

Phoenix Controls single body valves are available in a variety of flange styles. All available varieties are described in the ordering guides of the valve product data sheets.

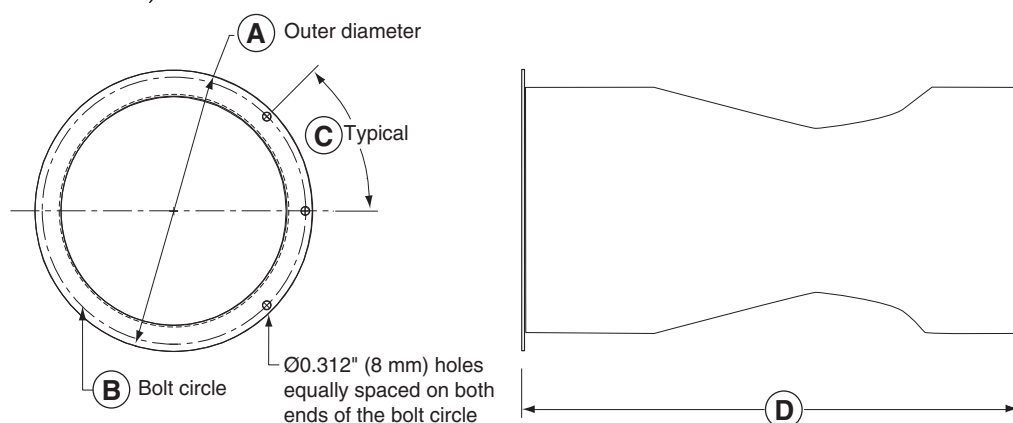
- Without flanges (1 valve body)
- With two welded circular flanges (number of valve bodies = F)
- With one single square flange (valve option F)
- With two single square flanges (valve option B)

DIMENSIONS AND BOLT HOLE PATTERNS

This product data sheet identifies the dimensions of single body valves with each of the above flange options. All other product details (specifications, weights, installation, maintenance and troubleshooting) are identified on the valve product data sheets.

Two Welded Circular Flanges

(number of valve bodies = F)



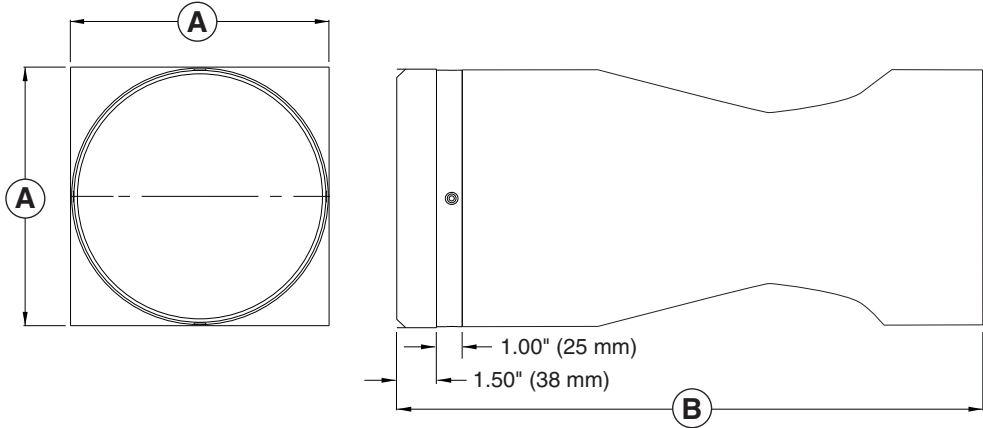
	Number of Bolt Holes	A		B		C Degrees	D	
		inches	mm	inches	mm		inches	mm
8"	6	10.28	261	9.375	238	60	23.50	597
10"	6	12.75	324	11.375	289	60	21.75	552
12"	8	14.75	375	13.375	340	45	26.81	681
14"	8	16.75	425	15.375	391	45	30.00	838

For circular companion flanges, sheet metal contractors can order duct companion flanges from McGill Airflow (a subsidiary of United McGill Corp.) as follows:

