

Valve Inspection and Testing of Resilient-Seated Valves

N^o. 1050

The American Petroleum Institute publishes standard “API-598” which addresses the testing of resilient seated valves. This includes ball valves.

This standard is used for proof of design and as a guide for users that require pressure testing prior to installation.

The fully detailed standard includes:

- Shell Test
- Low-pressure closure test
- High-pressure closure test
- Visual examination of castings

SVF Flow Controls uses the high-pressure and low-pressure testing for proof of design.

[API-598 states:](#)

Low-pressure closure test (Required)

High-pressure closure test (Optional)

The reason for the optional testing of the High-pressure closure test is noted in their comment:

[“The high-pressure closure test of resilient-seated valves may degrade subsequent sealing performance in low-pressure service.”](#)

Under high pressure a resilient seat will be deformed to a degree based on the material and the level of pressure. For this reason we do not recommend the high pressure test (except as proof of design using sample products and not for subsequent installation) for valves that will go into service where both high and low-pressure must have zero leakage.