



# AIRONIX

*'U name it, V make it'*

## AIRONIX STEEL & ALUMINIUM WORKS



ISO 9001:2015 Certified

## VAV & CUSTOMIZED PRODUCTS

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AIRONIX STEEL & ALUMINIUM WORKS

## VOLUME AIR VARIABLE (VAV)

**AIRONIX** makes Variable Air Volume (**VAV45**) box is a part of an Air Conditioning system. It is located inside the duct work. VAV45 dampers are designed to control the air flow to a specific area, called "Zone". The VAV45 regulates the volume of the air to the zone by opening or closing the damper, thus controlling the amount of conditioned air directed to the zone.

Each zone in a building has a thermostat along with the AX-BP-VAV, monitoring when to open or shut the damper based upon the temperature needs of the zone.

Because the supply air temperature, in this simplest of VAV45 system's is constant, the air flow rate must vary to meet the rising and falling heat gains or losses within the thermal zone served.

The product range has many features and options to meet the requirements of consultants, contractors, local and national authorities. Dampers are available to suit low/medium and high velocity applications.

### **Advantages**

There are two primary advantages to **AIRONIX VAV45** systems.

1. Fan capacity control, especially with modern electronic variable speed drives, reduces the energy consumed by fans which can be a substantial part of the total cooling energy requirements of a building.
2. Dehumidification is greater with VAV45 systems than it is with constant volume system which modulates the discharge air temperature to attain part load cooling capacity.

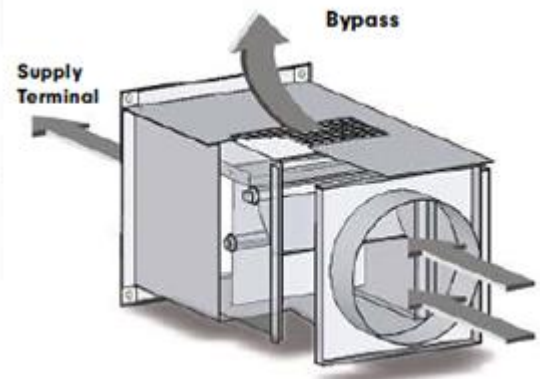
## VOLUME AIR VARIABLE (VAV)

### Radiated NC Levels:

- Plenum/ceiling effect - 5/8" mineral fiber tile, 35 lb/ft 3-3 foot plenum
- Space effect factor (5000 ft<sup>3</sup>) at 10 feet from source
- Environmental adjustment factor

### Discharge NC Levels:

- 5 foot rectangular 12" x 12" duct lined with 1" fiberglass
- Rectangular tee attenuation entering branch duct.
- 6 foot lined flex duct (8" diameter)
- Maximum of 300 CFM per outlet (or as desired)



# VOLUME AIR VARIABLE (VAV)

## PERFORMANCE DATA

SOUND DATA									
CFM	▲ Ps	Sound Power db						Max Disc NC	Radiated NC
		Octave Band							
		(2) 125	(3) 250	(4) 500	(5) 1000	(6) 2000	(7) 4000		
<b>SIZE 12</b>									
480	0.03	42	30	21	21	20	21	-	-
720	0.06	47	39	31	29	25	24	-	-
960	0.11	50	46	39	34	30	26	12	12
1200	0.17	53	51	44	38	33	28	13	16
<b>SIZE 16</b>									
640	0.03	42	30	22	19	19	18	-	-
960	0.06	48	40	33	28	25	22	-	-
1280	0.12	52	47	40	35	30	25	11	13
1500	0.18	55	53	46	40	34	28	13	16
<b>SIZE 24</b>									
960	0.04	41	32	27	18	15	16	-	-
1440	0.10	49	42	38	31	27	26	-	11
1920	0.18	54	50	46	39	35	33	12	18
2400	0.29	58	56	52	46	41	38	14	23
<b>SIZE 32</b>									
1280	0.04	44	37	33	27	23	22	-	-
1920	0.09	51	47	42	36	32	29	11	15
2560	0.15	57	54	48	43	39	34	12	23
3200	0.25	61	59	53	48	44	37	14	29



## BY-PASS VAV45



## PERFORMANCE DATA

SOUND DATA									
CFM	▲ Ps	Sound Power db						Max Disc NC	Radiated NC
		Octave Band							
		(2) 125	(3) 250	(4) 500	(5) 1000	(6) 2000	(7) 4000		
<b>SIZE 02</b>									
80	0.07	40	31	24	17	15	18	-	-
120	0.14	47	41	34	28	24	23	12	10
160	0.24	51	49	42	36	30	26	14	12
200	0.35	55	54	48	42	35	28	19	14
<b>SIZE 04</b>									
160	0.05	44	30	22	19	17	20	-	-
240	0.12	49	41	33	29	25	25	12	-
320	0.21	52	48	41	36	31	28	13	13
400	0.33	54	53	47	42	35	31	15	19
<b>SIZE 06</b>									
240	0.04	42	31	22	20	18	21	-	-
350	0.09	56	39	32	28	25	24	-	-
480	0.16	50	45	40	34	30	27	12	14
600	0.25	52	49	46	39	34	29	13	20
<b>SIZE 08</b>									
320	0.03	41	28	19	18	18	21	-	-
480	0.07	46	38	30	26	24	23	-	-
640	0.12	49	45	37	31	28	25	11	12
800	0.20	52	50	43	35	31	27	13	15