Companion Flange	Number of Bolt Holes
Galvanized Uni-Ring 8" diameter	6
Galvanized Uni-Ring 10" diameter	6
Galvanized Uni-Ring 12" diameter	8
Galvanized Uni-Ring 14" diameter	8

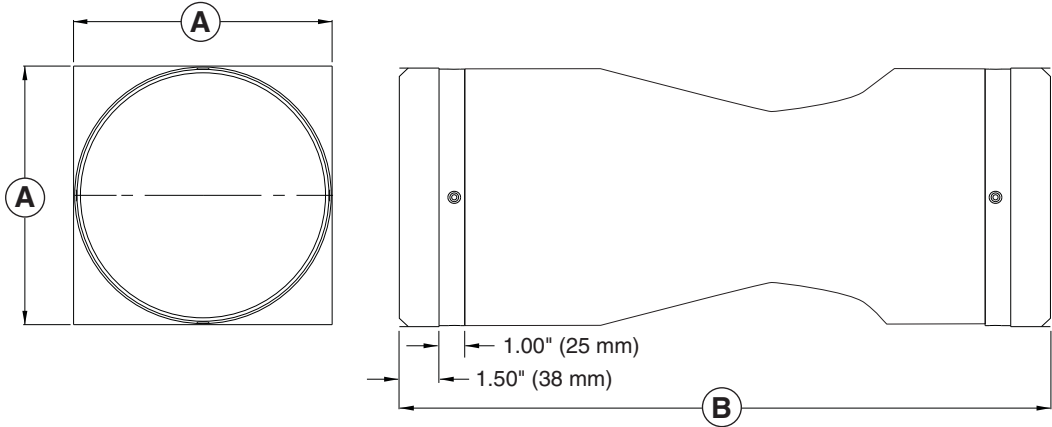
Find the McGill location nearest you on www.mcgillairflow.com, click Locations.

One Single Square Flange (valve option F)



	A		B	
	inches	mm	inches	mm
8"	8.13	207	25.00	635
10"	10.13	257	23.25	591
12"	12.13	308	28.31	719
14"	15.00	381	31.5	800

Two Single Square Flanges (valve option B)



	A		B	
	inches	mm	inches	mm
8"	8.13	207	26.50	673
10"	10.13	257	24.75	629
12"	12.13	308	29.81	757
14"	15.00	381	33.00	838

OSHPD Certified

These devices are certified for OSHPD Seismic Certification Preapproval per 2013 CBC, 2012 IBC, ASCE 7-10, and IEC-ES-AC-156. OSHPD Special Certification number OSP-0290-10.

ISO

Phoenix Controls Designs, Develops, Manufactures, and sells products , systems, and service to control the environment and airflow of critical spaces. Phoenix Controls is registered to ISO 9001:2008.

Warranty

Phoenix Controls Warrants all venturi valves against defects in material and workmanship for a period of 5 years. In addition, all other equipment manufactured by Phoenix Controls, such as sash sensors, fume hood monitors, and equipment supplied but not manufactured by Phoenix Controls is covered by a 3 year warranty.

Shop Drawing Submittal Review

Transmitted To: Cannon Design

Date: September 22, 2016

Attention: stl-cac@cannondesign.com

Contact Person / WTA Field Inspector:
Patrick Garner

Project Name: Webster University-**ISB**

Reviewed by: Mark Schaefer
Patrick Garner

Project No. WT 14127.01

☐

UPS

☐

Courier

☒

Email

Copies	No.	Description
1 PDF	239500M01	(Submittal No.'s) (R&B CxSRC-022)
		(Cannon #239500-007) – (Paric #15051-0223) – (WES #607)
		• Laboratory Air Valves & Fume Hood Controls

***Remarks: Please see PAGE 2 for comments.**

c: **Kelvin Patel**
Kpatel@cannondesign.com

☐

Furnish as Submitted

☐

Furnish as Noted

☐

Rejected

☐

Revise & Resubmit

☒

***Reviewed with
Comments**

☐

Corrections or comments made on shop drawings during this review do not relieve contractor from compliance with requirements of drawings and specifications. This check is only for review of general conformance with the design concept of project and general compliance with information given in contract documents. Contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of all other trades; and performing his work in a safe and satisfactory manner.

