HAMLETT ASSOCIATES, INC. SUBMITTAL REVIEW

REVIEW DATE: 1/18/2022

PROJECT NAME: ABSS Pleasant Grove ES

CONTRACTOR: Hamlett Associates Inc.

JOB NUMBER: ABSS #2019-09. Sud #19253. HAI #7604

ENGINEER: Sud Associates

ARCHITECT: DTW Architects

PRODUCT/MATERIAL ID: S#8 Air Terminal Units

SPEC. SECTION/PARAGRAPH NO.: Div 23 23 36 00

SUBCONTRACTOR/SUPPLIER: JR Mech

NOTES:

Engineer Review Comments: (M. Saenger)

1. The right hand / left hand selections need to be reviewed/verified by the contractor. They appear to be correct.

ARCHITECT/ENGINEER REVIEW/APPROVAL	HAMLETT ASSOCATES REVIEW/APPROVAL
SUD ASSOCIATES, P.A. CONSULTING ENGINEERS ☐ REVIEWED ☑ REVIEWED WITH NOTATIONS ☐ REVIEWED AS TO MANUF. ONLY ☐ DISAPPROVED, RESUBMIT ☐ FOR INFORMATION ONLY CHECKED FOR DESIGN ONLY. CONTRACTOR RESPONSIBLE FOR ALL SIZES, CAPACITIES AND QUANTITIES. VERIFY ALL DIMENSIONS & CONDITIONS AT THE BUILDING AND SITE. BY Michael Szigeti Digitally signed by Michael Szigeti DN: C=US, E=michael@sudassociates.com, O="Sud Associates, PA", CN=Michael Szigeti Date: 2022.03.02 12:07:58-05'00' DATE 3/2/2022 See review comments above	x Approved as noted Exceptions Indicated Rejected - Revise & Resubmit THIS REVIEW IS FOR CONFORMANCE WITH THE GENERAL DESIGN CONCEPT AND FOR GENERAL ARRANGEMENT ONLY. REVIEW SHALL NOT BE CONSTRUED TO MEAN THAT HAMLETT ASSOC. ACCEPTS ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS UNLESS NOTED AND APPROVED BY HAMLETT AND BY THE ARCH/ENG. SUPPLIER IS RESPONSIBLE FOR ERRORS OR OMISSIONS IN THE SHOP DRAWINGS, FOR MEETING ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS, FOR CONFIRMING AND CORRELATING JOBSITE DIMENSIONS, FOR INFORMATION THAT PERTAINS SOLELY TO FABRICATION PROCESSES OR TO TECHNIQUES EQUIPMENT AND/OR SUPPLIES PROJECT MANAGER Justin Graves ALL MATERIAL MUST BE SHIPPED AS PER HAMLETT ASSOCIATES

JR Mechanical, LLC

Submittal Cover Sheet

ABSS Pleasant Grove Elementary School Renovations

2847 Pleasant Grove Union School Rd

Burlington, NC 27217

Submitted to:

Hamlett Associates Inc.

3704 Security Mills Rd.

Climax, NC 27233

Air Terminal Units

Spec Section: 233600

Submittal #233600-1.0

Manufacturer / Supplier

Price / Hoffman & Hoffman

Representative: Chris Arbogast: (704) 364-4700

Reviewed by:

John Rocan Date: 1/07/2021

Approval Stamp

Date	**December 31, 2021**
Hoffman & Hoffman Order #	**125.252.11666**
Branch Office	**Charlotte, NC**
Salesman	**Chris Arbogast**

PROJECT: **ABSS Pleasant Grove Elementary School Bond Project Renovations**
Burlington, NC

CONTRACTOR: **JR Mechanical**
Rock Hill, SC

ENGINEER: **SUD Associates, P.A.**
Durham, NC

EQUIPMENT: **Fan Powered and Single Duct VAV Terminal Units by Price Industries**

SUBMITTAL

General Notes:

Above per the attached data and cut sheets

- Fan powered and single duct VAV terminal units with electric reheat to include materials of construction, options and accessories as per the attached cut sheets.
- Handing for the controls & electric heat connections must be confirmed. Right or left hand connections are determined when looking in the direction of airflow from the inlet.
- Must verify: electrical requirements, SCR control input signal (0-10 VDC or 4-20 mA)
- We do not include any controllers, t-stats, sensors, actuators, access doors, hanging rods, spare filters, wiring or commissioning.

APPROVAL REQUIRED

HOFFMAN HOFFMAN, INC.

HVAC Manufacturers Representative

Website: **www.hoffman-hoffman.com**

Asheville, NC (828) 252-5782 **Charleston, SC (843) 884-3201**
Charlotte, NC (704) 364-4700 **Columbia, SC (803) 765-9360**
Raleigh, NC (919) 781-8011 **Greenville, SC (864) 676-1888**
Wilmington, NC (910) 791-4775 **Chesapeake, VA (757) 548-1700**
Chattanooga, TN (423) 693-2890 **Richmond, VA (804) 272-1500**
Knoxville, TN (865) 450-9770 **Roanoke, VA (540) 725-8701**
Corporate: Greensboro, NC (336) 292-8777

We have exercised care in the preparation of this submittal. We believe it satisfies our interpretation of the designer's intent and scope. It contains the list of materials, quantities, sizes, style and the finish as we propose to furnish for this job. Please examine and check carefully that all items are exactly as required and that our interpretation of the applicable plans and/or specifications are consistent with the design. Approval by the engineer and purchaser will be required before release of this equipment for production. If any discrepancies are discovered, please notify us as soon as possible.

ABSS Pleasant Grove Elementary School

FDV5 parallel flow fan powered VAV terminal units include the following options:

- Galvanized steel casing
- Internal fiberglass insulation
- Airflow sensor
- Factory mounted electric heating coil provided with ETL label, required safeties, door interlocking non-fused disconnect switch, control voltage transformer, single point power connection and SCR control with 0-10 VDC input signal.
- Three speed PSC electric motor with speed controller
- Return air filter
- Hanger brackets with spring vibration isolators
- Controls enclosure
- Factory mount & wire controls (supplied by controls contractor)
- Standard one-year parts only warranty

SDV5 single duct VAV terminal units include the following options:

- Galvanized steel casing
- Internal fiberglass insulation
- Airflow sensor
- Factory mounted electric heating coil provided with ETL label, required safeties, door interlocking non-fused disconnect switch, control voltage transformer, single point power connection and SCR control with 0-10 VDC input signal.
- Hanger brackets
- Controls enclosure
- Factory mount & wire controls (supplied by controls contractor)
- Standard one-year parts only warranty

price®

All-In-One
Terminals

Contractor: JR Mechanical
Engineer: SUD Associates, P.A.
Location: Burlington, NC

Tag	A1-1	A1-2	A1-3	A1-4
Qty	1	1	1	1
Model	FDV5	FDV5	FDV5	FDV5
Unit Size	3010	3010	3010	3010
Inlet Dia	10	10	10	10
Max Primary (CFM)	1000	1000	1000	1000
Min Primary (CFM)	300	300	300	300
Fan Flow (CFM)	1000	1000	1000	1000
Motor HP	1/4	1/4	1/4	1/4
Fan Motor Voltage	277	277	277	277
Motor FLA	1.70	1.70	1.70	1.70
EC Capacity (kW)	3.00	3.00	3.00	3.00
Steps	SCRV-DAT	SCRV-DAT	SCRV-DAT	SCRV-DAT
EAT (°F)	70.40	70.40	70.40	70.40
LAT (°F)	77.70	77.70	77.70	77.70
Volts	480-3	480-3	480-3	480-3
MCA	6.60	6.60	6.60	6.60
MOP	15.00	15.00	15.00	15.00
Weight (lbs)	109	109	109	109
Comments	Right Hand	Right Hand	Right Hand	Right Hand