## CUSTOMIZED GI DUCT RELATED PRODUCTS

**AIRONIX** manufactures a wide variety of DUCT JOINTS, REDUCERS, CONNECTORS etc. in GI material. These are used for various applications by the Duct Fabricators. Every item has its own purpose and we make sure to fabricate them as per the given specifications by our client. Reducers from **AIRONIX** are the perfect fitting to use when you need to change from one size duct to another size. All Reducers are manufactured from the highest quality GI. They are perfect fittings for maintaining maximum airflow through your system while changing to the needed duct size.

### Installation:

To install Reducers, you simply slide the reducer into the item you are attaching to and fasten with sheet metal screws or duct tape. It is recommended that you seal the seams with a duct sealant after installation to prevent any air leakage, increase the efficiency of your system and reduce your utility bills.

### Models & Types:

Kindly view the images for all models which are manufactured at **AIRONIX**.

Kindly contact us if your desired shape & size is not illustrated below.

# CUSTOMIZED GI DUCT RELATED PRODUCTS



DUCT CONNECTOR



DUCT ELBOW



DUCT PIPES



DUCT DEG 'T'



DUCT STRAIGHT 'T'

ورشة ايرونيكس للحداثة والالمنيوم  
AIRONIX STEEL & ALUMINIUM WORKS

# CUSTOMIZED GI DUCT RELATED PRODUCTS



**DIFFUSER CONNECTOR 'HAT'**



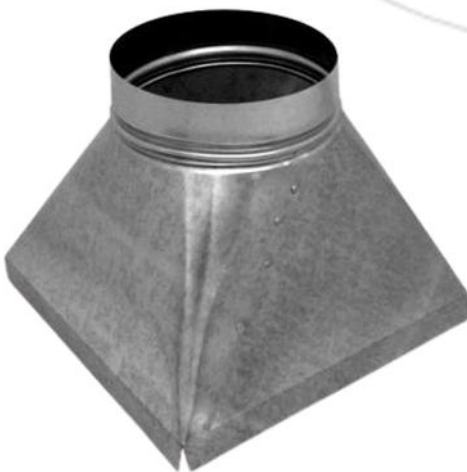
**DIFFUSER CONNECTOR 'TRAY'**



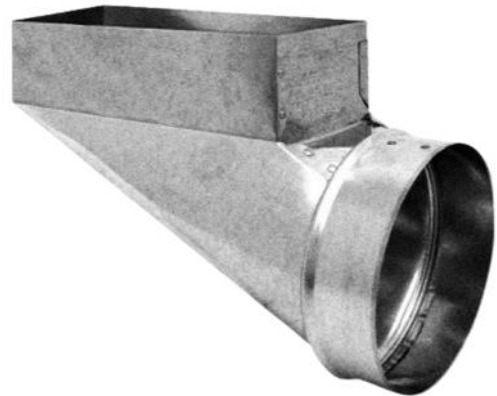
**DUCT REDUCER-ROUND**



**DUCT REDUCER-RECTANGLE**



**DUCT REDUCER-4 SIDE CONE**



**DUCT REDUCER-BOOT**



# Certificate of Registration

# ISO 9001:2015

*This is to Certify that  
Quality Management Systems of*

**AIRONIX STEEL & ALUMINIUM WORKSHOP**

**PO Box 1404, New Industrial Area  
Umm Al Quwain, UAE**

*has been assessed and found to conform to the requirements of*

**ISO 9001:2015**

*for the following scope:*

**Smithery and Welding Workshop, Aluminium & Glass  
Installation Workshop.**

<b>Certificate No.</b>	<b>: 179AGA2901</b>	
Initial Registration Date	: 17.08.2020	Issuance Date: 19.08.2020
Date of Expiry *	: 18.08.2023	
1st Surve. Due	: 18.08.2021	2nd Surve. Due : 18.08.2022



**Director**

*Accurate Global Ltd.*

Address- 27, Old Gloucester Street, London, WC1N3AX, United Kingdom

*\*Validity of the Certificate is subject to successful completion of surveillance audit on or before of due date. (in case surveillance audit is not allowed to be conducted, this certificate shall be suspended/withdrawal).*

*Certificate Verification: Please Re-check the validity of certificate at [www.accurateiso.com](http://www.accurateiso.com) at Active Clients. Certificate is the property of Accurate Global Ltd. London, UK and shall be returned immediately when demanded).*