Shop Drawing Submittal Review

***Submittal Review Comments**

The following are our response to the Cx's comments listed in their review:

1. See contractor's reply.
2. The exhaust valves shall be medium pressure per the submitted shop drawing. Our discussion with the manufacturer's representative indicates that the valves required to have full shut-off capabilities must be medium pressure.
3. See contractor's reply.
4. Manual switch for downdraft tables are included in the submittal, see page 82 of the 134 page pdf.
5. Catalog numbers listed for all supply and general exhaust valves include "-PSL" which denotes pressure switch.
6. Please see the attached email correspondence from the sound consultant.
7. The Phoenix system is a proven lab hood exhaust system used at many facilities.
8. There is no limitation; however we would expect an approximate 75% diversity in the system operation.
9. Agreed.

WTASHOP - Fwd: RE: Webster ISB Mechanical Cx Submittal Review (239500-007) WT 14127.01

From: Patrick Garner
To: WTASHOP
Date: 9/20/2016 11:12 AM
Subject: Fwd: RE: Webster ISB Mechanical Cx Submittal Review (239500-007) WT 14127.01
Attachments: IMAGE.jpeg; IMAGE.jpeg

Security: Proprietary

Sara,

Please add Jim's comments to the 239500-007 Mechanical Cx review comments and send back to Cannon.
Please copy me.

Thank you,

Patrick Garner, PE, CPD



7955 Manchester Road, Suite 125
St. Louis, MO 63143
O: [314-884-7600](tel:314-884-7600)

>>> On 9/20/2016 at 10:55 AM, in message <57E11969.C579.0098.0@wmtao.com>, Mark Schaefer wrote:
Security: Proprietary

Thank you, Jim.

Patrick, Please pass this information on to R&B and the owner.

Thank you,
Mark

>>>

From: Jim Holtrop <jim@acousticontrol.com>
To: Mark Schaefer <mschaefer@wmtao.com>
CC: Patrick Garner <pgarner@wmtao.com>
Date: 9/20/2016 10:49 AM
Subject: RE: Webster ISB Mechanical Cx Submittal Review (239500-007) WT 14127.01

Mark,

Have talked with Phoenix and they say the neutralizer does not add additional pressure drop to the Phoenix valve based on its design.

When looking at the criteria for target sound pressure level in the rooms which is equal to or less than 35 dBA or NC level of 25 to 30 for this project. The room background noise level is controlled by a combination of radiated, exhaust, and supply for each room.

The ceiling tile only controls the radiated noise from the valve not the exhaust or supply. Based on acoustical calculations of typical classrooms and laboratories (rooms with hoods) and the selected valves all Phoenix valves need a neutralizer to achieve the targeted background noise levels.

Best Regards

Jim Holtrop



Jim Holtrop / AcoustiControl

Acoustical Consultants

2464 Taylor Road Suite 214 Wildwood, Missouri 63040-1222
314.436.9770 www.acousticontrol.com

From: Mark Schaefer [mschaefer@wmtao.com]

Sent: Tuesday, September 20, 2016 9:00 AM

To: Jim Holtrop

Cc: Patrick Garner

Subject: Fwd: Webster ISB Mechanical Cx Submittal Review (239500-007) WT 14127.01

Jim,

We have included sound attenuators at the Phoenix valves to attenuate the discharge noise. The commissioning agent is questioning the need for these attenuators. Please see his comment in the attached document "CxSRC-022 Laboratory Air Valves & Fume Hoods 239500-007.pdf" item number 6. The Phoenix shop drawing submittal is also attached.