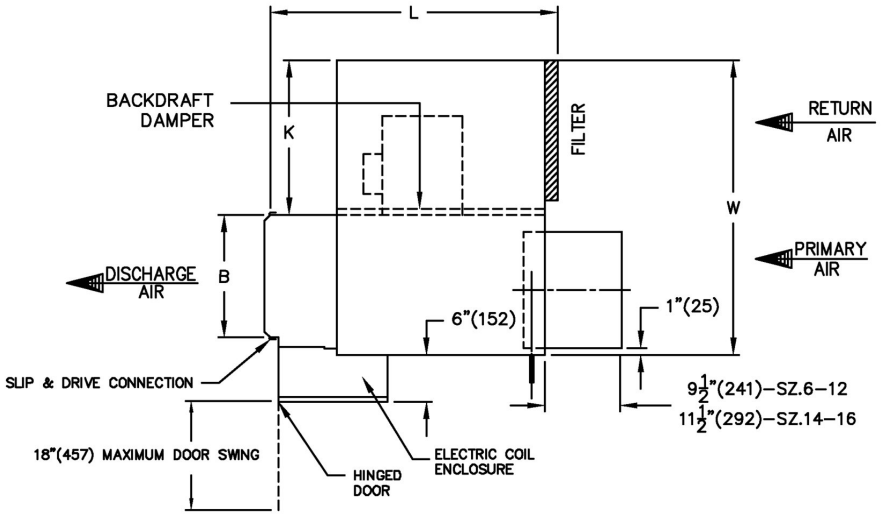
Tag	A2-1	A2-2	A2-3	A2-4
Qty	1	1	1	1
Model	FDV5	FDV5	FDV5	FDV5
Unit Size	3010	3010	3010	3010
Inlet Dia	10	10	10	10
Max Primary (CFM)	1000	1000	1000	1000
Min Primary (CFM)	300	300	300	300
Fan Flow (CFM)	1000	1000	1000	1000
Motor HP	1/4	1/4	1/4	1/4
Fan Motor Voltage	277	277	277	277
Motor FLA	1.70	1.70	1.70	1.70
EC Capacity (kW)	4.00	3.00	3.00	3.00
Steps	SCRV-DAT	SCRV-DAT	SCRV-DAT	SCRV-DAT
EAT (°F)	70.40	70.40	70.40	70.40
LAT (°F)	80.10	77.70	77.70	77.70
Volts	480-3	480-3	480-3	480-3
MCA	8.10	6.60	6.60	6.60
MOP	15.00	15.00	15.00	15.00
Weight (lbs)	109	109	109	109
Comments	Right Hand	Right Hand	Right Hand	Right Hand

Tag	B1-1	B1-2	B1-3	B1-4
Qty	1	1	1	1
Model	FDV5	FDV5	FDV5	FDV5
Unit Size	3010	3010	3010	3010
Inlet Dia	10	10	10	10
Max Primary (CFM)	1000	1000	1000	1000
Min Primary (CFM)	300	300	300	300
Fan Flow (CFM)	1000	1000	1000	1000
Motor HP	1/4	1/4	1/4	1/4
Fan Motor Voltage	277	277	277	277
Motor FLA	1.70	1.70	1.70	1.70
EC Capacity (kW)	3.00	3.00	3.00	3.00
Steps	SCRV-DAT	SCRV-DAT	SCRV-DAT	SCRV-DAT
EAT (°F)	70.40	70.40	70.40	70.40
LAT (°F)	77.70	77.70	77.70	77.70
Volts	480-3	480-3	480-3	480-3
MCA	6.60	6.60	6.60	6.60
MOP	15.00	15.00	15.00	15.00
Weight (lbs)	109	109	109	109
Comments	Right Hand	Right Hand	Right Hand	Left Hand

Tag	B1-5	B2-1	B2-2	B2-3
Qty	1	1	1	1
Model	FDV5	FDV5	FDV5	FDV5
Unit Size	3010	3010	3010	3010
Inlet Dia	10	10	10	10
Max Primary (CFM)	1000	1000	1000	1000
Min Primary (CFM)	300	300	300	300
Fan Flow (CFM)	1000	1000	1000	1000
Motor HP	1/4	1/4	1/4	1/4
Fan Motor Voltage	277	277	277	277
Motor FLA	1.70	1.70	1.70	1.70
EC Capacity (kW)	3.00	3.00	3.00	3.00
Steps	SCRV-DAT	SCRV-DAT	SCRV-DAT	SCRV-DAT
EAT (°F)	70.40	70.40	70.40	70.40
LAT (°F)	77.70	77.70	77.70	77.70
Volts	480-3	480-3	480-3	480-3
MCA	6.60	6.60	6.60	6.60
MOP	15.00	15.00	15.00	15.00
Weight (lbs)	109	109	109	109
Comments	Left Hand	Left Hand	Right Hand	Right Hand

Tag	B2-4	B2-5	B2-6	B2-7
Qty	1	1	1	1
Model	FDV5	FDV5	FDV5	FDV5
Unit Size	3010	3010	3010	3010
Inlet Dia	10	10	10	10
Max Primary (CFM)	1000	1000	1000	1000
Min Primary (CFM)	300	300	300	300
Fan Flow (CFM)	1000	1000	1000	1000
Motor HP	1/4	1/4	1/4	1/4
Fan Motor Voltage	277	277	277	277
Motor FLA	1.70	1.70	1.70	1.70
EC Capacity (kW)	3.00	3.00	3.00	3.00
Steps	SCRV-DAT	SCRV-DAT	SCRV-DAT	SCRV-DAT
EAT (°F)	70.40	70.40	70.40	70.40
LAT (°F)	77.70	77.70	77.70	77.70
Volts	480-3	480-3	480-3	480-3
MCA	6.60	6.60	6.60	6.60
MOP	15.00	15.00	15.00	15.00
Weight (lbs)	109	109	109	109
Comments	Right Hand	Right Hand	Right Hand	Right Hand

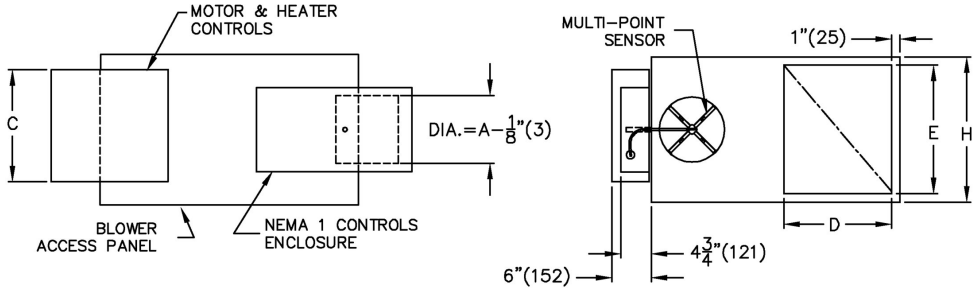
FDV5 Fan Powered Variable Volume, Digital Controls by Others



Dimensions - IMPERIAL UNITS (inches)											
Unit Size	Maximum Fan CFM	Primary Air Inlet	Return Air Inlet		Outlet Duct		W	H	L	K	Gauge
			D	E	B	C					
3010	1350	10	12	15 ½	14	12 ½	31	17 ½	36 ⅛	16 ¼	22

Standard Motor					
Unit Size	Motor H.P.	Full Load Amps			
		115V	208V	240V	277V
3010	1/4	4.7	0.8	0.7	1.7

Controls



- Pressure independent
- Controls are factory mounted, supplied by controls contractor
- Controls mounted on right hand side of unit (left hand shown)
- PS - Controls enclosure included
- Multi-point primary airflow sensor supplied by Price

Notes

- 22 Ga. zinc coated steel casing. Mechanically sealed and gasketed, leak resistant construction
- Primary damper blade constructed of two layers of heavy gauge galvanized steel with a sandwiched peripheral gasket
- 1/2" (13) dia. plated solid steel shaft with end indicator mark showing damper position
- Damper leakage rated below 2% of nominal flow at 3" w.g. (747Pa). Damper closing direction - CCW
- Units not to be used for temporary heat or ventilation during construction
- Minimum 0.2" w.g. (50 Pa) external static pressure to operate
- Refer to submitted box schedule for air volumes and inlet sizes

Intertek

Assembly UL1995 & CSA236 listed

Motor

- PSC Electric Motor 1 phase, 60 cycle. Speed controller included

PROJECT: Pleasant Grove Elementary School
ENGINEER:
SUBMITTAL NO: 258514-A
CUSTOMER: JR Mechanical
SUBMITTAL DATE: 12/31/2021
DESCRIPTION: Fan Powered, VAV - DDC By Others

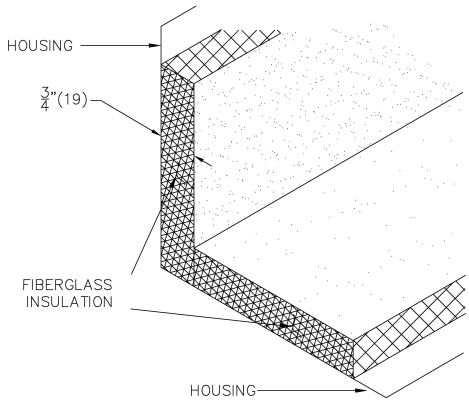
FDV5//I/8003/3010/FAC/CFM/277/1000//EC/3.0,4.0/480-3/SCRV-DAT/FUS/IDSW/INSUL////FG75/FTRM31/HBS/PS/CRH//////////////////SCR-112

All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

Liner

FG75

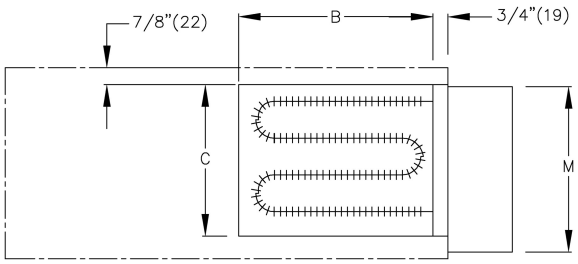
3/4" Thick Fiberglass Liner (Standard)



Internal Insulation - Fiberglass 3/4" (19mm) thick, min. 1.5 lb/cu.ft density, which meets the requirements of NFPA 90A and UL181.

