



# THE NATIONAL BOARD

OF BOILER AND PRESSURE VESSEL INSPECTORS

---

May 24, 2018

Louie Luna  
F. C. Kingston Company  
23201 Normandie Avenue  
Torrance, CA 90501

**Subject: Capacity Certification, Valve Type: KSV10-1 & KSV10-2  
NB Cap Cert. No.: KNG-M35132**

Dear Mr. Luna:

We have reviewed the enclosed test results, referenced below, which were performed at the **National Board Testing Laboratory** on May 22, 2018 for the purpose of testing for capacity certification of the subject valve type as required by paragraph UG-136(c)(3) of Section VIII of the ASME Code.

**F. C. Kingston Company** is hereby granted capacity certification and authorization to apply the “NB” mark and ASME Certification mark with “UV” designator to the valve type listed in the scope of certification. This authorization is valid only for the above location and only while the organization is fully implementing its quality control system as accepted by the National Board.

## **SCOPE OF CERTIFICATION**

**Valve Type: KSV10-1 & KSV10-2**

**Organization Type: Manufacturer**

**Certified Rating Value/Sizes/Pressure Ranges: As listed in the NB-18**

**Certification Expiration Date: May 22, 2024**

Sincerely,

Thomas P. Beirne, P.E.  
Technical Manager, Pressure Relief Dept.

REFERENCING TEST NUMBERS: 47413A, 47412A

File:GF: 180524 KNG-M35132 Pass

# National Board Testing Laboratory

## Nitrogen Test - Sonic Flow Method

Valve ID Data		Revision 3.8	V:\apps\Labview Programs\DATA\Air Tests\47412A.xls
1	Test Number	47412A	
2	Test Sponsor	F. C. Kingston Company	
3	Company Type	Manufacturer	Torrance, CA
4	Test Date	5/22/2018	KNG
5	Valve Type	KSV10-1-125	
6	Manufacturer	F. C. Kingston Company	
7	Cap. Cert. ID No.	35132	
8	Set Pressure	125 psig	
9	Inlet Size	1/8 M	
10	Outlet Size	Side	
11	Stamped Capacity	40. SCFM	
12	Code Section	VIII	
13	Serial Number		
14	Date Code	0418	
Operational Data and Measured Dimensions			
15	Warn Pressure		psig
16	Set Pressure	124.4	psig
17	Reset Set Pressure		psig
18	Blowdown	83.3	psi
19	Reset Blowdown		psi
20	Bore Diameter	0.154	inch
21	Lift		inch
Measured Data			
22	Flow Area	0.01863	in <sup>2</sup>
23	Vessel Pressure	136.8	psig
24	P <sub>b</sub>	14.29	psia
25	Vessel Temp.	74.4	°F
26	Nozzle Pressure	553.4	psig
27	Nozzle Temp.	69.3	°F
28	Nozzle Area	0.00456	in <sup>2</sup>
Calculated Data			
29	Vessel Pressure	151.1	psia
30	Nozzle Total Press.	567.7	psia
31	Nozzle Total Temp.	529.3	°R
32	Critical Flow Function	0.6949	C
34	Meas. Cap.	0.05907	lbm/sec N2
35	Vessel Total Temp.	534.4	°R
36	Reference Temp.	520.0	°R
37	Nitrogen Density	0.073835	lbm/ft <sup>3</sup>
38	Vessel Temp. Correction	1.013752	
39	<b>Measured Capacity</b>	<b>47.9</b>	scfm AIR
40	Slope	.3167	scfm/psia
41	Coefficient	0.9271	
42	Rated Capacity For Measured Set	42.8	scfm
43	Rated Slope	.283	
44			

# National Board Testing Laboratory

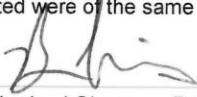
## Air Test - Sonic Flow Method: Test Summary

Test Summary for test 47412A:

V:\apps\Labview Programs\DATA\Air Tests\47412A.xls

1. Valve tested for 6 Year Capacity Recertification as a Manufacturer.
2. Nameplate capacity should be stamped ~ 43 SCFM

I certify that the data on the attached test data sheets was obtained under my supervision in accordance with the provisions of ASME PTC 25, the applicable sections of the ASME Boiler and Pressure Vessel Code, and the National Board Testing Laboratory Quality Control Manual. To the best of my knowledge and belief the objects tested were of the same type and design as indicated.



Authorized Observer: Robert Viers

5-22-18

Date

Test Personnel

Company Representatives

Robert Viers  
Zachary Burwell

# National Board Testing Laboratory

## Nitrogen Test - Sonic Flow Method

Valve ID Data		Revision 3.8	V:\apps\Labview Programs\DATA\Air Tests\47413A.xls
1	Test Number	47413A	
2	Test Sponsor	F. C. Kingston Company	
3	Company Type	Manufacturer	Torrance, CA
4	Test Date	5/22/2018	KNG
5	Valve Type	KSV10-2-250	
6	Manufacturer	F. C. Kingston Company	
7	Cap. Cert. ID No.	35132	
8	Set Pressure	250 psig	
9	Inlet Size	1/4 M	
10	Outlet Size	Side	
11	Stamped Capacity	75. SCFM	
12	Code Section	VIII	
13	Serial Number		
14	Date Code	0418	
Operational Data and Measured Dimensions			
15	Warn Pressure		psig
16	Set Pressure	252.3	psig
17	Reset Set Pressure		psig
18	Blowdown	146.6	psi
19	Reset Blowdown		psi
20	Bore Diameter	0.155	inch
21	Lift		inch
Measured Data			
22	Flow Area	0.01887	in <sup>2</sup>
23	Vessel Pressure	272.7	psig
24	P <sub>b</sub>	14.29	psia
25	Vessel Temp.	71.7	°F
26	Nozzle Pressure	1,088.2	psig
27	Nozzle Temp.	64.0	°F
28	Nozzle Area	0.00456	in <sup>2</sup>
Calculated Data			
29	Vessel Pressure	287.0	psia
30	Nozzle Total Press.	1,102.5	psia
31	Nozzle Total Temp.	524.0	°R
32	Critical Flow Function	0.7049	C
34	Meas. Cap.	0.11696	lbm/sec N2
35	Vessel Total Temp.	531.7	°R
36	Reference Temp.	520.0	°R
37	Nitrogen Density	0.073835	lbm/ft <sup>3</sup>
38	Vessel Temp. Correction	1.011187	
39	<b>Measured Capacity</b>	<b>94.5</b>	scfm AIR
40	Slope	.3293	scfm/psia
41	Coefficient	0.9515	
42	Rated Capacity For Measured Set	81.2	scfm
43	Rated Slope	.283	
44			

# National Board Testing Laboratory

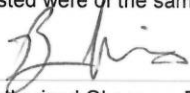
## Air Test - Sonic Flow Method: Test Summary

Test Summary for test 47413A:

V:\apps\Labview Programs\DATA\Air Tests\47413A.xls

1. Valve tested for 6 Year Capacity Recertification as a Manufacturer.
2. Nameplate capacity should be stamped ~ 82 SCFM

I certify that the data on the attached test data sheets was obtained under my supervision in accordance with the provisions of ASME PTC 25, the applicable sections of the ASME Boiler and Pressure Vessel Code, and the National Board Testing Laboratory Quality Control Manual. To the best of my knowledge and belief the objects tested were of the same type and design as indicated.



Authorized Observer: Robert Viers



Date

Test Personnel

Company Representatives

Robert Viers  
Zachary Burwell