galvin. Please visit www.galvinengineering.com.au to view the full range of options and products' full details.



WARNING: Special attention to be paid on notes, photos, images, or drawings of assembly steps marked with the warning symbol.

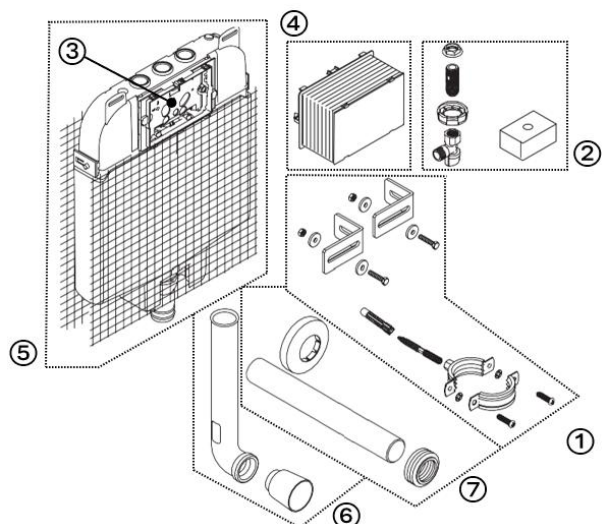
TECHNICAL DATA

Inlet		G ½" - Male
Flush Volume	Full flush	4.5L per flush
	Half flush	2.9L per flush
	Average flush	3.2L
	WELS rating	4-star
Outlet		Ø40x500 horizontal flush pipe

NOTE: Galvin Engineering continually strive to improve their products. Specifications may change without notice.

PACKAGE CONTENTS

1. Wall fixing kit
2. G ½" stop valve with foam
3. Pneumatic set (not shown)
4. Protective cover box
5. Cistern
6. Ø55x360 vertical flush pipe with seal
7. Ø40x500 horizontal flush pipe with kee seal



