VSI Valve Solutions, Inc.	DOC#: C504-24-POD

AWWA C504 Proof of Design Test Certification
(24" Resilient Seated Butterfly Valve)

ITEM TESTED:

VSI 24 inch C504 Series Resilient Seated Butterfly Valve
Ductile Iron Body, Molded and Bonded EPDM Seat
Ductile Iron Disc with a 316 Stainless Steel Welded Overlay Seating Edge
304 Stainless Steel Shaft and Taper Pin

PURPOSE:

To perform the Proof of Design test requirements laid out in American Water Works Association (AWWA) Standard C504-06, Rubber-Seated Butterfly Valves.

RECORD OF TEST:

Hydrostatic Shell Test: The test valve was mounted to the test heads with the valve in the closed position. A test pressure of 300 psi was applied to one side of the disc and 0 psi on the other for a duration of 3 minutes. There were no visible signs of leakage through the metal, end joints or shaft seal, and there were no signs of physical deformation. The test was then repeated from the other side of the disc. Same result.

Pressurized Seat Test: The test valve was mounted with the disc in the horizontal position, and fully closed. A test pressure of 175 psi was applied to the underside of the disc. Water was then applied to the top side of the disc, and checked for any signs of leakage. Upon successfully passing, the valve was then tested from the opposite direction. The valve was bubble tight in both directions.

Life Cycle Test: The test valve was equipped with an actuator. The valve was then cycled 5,000 times with 150 psi water applied from one direction. The running of the test occurred across 21 days. Upon completing the cycle test, the valve was then seat tested in both directions and found to still be bubble tight. The valve was then disassembled, and checked for any significant signs of wear, none were found.

CERTIFICATION:

Based on the above test record, we here by certify that the test valve has successfully met all of the proof of design requirements in AWWA C504 and API 609, and therefore qualifies similar valves in the Series C504 3 inch through 24 inch product line, with equal or lesser pressure classes to the same standards.

TESTED BY: Robert wang DATE: 08/28/2006
Robert Wang, Valve Solutions, Inc.

CERTIFIED BY: Michael. fan. DATE: 08/28/2006
Michael Fan, Tianjin Flow Security Valve CO., Ltd.