

REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Order No. 103794706

Date: February 22, 2019

REPORT NO. 103794706CRT-001a

**AIR LEAKAGE TESTING OF A
TRIA TEK VENTURI VALVE
MODEL/SIZE VV08ANFAFSNHM**

RENDERED TO

**AIR DISTRIBUTION TECHNOLOGIES, INC.
4366 SHACKLEFORD RD., SUITE B
NORCROSS, GA 30093**

INTRODUCTION

This report gives the results of air leakage on a venturi valve. The sample was selected and supplied by the client and received at the laboratories on January 7, 2019. The sample appeared to be in new, unused condition upon arrival.

AUTHORIZATION - Signed Intertek Quotation No. Qu-00916164

TEST METHOD

The laboratory method used in conducting this series of tests was in accordance with ASHRAE 130-2016, "Laboratory Methods of Testing Air Terminal Units".

TEST EQUIPMENT

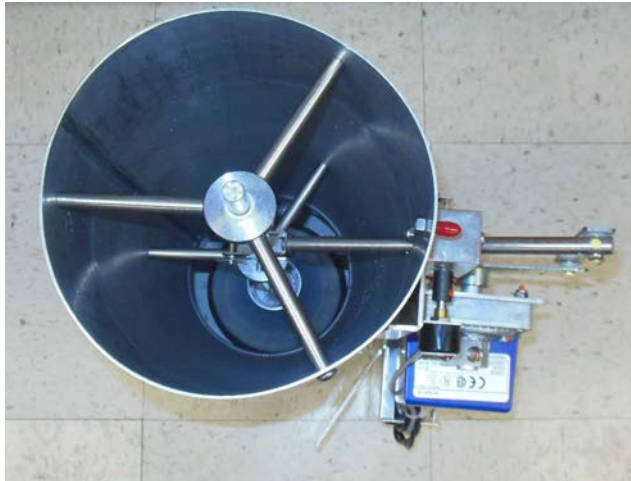
Equipment	Calibration Date	Due Date	S/N	Model	Brand	Asset
Manometer	01/02/2019	01/02/2020	E51Y	DM-1108	Dwyer	M259
Manometer	01/02/2019	01/02/2020	E15Z	DM-1110	Dwyer	M259
Oriflow Station	4/29/2014	4/29/2024	Various	Rhino	Oriflow	--

DESCRIPTION OF TEST SPECIMEN

MODEL/SIZE VV08ANFAFSNHM VENTURI VALVE

The sample consisted of an 8 inch diameter venturi valve. The inlet and outlet measured 7 ¾ inches in diameter. The sample measured 23 inches long. During leakage testing the sample was tested with the valve locked in the full closed position. During casing leakage the valve was in the full open position and the end of the sample was blocked off.

PHOTOGRAPHS



LEAKAGE TEST RESULTS

TRIA TEK VENTURI VALVE MODEL/SIZE VV08ANFAFSNHM

CASING LEAKAGE

<u>Test Number</u>	<u>Static Pressure (Inches of Water)</u>	<u>SCFM Leakage</u>	<u>Error (+/- SCFM)</u>
1	-1.0	0.09	0.14
2	-2.0	0.05	0.14
3	-3.0	0.10	0.14
4	-4.0	0.16	0.14
5	-5.0	0.34	0.14
6	-6.0	0.48	0.14
7	-8.0	0.50	0.56
8	-10.0	0.60	0.56
9	-12.0	0.62	2.24
10	-12.5	0.94	2.24