CONTENTS

TECHNICAL DATA 1

PACKAGE CONTENTS 1

1. DIMENSIONS 2

2. TOOLS NEEDED 2

3. COMPONENT INSTALLATION ORIENTATION 3

4. PRE-INSTALLATION 4

5. INSTALLATION 4

6. SPARE PARTS LIST 8

7. SPARE PARTS INSTALLATION 8

7.1. OUTLET VALVE AND SEAL (2992) 8

7.2. OUTLET VALVE ONLY (883028) 8

7.3. CENTRAL BLOCK (878747) 8

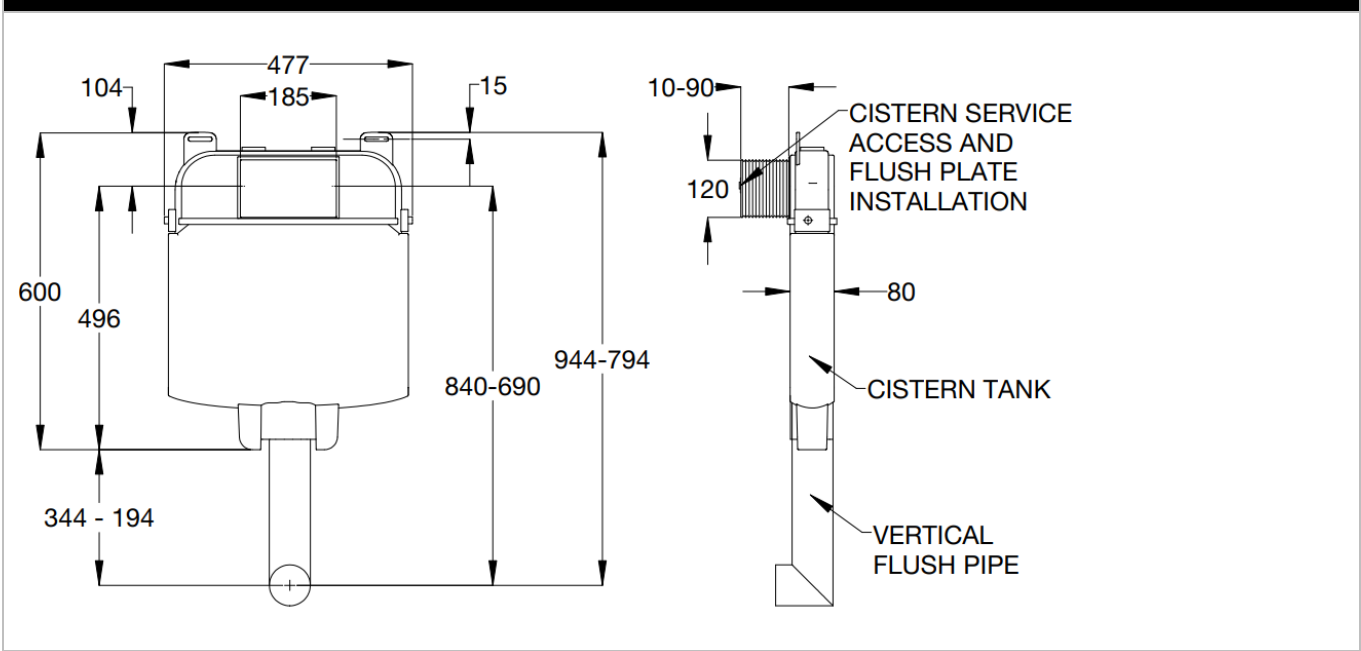
7.4. INLET VALVE (892194) 10

8. EXAMPLES OF COMPATIBLE COMPONENTS 11

9. TROUBLESHOOTING 11

10. WARRANTY 12

1. DIMENSIONS



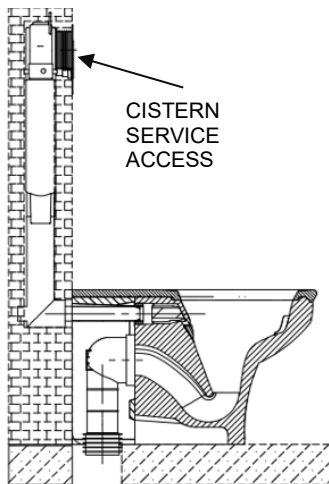
2. TOOLS NEEDED

- | | |
|----------------------|-------------------------|
| - ADJUSTABLE SPANNER | - TUBE CUTTER / HACKSAW |
| - ELECTRIC DRILL | - DEBURRING TOOL |
| - LEVEL GAUGE | - FILE |

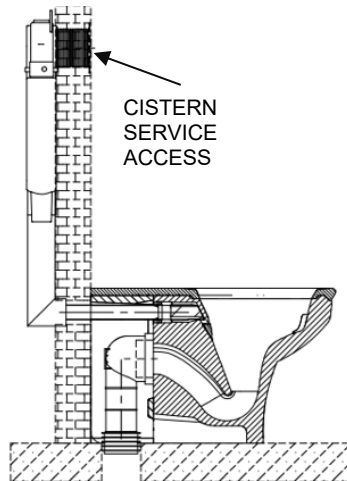
3. COMPONENT INSTALLATION ORIENTATION

3.1 CISTERN INSTALLATION POSITIONS

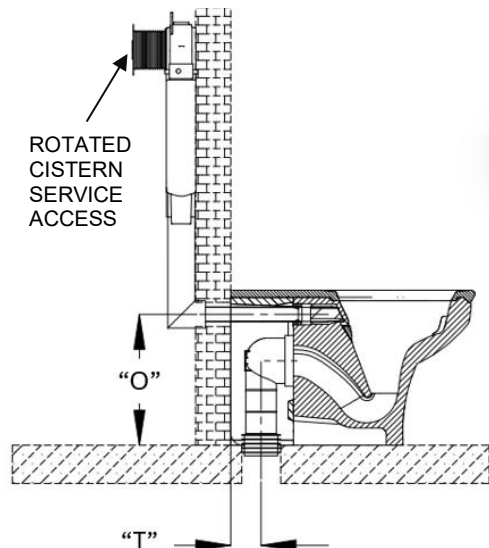
FRONT FACING CISTERN
For inwall installation.



FRONT FACING CISTERN
For behind-wall installation.



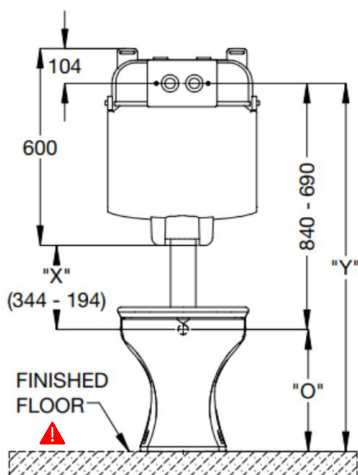
REAR FACING CISTERN
For behind-wall installation with service corridor access.



Note: If paired with a Galvin Wallgate pan, refer to the Galvin website and download the installation guide (001.20.00.00 Install) to determine the toilet pan inlet height "O" and set-out distance "T" dimensions.

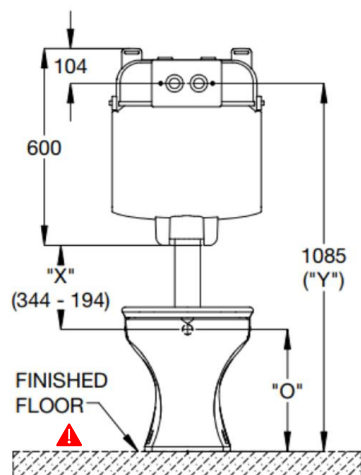
3.2 PUSH-BUTTON (NOT SUPPLIED) LOCATION INSTALLATION OPTIONS

