

API 607 Testing
Teadit 2000 IC Packing

Performed for

Teadit NA, Inc.

June 12, 2014

Performed by

United Valve

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API 607 Testing Summary

Customer: Teadit NA, Inc.

Customer PO: 7576

UV Work order: 89901

Date of Test: 06/11/2014

Date of Report: 06/12/2014

Packing Tested: Teadit 2000 IC Packing

Valve Tested: 4" Class 300 Velan Gate Valve

Scope: Fire testing valve to API 607 6th Edition, September 2010.

Summary: The test was completed within the guidelines set forth in API 607 6th Edition, September 2010. The test was performed with a Velan 4"300 class gate valve in the horizontal position as per the standard. The test was conducted as a modified procedure of API 607 in order to test the packing of the valve. During the burn, cool-down, and repressurization portions of the test, the valve was in the half open position. This was done in order to evaluate the test pressure on the packing throughout the duration of the test. The valve packing had leaked 5 mL/min after cool down during the operational test. This leakage did not exceed the maximum allowed leakage rates set forth in API 607 standard.

Testing Supervisor:



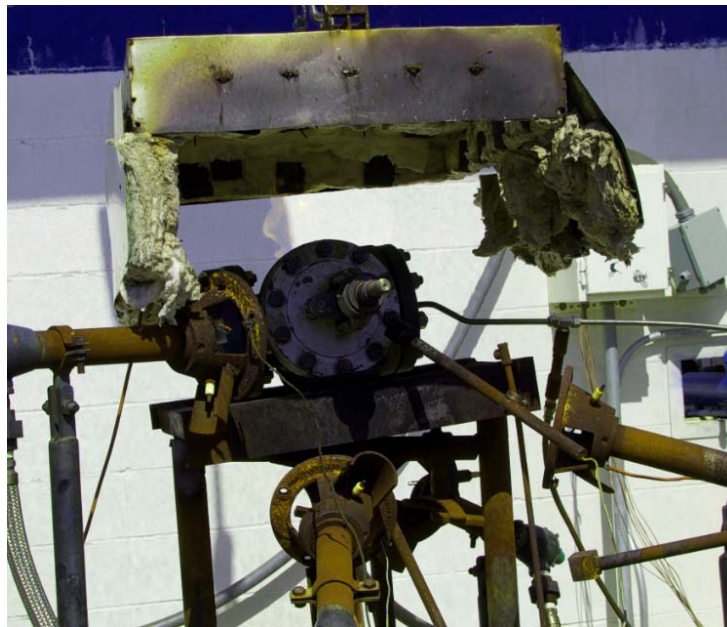
Jim Nelson

Engineer

United Valve, LP



Valve in test stand prior to burn



Valve in test stand during burn



Water Storage Tank

Leakage Collection During Test

Through Seat Leakage (555 PSI) During Burn - 30 Min.

Time	Start Tank Level	End Tank Level	Total Leakage	Allowable
0:00-30:00	23"	23"	N/A	N/A

Through Seat Leakage (555 PSI) During Cooldown - 10 Min.

Time	Start Tank Level	End Tank Level	Total Leakage	Allowable
30:00-40:00	23"	23"	N/A	N/A

External Leakage (555 PSI) During Burn - 30 Min.

Time	Start Tank Level	End Tank Level	Total Leakage	Allowable
0:00-30:00	23"	23"	0 ml/min	400 ml/min

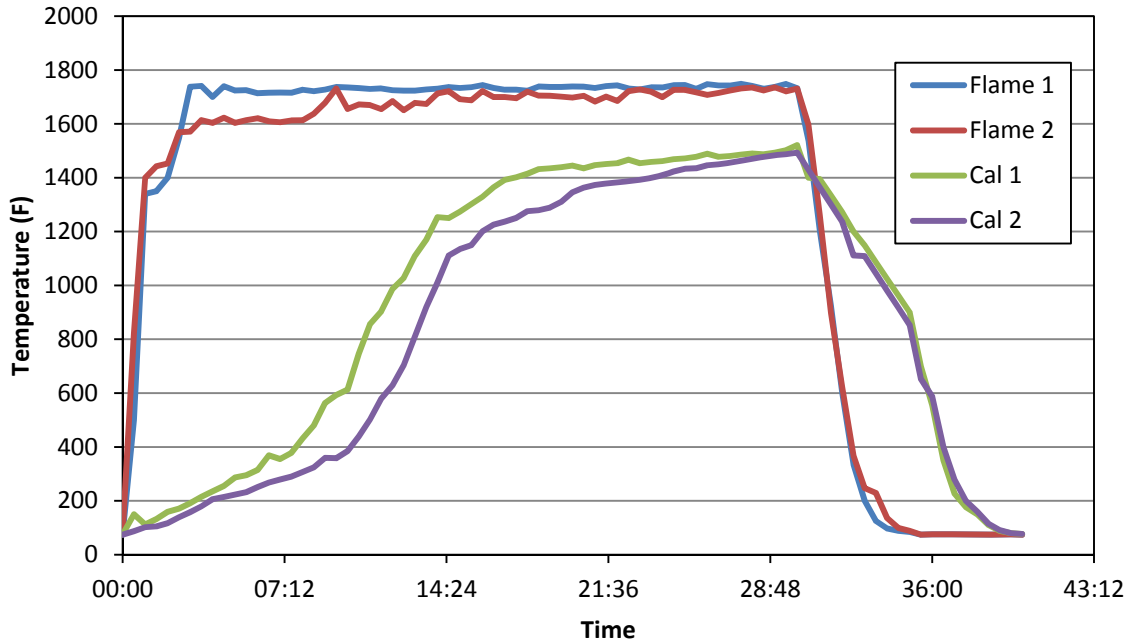
External Leakage (555 PSI) During Cooldown 10 Min.