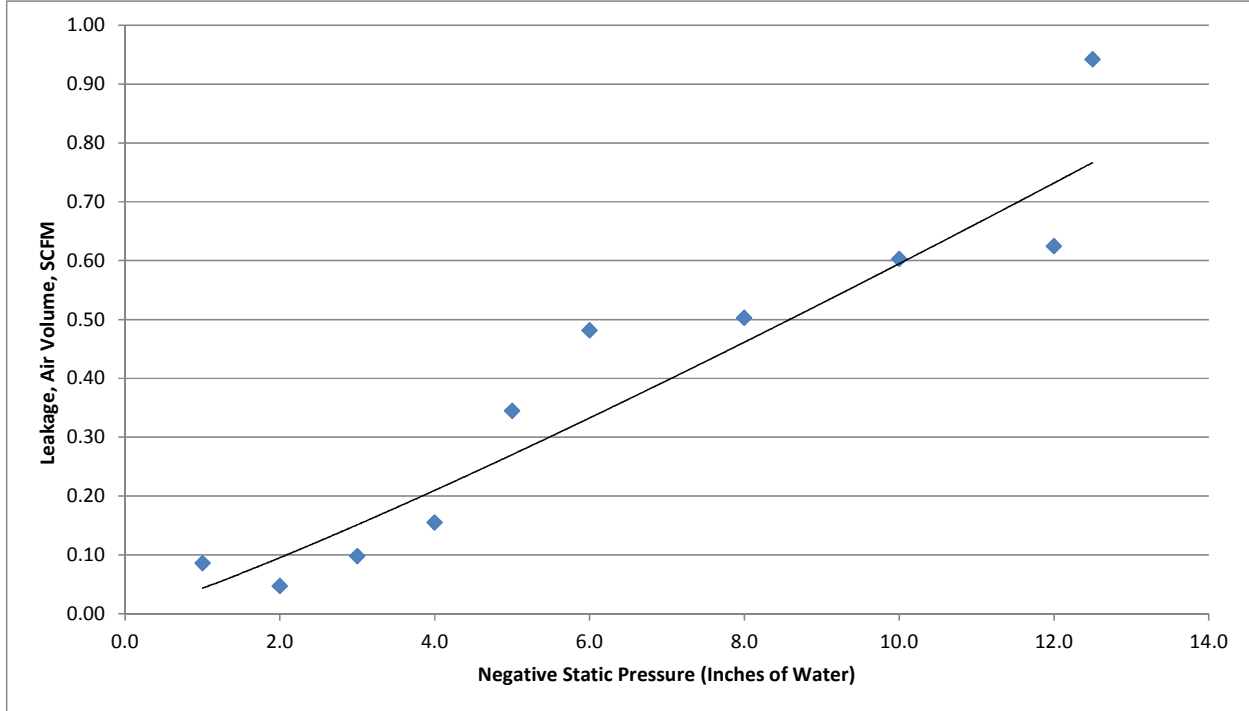
DAMPER LEAKAGE

<u>Test Number</u>	<u>Static Pressure (Inches of Water)</u>	<u>SCFM Leakage</u>	<u>Error (+/- SCFM)</u>
11	-1.0	0.02	0.14
12	-2.0	0.01	0.14
13	-3.0	0.00	0.14
14	-4.0	0.03	0.14
15	-5.0	0.00	0.14
16	-6.0	0.03	0.14
17	-8.0	0.04	0.56
18	-10.0	0.00	0.56
19	-12.0	0.08	2.24
20	-12.5	0.08	2.24

