antrumX
Airflow that Makes Sense

STARTUP

DESCRIPTION

The following checklist will help ensure the AntrumX system is installed properly and will work as intended. Review the Resource area at the end of the document for any further needs that you may have during start-up and commissioning.

CHECKLIST

Installation

- ❑ Static pressure of supply and exhaust duct (if connected) has been measured at the duct coupler installation site(s). Static pressure to be measured at both the normal operating conditions and turndown. The lowest acceptable static pressure is 0.5 inches of water column.

Monitored Zones

- ❑ Faceplates and/or duct probes installed and ¼" tubing connected
- ❑ Tubing run without kinks and no extra coils (cut to length) to monitoring panel & connected to appropriate channel in manifold
- ❑ Each Faceplate and/or duct probe shall be connected to the monitoring panel with no more than 300' of tubing

Air Accelerator (AA)

- ❑ AA connected to supply duct using duct coupler and gasket (50' limit AA to duct)
- ❑ AA connected to exhaust duct (required in critical applications) or can exhaust into existing space
- ❑ Direction of airflow through AA is verified by checking embossed arrow on AA
- ❑ ½" hose is installed between AA and fitting on top of monitoring panel (100' limit)
- ❑ Supply duct maintaining at least .5" static pressure

Monitoring Panel

- ❑ Monitoring Panel installed on wall using 4 mounting tabs as directed
- ❑ Power installed and connected
- ❑ Network RJ 45 cable connected to Gateway
- ❑ BACnet BMS RS-485 or IP cable connected to Gateway
- ❑ Gateway and valve lights illuminated

Startup

- ❑ Both ½" hose lines checked for flow, min. 500 cc/min
- ❑ Verify AAs are installed in main duct upstream of any dampers
- ❑ All zones checked for flow, min. of 200 cc/min
- ❑ Continuity test to ensure each zone is installed and labelled correctly
- ❑ Verify faceplates are installed in the breathing zone
- ❑ For critical applications verify duct probes are installed in the general exhaust upstream of the valve

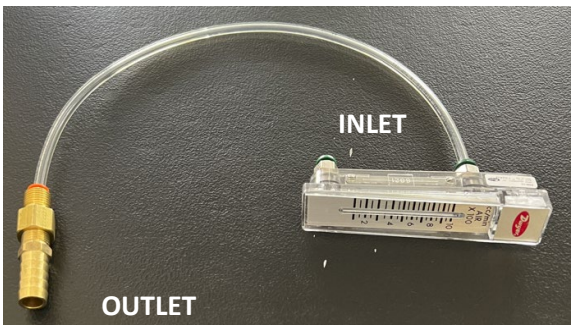
AntrumEYE Setup

- ❑ Log in to antrumeye.com using credentials in submittal (see antrumeye cutsheet)
  Space Configuration
- ❑ Upon login select the appropriate project from the dropdown list
  Space and Zone Names
- ❑ Once in the project, select the "System Config" icon
- ❑ Default tab is entitled "Space Configuration"
  - Monitored spaces will have default names from the factory. To change the names of the monitored spaces, select a space name, click edit, and update accordingly. *The space name is the prefix of the object name*
- ❑ If your project is equipped with an AntrumX Signaling Panel you'll need to configure this panel by accessing the "Zone Configuration" tab
  - Click 'New' and enter the name of the zone
  - In this dialog box you also select which spaces will be grouped into this zone.
  - In the same dialog box, select the corresponding signaling panel
  - Lastly, in the same dialog box you enter which zone (1, 2, or 3)

  Integration
- ❑ Also located in the "System Config" app is a BACnet setup tool
- ❑ Select the tab entitled "BACnet Configuration"
- ❑ On this tab you have the ability to select MS/TP, IP or SC (coming soon) and other connection details
- ❑ **If using AntrumX for DCV, be sure to integrate the "{space}_contaminated" BACnet point

STARTUP KIT

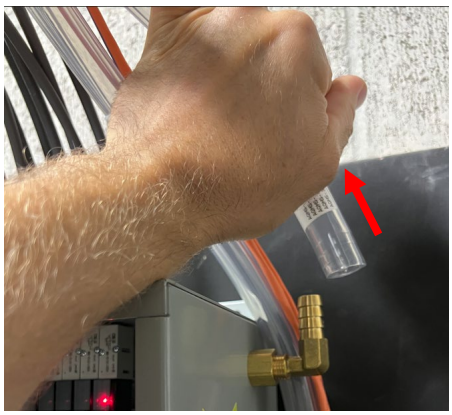
- (1) Flow Gauge, 0-1LPM
- (1) 1/4" Tubing, 12" Long
- (2) 1/8MNPT x 1/4 Push-to-Connect Fittings
- (1) 1/8MNPT x 1/2" Barb Fitting
- (1) 1/8FNPT x 1/4 Push-To-Connect Fitting

