# Wafer Valve popularity on the rise

**Long a favorite of process control engineers in Europe, the full-flanged, full-port wafer-style ball valve is finally being recognized in the U.S. as a lighter, lower-torque, space-saving and more cost effective solution.**

Shorter in width than a standard flanged ball valve the wafer-style ball valve is ideal for skid systems or any application where space is an issue. With a pocket-less one-piece body design, these unique valves eliminate the possibility of body seal leaks. They also add strength to any pipeline.

Competitors to the latest uni-body design only offer reduced port valves in a one-piece body design. With less torque than other conventional full-port valves, the wafer valve can be automated by smaller actuators with smaller universal mounting kits. Not only does this provide for a lower profile of the entire automated package, but at a lower cost when compared to the typical conventional full-port automated valve assembly.

In other applications where weight as well as size is a factor - like on offshore platforms where it is estimated that one pound of weight saved is estimated to represent a $400 to $700 cost savings-per-pound - the wafer valve weighing about 30% less than full-port flanged ball valves should be a serious consideration.

The one-piece (uni-body) design also offers an advantage where steam jacketing is required due to the ease of adding weld-on jackets that cost much less, than two-piece bolt-on types. The compact design is also ideal for under tanks (tank bottom) or near floors, due to the valve ball and flanged-end on the wafer valve.

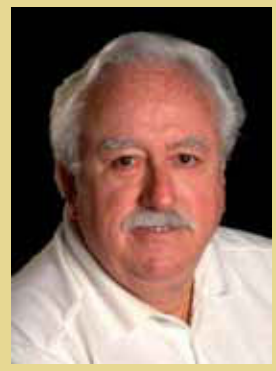
Many process control engineers will not use ball valves because of the dead space behind the valve ball. The pocket-less design of the wafer valve eliminates that concern. The transmitter isolation design also allows for the replacement of gate valves with a full-port valve with positive shut-off.

Another consideration is that due to the DIN standard in Europe when equipment made in Europe is sent to U.S. there is often a need to transition from the DIN flange to an ANSI interface to install the equipment here. With the wafer valve, it is relatively easy to modify the flanges to mate with the bolt holes on the DIN flanges. In addition, frequently the European equipment doesn't exactly fit into the existing process control piping system and by utilizing a narrower wafer valve the "plug-and-play" functionality can be achieved without having to make major piping modifications to the existing system.

Lastly, another benefit is because all flanges are tapped it adds to the ease of installation or maintenance as one side of the piping can be removed while the valve is still under pressure similar to dead-end service in butterfly valve applications. The Kompact wafer style uni-body series is available from Flo-Tite Valves & Controls.

***Did you know…*** that the earliest known oil wells were in China in 347 CE, drilled to depths of 800feet using bits attached to bamboo poles and by the 10th century extensive bamboo pipelines connected oil wells to salt springs. Ancient Chinese and Japanese records refer to the use of natural gas or "burning water" for heating and lighting.

## About the author:



As the CEO of El-O-Matic North America, Robert Donnelly became a pioneer in quarter-turn valve automation. Donnelly played a key role in establishing the brand as a market leader for valve automation packages, positioning the brand for sale to Emerson Flow Control. He has gone on to act as CEO for several other valve companies before becoming VP of Marketing with Flo-Tite, creating brand awareness.