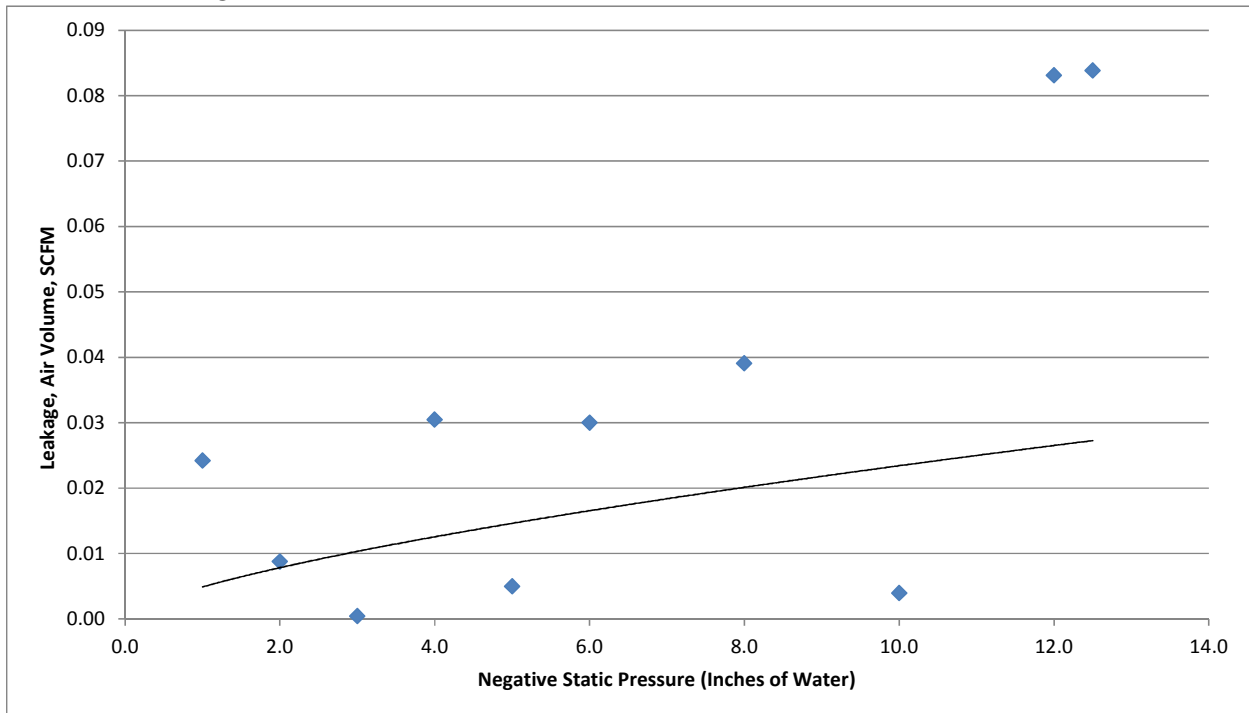
LEAKAGE GRAPHS

TRIA TEK VENTURI VALVE MODEL/SIZE VV08ANFAFSNHM

CASING LEAKAGE



DAMPER LEAKAGE



REMARKS

Ambient Temperature: 66 - 68° F
Relative Humidity: 19 - 25%
Barometric Pressure: 28.62 – 28.84 in. Hg

CONCLUSION

The test method employed for this test has no pass-fail criteria; therefore, the evaluation of the test results is left to the discretion of the client.

Dates of Tests: January 7 through January 8, 2019

Report Approved by:



Brian Cyr
Engineer
Acoustical Testing

Report Reviewed By:



James R. Kline
Engineer/Quality Supervisor
Acoustical Testing

Attachments: None

REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Order No. 103794706

Date: February 22, 2019

REPORT NO. 103794706CRT-001b

**AIR LEAKAGE TESTING OF A
TRIA TEK VENTURI VALVE
MODEL/SIZE VV010ANFAFSNHM**

RENDERED TO

**AIR DISTRIBUTION TECHNOLOGIES, INC.
4366 SHACKLEFORD RD., SUITE B
NORCROSS, GA 30093**

INTRODUCTION

This report gives the results of air leakage on a venturi valve. The sample was selected and supplied by the client and received at the laboratories on January 7, 2019. The sample appeared to be in new, unused condition upon arrival.

AUTHORIZATION - Signed Intertek Quotation No. Qu-00916164

TEST METHOD

The laboratory method used in conducting this series of tests was in accordance with ASHRAE 130-2016, "Laboratory Methods of Testing Air Terminal Units".

TEST EQUIPMENT

Equipment	Calibration Date	Due Date	S/N	Model	Brand	Asset
Manometer	01/02/2019	01/02/2020	E51Y	DM-1108	Dwyer	M259
Manometer	01/02/2019	01/02/2020	E15Z	DM-1110	Dwyer	M259
Oriflow Station	4/29/2014	4/29/2024	Various	Rhino	Oriflow	--

All static pressures in this report have been corrected to standard conditions.

DESCRIPTION OF TEST SPECIMEN

MODEL/SIZE VV010ANFAFSNHM VENTURI VALVE

The sample consisted of a 10 inch diameter venturi valve. The inlet and outlet measured 9 ¾ inches in diameter. The sample measured 23 inches long. During leakage testing the sample was tested with the valve locked in the full closed position. During casing leakage the valve was in the full open position and the end of the sample was blocked off.

