Which Vacuum Seal-Off valve is best for your application?

SV1 Series

The SV1 series vacuum seal-off valves are high vacuum and low pressure seal-off valves, with tamper proof non-relieving positive seal-off when used on any evacuated volume or low pressure system. The SV1 series seal-off valves are designed with a non-relieving (-NR) integral plug & disc assembly. The ¼” (-082) and 3/8” (-083) sizes are standard with plastic/vinyl protective sealing caps. The ½” (-084), ¾” (-086) and 1” (-088) sizes utilize a stainless steel protective cap assembly. Use the SV1 series seal-off valves where ever a high reliability, tamper resistant vacuum seal with re-entry feature is required.

SV2 Series

The SV2 series valves are similar to the SV1 series seal-of valves. The exception being that the SV2 series seal-off valves have an integral spring loaded plug & disc assembly making the seal-off valves relieving in nature (standard 2-6 psig). The SV2 series valves are only available in ½” (-084), ¾” (-086) and 1” (-088) sizes. All SV2 seal-off valves come with a plastic relieving cap assembly. Use the SV2 series seal-off valves where ever a high reliability, tamper resistant vacuum seal with relieving capability and re-entry feature is required.
The SV3 relieving seal-off valves are a step above the SV2 series valves, in that they provide exceptional seal-off reliability, with positive relief, a secondary spring loaded poppet style sealing cap assembly for dual seal-off protection, and are vibration and shock resistant (with the exception of sizes ¼” and 3/8” valves which have plastic relieving caps rather than the poppet style s/s cap assemblies). The SV3 high vacuum positive relief seal-off valves are seal-off valves with a relief mechanism incorporated internally in each valve. This allows the valves to function as both seal-off valves and relief valves. The SV3 series seal-off valves are ideal for application on systems subject to vibrations such as cryogenic pumping systems, liquefaction equipment, over the road transport containers, and aerospace systems and vacuum chambers.

The SV7 series seal off valves are relieving low profile, high capacity flow vacuum seal-off valves. They come standard in sizes 1” (-088), 2” (-816) and 3” (-824) with a standard relief pressure of 2-6 psig. The valve assembly incorporates a spring loaded poppet which provides relief in the event of over-pressure (2-6 psig) and re-seals itself leak-tight for continued vacuum service. A plastic dust cap is provided to protect the seal from unnecessary exposure. The SV7 series seal-off valves are typically used on larger vacuum vessels and MRI units.
The SV8 series vacuum seal-off valves is our most economical line of seal-off devices. Its simple plug and o-ring seal design provide near zero leakage and tamper-proof protection, with exceptionally easy installation and operation. All SV8 series valves come with a plastic/vinyl protective cap to seal from unnecessary exposure. Though the ¼” (-082) size is only available in a non-relieving (-NR) configuration, all other sizes ½” (-084), ¾” (-086) or 1” (-088) are available as standard 3-9 psig relief or as non-relieving (-NR) configurations. Typical applications are small vacuum insulated piping, manifolds, vacuum canisters and cryogenic dewars

The SV9 series seal-off valves are very similar to the SV8 series valves such that their simple plug and o-ring design make them an economical choice of preference. The benefits and features of the SV9 series seal-off valve over the SV8 series is that the SV9 series valves are all relieving in configuration, and they encompass an integral snap ring to alleviate the discharge of the seal-off valve plug assembly from the body during relieving operation. The relieving characteristic of the SV9 series varies by size (see catalog data sheet for specific relief pressure ranges by size). The typical application of the SV9 series seal-off valves are similar as the SV8 series, except used where slightly higher relief ranges are required and a non-projecting plug is required or preferred during relieving operations.