

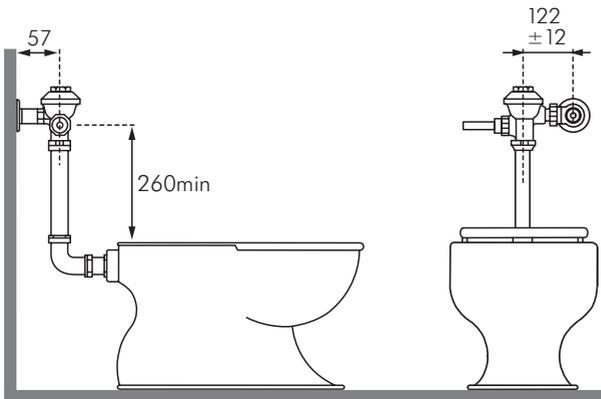
Z-6000XL

TOILET MAINS PRESSURE FLUSH VALVES



CONTENT OF STANDARD PACK

1. 1 x chrome plated ZURN Aquaflush flush valve
2. 1 x ZURN angled stop valve with VP cap 1" BSP
3. 1 x c/p inlet pipe sleeve and wall escucheon plate
4. 1 x c/p flush pipe set including vacuum breaker pipe, rubber duck bill, horizontal flush pipe, elbow, wall support bracket, rubber pan connector



VALVE DESCRIPTION

ZURN Z-6000XL is a commercial quality, diaphragm operated chrome plated brass WC flush valve designed to be connected to mains pressure (potable) water.

Valve is suitable for connection to back entry 6L WCs.

Movement of the side mounted toggle handle will initiate a full 6L flush of the WC.

Model Z-6000XL valve can be mounted with the handle LH or RH as preferred.

APPROVALS

ZURN flush valves are approved under Watermark Schedule Licence No WMK00306 for Quality Assurance and backflow protection.

Under AS/NZS6400:2005 ZURN flush valves have WELS Registration. All dual flush valves achieve a 3 Star rating and single flush valves a 1 Star rating.



PIPE SIZING AND DESIGN

ZURN flush valves rely on the capacity of the supply pipe to maintain the flow rate and pressure needed to evacuate the pan. A minimum of 25mm (nominal ID) supply is necessary to achieve this however much larger supply pipes may be required depending on;

- a) Supply pressure
- b) Length of pipe
- c) Number of valves installed
- d) Other fixtures using the supply pipe

All pipework must be designed by a suitably qualified person (services engineer or other) to achieve the necessary flow rate. Pressures given are dynamic pressure (under flow) not static head.

Flow rate: 90L/min

Pressure: 150 - 500kPa (ideally 300 - 400kPa)

Connection: 25mm BSP

Where it is not possible to achieve the pressure required, a roof supply tank should be fitted and an equivalent Non-Potable valve ordered. In those circumstances pipe sizing should be as per the Drainage & Plumbing Regs 1978.

As a rough guide the following chart can be used for mains pressure installations - this is intended as a guide only and pipe sizing should be checked by an engineer. The pipe size shown is the final horizontal pipe where the takeoff for the Zurn valve will be connected. Preceding pipe sizes may be larger depending on the size of the total contract. These sizes assume pressure in the 150 - 500 kPa range.

No of Valves	Pipe Size (mm)
1	25
2 - 3	32
4 - 12	38
13 - 24	50
25 - 50	65

NOTE: We recommend the use of Wilkins 1250 water hammer arrestors and 20g strainers where water quality is likely to cause problems to the Zurn valve.

