



February 15, 2017

To Whom It May Concern:

Smith Valves are designed according to API 602/ASME B16.34 and are tested according to the 2014 edition of API 624 – Type Testing of Rising Stem Valves Equipped with Graphite Packing for Fugitive Emissions which is certified in accordance with API 622 – Type Testing of Process Valve Packing for Fugitive Emissions. All tested and untested valves are designed to the same quality requirements. The characteristics of the valve that affect seal ring performance, (e.g., stem design, stem motion, tolerances, seating arrangement, and stem, packing, design, and construction) are the same or essentially equivalent as tested and untested valves. The temperature and pressure rating of the tested valves are at least as high as the untested valves of the same material.

Based on the enclosed certificates, Yarmouth Research and Technology is certifying the valves and packing did not emit greater than 100 ppm screening value and on average emitted less than 50 ppm screening value. Smith Valves guarantees that the valves listed in the table below will not exceed 100 ppm external leakage under normal operating conditions provided the body bolting and stem packing gland nut torques are properly maintained. This statement is based on the customer following suggested stem gland nut torques in Smith Valves IOM.

Valve Type	Class	Size
GATE (THD/SWE/RF)	150	1/4" - 2"
	300	
	600	
	800	
	1500	

Thank you,

Mani Prakash Pilla, P.E.
Engineering Manager

SMITH VALVES

13750 Hollister Road | Houston, TX 77086
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ETR-5021_Rev. 3

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Yarmouth Research and Technology, LLC

API 624 TEST CERTIFICATE

Certificate Number:	214128C
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Test Start Date:	4-Aug-14
Test End Date:	7-Aug-14

Customer Information

Customer: The Newdell Company
Web Address: www.smithvalves.com
Manufacturer Location: 13750 Hollister Rd Houston, TX 77086

Valve Information

Valve Description: 3/4", Class 800, THDxTHD, BB, A105, API Trim 8	
Product Code: 080000000075	Valve Size: 3/4"
Assembly Drawing No.: 08000000#	Valve Pressure Class: 800
Body Material: A105	Valve Type: Gate
Stem Material: 410 NACE	Stem Motion: Rising
API/ASME Design Standards: ASME B16.34, API 602	
Packing Description: Two end rings = Garlock 1303-FEP, Three center rings = GL 409	
Body/Bonnet Seal Description: Bolted	
Valve Selected by: Manufacturer	

Test Results

Test Specification: API 624 First Edition: 2014		
Max. Allowable Stem Seal Leakage:	100	PPMv Methane
Number of Mechanical Cycles:	310	
High Temperature:	500	deg. F
Test Pressure:	600	psig
Did valve pass test requirements?	YES	

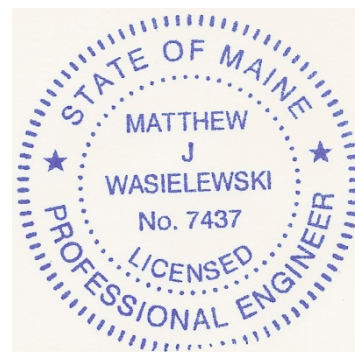
Qualifications of similar valves according to para. 10 of test standard

Size Range:	NPS 1 and smaller	Pressure Class Range:	up to and including Class 800
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Certified By



Matthew J. Wasielewski, PE
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API 624 TEST CERTIFICATE

Certificate Number:	214128E
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Test Start Date:	13-Nov-14
Test End Date:	18-Nov-14

Customer Information

Customer: The Newdell Company
Web Address: www.smithvalves.com
Manufacturer Location: 13750 Hollister Rd Houston, TX 77086

Valve Information

Valve Description: 1-1/2", Class 800, THDxTHD, BB, A105, API Trim 8	
Product Code: 080000000150	Valve Size: 1-1/2"
Assembly Drawing No.: 08000000#	Valve Pressure Class: 800
Body Material: A105	Valve Type: Gate
Stem Material: 410 NACE	Stem Motion: Rising
API/ASME Design Standards: ASME B16.34, API 602	
Packing Description: Two end rings = Garlock 1303-FEP, Three center rings = 409GL	
Body/Bonnet Seal Description: Bolted	
Valve Selected by: Manufacturer	