TYPICAL INSTALLATION

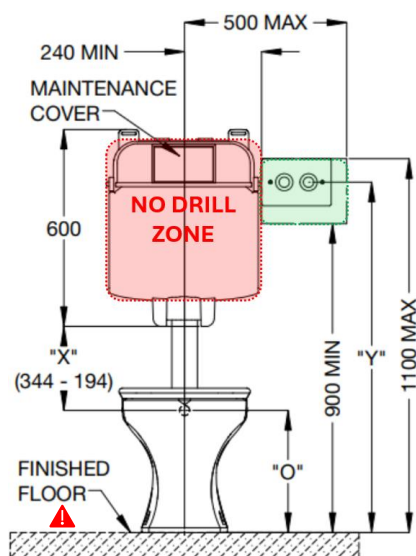


AS1428.1 COMPLIANT INSTALLATION

FLUSH BUTTON ON CISTERN



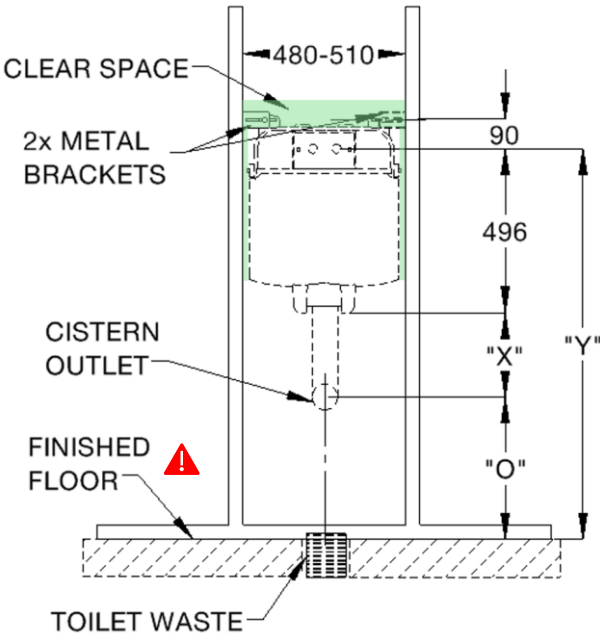
FLUSH BUTTON RELOCATED



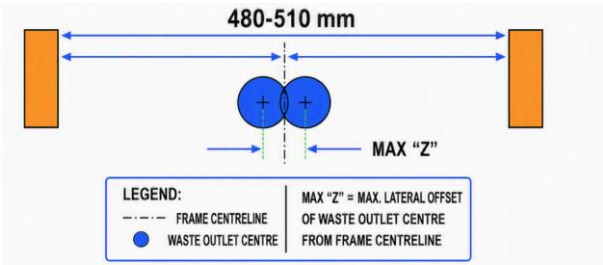
If relocated, fit a maintenance cover and connect the flush button to the cistern with a pneumatic tube.

4. PRE-INSTALLATION

Verify frame position and install brackets



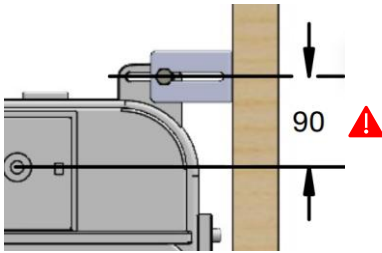
1. **Check:** Sufficient space for the cistern.
2. **Check:** Toilet pan waste centred on frame.



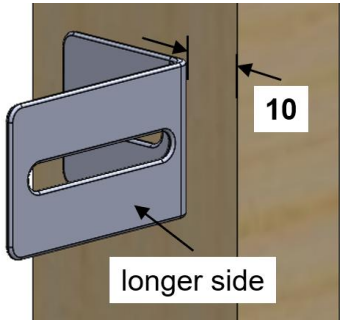
WASTE POSITION							
FRAME WIDTH (mm)	480	485	490	495	500	505	510
MAX "Z" (mm)	0 mm	5 mm	10 mm	15 mm	10 mm	5 mm	0 mm

Note: Galvin recommends a **495 mm** frame width, providing the MAX "Z" of 15 mm.

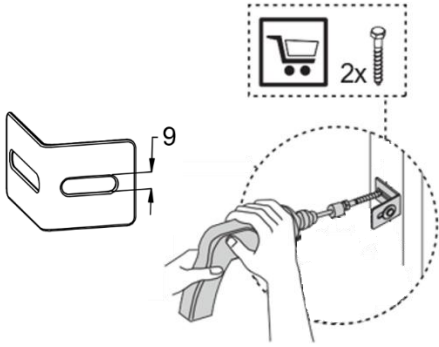
3. Determine flush button height, "Y".
4. Mark bracket fixing locations (both sides) at **Y+90mm**
5. **Check:** Bracket face is **10mm set back** from the frame face, with the longer side facing forward.
6. **Loosely** fix the metal brackets to the wall using suitable fasteners (not supplied), to allow for final adjustment.



Metal bracket fixing location



Bracket orientation and set back



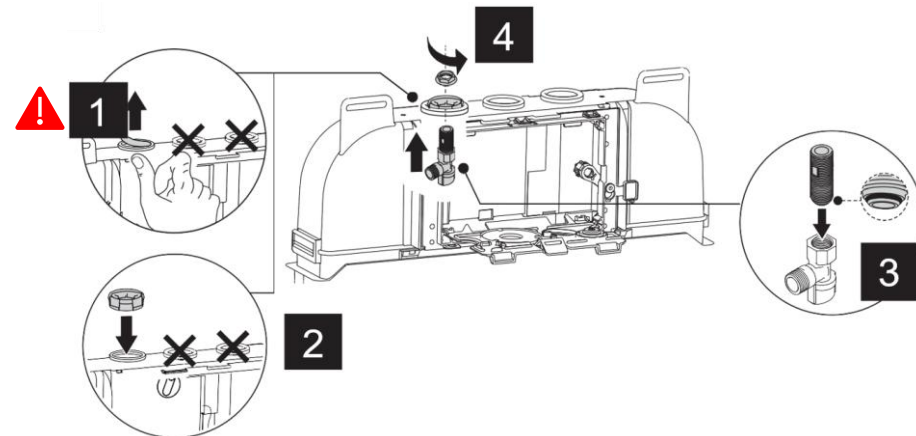
Bracket slot dimension

- Notes:**
1. Toilet pan manufacturing variations may occur. Galvin recommends measuring toilet pan height "O" before installing.
 2. Total weight of cistern filled with water is approximately 20 kg.

