

NW NEWAY VALVE

COMPLETE SOLUTIONS FOR INDUSTRIAL VALVES



Low-E Valve Solutions for EPA Compliance



THINK GLOBAL, ACT LOCAL





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Foreword: Neway Low Emission Valves



As the oil & gas industry moves forward with low emission initiatives to meet current EPA standards, many owners and end users have requirements in place to source low-emission products from their suppliers. To enable our clients to meet their low emission needs, Neway Valve has proactively designed and certified multiple lines of our product to meet current industry standards.

Neway offers fully compliant API 600 valves (13th edition, 2015) with certified reports from United Valve demonstrating sub 10 ppm emission performance, tested to API 624 (1st edition, 2014). Certified witness testing has also been completed for the full recommended range of API 623 globe valves, API 603 gate valves, and API 602 forged gate and globe valves. Test summaries are published on pages 10 & 11 of this document, with full reports available upon request.

For valves outside the scope of API 624, Neway has the ability to provide various special stem sealing arrangements that have been tested to ISO15848-1, TA-LUFT, and other custom testing standards. For additional information, please contact Neway's Engineering Department.

To ensure compliance to current and future policy changes, Neway is providing our certified low emission valves with a five year limited guarantee on emission performance.

Sincerely,

Luke Chou
Technical Team Lead
Neway Valve International, Inc.

June 19, 2015

NWI-015 2015



Neway Low-Emission Valve Guarantee

Neway guarantees that “Neway Low Emission Certified Valves” installed and maintained in accordance to the “Conditions of Guarantee” will not have fugitive emission leakage greater than 100ppm, as detected pursuant to EPA Method 21, for a period of five (5) years from the date of installation.

Neway Low Emission Certified Valves

Low Emission Certified Valves are valves designed and manufactured by Neway, installed with Certified Low-Leaking Valve Packing, that have been qualified through industry standardized valve emission testing standards such as API 624 or ISO 15848-1. Valves qualified through API 624, will have API 624 tagged clearly on the valve.

Conditions of Guarantee:

1. Valve shall only be used in static application (e.g. on-off application, blocking application).
2. Valve shall be installed with stuffing box oriented at least 45 degrees above horizontal.
3. Valve stem, stuffing box, gland, packing, gland follower, eyebolt, and/or eyebolt nut shall not be damaged (e.g. bent stem, galling, bent gland follower).
4. If a bent stem is suspected, stem run out must be evaluated and not exceed ± 0.010 TIR/ft.
5. Guarantee only applies if leakage is detected greater than 100ppm above background and after the first attempt of repair has been done in accordance with TB-140529. Necessary adjustments up to an increase of 20% in torque values, in 5% increments, is allowed to bring leakage below 100ppm.
6. Packing shall be installed by Neway or a Neway authorized installer in accordance to both Neway and the packing manufacture’s published installation instructions.
7. Low leaking guarantee will not be upheld if service conditions exceed 1500 psig, and/or 750°F(400°C), and/or -50°F (-45°C), unless prior written approval was given by Neway Engineering.
8. Valve must be installed, maintained, stored, and transported in accordance to applicable Neway installation, operation, and maintenance manual.
9. Neway must be given a reasonable opportunity to inspect the valve and packing material prior to repair or replacement.
10. Neway shall be granted permission to conduct a site visit for inspection of our product and to verify correct maintenance and storage procedures are being followed. 2 weeks advanced notice will be given before Neway conducts a site visit. Denial of inspection may be grounds for voiding of this guarantee.

Neway Low-Emission Valve Guarantee



NOTE: For valves subjected to temperature variations greater than 150°, it is critical to verify and tighten gland bolting after the first temperature cycle.

Additional Conditions for Modified Valves:

1. Valve modification by an unauthorized modification shop or actuation house are grounds for voiding this guarantee unless prior approval is given by Neway Engineering.
2. Unauthorized modification, disassembly or replacement of any parts such as stem bushing, stem, eyebolt, or packing, are grounds for voiding this guarantee.
3. If the stem is replaced, finish should be 16 to 32 RMS (0.4 to 0.8 Ra).
4. Only authorized packing shall be used for packing replacement.
5. API RP621 latest edition should be followed for repair and reconditioning of valves.

