

Tideflex® Mixing System (TMS) Overflow Protection Solutions

Municipalities face the ongoing challenge of safeguarding water storage tanks from contamination, which can be caused by insects, rodents, birds, or tampering, posing significant health hazards. Red Valve offers three Tideflex® overflow protection solutions that are dependable, economical, and require minimal maintenance, surpassing traditional options like screens and flap gate valves.

Tideflex® Check Valves - End of Pipe Protection

Tideflex® Check Valves, available as either flanged or slip-on, are clamped onto the end of an overflow pipe. The all-elastomer construction of Tideflex® Check Valves are very reliable for overflow pipe protection and prevent rust, corrosion and mechanical failure. Because they are non-mechanical, the valves require virtually no maintenance and will drain completely after an overflow event. Tideflex® Check Valves are virtually impenetrable to rodents, birds and insects. Unlike mesh screens and flap gate valves, check valves will not corrode, dislodge, freeze open or freeze shut. Tideflex® Check Valves can be installed vertical, horizontal or in any discharge angle.

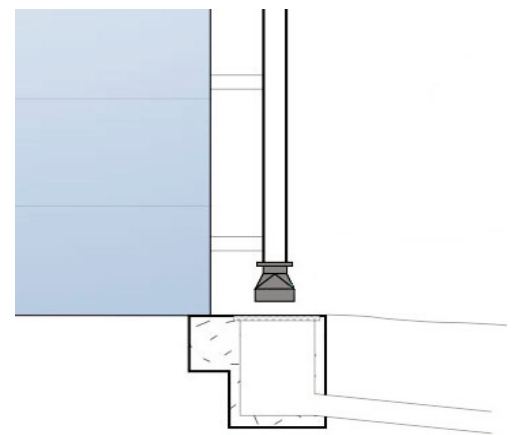
Overflow Security Valve (OSV) - In-Line Protection

Red Valve Engineering developed the Overflow Security Valve (OSV) to help water utilities address the increased need to secure their water supply from an intentional contamination event or attack. The OSV assembly incorporates a Tideflex® In-Line Check Valve and is either welded or secured to the overflow pipe with a flange. With the OSV installed above the end of an overflow, you achieve two deterrents: the Tideflex® In-Line Check Valve cannot be seen and it is extremely difficult to access, manipulate or damage. Tideflex® Check Valves on the end of pipe are often used in conjunction with OSV for redundancy.

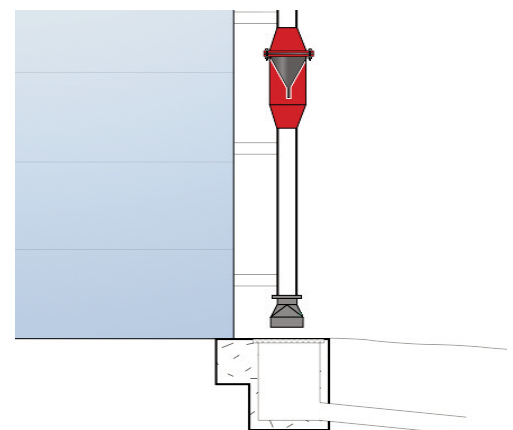
Dechlorinating Overflow Security Assembly - In-Line Plus End of Pipe Protection and Dechlorination

Discharging chlorinated water from storage tank overflows onto land or into a stormwater system can be toxic and severely harmful to plant and aquatic life. In order to address environmental concerns and potential regulatory penalties, Red Valve Engineering has created an overflow pipe assembly that prevents bird/rodent intrusion, increases tank security and removes chlorine and chloramine residual during overflow discharges. The Dechlorinating Overflow Security Assembly (DOSA), is constructed of dual Tideflex® Check Valves and an internal adjustable dechlorination tube completely enclosed in a epoxy-coated steel body. During an overflow event, the upper Tideflex® Valve discharges an elliptically-shaped jet down onto the dechlorination tube. A calculated portion of the water passes through the tube, making contact with dechlorination tablets located in the tube, prior to discharge through the bottom Tideflex® Check Valve.

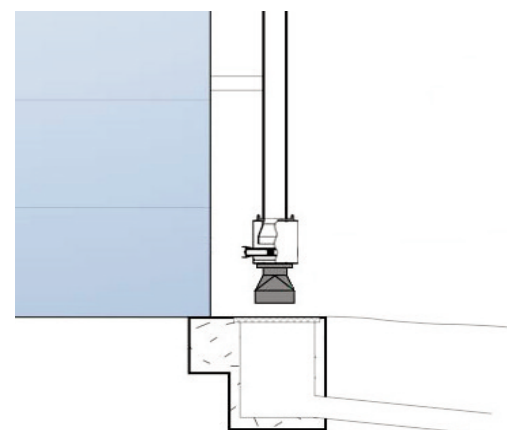
Whether you are using a Tideflex® Check Valve, OSV or DOSA, Red Valve Engineers will provide a detailed Overflow Pipe Hydraulic Analysis to size and locate the overflow protection device, based on tank dimensions, overflow pipe size and material, air gap distance and peak flow rate.



Tideflex® Check Valve on End of Overflow Pipe



OSV on Overflow Pipe



DOSA on End of Overflow Pipe