R-value = 3.2

Electric Coil



Unit Size	IMPERIAL UNITS (inches)	
	Outlet Duct B x C	M
3010	14 x 12 ½	15

Standard Coil Notes

- Automatic reset thermal cutout
- Manual reset thermal cutout
- Refer to submitted control diagrams for standard control components to be supplied
- Hinged access door
- Minimum 0.2" w.g. (50 Pa) external static pressure to operate
- Slip and drive discharge connection
- Magnetic contactors where required
- 20 Ga. galvanized steel construction
- Fan interlocked with heating elements
- Low watt density elements, high grade nickel-chrome alloy
- 70 CFM per kW minimum air flow across heater coils
- Assembly ETL certified to UL1995 & CSA236
- Single point electrical connection

Electrical Configuration

Supply Voltage:

- 480/3ø (4 Wire)

Stages/Control: SCRV-DAT

- SCR voltage control with 0-10 VDC control signal & discharge air temperature control
- SCR-112 (3 Phase SCR, 10 Amps Max / 480 Volts Max)

Selected Coil Features

- INSUL - Heater Section Insulated
- FUS - Main supply fuses
- IDSW - Door Interlock Disconnect Switch

PROJECT: Pleasant Grove Elementary School
ENGINEER:
SUBMITTAL NO: 258514-A
CUSTOMER: JR Mechanical
SUBMITTAL DATE: 12/31/2021
DESCRIPTION: Fan Powered, VAV - DDC By Others
FDV5//I/8003/3010/FAC/CFM/277/1000//EC/3.0,4.0/480-3/SCRV-DAT/FUS/IDSW/INSUL////FG75/FTRM31/HBS/PS/CRH//////////////////SCR-112

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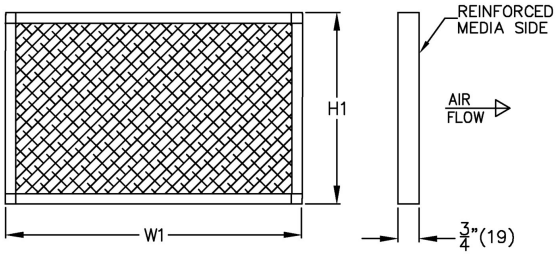
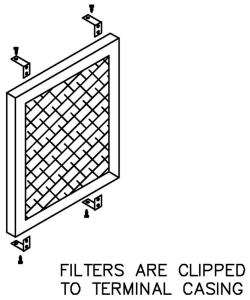
Filter

FTRM31

1" MERV 3 Return Air Filter (Disposable)



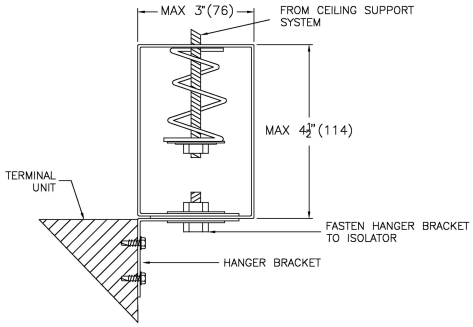


Unit Size	IMPERIAL UNITS (inches)	
	W1	H1
3010	14 ⅞	17 ⅜

- Cardboard Frame
- 1" (25) Nominal Filter Media
- MERV 3 Rating
- Filter clipped to terminal

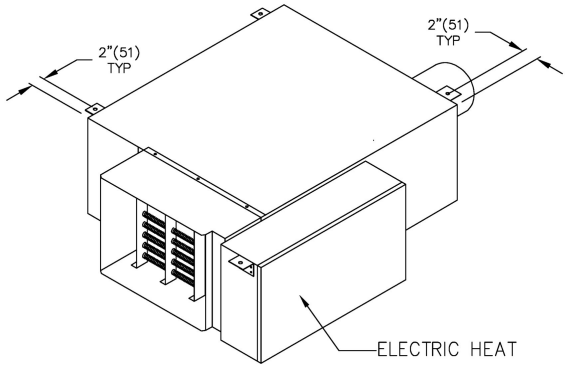
Hanger Brackets

HBS - Spring Isolation



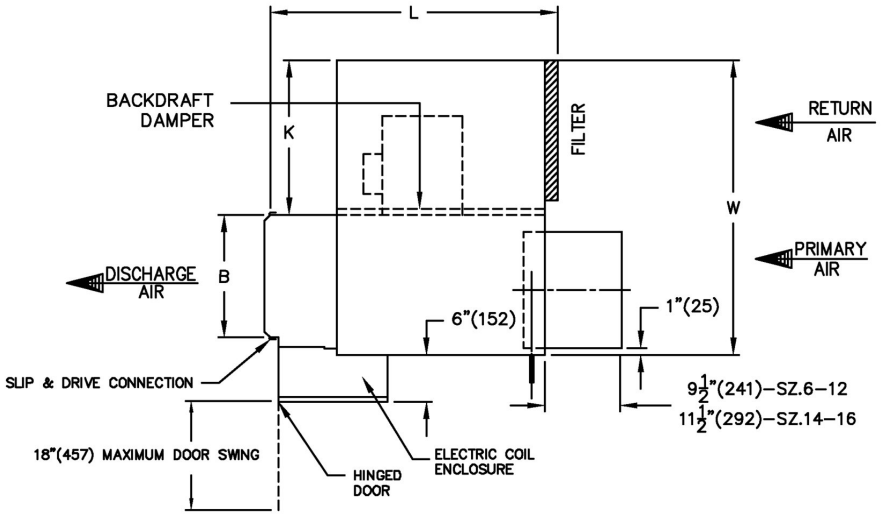
Suggested HBS Locations

Image is for reference only. It may not reflect the exact arrangement of accessories.



- Hanger brakets are 12 gauge zinc coated steel
- 4 per fan unit, 2 per attenuator
- Brackets are shipped loose for field installation for use with threaded hanger rods (by others)
- Layout indicates suggested hanger bracket locations
- Rated load per bracket: Blue or Red Spring -Max 35 LB, Green or Yellow Spring - Max 65 LB
- 4 Blue or Red Springs per fan unit

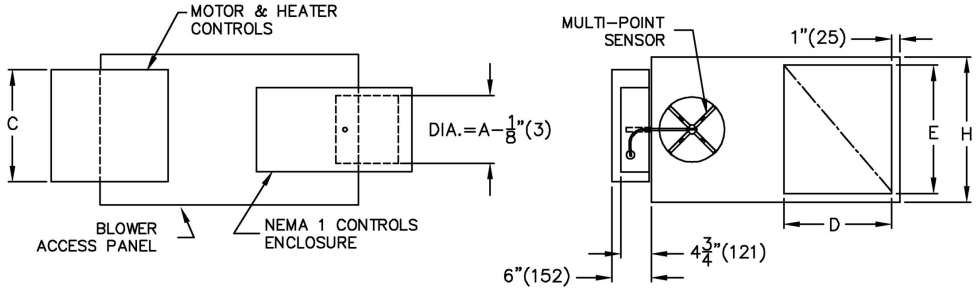
FDV5 Fan Powered Variable Volume, Digital Controls by Others



Dimensions - IMPERIAL UNITS (inches)											
Unit Size	Maximum Fan CFM	Primary Air Inlet	Return Air Inlet		Outlet Duct		W	H	L	K	Gauge
			D	E	B	C					
3010	1350	10	12	15 ½	14	12 ½	31	17 ½	36 ⅛	16 ¼	22

Standard Motor					
Unit Size	Motor H.P.	Full Load Amps			
		115V	208V	240V	277V
3010	1/4	4.7	0.8	0.7	1.7

Controls



- Pressure independent
- Controls are factory mounted, supplied by controls contractor
- Controls mounted on left hand side of unit
- PS - Controls enclosure included
- Multi-point primary airflow sensor supplied by Price

Notes

- 22 Ga. zinc coated steel casing. Mechanically sealed and gasketed, leak resistant construction
- Primary damper blade constructed of two layers of heavy gauge galvanized steel with a sandwiched peripheral gasket
- 1/2" (13) dia. plated solid steel shaft with end indicator mark showing damper position
- Damper leakage rated below 2% of nominal flow at 3" w.g. (747Pa). Damper closing direction - CCW
- Units not to be used for temporary heat or ventilation during construction
- Minimum 0.2" w.g. (50 Pa) external static pressure to operate
- Refer to submitted box schedule for air volumes and inlet sizes