LIMITATIONS OF LIABILITY

Neway's obligation under this guarantee is expressly limited to replacing of defective material. In no event will Neway be liable for damage, loss to persons or property, cost of repair operation, imposed fines, or consequential damages and downtime which follows a failure. Each valve that is covered can only receive one replacement under this guarantee, with no additional guarantee given to the replacement valve. Guarantee is limited to normal use and service and does not cover fugitive emission leakage due to improper valve application, usage, installation, modification, or alteration.

NEWAY VALVE(SUZHOU) CO., LTD.

Technical Center

March 14th, 2016



Neway API 624 Packing Selection

API 600 & API 623 Valves

Chesterton 1622 OEMDF

- Die-formed braided graphitic rings
- Packing max temp (low emission): 750°F
- Packing max temp (steam service/non oxidizing): 1,200°F
- Packing min Temp: -400°F

API 602 & API 603 Valves

Pillar EDP17 Stack (#6710 Wiper + #6617 Mid)

- Die-formed flexible graphite with braided graphitic end ring
- Packing max temp (low emission): 850°F
- Packing max temp (steam service/non oxidizing): 1,100°F
- Packing min Temp: -400°F

Chesterton 1622

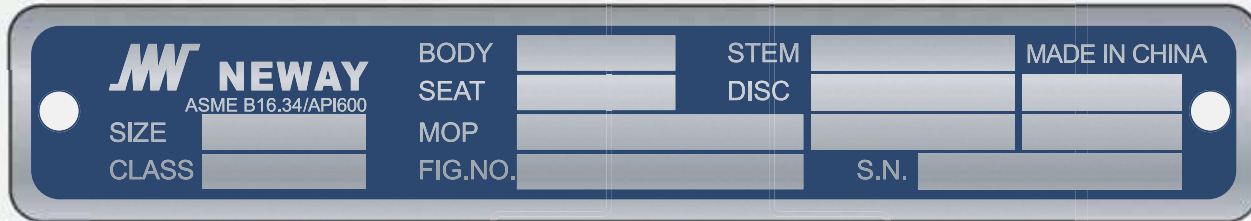
Pillar EDP17



Neway API 624 Nameplates & Tags



Nameplates

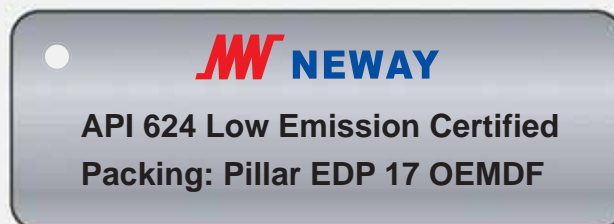
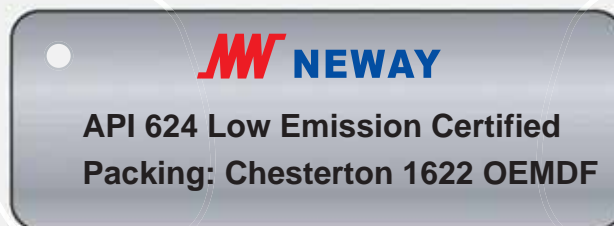


In addition to the standard nameplate above, an API 624 nameplate will be affixed to the valve.



Packing Information Tags

The tags below will be wired to the packing gland bolts.





Neway API 600 Gate Valve Testing Certificates

4" Class 150



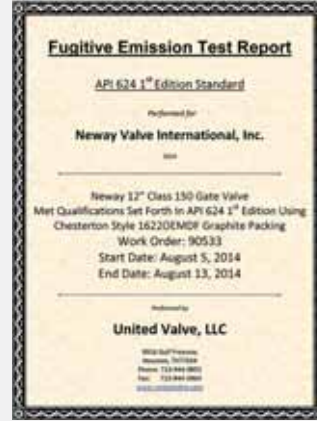
4" Class 600



4" Class 1500



12" Class 150



12" Class 600



12" Class 1500



20" Class 150



20" Class 600





Customer: Neway

Date: 1/21/2015

United Valve Work Order: 90533

United Valve confirms that all Neway API 600/ASME B16.34 gate valves in Table 1 successfully completed testing according API 624, 1st Edition using Chesterton 1622OEMDF Graphite Packing.

With the stem in a vertical orientation, In accordance with API 624, all valves were pressurized with 99% pure methane and completed 310 mechanical cycles and 3 thermal cycles at 500°F ± 5%.