INSTALLATION

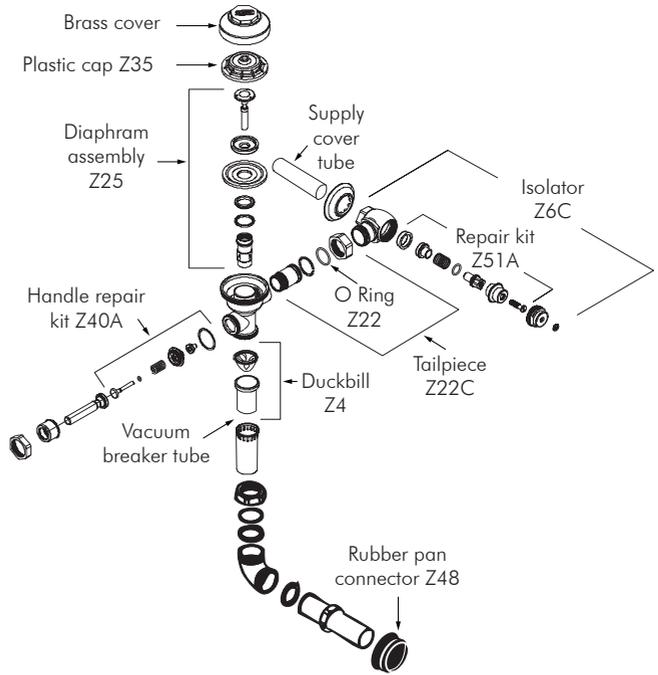
1. Fit isolator valve to 1" BSP threaded pipe. Where Z-6000XL valve is to be installed, ensure nipple protrudes no more than 90mm from finished face wall. Refer to Page 1 for position of valve and nipple outlet position.
2. Prior to fitting flush valve tailpiece onto stop valve, ensure O ring is properly located in the seal groove at the end of the tail and that the snap ring is properly aligned. ALWAYS wet the O ring before fitting the stop valve.
3. Insert the flush valve tailpiece into the stop valve and hand tighten the lock nut. Connect the vacuum breaker tube to the bottom of the valve ensuring the rubber duck bill is inserted in the top of the vacuum breaker tube.
4. It may be necessary to cut the vacuum breaker tube to suit the pan, but minimum heights must be observed. To prevent back siphonage, the slots in the vacuum breaker tube MUST be a minimum of 200mm above the flood level of the WC. Fit the elbow and horizontal pipe, using the rubber pan connector to seal into the horn of the pan.
5. Hand tighten nuts only, adjust valve for plumb and then tighten all nuts.
6. Assembly of valve should be as per drawing on last page.
7. When all valves are installed and full water pressure is available it is necessary to flush out all lines to ensure no debris is left in the pipework.
 - a) close isolator
 - b) remove main brass cap from valve
 - c) remove plastic cover and diaphragm assembly
 - d) replace plastic cover and brass cap (less diaphragm assembly)
 - e) open stop valve and flush out debris
 - f) shut stop valve and reassemble valve
8. The ZURN Aquaflush valve is designed to flush 6L of water over a wide range of pressures however some adjustment of the stop valve may be necessary to ensure correct operation and to minimise pan splash, particularly at higher pressures.
9. Compliance with Watermark approvals means this valve must not be modified in any way. Warrantee may be void if valve is installed in any other way than recommended in this document.

ASSEMBLY DIAGRAM

Z-6000XL flush valves spares are as per the diagram (right).

In addition a valve overhaul kit is available: **Ref Z1C** which includes;

- Z35
- Z40A
- Z51A
- Z25
- Z4
- Z22



MAINTENANCE

It is recommended the valve is annually checked for leaks and correct performance. Any leaking from the vacuum breaker under flushing would indicate a replacement rubber duck bill is required.

	CAUSE	REMEDY
Poor/inadequate flush	Incorrect pipe sizing or inadequate pressure	Increase pipe supply, boost pressure
Short flush	Faulty diaphragm - bypass hole oversize Excessive pressure	Replace diaphragm assembly Fit Wilkins pressure reducing valve Turn down stop valve to extend flush time
Valve won't shut off	Insufficient line pressure to repressurize valve By pass hole blocked/debris under diaphragm Trip mechanism not sealing	Increase pipe supply, boost pressure Clear debris Replace diaphragm assembly
Leaking from vacuum breaker slots	Back pressure from WC Duckbill faulty	Check pan connector to pan is clear Replace duckbill



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