# AWWA C507, Proof of Design Test Certification (6" Through 48"- Class 150 AWWA Rubber-Seated Ball Valve)

## 1. ITEMS TESTED:

12 in-150# Val-Matic Model 4112 and 24 in-150# Val-Matic Model 4124 Rubber-Seated Ball Valve with LS3A Cylinder Actuator, Gray Iron Construction, 316 Stainless Steel Body Seat, Buna-N Ball Seat, 316 SS Seat Retainer, Buna-N V-Packing, Molythane Grit Seals in the body.

### 2. PURPOSE:

To perform the Proof-of-Design test requirements given in American Water Works Association Standard AWWA C507-05, "Ball Valves, 6 In. through 48 In. (150 mm through 1,200 mm)."

### 3. RECORD OF TEST:

Both subject valves were bolted between ANSI Class 150# steel test flanges. With the ball in the open position, the valves were pressure tested at twice the rated pressure (300 psig) for 30 minutes. No leakage or permanent distortion was observed during the test.

The 12" valve assembly was installed in the Val-Matic flow loop with a horizontal shaft and was subjected to >5000 cycles consisting of applying the differential pressure of 150 psid against the inside of the body and against the ball in the closed position, then opening the valve against the differential pressure to the wide open position, and then closing the valve. Upon completion of 5000 cycles, the valve successfully passed 15-minute seat leakage tests at 150 psid and 35 psid in both directions. This test was performed twice, once for each flow direction orientation.

The 24" valve assembly was installed in the Val-Matic flow loop with a horizontal shaft and was subjected to >1000 cycles consisting of applying the differential pressure of 150 psid against the inside of the body and against the ball in the closed position, then opening the valve against the differential pressure to the wide open position, and then closing the valve. Upon completion of 1000 cycles, the valve successfully passed 15-minute seat leakage tests at 150 psid and 35 psid in both directions. This test was performed twice, once for each flow direction orientation.

#### 4. CERTIFICATION:

Based on the above Test Record, we hereby certify that the subject Class 150 valves have successfully met the Proof of Design Requirements given in AWWA C507-05 and further qualifies the Val-Matic Series 4000 Class 150 Ball Valves in sizes 6 in. through 48 in.

**TESTED BY:** 

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DATE: May 30, 2008

DATE:

John R. Holstrom (Val-Matic Valve & Manufacturing Corp.)

WITNESSED BY:

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May 30, 2008

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

AWWA CLASS 150 BALL VALVE PROOF OF DESIGN CERTIFICATION	DATE 5-30-08
VAL MATIC VALVE AND MANUFACTURING CORP.	drwg. no. <b>SS-2295</b>