Table 1

NPS	Class (Test Pressure (psig))	Material	Serial Number	Fig. Number	Recommended Packing Torque Value (ft.-lbs.)	Maximum Leakage (ppmv)	
						Static	Dynamic
4 in.	150 (170)	WCB	30000977-010-2	4G1RA8-ULE1	35	7	6
4 in.	600 (600)	WCB	30000977-020-9	4G6RA8-ULE1	67	10	3
4 in.	1500 (600)	WCB	53993-060-2	4G15RA8-ULE1	71	0	1
12 in.	150 (170)	WCB	30000977-040-1	12G1RA8-ULE1	132	4	4
12 in.	600 (600)	WCB	53993-030-4	12G6RA8-ULE1-G	170	3	3
12 in.	1500 (600)	WCB	30000977-060-5	12G15RA8-ULE1-G	347	2	1
20 in.	150 (170)	WCB	53993-070-1	20G1RA8-ULE1-G	174	2	1
20 in.	600 (600)	WCB	53993-090-3	20G6RA8-ULE1-G	347	1	1

Drury Davis, Staff Engineer



Neway API 624 Testing Summary

Valve Information

Design	Type	Size	Class	Stem Movement	Packing
API 600	Gate	4	150	Rising Non-Rotating	Chesterton 1622 OEMDF
API 600	Gate	4	600	Rising Non-Rotating	Chesterton 1622 OEMDF
API 600	Gate	4	1500	Rising Non-Rotating	Chesterton 1622 OEMDF
API 600	Gate	12	150	Rising Non-Rotating	Chesterton 1622 OEMDF
API 600	Gate	12	600	Rising Non-Rotating	Chesterton 1622 OEMDF
API 600	Gate	12	1500	Rising Non-Rotating	Chesterton 1622 OEMDF
API 600	Gate	20	150	Rising Non-Rotating	Chesterton 1622 OEMDF
API 600	Gate	20	600	Rising Non-Rotating	Chesterton 1622 OEMDF
API 602	Gate	¾	800	Rising Non-Rotating	Pillar EDP17
API 602	Gate	1 ½	800	Rising Non-Rotating	Pillar EDP17
API 602	Gate	¾	1500	Rising Non-Rotating	Pillar EDP17
API 602	Gate	1 ½	1500	Rising Non-Rotating	Pillar EDP17
API 602	Globe	¾	800	Rising Rotating	Pillar EDP17
API 602	Globe	1 ½	800	Rising Rotating	Pillar EDP17
API 602	Globe	¾	1500	Rising Rotating	Pillar EDP17
API 602	Globe	1 ½	1500	Rising Rotating	Pillar EDP17
API 603	Gate	4	300	Rising Non-Rotating	Pillar EDP17
API 603	Gate	12	300	Rising Non-Rotating	Pillar EDP17
API 603	Gate	20	300	Rising Non-Rotating	Pillar EDP17
API 623	Globe	4	150	Rising Non-Rotating	Chesterton 1622 OEMDF
API 623	Globe	4	150	Rising Rotating	Chesterton 1622 OEMDF
API 623	Globe	4	600	Rising Non-Rotating	Chesterton 1622 OEMDF
API 623	Globe	4	600	Rising Rotating	Chesterton 1622 OEMDF
API 623	Globe	4	1500	Rising Non-Rotating	Chesterton 1622 OEMDF
API 623	Globe	12	150	Rising Non-Rotating	Chesterton 1622 OEMDF
API 623	Globe	12	600	Rising Non-Rotating	Chesterton 1622 OEMDF
API 623	Globe	12	1500	Rising Non-Rotating	Chesterton 1622 OEMDF

Neway API 624 Testing Summary



Test Results (ppmv)

Avg. Static	Max Static	Avg. Dynamic	Max Dynamic
1	7	2	6
1	10	1	3
0	0	0	1
1	4	1	4
1	3	1	3
0	2	0	1
0	2	0	1
0	1	0	1
6	16	10	40
12	39	13	32
6	22	7	17
4	13	4	15
6	19	8	22
8	19	10	21
7	24	9	26
11	43	14	47
6	17	6	19
4	11	5	11
11	21	24	44
7	31	6	27
2	5	3	6
7	15	9	17
4	14	6	19
3	7	4	9
5	10	6	16
9	31	11	39
5	21	5	21

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