Test Results

Test Specification: API 624 First Edition: 2014		
Max. Allowable Stem Seal Leakage:	100	PPMv Methane
Number of Mechanical Cycles:	310	
High Temperature:	500	deg. F
Test Pressure:	600	psig
Did valve pass test requirements?	YES	

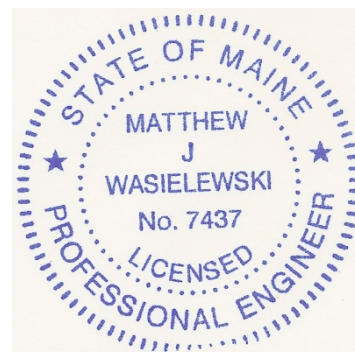
Qualifications of similar valves according to para. 10 of test standard

Size Range:	NPS 1 1/4 - 2 1/2	Pressure Class Range:	up to and including Class 800
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Certified By



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API 624 TEST CERTIFICATE

Certificate Number:	214128A
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Test Start Date:	22-May-14
Test End Date:	25-May-14

Customer Information

Customer: The Newdell Company
Web Address: www.smithvalves.com
Manufacturer Location: 13750 Hollister Rd Houston, TX 77086

Valve Information

Valve Description: 3/4 inch Class 1500 Gate Valve THDxTHD, BB, A105, API Trim 8	
Product Code: 150000000075	Valve Size: 3/4"
Assembly Drawing No.: 15000000#	Valve Pressure Class: 1500
Body Material: A105	Valve Type: Gate
Stem Material: 410 NACE	Stem Motion: Rising
API/ASME Design Standards: ASME B16.34, API 602	
Packing Description: Two end rings = Garlock 1303-FEP, Three center rings = GL 409	
Body/Bonnet Seal Description: Bolted	
Valve Selected by: Manufacturer	

Test Results

Test Specification: API 624 First Edition: 2014		
Max. Allowable Stem Seal Leakage:	100	PPMv Methane
Number of Mechanical Cycles:	310	
High Temperature:	500	deg. F
Test Pressure:	600	psig
Did valve pass test requirements?	YES	

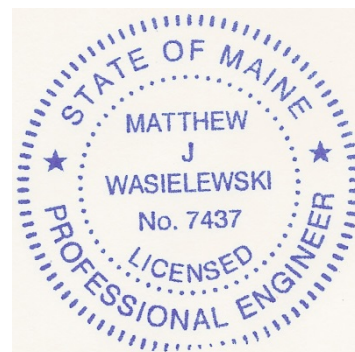
Qualifications of similar valves according to para. 10 of test standard

Size Range:	1 inch and smaller	Pressure Class Range:	1500
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API 624 TEST CERTIFICATE

Certificate Number:	214128B
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Test Start Date:	28-May-14
Test End Date:	2-Jun-14

Customer Information

Customer: The Newdell Company
Web Address: www.smithvalves.com
Manufacturer Location: 13750 Hollister Rd Houston, TX 77086

Valve Information

Valve Description: 1-1/2 inch Class 1500 Gate Valve THDxTHD, BB, A105, API Trim 8	
Product Code: 150000000150	Valve Size: 1-1/2"
Assembly Drawing No.: 15000000#	Valve Pressure Class: 1500
Body Material: A105	Valve Type: Gate
Stem Material: 410 NACE	Stem Motion: Rising
API/ASME Design Standards: ASME B16.34, API 602	
Packing Description: Two end rings = Garlock 1303-FEP, Three center rings = GL 409	
Body/Bonnet Seal Description: Bolted	
Valve Selected by: Manufacturer	

Test Results

Test Specification: API 624 First Edition: 2014		
Max. Allowable Stem Seal Leakage:	100	PPMv Methane
Number of Mechanical Cycles:	310	
High Temperature:	500	deg. F
Test Pressure:	600	psig
Did valve pass test requirements?	YES	