PHOTOGRAPHS



LEAKAGE TEST RESULTS

TRIA TEK VENTURI VALVE MODEL/SIZE VV010ANFAFSNHM

CASING LEAKAGE

<u>Test Number</u>	<u>Static Pressure (Inches of Water)</u>	<u>SCFM Leakage</u>	<u>Error (+/- SCFM)</u>
1	-1.0	0.35	0.14
2	-2.0	0.54	0.14
3	-3.0	0.58	0.14
4	-4.0	0.70	0.14
5	-5.0	0.85	0.14
6	-6.0	1.06	0.14
7	-8.0	1.50	0.56
8	-10.0	2.10	0.56
9	-12.0	2.14	2.24
10	-12.5	2.12	2.24

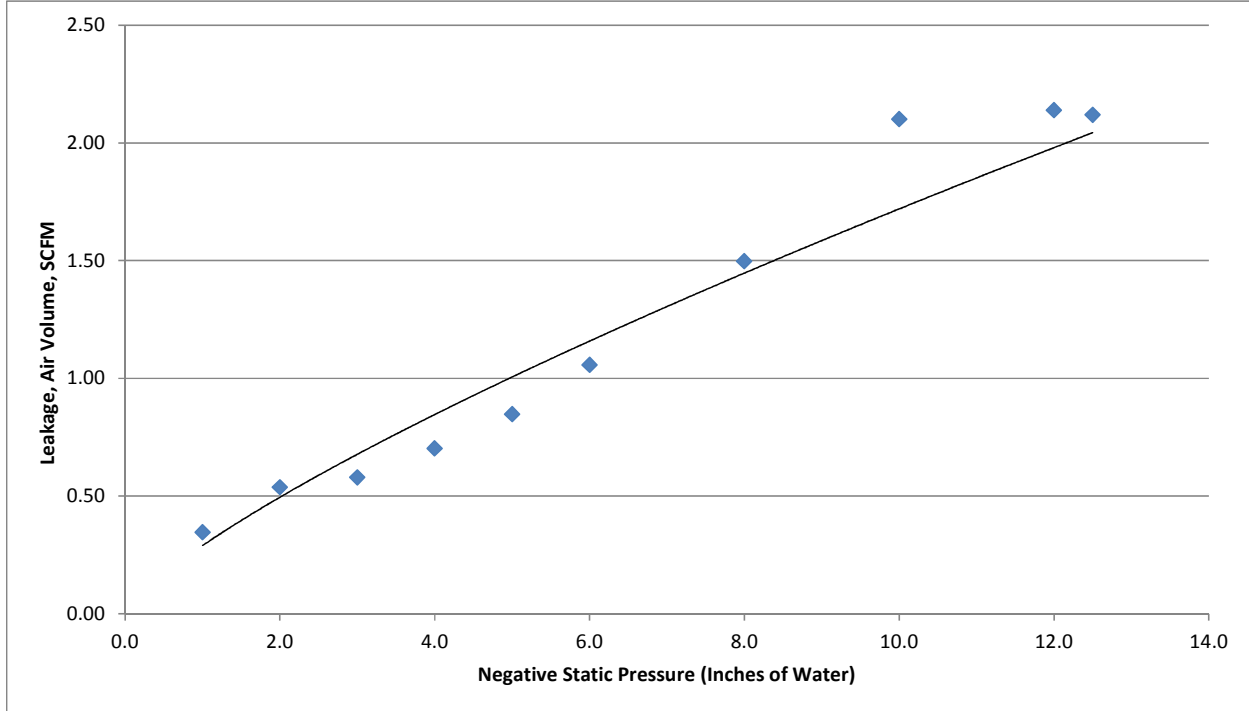
DAMPER LEAKAGE

<u>Test Number</u>	<u>Static Pressure (Inches of Water)</u>	<u>SCFM Leakage</u>	<u>Error (+/- SCFM)</u>
11	-1.0	0.27	0.14
12	-2.0	0.41	0.14
13	-3.0	0.45	0.14
14	-4.0	0.52	0.14
15	-5.0	0.69	0.14
16	-6.0	0.79	0.14
17	-8.0	0.76	0.56
18	-10.0	0.59	0.56
19	-12.0	0.45	2.24
20	-12.5	0.77	2.24