5. INSTALLATION

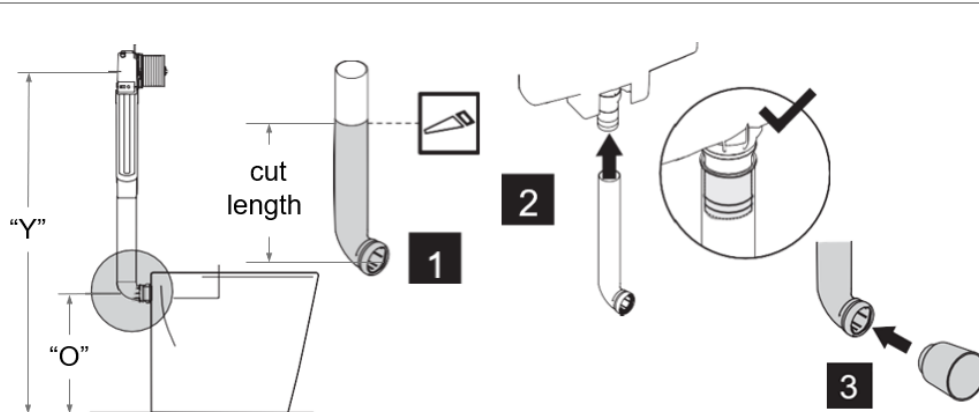
INSTALLATION COMPLIANCE: Galvin Engineering products must be installed in accordance with these installation instructions and in accordance with AS/NZS 3500, the PCA and your local regulatory requirements. Water and/or electrical supply conditions must also comply to the applicable national and/or state standards. Failing to comply with these provisions shall void the product warranty and may affect the performance of the product.

STEP 1 - FIT COMPONENTS TO CISTERN



Fit stop valve to cistern

1. Remove cap by pushing outward.
2. Fit nylon adaptor to cistern.
3. Fit nipple to stop valve.
4. Install stop valve into the cistern and secure with nut.



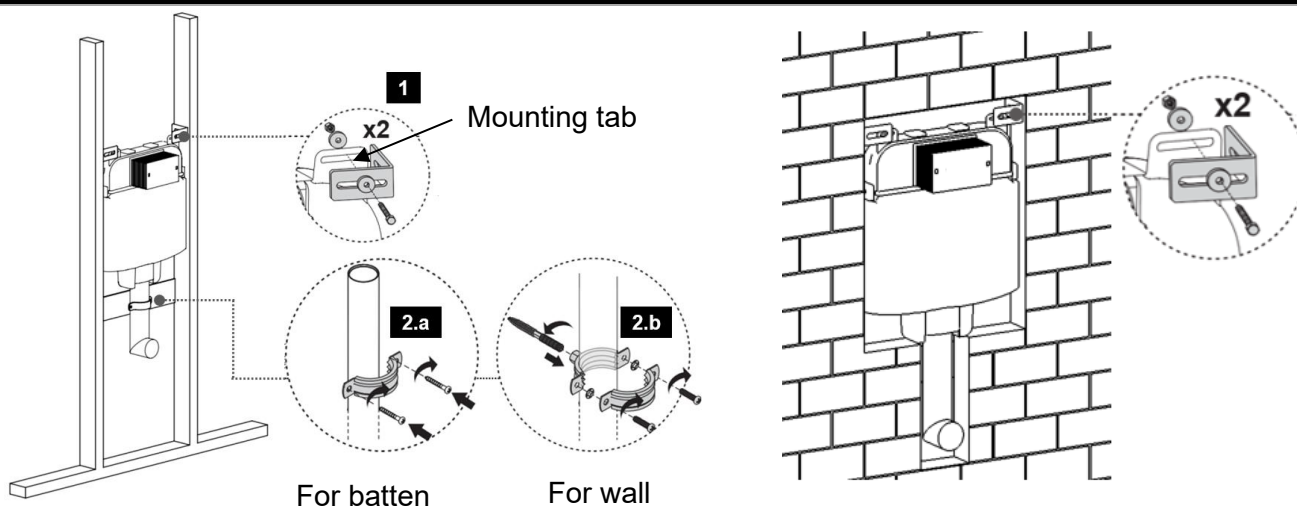
Cut vertical pipe to suit

1. Cut vertical pipe to cut length. Clean and deburr.
2. Connect pipe to cistern and push fully to the top.
3. Cap the cistern outlet until ready to connect to the pan.

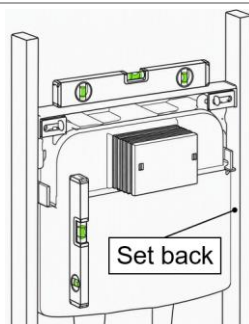
$$\text{cut length} = "Y" - "O" - 473$$

Where: "Y" = flush button height, "O" = toilet pan inlet height

STEP 2 - FIX CISTERN TO FRAME OR WALL

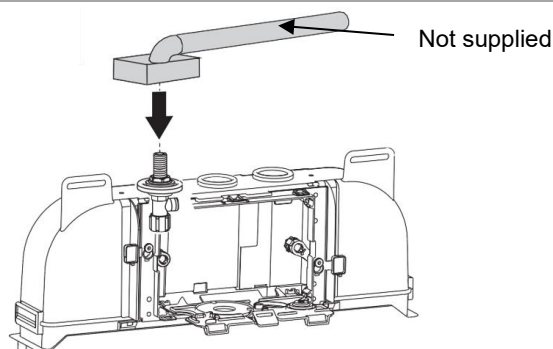


1. Fit cistern to the brackets using supplied screws. Tighten enough to hold position for measurement.
2. **Check:** Brackets are in front of cistern mounting tabs.
3. Secure vertical pipe using saddle (optional for brick walls). If fixing to a batten (2.a), do not overtighten. Screws to be provided by installer. Batten size and position to suit installation.