Assembly UL1995 & CSA236 listed

Motor

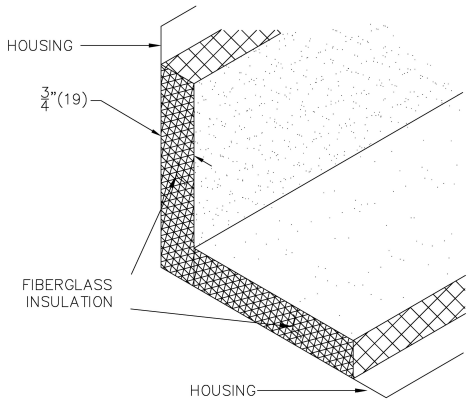
- PSC Electric Motor 1 phase, 60 cycle. Speed controller included

PROJECT: Pleasant Grove Elementary School
ENGINEER:
SUBMITTAL NO: 258514-A
CUSTOMER: JR Mechanical
SUBMITTAL DATE: 12/31/2021
DESCRIPTION: Fan Powered, VAV - DDC By Others
FDV5//I/8003/3010/FAC/CFM/277/1000//EC/3.0/480-3/SCRV-DAT/FUS/IDSW/INSUL////FG75/FTRM31/HBS/PS/////////////////////SCR-112

Liner

FG75

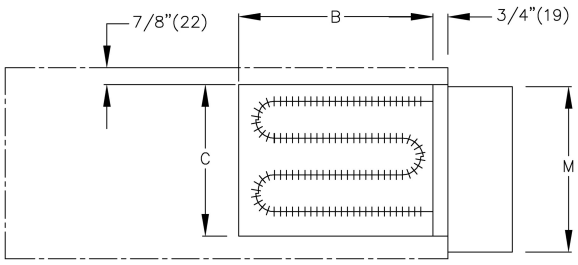
3/4" Thick Fiberglass Liner (Standard)



Internal Insulation - Fiberglass 3/4" (19mm) thick, min. 1.5 lb/cu.ft density, which meets the requirements of NFPA 90A and UL181.

R-value = 3.2

Electric Coil



Unit Size	IMPERIAL UNITS (inches)	
	Outlet Duct B x C	M
3010	14 x 12 ½	15

Standard Coil Notes

- Automatic reset thermal cutout
- Manual reset thermal cutout
- Refer to submitted control diagrams for standard control components to be supplied
- Hinged access door
- Minimum 0.2" w.g. (50 Pa) external static pressure to operate
- Slip and drive discharge connection
- Magnetic contactors where required
- 20 Ga. galvanized steel construction
- Fan interlocked with heating elements
- Low watt density elements, high grade nickel-chrome alloy
- 70 CFM per kW minimum air flow across heater coils
- Assembly ETL certified to UL1995 & CSA236
- Single point electrical connection

Electrical Configuration

Supply Voltage:

- 480/3ø (4 Wire)

Stages/Control: SCRV-DAT

- SCR voltage control with 0-10 VDC control signal & discharge air temperature control
- SCR-112 (3 Phase SCR, 10 Amps Max / 480 Volts Max)

Selected Coil Features

- INSUL - Heater Section Insulated
- FUS - Main supply fuses
- IDSW - Door Interlock Disconnect Switch

PROJECT: Pleasant Grove Elementary School
ENGINEER:
SUBMITTAL NO: 258514-A
CUSTOMER: JR Mechanical
SUBMITTAL DATE: 12/31/2021
DESCRIPTION: Fan Powered, VAV - DDC By Others
FDV5//I/8003/3010/FAC/CFM/277/1000//EC/3.0/480-3/SCRV-DAT/FUS/IDSW/INSUL////FG75/FTRM31/HBS/PS/////////////////////SCR-112

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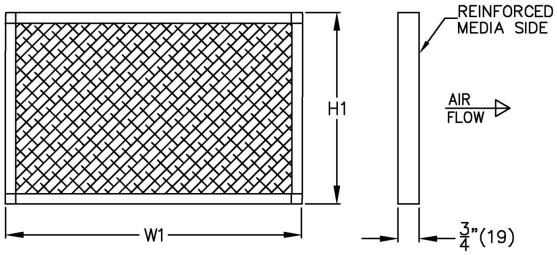
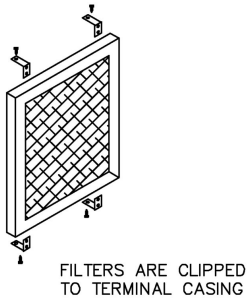
Filter

FTRM31

1" MERV 3 Return Air Filter (Disposable)



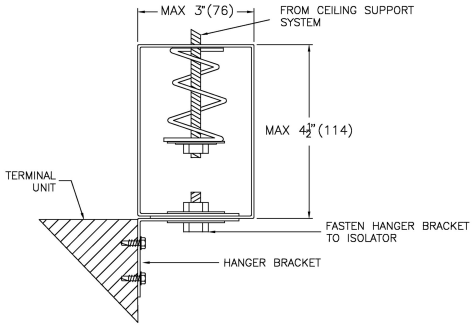


Unit Size	IMPERIAL UNITS (inches)	
	W1	H1
3010	14 ⅞	17 ⅜

- Cardboard Frame
- 1" (25) Nominal Filter Media
- MERV 3 Rating
- Filter clipped to terminal

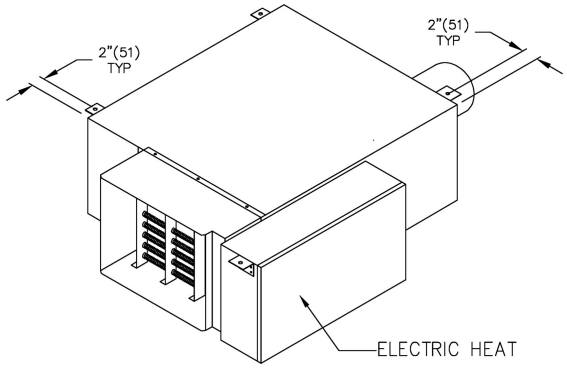
Hanger Brackets

HBS - Spring Isolation



Suggested HBS Locations

Image is for reference only. It may not reflect the exact arrangement of accessories.

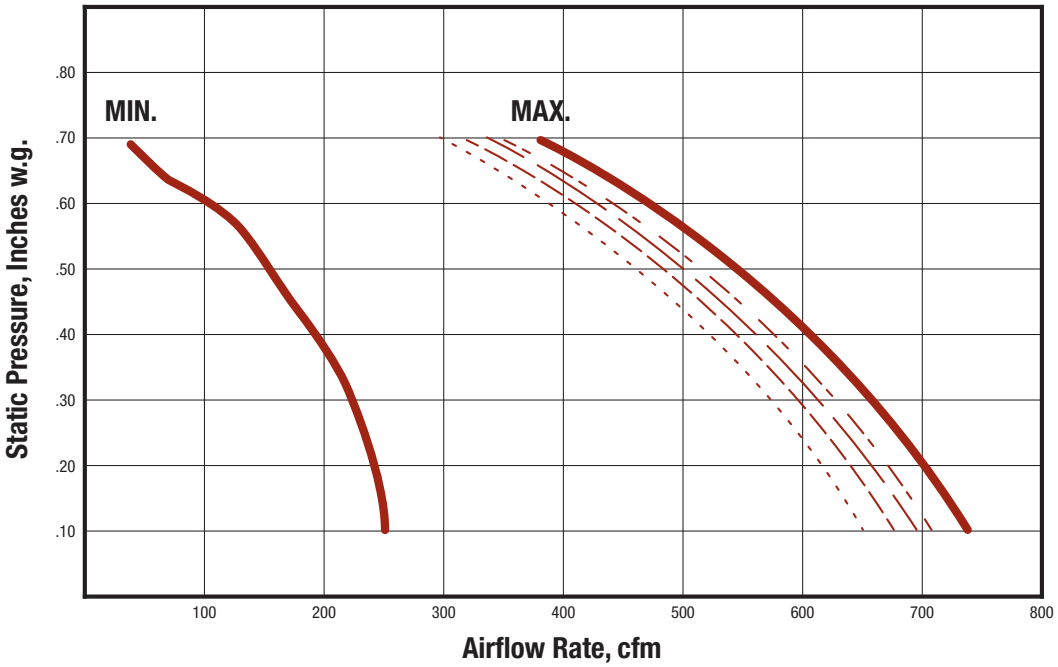


- Hanger brakets are 12 gauge zinc coated steel
- 4 per fan unit, 2 per attenuator
- Brackets are shipped loose for field installation for use with threaded hanger rods (by others)
- Layout indicates suggested hanger bracket locations
- Rated load per bracket: Blue or Red Spring -Max 35 LB, Green or Yellow Spring - Max 65 LB
- 4 Blue or Red Springs per fan unit