Time	Start Tank Level	End Tank Level	Total Leakage	Allowable
30:00-40:00	23"	23"	0 ml/min	400 ml/min.

External Leakage (555 PSI) After Cooldown, Operational Test

Time	Start Tank Level	End Tank Level	Total Leakage	Allowable
40:00-45:00	23"	22 7/8"	5 ml/min	100 ml/min.

Temperature Vs. Time

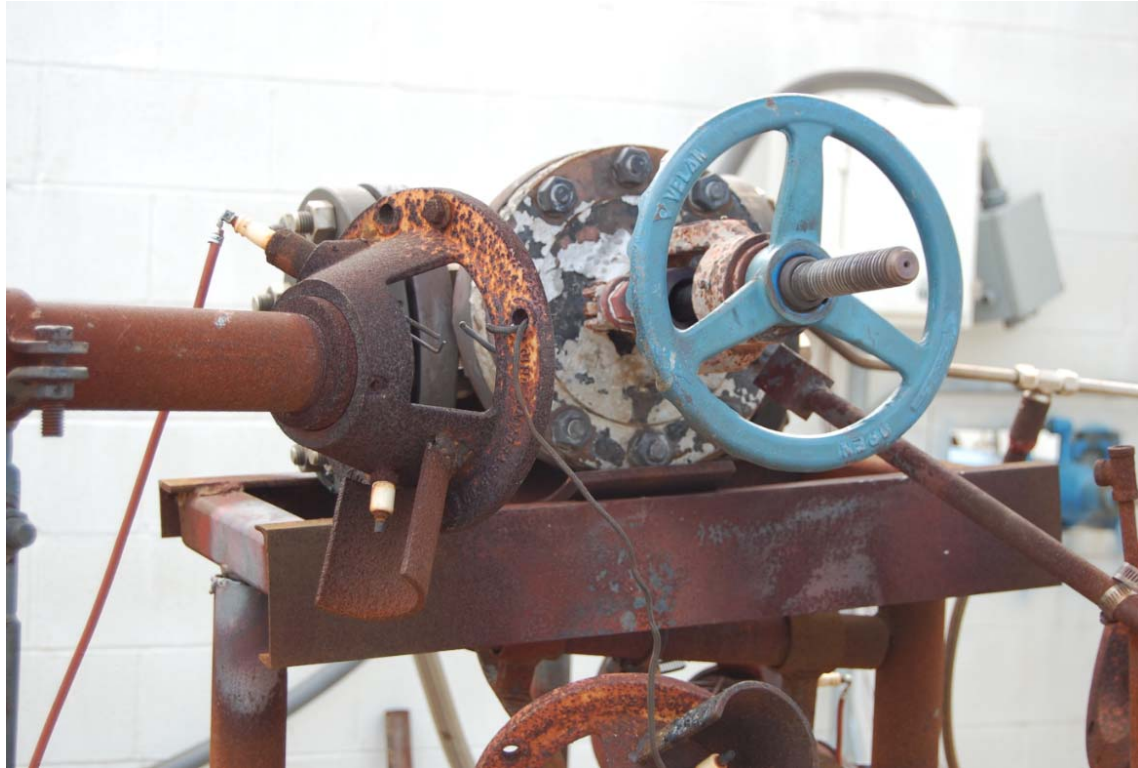


Burn Data

	Required Temperature	Actual Time (mins)	Max Allowable Time (mins)
Flames	1400 F	1:14	2:00
Cal Cubes	1200 F	12:57	15:00

Cool Data

	Required Temperature	Actual Time (mins)	Max Allowable Time (mins)
Flames	212 F	4:02	10:00
Cal Cubes	212 F	7:50	10:00



Valve After Test

Conclusion

The external leakage during the operational test after cool down was 5 ml/min which is lower than the allowable 100 ml/min. Actual leakage rates meet requirements of API 607 6th edition.