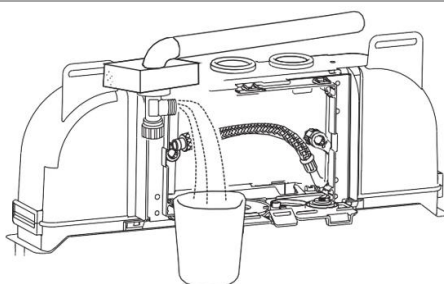
4. **Check:** Cistern tank set back from, or flush with, the frame.
5. **Check:** Cistern is level horizontally and vertically.
6. **Check:** Flush height "Y".
7. **Check:** Pipe is fully pushed to the stop and outlet height matches toilet pan inlet height "O".
8. **Check:** Vertical flush pipe is central to toilet waste

STEP 3 - CONNECT TO MAINS

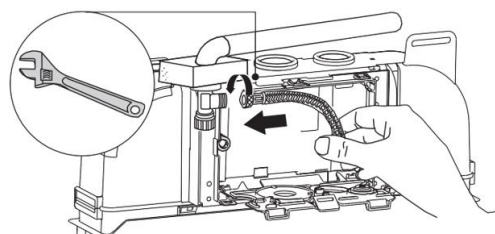


Connect mains water (inlet pipe not supplied).

- Ensure the protective foam is in place.

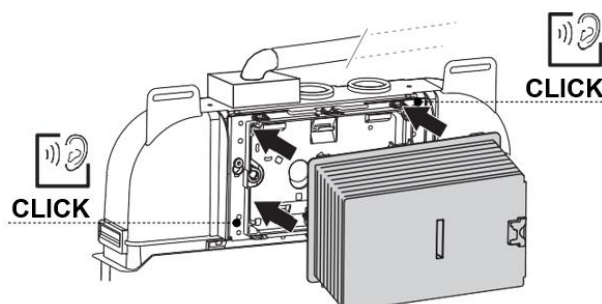


Bleed the stop valve.

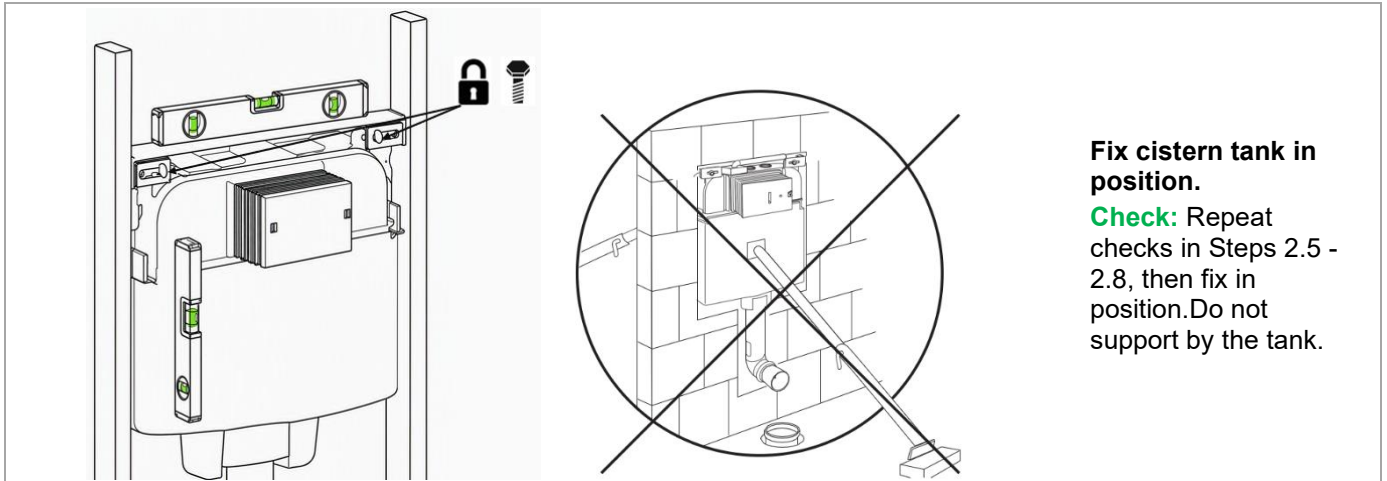


Connect the hose to the stop valve.

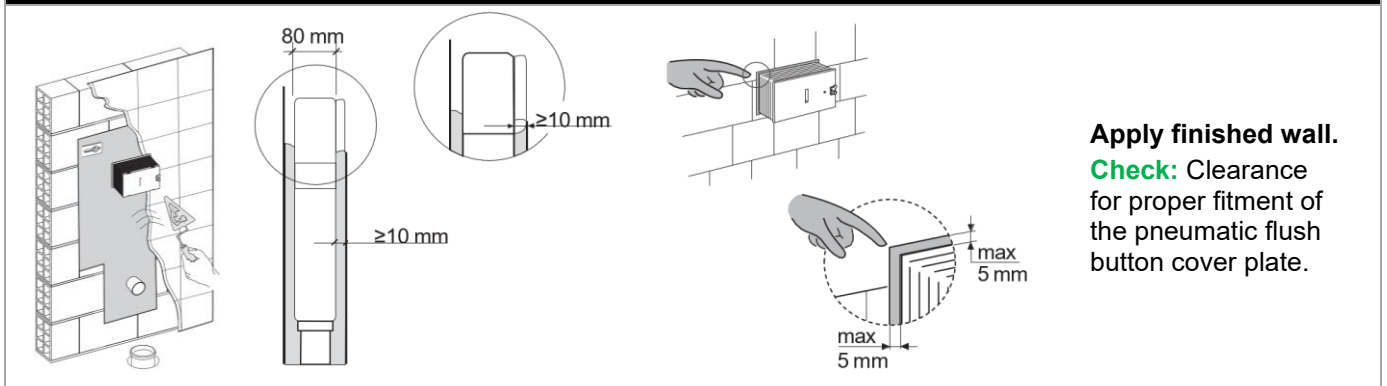
STEP 4 - FIT COVER AND FIX CISTERN POSITION



