

For Want Of A Flange...

“**For Want Of A Nail**” is a proverb having many variations over several centuries, most famously from Benjamin Franklin, reminding that seemingly unimportant acts or details can have grave consequences. As recent as the early 90’s, there wasn’t a pipefitter who would have ever expected a butterfly valve to seal at the end of a line. Pipefitters always knew that when a system was being serviced, pressure was removed and a **blind flange** installed before restoring pressure.

There are times during construction or expansion rework where, if a segment of piping can be isolated and work can be done upstream of it without draining the entire system, the costs to drain or freeze a line can be saved. In order to accomplish this, valves would need to be capable of having piping removed from one side of the valve, sometimes the side opposite of the normal flow direction.

However, in the early- to mid-90’s, valve manufacturers came out with butterfly valves that could provide **dead-end service** in one direction, meaning that piping could be removed from one side and the valve could seal long enough for a blind flange to be installed. Later, they came out with designs that enabled dead-end service in either direction or double dead end. These were design enhancements for the purpose of safety and property and bodily injury.

Today, most manufacturers offer some sort of butterfly valve that is capable of some degree of end-of-line service. But regardless of the claim, **everyone** in the field should pay special attention to this phenomenon. And when utilizing the dead-end capability, employ it **ONLY** long enough to install a blind flange. **By the way, EVERY manufacturer of dead-end capable valves should recommend the use of a downstream flange.**

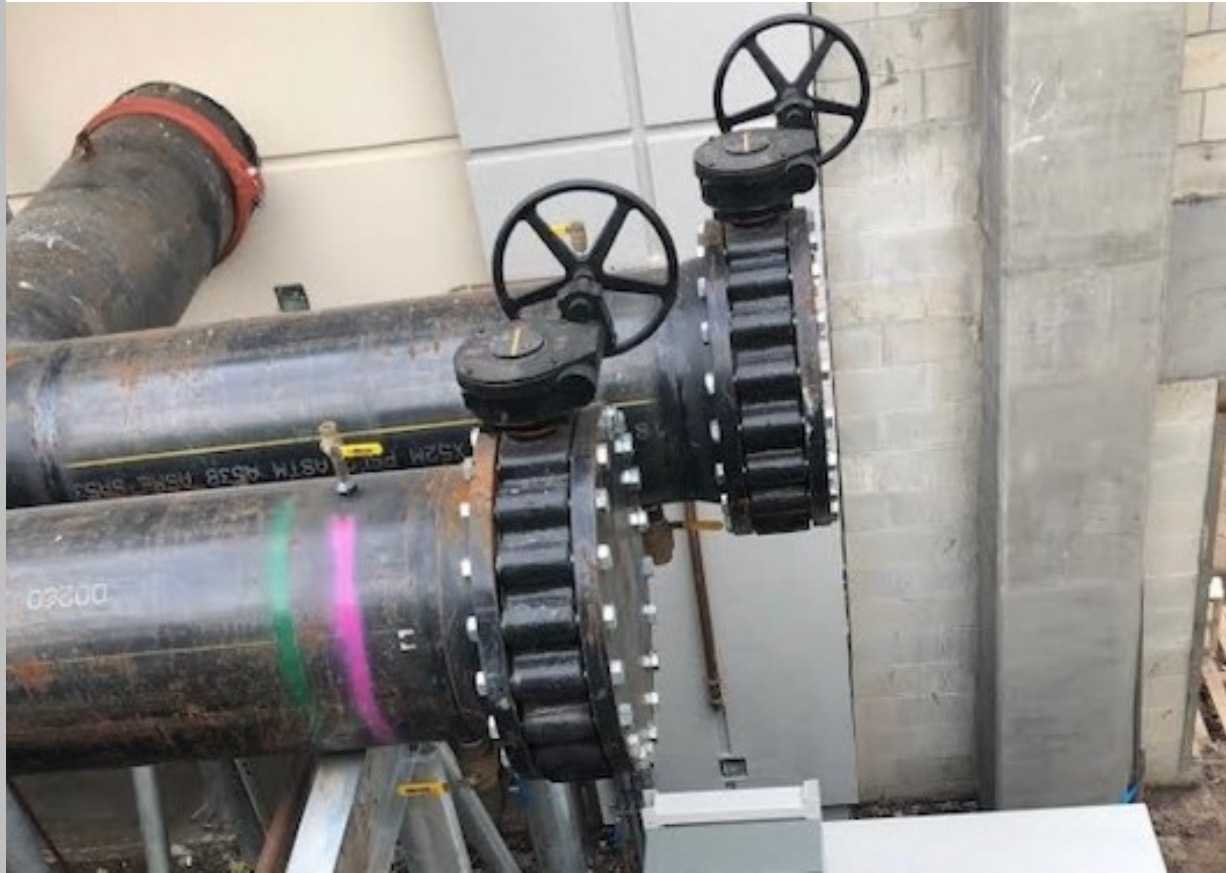
The cost of a blind flange is almost nothing and is completely incidental to the cost of a project. The time taken to install this simple feature and the safety it provides makes a blind flange indispensable and priceless.

Several key points to consider with dead-end service...

- First of all, dead-end can only be done with lugged body valves that employ threaded cap screws. Dead-end cannot be accomplished with a wafer style body.
- Second, folks often **expect** dead-end service from every manufacturer or every butterfly valve. But dead-end service was not available before the 90's on ANY butterfly valve, valves remain in service for long periods of time. So before removing a downstream flange from a valve, check the date of manufacture and confirm that it indeed is capable of

end-of-line service. Don't assume it is.

- Third, manufacturers who make dead-end capable valves do so through a size range. For example, one manufacturer's dead-end capability is thru 24", but not for their 30", 36" or larger. There are many reasons to never ASSUME a valve is dead-end capable... check and make sure.
- Last, only "dead-end" a valve long enough to install a blind flange to insure installer safety.



Another note of caution on this topic. Often times butterfly manufacturers rate their valves for standard pressure, but the dead-end capability is de-rated. This is common, even more so on larger, 250 PSIG-rated valves. For instance, on resilient-seated 14" to 24" Milwaukee Valve products that are normally rated to 250 PSIG are de-rated to 200 PSIG.

Dead-end applications require extra care to save equipment and prevent injuries. For questions, contact your [Milwaukee Valve customer service representative](#) or regional manager or Milwaukee Valve sales representative today. Get complete specs and features for all Milwaukee Valve butterfly valve products at www.MilwaukeeValve.com.



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