Qualifications of similar valves according to para. 10 of test standard

Size Range:	NPS 1-1/4 through NPS 2-1/2	Pressure Class Range:	1500
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Certified By



Matthew J. Wasielewski, PE
President and Manager
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APPENDIX B

Fugitive Emission Test Report

API 624 1st Edition Standard

Performed for

The Newdell Company

2016

Smith 3/4" Class 1500 RF Gate Valve
Made Per ASME B16.34/API 602
Met Qualifications Set Forth In API 624 1st Edition Using
Garlock EVSP 9000 Packing w/1303 FEP End Rings
Work Order: 96989-1
Start Date: April 27, 2016
End Date: April 29, 2016

Performed by

United Valve, LLC

9916 Gulf Freeway
Houston, TX 77034
Phone: 713-944-9852
Fax: 713-944-5964
www.unitedvalve.com

API 624 Testing Summary

Customer: The NEWDELL Company
 13750 Hollister Road
 Houston, TX 77086-1213

Test start date: 04-27-2016
Test finish date: 04-29-2016

Work order: 96989-01

Packing information

Packing description Garlock EVSP 9000 w/1303 FEP End Rings
Packing set Graphite, 6 split-ring set
Packing cross section 0.235 Inches
Test fixture United Valve Test Bench 5- #5
API 622 completion Yes, see Appendix B

Testing criteria

EPA maximum allowable leakage	100	PPM
Test pressure (Ambient)	600	PSIG
Test pressure (500°F)	600	PSIG
Test media	99% Methane	
Recommended nut torque	180	In-Lbs
Tested stem travel per stroke	0.78	Inches
Cycling speed	33	Seconds per stroke
Cycling rate	66	Seconds per cycle

Results

Number mechanical cycles required	310
Number mechanical cycles completed	310
Number thermal cycles required	3
Number thermal cycles completed	3

Stem seal leakage (PPMv)				Gland torque	
Static leakage		Dynamic leakage		In-Lbs	
Avg.	Max	Avg.	Max	Low	Max
2	6	2	4	146	180

Tested by: _____ SCHELL _____

Witnessed by: _____ N/A _____

Fugitive Emission Test Report

API 624 1st Edition Standard

Performed for

The Newdell Company

2016

Smith 1-1/2" Class 1500 RF Gate Valve
Made Per ASME B16.34/API 602
Met Qualifications Set Forth In API 624 1st Edition Using
Garlock EVSP 9000 Packing w/1303 FEP End Rings

Work Order: 97265-01

Start Date: May 17, 2016

End Date: May 20, 2016

Performed by

United Valve, LLC

9916 Gulf Freeway
Houston, TX 77034
Phone: 713-944-9852
Fax: 713-944-5964
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API 624 Testing Summary

Customer: The Newdell Company

Test start date: 05/17/2016

13750 Hollister Road

Test finish date: 05/20/2016

Houston, TX 77086-1213

Work order: 97265

Packing information

Packing description Garlock EVSP 9000 w/1303 FEP End Rings
Packing set Garlock 9000 EVSP w/1303 end rings
Packing cross section 3/8 Inches
Test fixture 1-1/2" 1500 Smith A105 Gate Valve RF
API 622 completion Yes, see appendix B

Testing criteria

EPA maximum allowable leakage	100	PPM
Test pressure (Ambient)	600	PSIG
Test pressure (500°F)	600	PSIG
Test media	99% Methane	
Recommended gland nut torque	540-560	In-Lbs
Tested stem travel per stroke	1.67	Inches
Cycling speed	71	Seconds per stroke
Cycling rate	142	Seconds per cycle

Results

Number mechanical cycles required	310
Number mechanical cycles completed	310
Number thermal cycles required	3
Number thermal cycles completed	3

Stem seal leakage (PPMv)				Gland torque	
Static leakage		Dynamic leakage		Choose One	
Avg.	Max	Avg.	Max	Low	Max
2	7	2	4	310	560

Tested by: Schell

Witnessed by: N/A