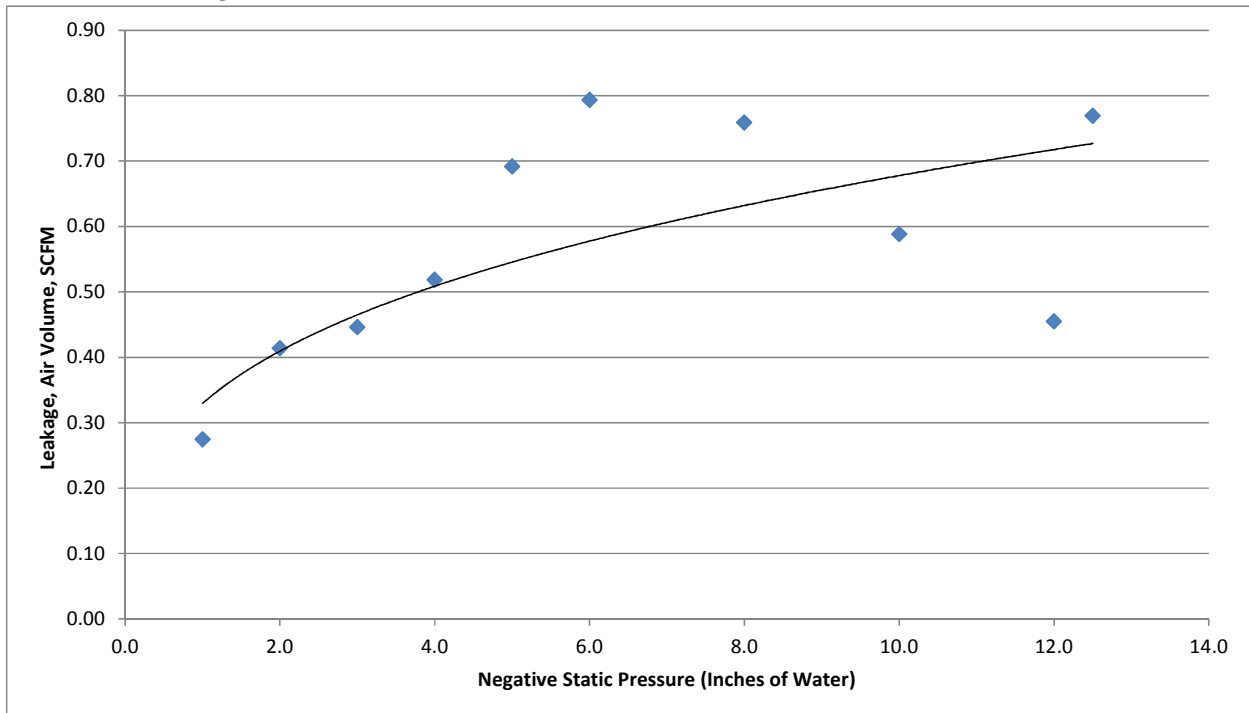
LEAKAGE GRAPHS

TRIA TEK VENTURI VALVE MODEL/SIZE VV010ANFAFSNHM

CASING LEAKAGE



DAMPER LEAKAGE



REMARKS

Ambient Temperature: 66 - 68° F
Relative Humidity: 19 - 25%
Barometric Pressure: 28.62 – 28.84 in. Hg

CONCLUSION

The test method employed for this test has no pass-fail criteria; therefore, the evaluation of the test results is left to the discretion of the client.

Dates of Tests: January 7 through January 8, 2019

Report Approved by:



Brian Cyr
Engineer
Acoustical Testing

Report Reviewed By:



James R. Kline
Engineer/Quality Supervisor
Acoustical Testing

Attachments: None

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Order No. 103794706

Date: February 22, 2019

REPORT NO. 103794706CRT-001c

**AIR LEAKAGE TESTING OF A
TRIA TEK VENTURI VALVE
MODEL/SIZE VV012ANFAFSNHM**

RENDERED TO

**AIR DISTRIBUTION TECHNOLOGIES, INC.
4366 SHACKLEFORD RD., SUITE B
NORCROSS, GA 30093**

INTRODUCTION

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Manometer	01/02/2019	01/02/2020	E15Z	DM-1110	Dwyer	M259
Oriflow Station	4/29/2014	4/29/2024	Various	Rhino	Oriflow	--

All static pressures in this report have been corrected to standard conditions.