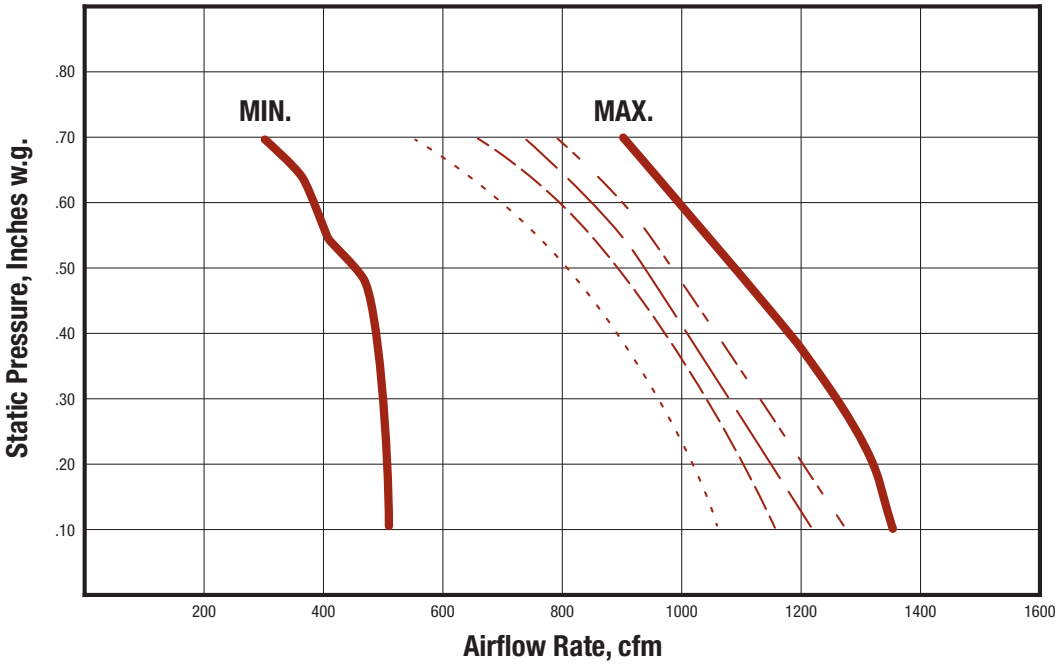
PERFORMANCE DATA

FDV – Fan Performance Curves – PSC Motor

Unit Size 20



Unit Size 30



Maximum Flow

- No Coil or Electric Coil
- 1 Row Water Coil
- 2 Row Water Coil
- 1 Row High Capacity
- 2 Row High Capacity

Derate fan capacity by 10% when inlet filters are supplied

PERFORMANCE DATA

FDV – Recommended Air Volume Ranges

Pneumatic Controls

Unit Size	cfm Min.*	cfm Max.
6	66	450
8	132	800
10	221	1350
12	310	2100
14	439	3000
16	568	4000

Digital Controls

Unit Size	cfm Min.*	cfm Max.
6	66	450
8	132	800
10	221	1350
12	310	2100
14	439	3000
16	568	4000

Notes:

Factory calibrated controls must be selected within the above flow range limits. A minimum value of zero is also available.

The maximum flow setting of the controller must be equal to or less than the selected capacity of the recirculating fan.

On controls mounted by Price but supplied by others, the air volume ranges are guidelines only.

* Selection of airflow limits below the listed values is not recommended. Stability and accuracy may not be acceptable at lower than recommended airflow limits. The actual performance will vary depending on the terminal unit controls supplied.

Minimum airflow limit is based on min .02 in. w.g. differential pressure signal from airflow sensor. Selection of airflow limits below the listed values is not recommended. Stability and accuracy may not be acceptable at lower than recommended airflow limits. The actual performance will vary depending on the terminal unit controls supplied. Maximum airflow limit is based on max 1.0 in. w.g. differential pressure signal from airflow sensor.

PERFORMANCE DATA

FDV – Typical Selection Guide

Cooling Cycle – 100% Primary

Unit Size	Airflow cfm	Min. ΔPs in.w.g.	Min. ΔPt. in.w.g.	Discharge NC ΔPs Across Unit			Radiated NC ΔPs Across Unit		
				0.5 in. w.g.	1.0 in. w.g.	1.5 in. w.g.	0.5 in. w.g.	1.0 in. w.g.	1.5 in. w.g.
2006	250	0.06	0.16	20	23	25	--	--	--
	350	0.11	0.31	22	25	26	--	--	--
	400	0.14	0.40	24	27	28	--		21
	450	0.18	0.50	25	28	30	--	21	23
2008	400	0.02	0.09	--	20	22	--	--	--
	600	0.04	0.21	23	26	28	--	22	24
	700	0.05	0.28	25	28	31	--		27
	800	0.06	0.36	24	28	30	21	26	29
2010	750	0.01	0.11	--	21	25	--	25	28
	1100	0.03	0.23	20	26	29	23	30	33
	1350	0.04	0.35	23	29	32	26	32	36
3008	400	0.02	0.09	--	20	22	--	--	--
	600	0.04	0.21	23	26	28	--	22	24
	700	0.05	0.28	25	28	31	--		27
	800	0.06	0.36	24	28	30	21	26	29
3010	750	0.01	0.11	--	21	25	--	25	28
	1100	0.03	0.23	20	26	29	23	30	33
	1350	0.04	0.35	23	29	32	26	32	36
3012	900	0.01	0.06	--	23	27	--	23	27
	1300	0.01	0.11	21	28	32	21	28	31
	1600	0.01	0.16	24	30	34	24	30	34
	2100	0.01	0.27	27	34	38	27	34	37
4010	750	0.01	0.12	--	20	23	--	--	22
	1100	0.01	0.24	20	25	29	--	22	26
	1350	0.01	0.35	23	28	31	--	24	28
4012	900	0.01	0.07	--	21	25	--	22	26
	1300	0.01	0.14	--	26	29	--	25	29
	1600	0.01	0.21	22	28	32	21	27	31
	2100	0.01	0.36	26	32	36	24	30	34
4014	1500	0.01	0.08	--	26	30	22	28	32
	2100	0.01	0.15	22	30	34	25	31	35
	2500	0.01	0.21	25	32	36	26	33	37
	3000	0.01	0.30	27	34	38	28	35	39
5012	900	0.01	0.08	--	--	--	--	--	23
	1300	0.01	0.16	--	20	23	--	23	26
	1600	0.01	0.24	--	23	26	21	26	28
	2100	0.01	0.41	20	26	29	23	28	31
5014	1500	0.01	0.11	--	--	23	--	24	27
	2100	0.01	0.20	--	24	27	22	27	31
	2500	0.01	0.28	--	26	29	24	29	32
	3000	0.01	0.41	23	28	32	25	31	34
5016	2500	0.01	0.14	--	24	28	24	31	35
	2800	0.01	0.18	--	26	30	25	32	36
	3500	0.01	0.27	23	30	34	27	34	38
	4000	0.01	0.35	25	32	36	28	35	39
6014	1500	0.01	0.12	--	--	--	--	23	26
	2100	0.01	0.22	--	22	25	20	26	29
	2500	0.01	0.31	--	25	28	22	27	31
	3000	0.01	0.44	23	28	31	23	29	33
6016	2500	0.01	0.17	--	20	24	22	27	31
	2800	0.01	0.21	--	22	26	23	29	32
	3500	0.01	0.32	--	26	29	25	31	34
	4000	0.01	0.41	22	28	31	27	32	36

Performance Notes:

1. NCs are derived from sound power levels, which are obtained in accordance with AHRI Standard 880-2017 and ASHRAE Standard 130-2016.
2. NCs are derived from sound power levels which include duct end corrections per AHRI Standard 880 -2017.
3. Blank spaces (--) indicate NCs less than 20.
4. ΔPs is the difference in static pressure from inlet to discharge of the unit.
5. ΔPt is the difference in total pressure from inlet to discharge of the unit.
6. Min. ΔPs is the minimum static pressure required to achieve rated airflow.
7. Fan external static pressure is 0.25 in.w.g. in all cases.
8. NC values are calculated based on typical attenuation values outlined in Appendix E, AHRI Standard 885- 2008, "A Procedure for Estimating Occupied Space Sound Levels in the Application of Air Terminals and Air Outlets."

