

Ball Valve or Key Valve?



We are often asked, “Should I use a ball valve or key valve?” and our answer is usually “It depends on your budget and intended application, but the best choice is almost always a ball valve.” To decide which valve is right for your application, it is helpful to understand the differences. The primary difference is how the valve seal is designed. In ball valves, a coated brass ball seals against rubber seats. In key valves, the body of the valve seals against the key of the valve making a smooth brass on brass seal with a thin layer of grease separating the two surfaces.

Key valves may be less expensive but there are a few things to keep in mind. Due to the brass on brass seal, they cannot be cycled indefinitely and can require more torque to turn. Also, the brass on brass seal may allow a key valve to be more susceptible to physical deformation from pressures applied to the outside of the valve during installation.

Performance wise, the sealing mechanism allows the ball valve to seal at much higher pressures than key valves. In fact, AWWA standards require ball valves to carry a 150 psi pressure rating certification while the standard requires key valves to carry a pressure rating of only 75 psi – 100 psi, determined by size. Many municipalities actually surpass the key valve pressure rating when pressure testing their systems.

Still not sure which valve is right for you? Reach out to your local distributor or Ford Meter Box Customer Service Representative for more information!

