

SUPER WATER VALVE

Suffix -WS, Directional control valves for water service

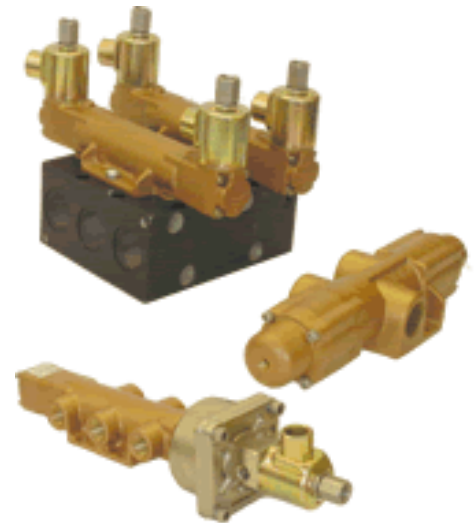
In general, valves used on water service directional control applications are constructed of expensive materials and bulky to install and service. Problems with corrosion, swelling of seals, unpredictable pressures, lack of lubrication, contamination, and dirt are the norm rather than the exception.

Versa Products Company sees water service as an opportunity. This growing market has prompted Versa to develop a product to meet all these issues in a very cost-effective package.

VERSA's Super Water Valve, suffix option -WS, is a specially modified "V" or "T" Series valve. It is available in sizes up to 1 inch, side ported or manifold mounted in all functions and with most standard "V" & "T" actuators.

Water is one of the most difficult media to handle. It differs widely from application to application. Valves and components must be able to tolerate a wide range of water types, quality and conditions.

The modifications engineered into Versa's Super Water Valves are based on decades of experience in the design, manufacture and application of directional control valves in the water industry and related fields.



The basis of VERSA's Super Water Valve is the "V" and "T" Series product lines. We have enhanced these already durable products with our -WS suffix option, the Super Water Valve. These features include but are limited to:

- All brass and stainless steel construction assuring long corrosion free service.
- Special low water absorption compounds used in critical sealing areas to assure long trouble free service without concerns of swelling due to water.
- "T" Series valves utilize "Teflon" sealing in critical areas to yield higher pressure ratings.
- Standard size O-ring seals utilized for trouble free service and ease of replacement.
- Extra strong stainless steel springs for positive trouble free shifting.
- Low friction U-cups used on all pilot/diaphragm actuation applications reducing shifting forces.
- Electroless nickel plated internal parts to aid in corrosion protection and reduce shifting friction.
- Patented "anti-extrusion principle" combined with resilient exhaust rings assure leak free service.
- All valves are packed from factory with a high grade lubricant
- Diaphragm actuators are designed for remote pilot operation, via air or water. An air pilot signal will simplify control circuits should air be available.

One of the most common applications for VERSA's Super Water directional control valve is to operate rotary or linear actuators. The actuators open and close large gate, butterfly or ball valves in water and waste water treatment plants. These water treatment plants may be found at water municipalities, chemical or petrochemical processing plants, breweries, utilities and anywhere else water is used in large volumes.

VERSA offers full flow 3 or 4-way, 2 or 3-position valves for water service. For example, Versa can offer one 4-way, 3-position, blocked center valve to control an actuator. This valve function would allow the on/off control of an actuator and an intermediate position. Our competitors do not offer full flow 3 and 4-way valves - they would offer "four" 2-way valves to accomplish the same function. Our solution provides piping, mounting, space and installation savings.



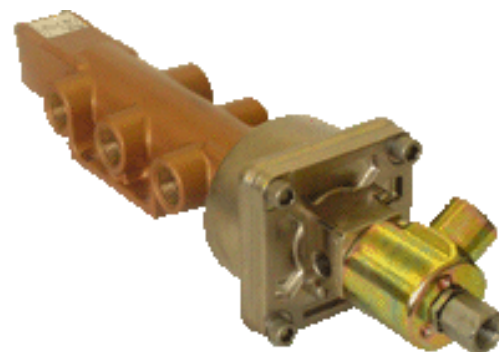
The "V" and "T" Series valves are available in manifold configurations as well. In a water treatment plant that has "five" large butterfly valves to control, you would use "five" Super Water Valves on a common manifold. Our competitors would need to specify "four" valves per actuator, or "20" valves, making Versa the preferred solution in water treatment plants.

Pressures ranges.

Series "V" Super Water Valve is recommended for water service for pressures up to 100 psi. "T" Series for pressures up to 500 psi. "T" Series In-Pilot solenoid valves are rated to 450 psi and suffix option -H500 must be added to part number. Minimum pressure ranges for the "V" and "T" valves are based on actuator configuration. Please consult factory for specifications.

Actuation.

A single solenoid, spring return, 2-position Super Water Valve would need to be specified as single diaphragm, spring return, 2-position actuator with a special ESM solenoid valve mounted directly on the diaphragm actuator. This configuration would be only available as an Ex-Pilot valve.



The diaphragms are required to assure a positive shift against our extra strong spring return devices. Any double actuators such as double solenoid or double pilot, 2 or 3-position do not require the diaphragm actuator

Solenoid Drain.

Applications utilizing Versa's Solenoid-pilot design required the solenoid exhaust (or solenoid drain) to be piped away to an unrestricted drain. A hydraulic adapter (suffix -H or -H2) is required.

Water Quality.

Water is one of the most difficult fluids to handle. Alkalinity, pH levels, hardness and total solids are all water qualities that need to be taken into account in reviewing a valve application. Additives such as anti-bacteria agents, anti-fungus, coagulating agents, corrosion protection and insect repellents also may have a great effect on Versa's recommendations with regards to materials, seals, lubrication, filtration (inlet water filters required on all applications) and possibly even actuator selection.

If the application is not ordinary potable water, we would strongly recommend forwarding fluid details and specifications for review and final valve selection, as these are engineering driven applications, not standard items.

The above information should give you a basic understanding of Versa's Super Water Valve. Any addition information and or questions please feel free in contacting Versa direct.