Typical Attenuation Values:

Radiated Sound

Total Deduction	Octave Band Mid Frequency, Hz.					
	125	250	500	1000	2000	4000
All Sizes	18	19	20	26	31	36

Discharge Sound

Total Deduction	Octave Band Mid Frequency, Hz.					
	125	250	500	1000	2000	4000
< 300 cfm	24	28	39	53	59	40
300 – 700 cfm	27	29	40	51	53	39
> 700 cfm	29	30	41	51	52	39

PERFORMANCE DATA

FDV – Typical Selection Guide

Heating Cycle – Fan Only

Unit Size	Airflow cfm	Discharge NC	Radiated NC
20	250	--	30
	350	--	32
	450	--	33
	550	--	33
	600	--	34
30	500	--	28
	675	--	31
	800	--	32
	975	--	34
	1100	22	36
	1250	24	37
40	800	--	33
	1020	22	36
	1240	26	38
	1460	28	40
	1680	30	42
	1900	32	43
50	1500	23	38
	1680	24	40
	1860	27	43
	2040	29	45
	2220	31	47
	2300	32	48
60	2000	27	44
	2180	28	45
	2360	30	47
	2540	31	48
	2720	32	49
	2900	34	50

Performance Notes:

1. NCs are derived from sound power levels, which are obtained in accordance with AHRI Standard 880-2017.
2. NCs are derived from sound power levels which include duct end corrections per AHRI Standard 880-2017.
3. Blank spaces (--) indicate NCs less than 20.
4. Fan external static pressure is 0.25 in.w.g. in all cases.
5. NC values are calculated based on typical attenuation values outlined in Appendix E, AHRI Standard 885- 2008, "A Procedure for Estimating Occupied Space Sound Levels in the Application of Air Terminals and Air Outlets."

Typical Attenuation Values:

Radiated Sound

Total Deduction	Octave Band Mid Frequency, Hz.					
	125	250	500	1000	2000	4000
All Sizes	18	19	20	26	31	36

Discharge Sound

Total Deduction	Octave Band Mid Frequency, Hz.					
	125	250	500	1000	2000	4000
< 300 cfm	24	28	39	53	59	40
300 – 700 cfm	27	29	40	51	53	39
> 700 cfm	29	30	41	51	52	39

PERFORMANCE DATA

FDV – Discharge Sound Data

Cooling Cycle – 100% Primary

Unit Size	Airflow cfm	Sound Power Levels dB re 10^{-12} Watts																	
		0.5 in. w.g. Octave Band						1.0 in. w.g. Octave Band						1.5 in. w.g. Octave Band					
		2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7
2006	250	64	50	41	35	31	27	67	54	44	38	34	33	68	56	46	40	37	36
	350	68	55	46	41	36	31	71	60	50	44	40	36	72	62	52	45	42	40
	400	70	58	48	43	38	32	72	62	52	46	42	38	74	64	54	48	44	41
	450	71	60	50	45	40	34	74	64	54	48	44	39	75	66	56	49	46	42
2008	400	65	51	44	38	35	28	67	55	48	42	40	35	69	58	50	44	43	40
	600	69	57	49	43	39	32	72	61	52	47	44	39	74	64	55	49	48	43
	700	71	59	50	45	41	33	74	63	54	49	46	40	75	66	56	51	49	45
	800	72	61	52	47	42	34	75	65	56	50	48	41	77	68	58	52	51	46
2010	750	66	55	49	45	40	32	70	60	55	50	46	40	73	63	58	53	50	45
	1100	69	59	53	50	44	36	74	65	58	54	50	44	77	68	62	57	54	49
	1350	71	62	55	52	46	38	76	67	60	57	53	46	78	70	64	60	56	51
3008	400	65	51	44	38	35	28	67	55	48	42	40	35	69	58	50	44	43	40
	600	69	57	49	43	39	32	72	61	52	47	44	39	74	64	55	49	48	43
	700	71	59	50	45	41	33	74	63	54	49	46	40	75	66	56	51	49	45
	800	72	61	52	47	42	34	75	65	56	50	48	41	77	68	58	52	51	46
3010	750	66	55	49	45	40	32	70	60	55	50	46	40	73	63	58	53	50	45
	1100	69	59	53	50	44	36	74	65	58	54	50	44	77	68	62	57	54	49
	1350	71	62	55	52	46	38	76	67	60	57	53	46	78	70	64	60	56	51
3012	900	66	56	53	47	43	35	72	62	60	54	49	43	75	66	64	58	53	47
	1300	70	59	55	50	46	39	75	66	62	57	52	46	78	69	67	61	56	51
	1600	72	61	57	51	48	41	77	67	64	58	54	48	80	71	68	62	58	53
	2100	75	63	59	53	50	44	80	70	66	60	56	51	83	74	70	64	60	55
4010	750	65	54	48	44	37	33	69	59	54	50	43	40	72	63	58	53	47	44
	1100	69	59	52	49	41	36	73	64	58	55	48	43	76	68	62	58	51	47
	1350	71	62	54	52	43	37	76	67	60	57	50	44	78	70	64	61	53	49
4012	900	65	54	49	43	38	31	70	60	56	50	45	39	73	63	60	55	49	43
	1300	69	59	53	47	41	35	74	64	59	54	48	42	76	68	63	58	52	47
	1600	71	61	55	49	43	37	76	67	61	56	50	44	79	70	66	61	54	49
	2100	73	64	57	52	45	39	78	70	64	59	52	47	81	73	68	63	56	52
4014	1500	68	59	54	49	44	38	74	64	60	56	50	45	77	66	64	60	54	49
	2100	71	63	57	52	47	41	77	68	63	59	53	48	80	70	67	63	57	52
	2500	73	65	59	54	48	43	78	70	65	60	55	50	82	72	68	64	58	53
	3000	74	67	61	55	50	45	80	72	66	62	56	51	83	74	70	66	60	55
5012	900	61	51	46	41	38	32	66	56	51	47	44	40	68	58	53	50	48	44
	1300	65	56	50	46	43	36	69	61	55	51	48	43	72	63	58	55	52	48
	1600	67	59	53	48	45	37	71	63	57	54	51	45	74	66	60	57	54	50
	2100	69	63	56	52	48	40	74	67	61	57	54	48	76	70	63	61	57	52
5014	1500	64	56	51	48	44	37	69	60	56	54	50	44	72	63	59	58	54	49
	2100	67	60	54	51	47	41	72	65	59	57	54	48	75	67	63	61	58	52
	2500	68	63	56	53	49	43	74	67	61	59	56	50	76	70	64	63	60	54
	3000	70	65	58	54	51	45	75	69	63	61	58	52	78	72	66	65	62	56
5016	2500	67	59	54	52	47	43	72	64	60	59	55	50	75	66	63	63	59	54
	2800	68	61	55	53	48	44	74	65	61	60	56	51	77	68	65	64	60	55
	3500	71	64	58	55	50	46	77	68	64	62	58	53	80	71	67	66	62	57
	4000	73	66	59	56	51	47	78	70	65	63	59	54	81	73	69	67	63	58
6014	1500	63	52	51	47	45	40	67	57	56	53	51	46	69	59	59	57	54	50
	2100	67	57	54	50	48	43	71	61	59	56	54	49	73	64	62	59	57	53
	2500	69	59	55	51	50	45	73	63	61	57	56	51	75	66	64	61	59	55
	3000	71	61	57	53	52	47	75	66	62	59	57	53	78	68	66	62	61	56
6016	2500	65	57	54	49	47	42	69	62	60	55	53	49	72	65	64	59	57	53
	2800	66	58	55	50	48	43	71	63	61	56	54	50	74	66	65	60	58	54
	3500	69	61	57	52	50	46	74	66	64	58	56	52	76	69	67	62	60	56
	4000	71	63	59	53	51	47	75	68	65	59	57	54	78	71	69	63	61	57

Performance Notes:

1. Test data obtained in accordance with AHRI Standard 880-2017 and ASHRAE Standard 130-2016.
2. Sound power levels include duct end corrections per AHRI Standard 880-2017.
3. Fan external static pressure is 0.25 in.w.g. in all cases.
4. AHRI certified data is highlighted in blue. All other data are application ratings.
5. Application ratings are outside the scope of the AHRI 880 Certification Program.

