

Ener•G® = Cost Savings

By: Diane Meyer
Val-Matic Valve & Mfg. Corp.

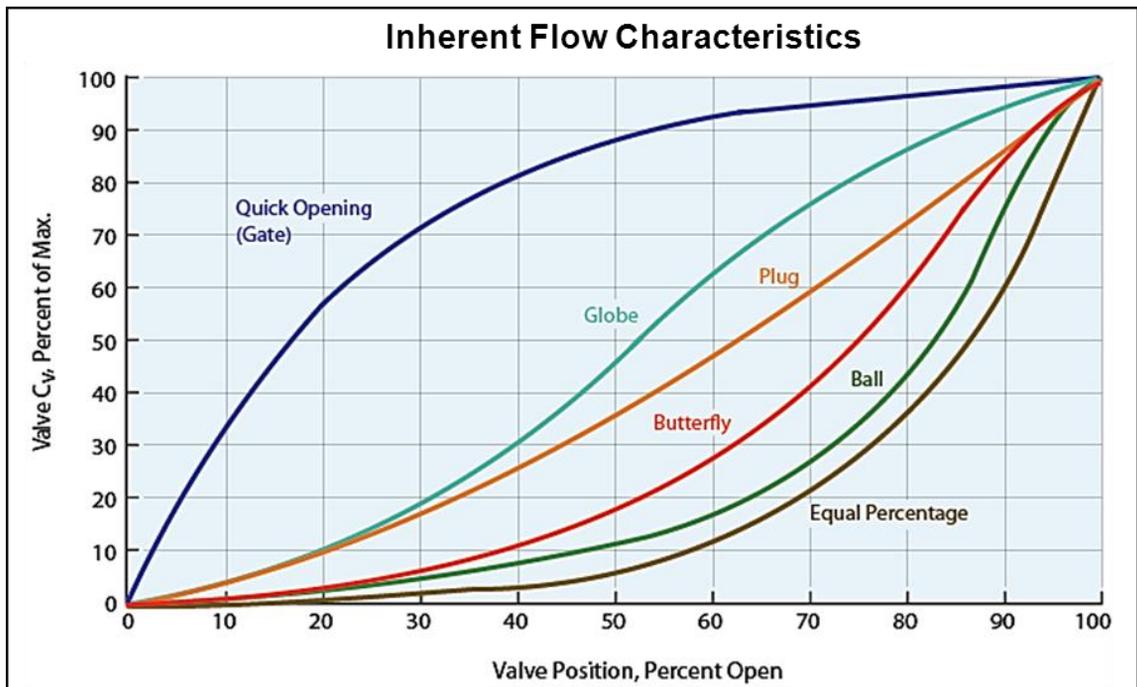
Located in northwestern Ohio, the City of Findlay is the epicenter of Hancock County. Built in 1931, the Findlay Water Treatment Plant (WTP) was upgraded in 1965 and again in 1984. The Findlay WTP serves the 40,000 residents of the greater Findlay area and supplies an average of six million gallons of potable water per day and approximately 22,000 MG annually. Water is pumped from the Blanchard River into the treatment plant and then the raw water surplus is pumped into the Findlay Reservoir located three miles southeast of the Findlay WTP. The water in the Findlay Water Treatment Plant is treated and stored in the clear well and two elevated storage tanks. Upon demand, potable drinking water is pumped to residents of Findlay utilizing five motorized pumps ranging from 100-300 horsepower. Each of the five pumps has a rubber-seated ball valve; three are 10" and the remaining two are 12". The seats on four of the five previously installed ball valves continually failed, leaked and were in constant need of repair. After months of reworking and machining the seats, the Findlay WTP received what they hoped would be a final quote from the

Ener•G® Ball Valve in Findlay, OH WTP



manufacturer for the significant but necessary repairs. Unfortunately, the cost to repair each valve was over half the cost of completely replacing them with new valves. Instead of the costly repairs, the WTP proposed a trial replacement of one of their faulty valves with the Val-Matic® Ener•G® Rubber Seated Ball Valve.

The Ener•G® Rubber Seated Ball Valve was precisely the solution: a reliable valve for surge control in a pumping application. For pumping systems where surge control is critical, a pump control ball valve is typically used. The ball valve is wired to the pump controls and provides adjustable opening and closing times in excess of the system critical surge period. Stable operating times are essential in controlling surges in pumping systems. The Ener•G® Ball Valve's inherent flow characteristics are highly suited to control flow and pressure. Equal percentage valves, like the Ener•G® Ball Valve, uniformly changes the flow rate during the full travel. This graph provides the inherent flow characteristics of various valves whose data is expressed in terms of flow coefficient (C_v) at various percentages of the valve's position. The most desirable flow characteristic for surge control is equal percentage, as provided by the Ener•G® Ball Valve.



The Ener•G® Ball Valve was developed with over 50 years of combined engineering, manufacturing, application and design experience. The Ener•G® Ball Valve features the Tri-Loc™ seat retention system which provides positive mechanical retention of the valve seat while allowing easy adjustment or replacement. Both single and double-seated valves are available for sealing in one or two directions. When fully open, the resilient seat is completely out of the flow stream. All Ener•G® Ball

Valves are interior and exterior coated with NSF 61 fusion bonded epoxy per AWWA C550 for the highest level of corrosion protection ensuring smooth flow surfaces and long life.

An important characteristic of valves in water pumping systems that is often overlooked is the valve's ability to minimize energy consumption. Val-Matic's Ener•G® Ball Valve is ideal when energy savings are a priority. When fully open, the valve provides 100% clear flow area equal to the valve size. Hence, the valve's headloss is equal to an equivalent length of pipe and will represent a significant savings in pumping costs. The Ener•G® Ball Valve consumes less than 1% the energy of a Globe-Style Control Valve. Larger systems and systems operating at higher velocities will provide even greater savings. The Val-Matic® Energy Cost Calculator allows users to input details about their proposed application and calculate the cost savings the Ener•G® Ball Valve can generate.

The initial 12" Ener•G® Ball Valve impressed the Findlay WTP with its performance and energy savings, subsequently two 10" Ener•G® Ball Valves were installed with air-powered vane pneumatic actuators. According to Findlay WTP Supervisor, Jeff Newcomer, "Since the Val-Matic Ener•G® Ball Valves were installed they have been maintenance-free and working out great." This classic water treatment plant rehabilitation project not only generates energy savings, it has eliminated the downtime necessary to repair the leaking seats.



If your goal is a durable "green" valve for a pumping system, the Val-Matic Ener•G® Ball Valve is the valve of choice. All Ener•G® Ball Valves are designed utilizing advanced valve technology, quality materials and proof of design testing to verify pressure integrity, leak tightness and operation as specified in AWWA C507. In addition, Val-Matic Valve & Mfg. Corp. is certified to ISO 9001-2008 standards. For more information regarding the Ener•G® Rubber Seated Ball Valve and to take advantage of the Energy Cost Calculator, please visit www.valmatic.com

Diane Meyer is the Marketing Manager at Val-Matic® Valve & Mfg. Corp. She can be reached at 630-941-7600 or at dmm@valmatic.com