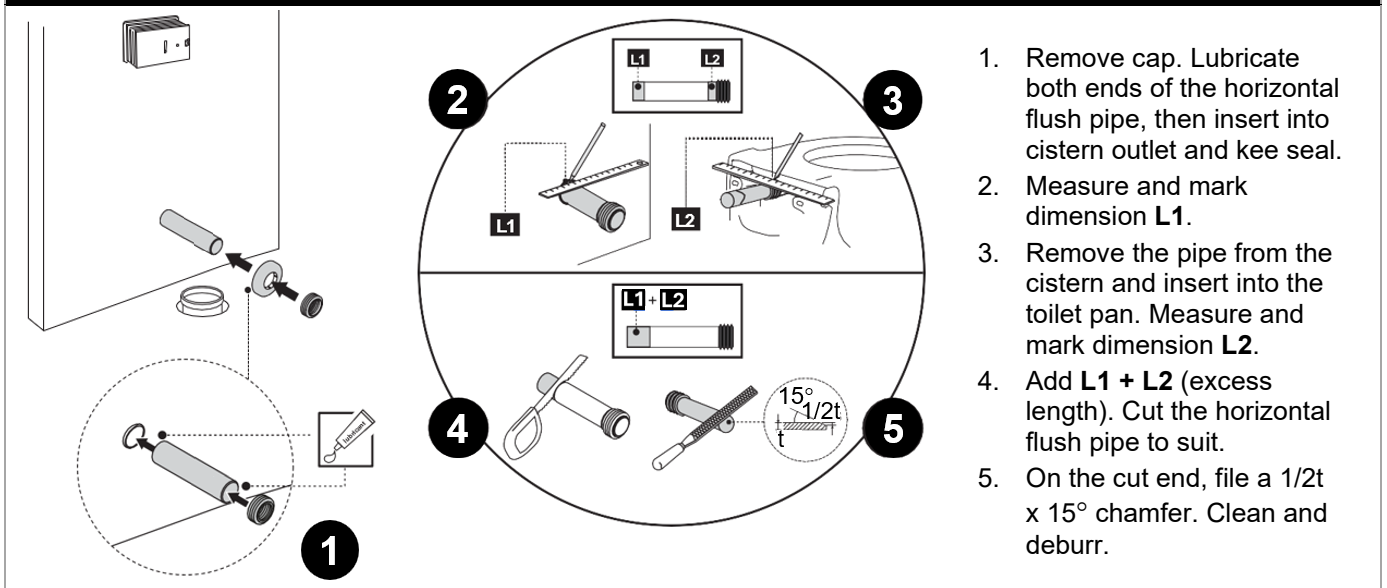
Fit the protective box to the cistern.



STEP 5 - APPLY FINISHED WALL



STEP 6 - FITTING FLUSH PIPE AND KEE SEAL



6. SPARE PARTS LIST

Item	Description	
602301	GalvinCare® Pneumatic Cistern Horizontal Flush Pipe and Kee Seal	
21209	GalvinCare® Pneumatic Cistern Vertical Flush Pipe Seal <2023 Direct Version	
2992	GalvinCare® Pneumatic Cistern New Style Outlet Valve and Seal	
883028	GalvinCare® Pneumatic Cistern Outlet Valve Seal	
878747	GalvinCare® Pneumatic Cistern Central Block	
21266	GalvinCare® Pneumatic Cistern Vertical Flush Pipe and Seal KIT	
892194	GalvinCare® Pneumatic Cistern Inlet Valve	

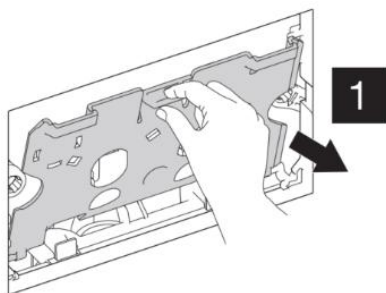
7. SPARE PARTS INSTALLATION

7.1. OUTLET VALVE AND SEAL (2992)

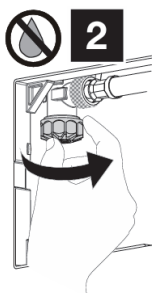
7.2. OUTLET VALVE ONLY (883028)

7.3. CENTRAL BLOCK (878747)

Note: Before performing the steps below, ensure the front flush plate has been removed, and the cistern front access window is accessible.



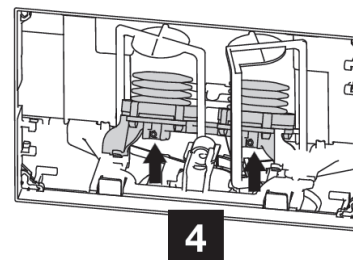
1. Open the protective plate.



