

# AWWA Proof of Design Cycle Test Certification

AWWA C541 Hydraulic and Pneumatic Cylinder and Vane-Type Actuators for Valves and Slide Gates  
Linear Cylinder Actuators

## 1. Items Tested:

- 6" Bore cylinder with 3 5/8" stroke
- 8" Bore cylinder with 4 7/8" stroke
- 10" Bore cylinder with 4 7/8" stroke
- 12" Bore cylinder with 8 3/8" stroke

## 2. Test and Results:

The above items were cycled tested through 5,000 close-open-close cycles. A minimum of 150 psi was applied at each end of stroke. The cylinders were driven with water. After the cycle tests, a three times hydrostatic test was performed on each cylinder for five minutes. There were no signs of permanent deformation or leakage during or after the tests.

## 3. Certification:

Based on the above Test Record, we hereby certify that the subject actuator has successfully met all of the Proof of Design requirements given in AWWA C541.

CERTIFIED BY: Alan Vandenberg

Alan Vandenberg  
Project Engineer  
Valmatic Valve & Manufacturing Corp.



LINEAR CYLINDER ACTUATOR TEST CERTIFICATE

DATE : 4-21-11

**VALMATIC**

VALVE AND MANUFACTURING CORP.

SSC-2770