

October 29, 2025

## Zero Leakage in ANY Orientation.

In previous newsletters, the topic of “allowable leakage” has been discussed. For instance, according to MSS SP-70, Iron Gate Valves are allowed to leak, but only past the seat or sealing member and through the valve. And the fact that the valve is “allowed” to leak does not mean that it will leak. The amount of leakage is well defined by the testing standards that relate to the specific type of valve, and the service in which it is used.

Under most commercial or industrial applications, this leakage is considered acceptable. But in many cases, such as a steam header, bubble-tight shutoff is absolutely required. Designed with such critical services in mind, the new Milwaukee Valve Triple Offset valve (TØV) takes precision performance to a higher level. TØV delivers bidirectional, zero-leak sealing — even



under higher pressures and temperatures. This design makes TØV triple offset valves firesafe, corrosion resistant and maintenance free, too.



*A sideways gate may not be able to close*

And compared to other valve designs, TØV can be installed in ANY orientation, including sideways in systems flowing either horizontally or vertically. Especially with **large** iron gate valves, a sideways gate may not be able to close, as the weight of the wedge struggles to overcome the friction of the valve’s seat rings, preventing the valve from closing. TØV has no

such restrictions, with metal sealing surfaces capable of withstanding high pressures and temperatures, all while providing bubble-tight shutoff.

Milwaukee Valve has a Technical Bulletin, [MVTB-06-](#)

[002 Valve Standards and Seat Leakage Rates](#). This bulletin gives a general overview of leakage as well as allowable leakage rates for a variety of MSS and API standards. The standards address allowable leakage rates for all our bronze, iron and cast steel gate, globe and checks valves. The bulletin can be found on the website [HERE](#).



**MSS SP-70  
Leakage Rate**  
*10 mL of water/hour  
/inch of valve size.*



**Example:**  
8” Iron Gate  
Max. Leakage = 80 mL/hr.  
80 mL/hr. = **5.5 Tbsp/hr.**

Or eliminate consideration of leakage by installing the new TØV. To learn more, and download spec sheets or access 3D CAD drawings and BIM modelling, visit our [TØV](#) product page at [www.MilwaukeeValve.com](http://www.MilwaukeeValve.com). While there, you’ll also find downloadable product literature, and Milwaukee Valve representative contact information to help you with application questions on any Milwaukee Valve products. For more information, contact your [Milwaukee Valve regional manager or sales representative](#) today. Get complete specs and features for all Milwaukee Valve products at [www.MilwaukeeValve.com](http://www.MilwaukeeValve.com).



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