PERFORMANCE DATA

FDV – Radiated Sound Data

Cooling Cycle – 100% Primary

Unit Size	Airflow cfm	Sound Power Levels Lw dB re 10^{-12} Watts																	
		0.5 in. w.g.						1.0 in. w.g.						1.5 in. w.g.					
		Octave Band						Octave Band						Octave Band					
		2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7
2006	250	48	37	33	30	25	23	52	41	36	31	26	25	54	43	37	32	27	26
	350	52	42	39	35	30	27	56	46	42	37	31	29	58	48	44	37	32	31
	400	54	44	42	37	32	29	57	48	45	39	33	31	59	50	46	39	34	32
	450	55	46	44	39	34	30	59	50	47	40	35	33	61	52	49	41	36	34
2008	400	51	41	37	30	25	19	55	45	40	32	29	23	57	47	41	34	31	26
	600	56	47	43	35	29	23	59	51	45	38	33	27	61	53	47	40	36	30
	700	58	49	45	37	31	24	61	53	48	40	35	29	63	55	49	42	37	31
	800	59	51	47	39	33	25	63	55	50	42	36	30	65	57	51	43	39	33
2010	750	57	47	41	36	29	25	62	53	47	41	34	30	65	56	50	43	37	33
	1100	60	51	45	40	32	27	66	57	51	44	37	32	69	60	54	46	40	35
	1350	63	53	47	41	34	28	68	59	53	46	39	34	71	63	56	48	42	37
3008	400	51	41	37	30	25	19	55	45	40	32	29	23	57	47	41	34	31	26
	600	56	47	43	35	29	23	59	51	45	38	33	27	61	53	47	40	36	30
	700	58	49	45	37	31	24	61	53	48	40	35	29	63	55	49	42	37	31
	800	59	51	47	39	33	25	63	55	50	42	36	30	65	57	51	43	39	33
3010	750	57	47	41	36	29	25	62	53	47	41	34	30	65	56	50	43	37	33
	1100	60	51	45	40	32	27	66	57	51	44	37	32	69	60	54	46	40	35
	1350	63	53	47	41	34	28	68	59	53	46	39	34	71	63	56	48	42	37
3012	900	56	46	42	37	28	26	61	52	48	43	33	31	64	56	52	46	37	34
	1300	59	50	45	40	31	28	64	56	51	45	37	33	67	59	55	49	40	36
	1600	61	52	46	41	33	29	66	58	53	47	39	34	69	61	57	50	42	37
	2100	64	55	49	43	36	30	69	61	55	49	41	35	72	64	59	52	44	38
4010	750	52	44	40	35	26	25	57	50	44	39	30	28	60	54	47	41	33	30
	1100	55	48	43	39	30	27	60	54	48	43	35	30	63	57	51	45	38	33
	1350	56	49	45	41	32	28	61	55	50	45	37	32	64	59	53	47	40	34
4012	900	55	46	42	34	27	24	60	52	48	40	33	29	62	56	51	43	36	32
	1300	58	49	45	37	30	26	62	56	51	43	36	31	65	59	54	46	39	34
	1600	59	51	46	38	32	27	64	57	53	44	37	32	67	61	56	48	41	35
	2100	61	54	49	40	34	28	66	60	55	46	39	33	69	64	58	50	43	36
4014	1500	58	53	48	41	35	29	63	58	54	46	41	35	65	62	57	50	44	39
	2100	61	55	51	44	39	32	66	61	57	49	44	39	68	64	60	53	48	42
	2500	63	57	52	45	40	34	67	62	58	51	46	40	70	66	62	54	49	44
	3000	64	58	54	47	42	36	69	64	60	52	48	42	71	67	63	56	51	46
5012	900	50	43	41	33	27	24	54	48	46	39	32	29	57	51	49	43	35	33
	1300	54	47	45	38	32	27	58	52	49	44	37	32	61	55	52	47	40	36
	1600	56	49	47	41	35	29	60	54	51	47	39	34	63	57	54	50	42	37
	2100	59	52	49	44	38	31	63	57	54	50	43	36	66	60	56	53	46	40
5014	1500	54	48	45	38	32	26	59	53	50	44	38	33	62	56	53	47	42	37
	2100	57	51	48	41	36	30	62	56	53	47	42	37	65	59	56	51	45	41
	2500	59	53	50	43	38	32	64	58	54	49	44	39	67	61	57	53	47	43
	3000	60	55	51	45	39	34	66	59	56	51	46	41	69	62	59	54	49	45
5016	2500	59	52	50	44	38	33	64	57	56	50	45	41	67	60	60	53	49	45
	2800	60	54	51	45	40	35	65	58	57	51	47	42	68	61	61	55	51	46
	3500	63	56	53	47	42	38	68	61	59	53	49	45	71	63	63	57	53	49
	4000	64	57	54	49	44	40	69	62	60	55	51	47	72	65	64	58	55	51
6014	1500	52	45	44	38	33	28	57	51	49	43	38	33	60	54	52	46	40	36
	2100	55	48	46	40	37	32	61	54	52	46	42	37	64	57	55	49	45	40
	2500	57	50	48	42	39	34	63	56	53	47	44	39	66	59	56	51	47	42
	3000	60	52	49	43	41	36	65	57	55	49	46	41	68	60	58	52	49	44
6016	2500	56	49	48	41	38	34	62	54	53	46	43	38	64	57	56	49	45	41
	2800	58	50	49	43	39	35	63	55	54	48	44	40	66	59	57	51	47	42
	3500	60	52	51	45	42	38	65	58	56	50	47	43	68	61	59	53	50	45
	4000	61	54	52	46	44	40	66	59	58	51	49	44	69	62	61	54	51	47

Performance Notes:

1. Test data obtained in accordance with AHRI Standard 880-2017 and ASHRAE Standard 130-2016.
2. Sound power levels include duct end corrections per AHRI Standard 880-2017.
3. Fan external static pressure is 0.25 in.w.g. in all cases.
4. AHRI certified data is highlighted in blue. All other data are application ratings.
5. Application ratings are outside the scope of the AHRI 880 Certification Program.

PERFORMANCE DATA

FDV – Discharge and Radiated Sound Power Levels

Heating Cycle – Fan Only

Unit Size	Airflow cfm	Sound Power Levels, LW, dB, re 10^{-12} Watts											
		Discharge Sound Data Octave Band						Radiated Sound Data Octave Band					
		2	3	4	5	6	7	2	3	4	5	6	7
20	250	57	48	43	37	33	22	56	61	45	44	41	34
	350	61	50	47	41	38	30	59	62	48	47	45	40
	450	63	52	50	45	41	36	61	63	50	50	48	45
	550	65	53	52	48	44	40	63	63	52	53	51	49
	600	66	54	53	49	45	42	64	64	53	53	52	50
30	500	59	52	49	45	40	32	56	58	53	50	47	41
	675	63	55	53	50	45	39	61	60	56	55	52	47
	800	66	57	55	53	48	42	63	62	58	57	54	50
	975	69	59	58	57	51	47	66	63	59	60	57	54
	1100	71	60	60	59	53	50	68	64	60	61	59	56
	1250	73	61	62	61	56	53	70	65	62	63	61	59
40	800	68	56	53	50	44	39	65	59	58	53	50	43
	1020	71	59	56	54	48	44	68	62	61	56	53	48
	1240	74	62	59	57	52	48	70	64	63	59	56	52
	1460	76	64	61	60	55	52	72	66	65	61	58	55
	1680	77	66	63	62	57	55	73	68	66	62	60	58
	1900	79	68	65	64	60	58	75	70	68	64	62	60
50	1500	70	65	62	57	53	49	72	64	63	60	58	53
	1680	72	67	63	60	56	53	74	66	65	62	60	56
	1860	74	68	65	63	59	56	76	68	67	64	62	58
	2040	76	69	66	65	61	58	77	70	68	66	64	61
	2220	78	70	67	67	63	61	79	71	69	68	66	63
	2300	79	71	68	68	64	62	80	72	70	69	66	63
60	2000	74	67	65	63	59	57	71	70	68	65	62	60
	2180	76	68	66	65	61	59	73	71	69	67	64	62
	2360	77	69	68	67	63	61	74	71	71	68	65	64
	2540	78	70	69	69	65	63	75	72	72	70	67	65
	2720	79	71	70	71	67	65	76	73	73	71	69	67
	2900	80	71	71	73	68	67	77	74	74	73	70	69

Performance Notes:

1. Test data obtained in accordance with AHRI Standard 880-2017 and ASHRAE Standard 130-2016.
2. Sound power levels include duct end corrections per AHRI Standard 880-2017.
3. Fan external static pressure is 0.25 in.w.g. in all cases.
4. AHRI certified data is highlighted in blue. All other data are application ratings.
5. Application ratings are outside the scope of the AHRI 880 Certification Program.

