



Product Test Report

PTR-5022

Swagelok Company
29495 F.A. Lennon Drive
Solon, Ohio 44139 U.S.A.

Ver 02
November 2024
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TITLE

Hydrostatic Cycle Life Test of Swagelok® 8GB and 16GB Series General Service Ball Valves

PRODUCT TESTED

- (5) SS-8GBF8-SG
- (5) SS-A8GBF8-SG
- (5) SS-16GBS12-SG
- (5) SS-A16GBF16-SG

PURPOSE

This test was performed to observe the effects of 300 cycles on the seat and shell seal performance of the GB series ball valve during a water cycle blowdown test at room temperature under laboratory conditions.

TEST CONDITIONS

Original report date: January 2021
Test media: water
Test temperature: 70°F (20°C) room temperature
Test pressure: 6000 psig (413 bar)
Test cycles: 300
Cycle frequency: 1 cycle per 2 minutes and 30 seconds
Seat leak threshold: 1000 psig (68.9 bar) pressure drop
Seat leak test duration: 20 seconds
Shell leak requirements: no visible leakage

TEST METHOD

1. All test valves were assembled according to standard Swagelok specifications.
2. The first test valve was connected at the inlet to 6000 psig (413 bar), the outlet was at atmospheric pressure.
3. The test valve was opened and returned to the closed position to complete one cycle.
4. The test valve was checked for seat and shell leakage every 10 cycles.
5. If leakage was observed, a stem packing adjustment was allowed.
6. Steps 2 through 5 were repeated for the remaining test valves.

TEST RESULTS

All test valves completed 300 cycles and successfully performed within the stated test conditions.

Note: SS-8GBF8-SG and SS-16GBS12-GB valves did not require any packing adjustments throughout the test procedure.



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This test was performed to consider a specific set of conditions and should not be considered valid outside those conditions. Swagelok Company makes no representation or warranties regarding these selected conditions or the results attained. Laboratory tests cannot duplicate the variety of actual operating conditions. Test results are not offered as statistically significant. See the product catalog for technical data.

SAFE PRODUCT SELECTION

When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.

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