Thank you,

Mark

>>>

From: Patrick Garner

To: Schaefer, Mark

CC: Grimm, Tracie; WTASHOP

Date: 9/20/2016 7:33 AM

Subject: Fwd: Webster ISB Mechanical Cx Submittal Review (239500-007)

Mark,

Please respond to R&B's comments. Craig has asked for a speedy return on this submittal.

Thank you!

Patrick Garner, PE, CPD



7955 Manchester Road, Suite 125

St. Louis, MO 63143

O: [314-884-7600](tel:314-884-7600)

>>> On 9/19/2016 at 4:44 PM, in message

<BN3PR07MB2564EF1FDE1C54B7AD104CCCD7F40@BN3PR07MB2564.namprd07.prod.outlook.com>,

"Frederick, Meghan M." <mfrederick@rossbar.com> wrote:

All,

Please see the attached Commissioning submittal review for the 239500-007 Laboratory Air Valves & Fume Hood Controls submittal.

Thanks,

Meghan M. Frederick

Project Coordinator

Ross & Baruzzini

P: [+1 314.918.8383](tel:+13149188383)

mfrederick@rossbar.com

[Website](#) | [LinkedIn](#) | [Twitter](#) | [Facebook](#)

Please consider the environment before printing this email.

RESTRICTED - PROPRIETARY INFORMATION

WTASHOP - Webster ISB - 23 9500-007

From: STL-CAC <STL-CAC@CANNONDESIGN.COM>
To: 'Patrick Garner' <pgarner@wmtao.com>, "WTASHOP (WTASHOP@wmtao.com)" <WTA...>
Date: 9/13/2016 11:57 AM
Subject: Webster ISB - 23 9500-007
Cc: "Patel, Kelvin" <kpatel@CANNONDESIGN.COM>
Attachments: 239500-007 Laboratory Air Valves and Fume Hood Controls ProductData.pdf

Attached for review.

Melissa Pirtle

Construction Admin

CANNONDESIGN

1100 Clark Ave
St. Louis, Missouri 63102
T [314.425.8797](tel:314.425.8797) • M
cannondesign.com



77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0223

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 09/12/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

RE: Laboratory Air Valves and Fume Hood
Control Product Data

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:		SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings		☒ Approval	☐ Approved as Submitted
☐ Letter		☐ Your Use	☐ Approved as Noted
☐ Prints		☐ As Requested	☐ Returned After Loan
☐ Change Order		☐ Review and Comment	☐ Resubmit
☐ Plans			☐ Submit
☐ Samples		SENT VIA:	☐ Returned
☐ Specifications		☐ Attached	☐ Returned for Corrections
☒ Other: Product Data		☐ Separate Cover Via:	☐ Due Date:

Item	Package	Code	Rev.	Copies	Date	Description	Status
Submittal		239500-007	1		09/12/2016	Laboratory Air Valves and Fume Hood Control Product Data	Submitted

NOTES:

CC:

Signed: _____

Devin Gates



Mechanical

LETTER OF TRANSMITTAL

TO: Paric Corporation

77 West Port Plaza #250

St. Louis, MO 63146

ATTN: Jason Szachnieski, Devin Gates

DATE: 9/9/16

JOB #: 5768

RE: Webster ISB

We are sending you

☒

Shop drawings

☐ Attached

☐ Prints

☐ Under separate cover

☐ Plans

☐ Samples

☐ Specifications

☐ Copy of letter

☐ Change order

☐ Other

COPIES	DATE	NO.	DESCRIPTION
1	9/9/16	239500-2.10	Laboratory Air Valves & Fume Hood Controls

These are transmitted as checked below:

☐ For signature

☐ For your use

☐ As requested

☐ For bids due

☒

For review and comment

☐ Approved as submitted

☐ Approved as noted

☐ Returned for corrections

☐ Prints returned after loan to us

☐ Other

☐ Resubmit

☒ Submit

☐ Return

☐ copies for approval

☐ copies for distribution

☐ corrected prints

Remarks: Please return by 9/23/16

COPY TO: file

SIGNED:

Alex Chambers



Mechanical

Webster University ISB Webster Groves, MO

Submittal #:

239500-2.10

Submittal Description:

Laboratory Air Valves & Fume Hood
Controls

Return By:

9/23/16

Please Note: To avoid scheduling delays and equipment release delays, please submit by the "Return By" date.