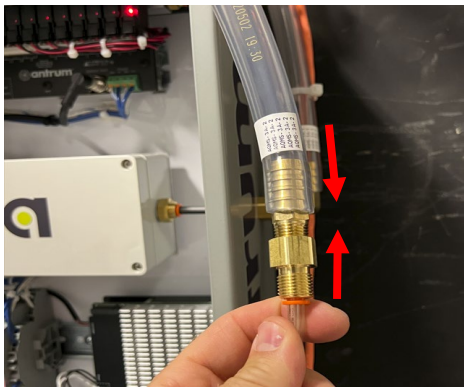


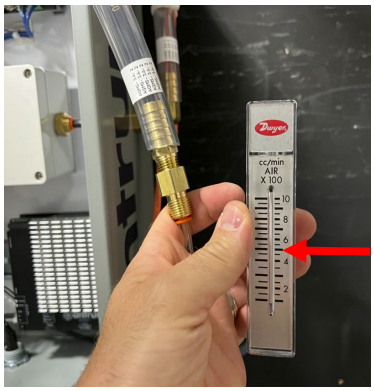
PROCEDURE

Prior to performing the startup procedure, the air accelerator(s) must be installed and the 1/2" hose routed back to the location where the panel will be installed. The startup procedure can either be performed real-time, as each of the 1/4" tube runs is pulled, (highly recommended), or after all have been routed and installed. Installation of the AntrumX panel is not required for startup of the tubing.

1. If the 1/2" tubing has already been installed on the AntrumX panel, disconnect the tubing and install on the 1/2" barb fitting on the OUTLET of the Air Flow Commissioning Kit. Do this for both 1/2" lines. Verify the flow rate is:
   a. **500cc/min minimum flow rate**
   b. **Stable reading +/-50cc/min fluctuation**







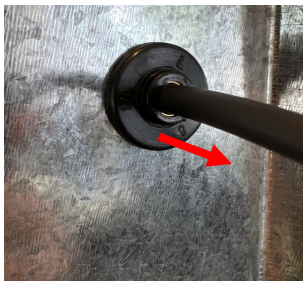
500cc/min minimum

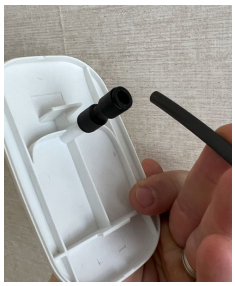
2. For the 1/4" Tubing air flow check, the Air Flow Startup Kit needs to remain attached to one of the 1/2" Tubing lines. Disconnect the tubes one at a time and install into the INLET of the Air Flow Commissioning Kit. Verify the flow rate is:
    a. **200cc/min minimum flow rate**
    b. **Stable reading +/-50cc/min fluctuation**

Reinstall the 1/4" tube before proceeding to the next.

NOTE: The option exists to perform step 2 immediately followed by step 3 for each tube as opposed to completing step 2 for all tubes before proceeding to step 3.

3. The 1/4" tubing continuity test is best performed with (2) individuals but can also be performed with (1) if necessary.
    a. If using (2) people, position one at the end of the 1/4" tube run and one where the 1/2" tubing ends at the panel location. The individual at the end of the 1/4" tube run will disconnect the tubing from the faceplate or duct probe (if installed) and plug the end using a thumb or 1/4" PTC union and plug. Verify the flow rate is:
        i. **0cc/min maximum flow rate**
        ii. **Stable reading without fluctuation**
    b. If using only (1) person, after disconnecting the 1/4" tubing from the faceplate or duct probe, a 1/4" PTC union and plug must be used to seal the tube before walking back to the flow meter and confirming the reading.