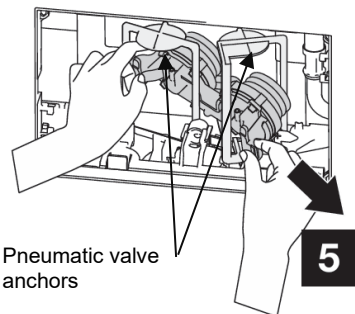
2. Close water supply



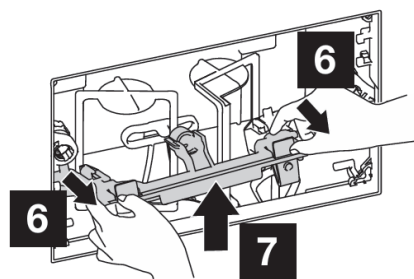
3. Move the control plate fixers to the side.



4. Disconnect air hose and push to disconnect pneumatic block bellows from the central block.



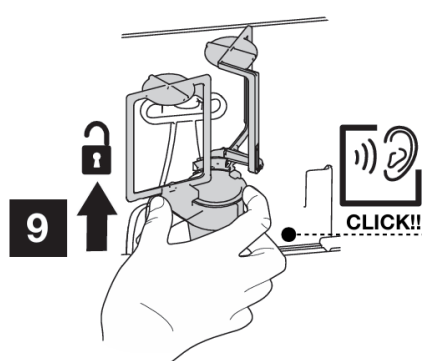
5. Tilt and gently pullout the pneumatic block bellows. Do not damage the pneumatic outlet valve anchors.



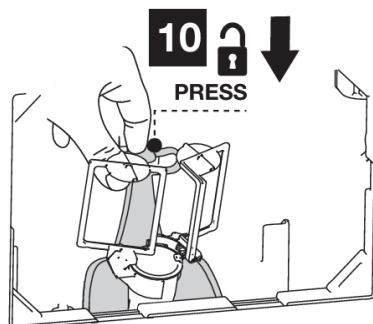
6. Press and release the central block (Item 878747).
7. Pullout the central block



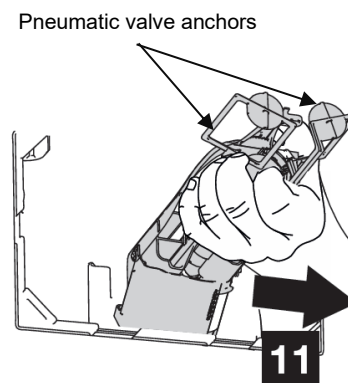
8. While holding the waterway pipe, rotate the outlet valve anti-clockwise until it clicks.



9. Pull up the outlet valve until it clicks.

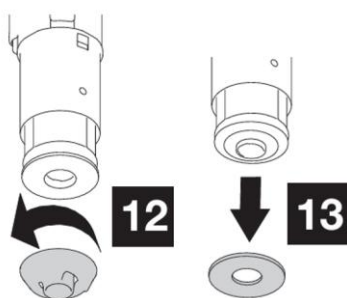


10. Press to disconnect the outlet assembly from the cistern tank.



11. Pull out the outlet valve assembly (Item 002922). If the internal parts are not bending, check if steps 8 and 9 were completed.

Note: If pulling out the outlet assembly is difficult, the pneumatic valve anchors can be removed from the assembly before pulling-out the outlet assembly.



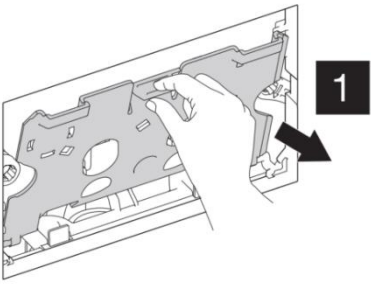
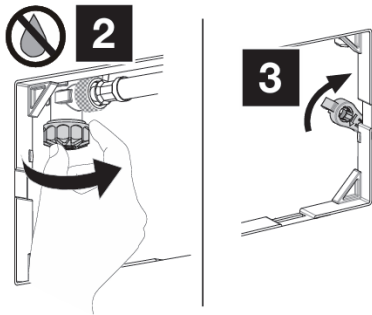
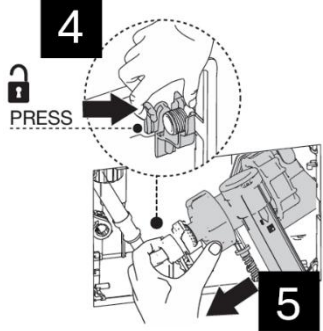
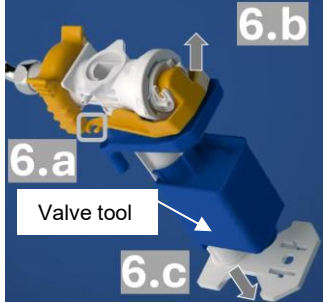
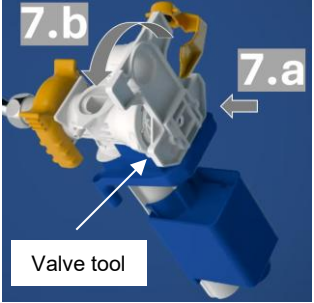
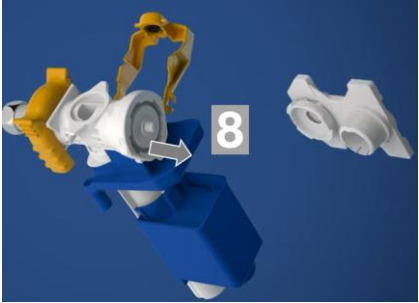
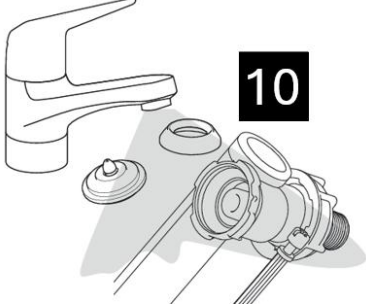
12. Remove outlet valve seal cap
13. Remove the outlet valve seal (Item 883028)



