

AWWA C508, Proof of Design Test Certification
(4" SurgeBuster Swing Check Valve)

1. ITEM TESTED:

4" 250 psi CWP Val-Matic Model 7204 SurgeBuster Swing Check Valve
Ductile Iron Construction, Resilient Hinge Design, Fusion Bonded Epoxy Seat
Buna-N Molded Disc, Series 300 Stainless Steel Accelerator

2. PURPOSE:

To perform the Resilient Arm Proof of Design Cycle Test in American Water Works Association Standard AWWA C508 (Swing-Check Valves for Waterworks Service).

3. RECORD OF TEST:

The subject valve was placed on a test bench with the seat oriented down. A low-pressure double-acting pneumatic cylinder was installed in the backflow actuator port of the valve and set to fully stroke the valve open. Upon retraction of the cylinder, the weight of the disc and the spring action of the disc accelerator rapidly closed the valve against the FBE body seat. A cycle control panel with timing relay energized a 4-Way solenoid valve every 2 seconds and logged the number of cycles.

The solenoid valve was energized, which supplied air to the cylinder extending its rod and forcing the valve fully open. When the timer reached its set point, the solenoid valve was de-energized, which directed air to retract the cylinder rod and allow the valve to close in less than a second against its seat. The process was repeated through 1,200,000 cycles over a three week period.

Following the test, the valve successfully passed an AWWA C508 seat test at 250 psig.

The valve was disassembled and the body seat, disc, and accelerator spring visually examined. The parts showed no signs of distortion, excessive wear, or visible cracking. No permanent deformation was detected in the disc or accelerator.

4. CERTIFICATION:

Based on the above Test Record, we hereby certify that the subject valve has passed the Proof of Design Cycle test and in accordance with AWWA C508 and qualifies the flexural strength of the resilient disc and spring.

CERTIFIED BY:



John V. Ballun, P.E.
Val-Matic Valve & Manufacturing Corp.

DATE: 7-19-2012



4" SURGEBUSTER PROOF OF DESIGN CYCLE TEST CERTIFICATION

DATE 7-19-12

VAL-MATIC VALVE AND MANUFACTURING CORP.

DRWG. NO.
SS-2947