DESCRIPTION OF TEST SPECIMEN

MODEL/SIZE VV012ANFAFSNHM VENTURI VALVE

The sample consisted of an 8 inch diameter venturi valve. The inlet and outlet measured 7 ¾ inches in diameter. The sample measured 23 inches long. During leakage testing the sample was tested with the valve locked in the full closed position. During casing leakage the valve was in the full open position and the end of the sample was blocked off.

PHOTOGRAPHS



LEAKAGE TEST RESULTS

TRIA TEK VENTURI VALVE MODEL/SIZE VV012ANFAFSNHM

CASING LEAKAGE

<u>Test Number</u>	<u>Static Pressure (Inches of Water)</u>	<u>SCFM Leakage</u>	<u>Error (+/- SCFM)</u>
1	-1.0	0.01	0.14
2	-2.0	0.05	0.14
3	-3.0	0.03	0.14
4	-4.0	0.03	0.14
5	-5.0	0.20	0.14
6	-6.0	0.32	0.14
7	-8.0	0.96	0.56
8	-10.0	1.09	0.56
9	-12.0	1.27	2.24
10	-12.5	1.58	2.24

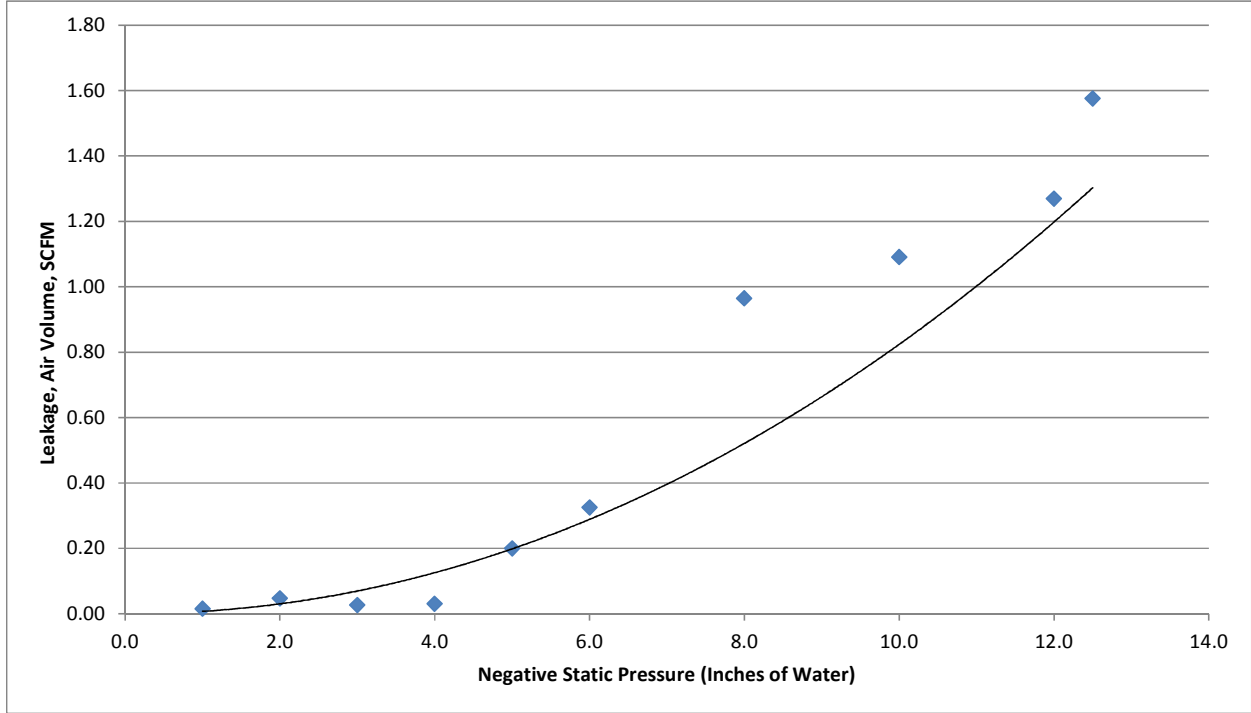
DAMPER LEAKAGE

<u>Test Number</u>	<u>Static Pressure (Inches of Water)</u>	<u>SCFM Leakage</u>	<u>Error (+/- SCFM)</u>
11	-1.0	0.02	0.14
12	-2.0	0.01	0.14
13	-3.0	0.02	0.14
14	-4.0	0.01	0.14
15	-5.0	0.09	0.14
16	-6.0	0.24	0.14
17	-8.0	0.69	0.56
18	-10.0	0.79	0.56
19	-12.0	0.48	2.24
20	-12.5	0.79	2.24

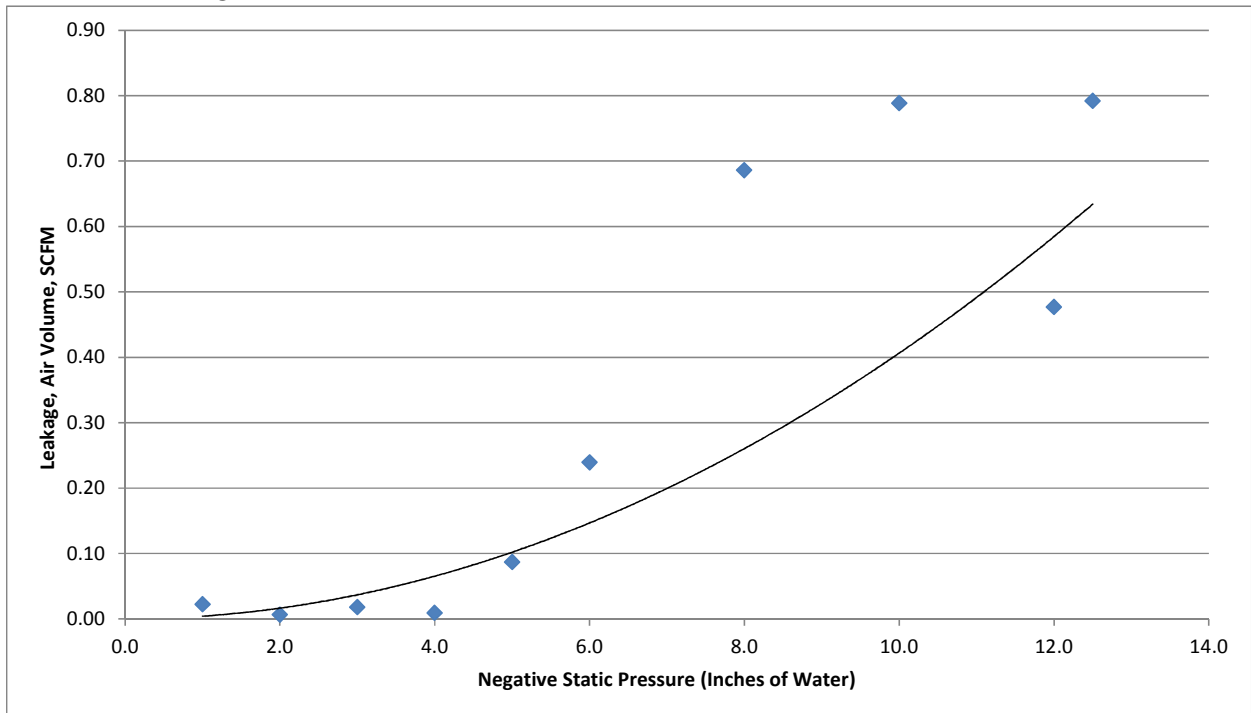
LEAKAGE GRAPHS

TRIA TEK VENTURI VALVE MODEL/SIZE VV012ANFAFSNHM

CASING LEAKAGE



DAMPER LEAKAGE



REMARKS

Ambient Temperature: 66 - 68° F
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