14. Inspect, clean or replace components if required. Reassemble by reversing the steps.

7.4. INLET VALVE (892194)

Note: Before performing the steps below, ensure the front flush plate has been removed, and the cistern front access window is accessible.

 1. Open the protective plate.	 2. Close the water supply. 3. Move the control plate fixers. Remove outlet valve as shown in Section 7.1 Steps 4 to 11.	 4. Press the inlet valve support tabs to detach the assembly from the cistern tank. 5. Gently pull out the inlet valve assembly.
 6. Disconnect the screw from the inlet valve arm. Remove the inlet valve arm. Pull-out the valve tool from the inlet valve	 7. Using the valve tool from Step (6.c), remove the inlet valve cap	 8. Pull-out the inlet valve to see the inlet valve diaphragm.
 9. Remove rubber diaphragm and check for signs of damages.	 10. Inspect, clean or replace components, if damaged. Reverse steps to reassemble.	

8. EXAMPLES OF COMPATIBLE COMPONENTS

(Not included – Available for purchase via Galvin)

8.1 GALVIN PNEUMATIC PUSH BUTTON

1. SS Vandal Resistant Dual Flush Plate Assembly with WC Raised Push Buttons
2. SS Vandal Resistant Dual Flush Plate Assembly with CP-BS Raised Buttons
3. SS Ligature Resistant MH Dual Flush Plate with Conical Buttons

8.2 WALLGATE TOILET PAN

1. Wallgate Ligature Resistant S/Surface Pan with Integ Seat 445x523mm
2. Wallgate Ligature Resistant S/Surface Pan Coved with Integ Seat 446x702mm
3. Wallgate Ligature Resistant S/Surface Ambulant Pan Coved with Integ Seat 476x652mm
4. Wallgate Ligature Resistant S/Surface Accessible Pan with Integ Seat 460x750mm
5. Wallgate Ligature Resistant S/Surface Accessible Pan with Integ Seat 460x810mm

9. TROUBLESHOOTING

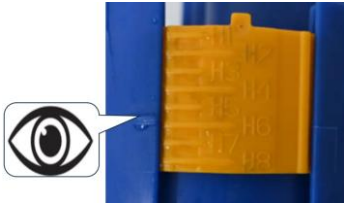
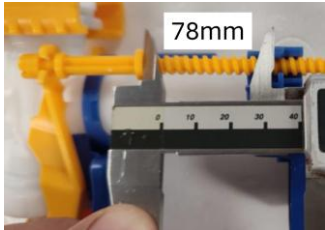
PROBLEM	CAUSE	RECTIFICATION
Cistern does not deliver the expected flush	Push buttons not fully depressed	Ensure that the flush button is fully depressed when operating the flush.
	Leaking pneumatic line connection	Check the air hose connections for tightness, kinks and damages between the button air pump and cistern air bellows. Replace components if damaged.
	Inlet valve setting incorrect	Check and adjust inlet valve to the correct settings. Refer to table on the next page.
	Damaged inlet valve assembly	Replace inlet valve assembly
	Outlet valve settings (half-flush and full flush) incorrect	Check and adjust outlet valve to the correct settings. Refer to table on the next page.
Constant running water	Dirty or damaged outlet valve seal	Check, inspect and clean outlet valve seal. Replace if damaged.
	Damaged outlet valve assembly	Replace outlet valve assembly
	Damaged inlet valve assembly	Replace inlet valve assembly
	Leaking on the cistern to WC pan connection	Check kee seal, outlet O-rings and flush pipe seal, replace components if damaged.
Slow-refilling of cistern tank	Mains not fully opened	Open mains fully
	Blocked water supply	Clean and remove debris.
	Damaged inlet valve assembly	Replace inlet valve assembly

TROUBLESHOOTING (CONTINUATION)

Factory-standard Setting of Internal Components to achieve the stated WELS rating.

If the cistern does not deliver the expected flush volume, check the internal component settings.

Important: Do not adjust the internal components outside the settings specified below. Changing the factory settings may prevent the product from meeting the stated WELS rating.

Outlet Valve		Inlet Valve Setting	
"B" full flush setting	"H6" half flush setting	"24mm" bucket setting	"78mm" length of screw setting
			

10. WARRANTY

Galvin Engineering products are covered under our Manufacturer's Warranty. Galvin Engineering products must be installed in accordance with the installation instructions and in accordance with AS/NZS 3500 and NCC Volume Three, relevant Australian Standards and local authorities applicable to product being installed. Water and electrical supply conditions must also comply to the applicable national and/or state standards, failing to comply with these provisions may void the product warranty and affect performance of the product.

Please visit www.galvinengineering.com.au to view the full warranty, our Installation Compliance and Maintenance & Cleaning information as well as any other additional information.