CHECKED BY:			
DESIGNER: ZL		ENGINEER: MD	
☒	NO EXCEPTION TAKEN	☐	MAKE CORRECTIONS NOTED
☐	SUBMIT SPECIFIED ITEM	☐	REVISE AND RESUBMIT
☐	REJECTED	☐	
Checking is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Equipment supplier is responsible for: dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of his work with that of all other trades; and satisfactory performance of his work.			
		Job #:	5768
		Date:	9/9/16
		By:	ARC



7704 BIG BEND BLVD. / ST. LOUIS, MO 63119 / PHONE 314.647.6363 / FAX 314.647.4307

Date: September 6, 2016

Icon Mechanical
1616 Cleveland Ave.
Granite City, IL 62040

Joh: Webster University
Interdisciplinary Science

Attention: Mr. Alex Chambers

Equipment: Phoenix Controls
Phoenix ID 28590
F-L #3078

GENTLEMEN:

ENCLOSED PLEASE FIND THE FOLLOWING DATA IN QUANTITIES SHOWN:

- (1) Electronic Copy - Phoenix Controls Submittal Data
 - Phoenix Controls Equipment Cut Sheets
 - Room Schedule – Revised 9-6-16

THE ABOVE ARE SUBMITTED TO YOU FOR:

- ☒ APPROVAL (RETURN ONE SET ONLY FOR OUR RECORDS)
- ☐ RESUBMITTAL AND FINAL APPROVAL (RETURN ONE SET ONLY)
- ☐ RECORD PURPOSES AND DISTRIBUTION.

ORDER STATUS:

- ☐ RELEASED FOR FABRICATION AND SHIPMENT PER DRAWINGS
- ☒ HELD FOR FABRICATION - UNTIL APPROVAL AND RELEASE FOR SHIPMENT
- ☐ COMPLETE

Best regards,

Dan Landis
FRIEMEL-LOVE CO.

DL/sk
Enclosures

cc: Robert Montgomery/Atceh

FRIEMELLOVE

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PHOENIX CONTROLS

Submittal Data

Revised

9/6/16

WEBSTER UNIVERSITY INTERDISCIPLINARY SCIENCE BLDG.

Submitted To:

**Icon Mechanical
1616 Cleveland Blvd.
Granite City, IL 62040
Alex Chambers
Phone: (618) 452-0035
Fax: (618) 452-0037**

Submitted By:

**Friemel-Love Company
7704 Big Bend Blvd.
St. Louis, MO 63119
Dan Landis
Phoenix ID 28590 / F-L #3078
Phone: (314) 647-6363
Fax: (314)-647-4307**

Alex Chambers

From: Dan Landis <dlandis@friemellove.com>
Sent: Friday, September 09, 2016 8:35 AM
To: Alex Chambers
Subject: RE: Webster Univ - Phoenix Sub

Alex,
The following bullet items for your review

- **All shut off valves**-The room schedule sheet in the max/min airflow column will show 35 cfm (8" valve) as the minimum flow. The comments column will show S.O.(shut off). The shut off condition is a command condition not a control condition. I need to show a value in the min column as a control flow which happens to the mechanical minimum even if we never use the value.
- **General exhaust valves**- The general exhaust valves are a slave to the room design offset. I used the pressurization offsets on the drawings (in most cases) and the resulting balance would be what you see under the min/max airflow column. In fact we could show no values and the Gex valve would still provide the room balance due to the offset requirement. In the case of the area that has the downdraft tables there doesn't appear to be enough supply to handle all tables "on". I'm sure Mark S has some diversity included so I just need to go over it with him. **The additional makeup air for all tables "on" shall transfer from an adjacent cadaver lab space.**

Should you have any questions feel free to contact me
Best regards,
Dan