0cc/min maximum

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FORM

Project Name:	**Grand Rapids EXAMPLE**	
Panel Name:	**AQMS-1**	
Supply Duct Static Pressure	**2.0**	in
Exhaust Duct Static Pressure	**1.0**	in

AX Panel Termination	Space	Description	Pickup Location	Flow Rate	Tube Continuity	Test Date
Channel 1	205 N.	Intro Physics GE	GEV-205A	300	☒	010123
Channel 2	205 S.	Intro Physics GE	GEV-205B	340	☒	010123
Channel 3	207A	Laboratory Prep. GE	GEV-207	440	☒	010123
Channel 4	214	Anatomy Dissection GE	GEV-214	500	☒	010123
Channel 5	217	Anatomy Research GE	GEV-217	330	☒	010123
Channel 6	219	Gross Anatomy Lab GE	GEV-219	410	☒	010123
Channel 7	222	Gross Anatomy Lab GE	GEV-222	400	☒	010123
Channel 8	225	Gross Anatomy Lab GE	GEV-225	450	☒	010123
N/A	Exhaust Vacuum	Exhaust Line to AA1	N/A	2000	N/A	010123
N/A	Sensor Pack Vacuum	Exhaust Line from Sensor Pack to AA2	N/A	2000	N/A	010123

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8-ZONE FORM

Project Name:		
Panel Name:		
Supply Duct Static Pressure	Choose an item.	in
Exhaust Duct Static Pressure	Choose an item.	in

AX Panel Termination	Space	Description	Pickup Location	Flow Rate	Tube Continuity	Test Date
Channel 1					☐	
Channel 2					☐	
Channel 3					☐	
Channel 4					☐	
Channel 5					☐	
Channel 6					☐	
Channel 7					☐	
Channel 8					☐	
N/A	Exhaust Vacuum	Exhaust Line to AA1	N/A		N/A	
N/A	Sensor Pack Vacuum	Exhaust Line from Sensor Pack to AA2	N/A		N/A	

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16-ZONE FORM

Project Name:		
Panel Name:		
Supply Duct Static Pressure	Choose an item.	in
Exhaust Duct Static Pressure	Choose an item.	in

AX Panel Termination	Space	Description	Pickup Location	Flow Rate	Tube Continuity	Test Date
Channel 1					☐	
Channel 2					☐	
Channel 3					☐	
Channel 4					☐	
Channel 5					☐	
Channel 6					☐	
Channel 7					☐	
Channel 8					☐	
Channel 9					☐	
Channel 10					☐	
Channel 11					☐	
Channel 12					☐	
Channel 13					☐	
Channel 14					☐	
Channel 15					☐	
Channel 16					☐	
N/A	Exhaust Vacuum	Exhaust Line to AA1	N/A		N/A	
N/A	Sensor Pack Vacuum	Exhaust Line from Sensor Pack to AA2	N/A		N/A	

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32-ZONE FORM

Project Name:		
Panel Name:		
Supply Duct Static Pressure	Choose an item.	in
Exhaust Duct Static Pressure	Choose an item.	in

AX Panel Termination	Space	Description	Pickup Location	Flow Rate	Tube Continuity	Test Date
Channel 1					☐	
Channel 2					☐	
Channel 3					☐	
Channel 4					☐	
Channel 5					☐	
Channel 6					☐	
Channel 7					☐	
Channel 8					☐	
Channel 9					☐	
Channel 10					☐	
Channel 11					☐	
Channel 12					☐	
Channel 13					☐	
Channel 14					☐	
Channel 15					☐	
Channel 16					☐	
N/A	Exhaust Vacuum	Exhaust Line to AA1	N/A		N/A	
N/A	Sensor Pack Vacuum	Exhaust Line from Sensor Pack to AA2	N/A		N/A	

32-ZONE FORM CONT'D

AX Panel Termination	Space	Description	Pickup Location	Flow Rate	Tube Continuity	Test Date
Channel 17					☐	
Channel 18					☐	
Channel 19					☐	
Channel 20					☐	
Channel 21					☐	
Channel 22					☐	
Channel 23					☐	
Channel 24					☐	
Channel 25					☐	
Channel 26					☐	
Channel 27					☐	
Channel 28					☐	
Channel 29					☐	
Channel 30					☐	
Channel 31					☐	
Channel 32					☐	
N/A	Exhaust Vacuum	Exhaust Line to AA3	N/A			
N/A	Sensor Pack Vacuum	Exhaust Line from Sensor Pack to AA4	N/A			

RESOURCES

The following resources are available to assist you in the AntrumX system set-up and commissioning process.

Reference	Description
https://antrum.com/resources/	Website containing resource guides and videos
Authorized Antrum Representative	Contact your local Antrum representative for support