# Flush Valves v Cistern Tanks

WaterMark
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With SLOAN flush valve installations, water flows under the pressure from the supply piping directly to the fixture (toilet).

Any combination of influencing elements, such as toilet traffic, water quality and operating system, may tip the scale in favour of flush valve over the cistern.

In commercial applications, it is the use of the pressurized water supply that gives the flush valve a performance advantage over a cistern toilet. In a cistern toilet, the water used for the flush is first accumulated in the tank. The water flows by gravity into the toilet bowl when the toilet is flushed. The energy behind the flush is created by the weight of the water in the cistern.

Because SLOAN flush valves rely on the pressure and flow from the supply piping, there is more strength and energy behind the flush - important in commercial applications.

Flush valves also reset much faster than gravity toilets (there is no refill time), another important requirement in a commercial installation. In high traffic situations, the technology can accommodate the quick recovery needed to immediately flush again – required in hospitals, schools, sports stadiums, etc.

SLOAN flush valves also cope better with water quality issues than cisterns. SLOAN flush valves are very low maintenance products. Spare parts are available and volume of flush can be changed by swapping a couple of internal components. Internal as well as external parts are designed for longevity and performance. Parts are easily accessible and interchangeable.

| Benefit | Flush Valve | Cistern Tank | Comment |
|---|---|---|---|
| Reset Time | 5-7 seconds | 40-50 seconds | **Flush Valve** available in as little as 5 seconds after flush – 9 times faster than cistern tank<br>Flush Valve much faster cycle time vs. tanks |
| Fixture Cleansing | Pressure assists in cleansing bowl, delivers a complete flush | Gravity weaker cleansing power | **Flush Valve** – superior in cleaning performance |
| Drain Line Carry | Pressure assists in drain line carry | Gravity weaker in drain line carry | **Flush Valve** – superior in drain line carry = will transport waste further |
| Applications | Designed for Commercial applications | Designed for Residential applications | **Flush Valve** – satisfies largest range of installation applications and styles<br>Best solution for high demand, multiple usage requirements and high end water efficiency |
| Installation and Maintenance | Easy installation & maintenance / repair | Tanks harder to maintain and more difficult to service | **Flush Valve** – unequalled in low maintenance costs |

| Technical Plumbing Requirements for Dual & Single Flush System | Mains Pressure | Tank Fed Pressure |
|---|---|---|
| Minimum water supply pressure | 150kPa | 40kPa |
| Maximum water supply pressure | 600kPa | 300kPa |
| Minimum Flow Rate at the valve | 1 L/second | 1 L/second |
| Stop valve inlet | 25mm BSP | 40mm BSP |
| Flush valve outlet | 40mm BSP | 40mm BSP |

| Space Requirements for Dual & Single Flush System | Dual Flush | Single Flush |
|---|---|---|
| Minimum Wall Cavity | 140mm deep | 90mm deep |
| Minimum width of assembly | 270mm wide | 270mm wide |
| Minimum height of assembly | 200mm height | 200mm height |

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