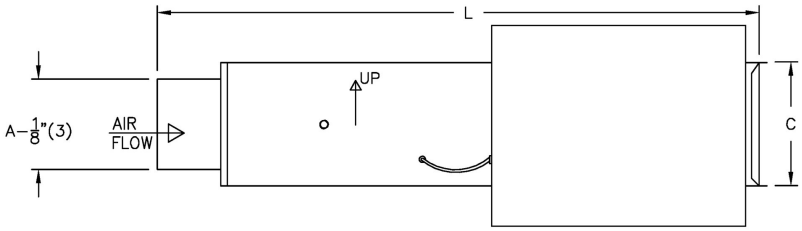
price®

All-In-One
Terminals

Contractor: JR Mechanical
Engineer: SUD Associates, P.A.
Location: Burlington, NC

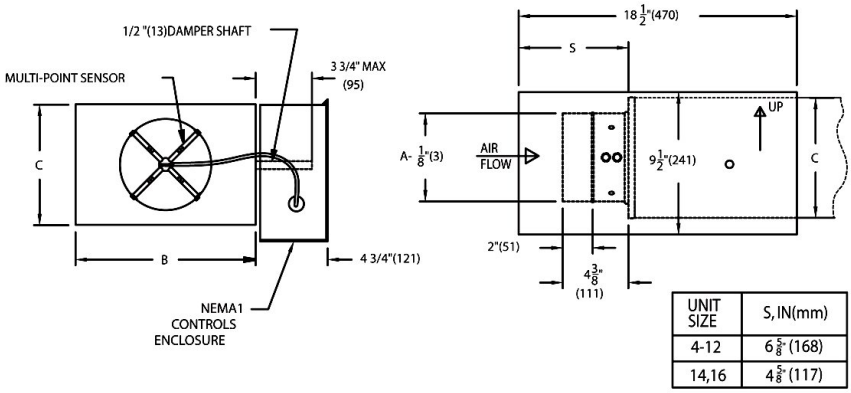
Tag	A3-1	A3-2
Qty	1	1
Model	SDV5	SDV5
Unit Size	12	10
Max Primary (CFM)	1650	800
Min Primary (CFM)	545	264
Reheat (CFM)	1000	800
EC Capacity (kW)	6.00	6.00
EAT (°F)	55.00	55.00
LAT (°F)	74.00	78.70
Volts	480-3	480-3
Steps	SCRV-DAT	SCRV-DAT
MCA	9.80	9.80
MOP	15.00	15.00
Weight (lbs)	60	51
Comments	Right Hand	Left Hand

SDV5 Single Duct w/ Electric Coil



Unit Size	Max Airflow	Outlet		Inlet	Length
		B	C	A	L
12	2600	16	15	12	40 1/4

Digital Controls



UNIT SIZE	S, IN(mm)
4-12	6 5/8"(168)
14,16	4 5/8"(117)

- Controls are factory mounted, supplied by controls contractor
- Controls Enclosure will be supplied as illustrated on right hand side unless specified otherwise
- Multi-point Primary Airflow Sensor supplied by Price

Notes

- 22 Ga. zinc coated terminal and 20 Ga. heater, mechanically sealed, leak resistant construction
- Rectangular discharge opening with slip and drive cleat duct connection

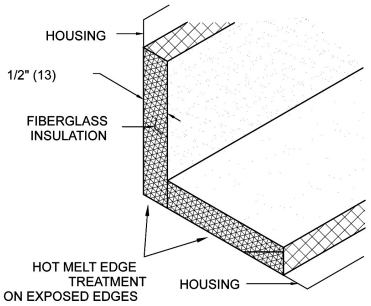
AHRI CERTIFIED™ www.ahridirectory.org VAV Terminals AHRI Standard 880

c ETL LISTED us Intertek

Assembly UL1995 & CSA236 certified

Liner FG50

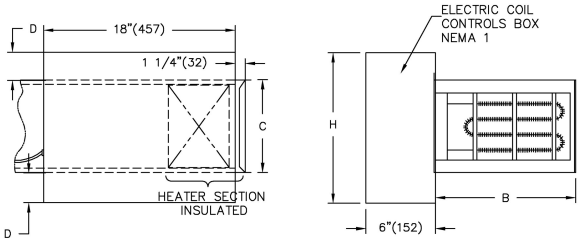
Internal Insulation – Fiberglass ½" (13mm) thick, min. 1.5 lb/cu.ft density, meets requirements of NFPA90A and UL 181. R-Value = 2.1



PROJECT: Pleasant Grove Elementary School
ENGINEER:
DESCRIPTION: Single Duct - DDC By Others
SUBMITTAL NO: 258148-M
CUSTOMER: JR Mechanical
SUBMITTAL DATE: 12/31/2021

SDV5//I/2001/12/FAC/CFM//EC/6.0/480-3/SCRV-DAT/FUS/IDSW/INSUL///////FG50//HB/PS/////////////////////SCR-112/

Electric Coil



Unit Size	B	C	H	D
12	16	15	17	1

Standard Coil Notes

- Automatic reset thermal cutout
- Manual reset thermal cutout
- Hinged access door
- Refer to submitted control diagrams for standard control components to be supplied
- 24 VAC / 50 VAC Class 2 Transformer
- Low watt density elements, high grade nickel-chrome alloy
- Air flow switch
- Single point electrical connection
- Magnetic Contactors

Electrical Configuration

Supply Voltage:

- 480/3ø (3 Wire)

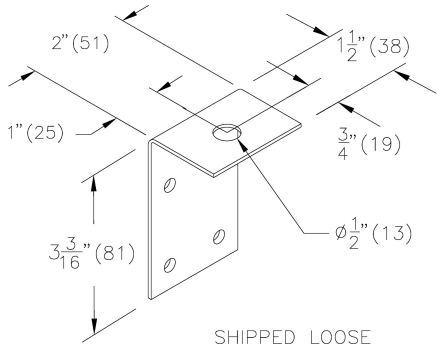
Stages/Control: SCRV-DAT

- SCR voltage control with 0-10 VDC control signal & DAT control
- SCR-112 (3 Phase SCR, 10 Amps Max / 480 Volts Max)

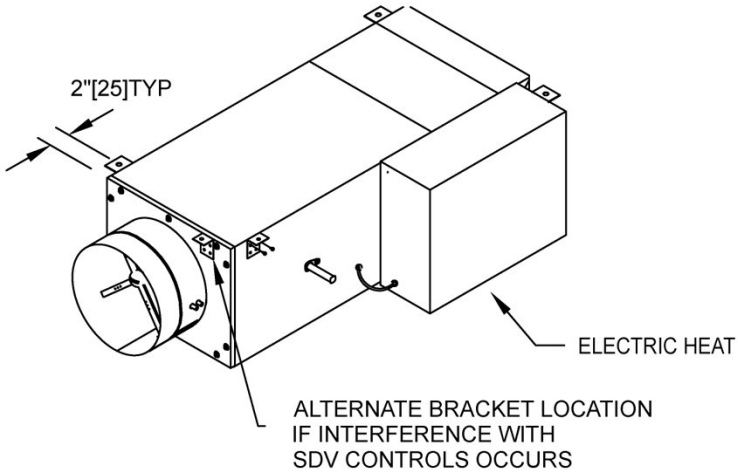
Selected Coil Features

- FUS - Main line fusing
- IDSW - Door Interlock Disconnect
- INSUL - Insulated Electric Coil

Hanger Bracket HB



Suggested HB Location



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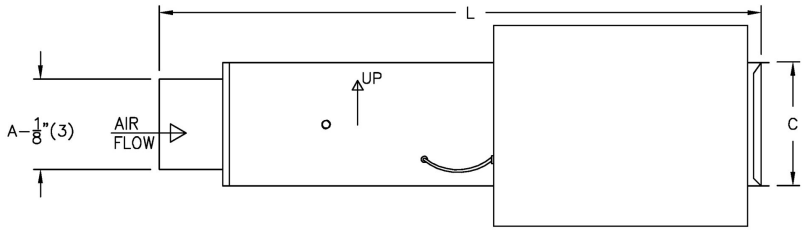
CUSTOMER: JR Mechanical
SUBMITTAL DATE: 12/31/2021
DESCRIPTION: Single Duct - DDC By Others
SDV5//I/2001/12/FAC/CFM//EC/6.0/480-3/SCRV-DAT/FUS/IDSW/INSUL///////FG50//HB/PS/////////////////////SCR-112/

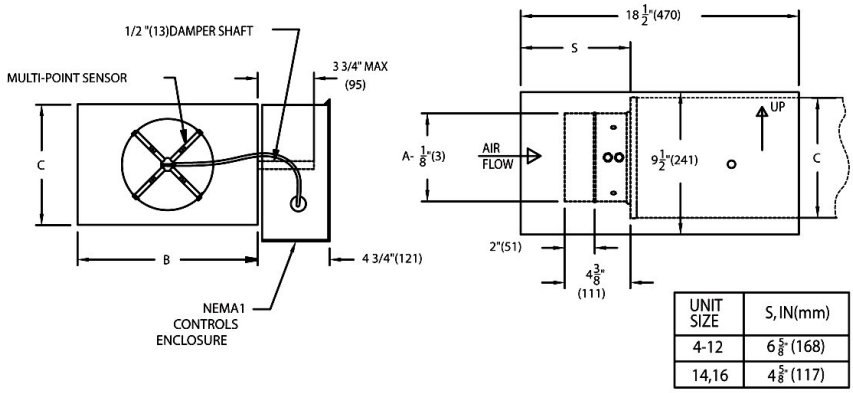
All metric dimensions () are soft converted. Imperial dimensions are converted to metric and rounded to the nearest millimeter.
Information within this document is subject to change without notice.

SDV5 Single Duct w/ Electric Coil



Unit Size	Max Airflow	Outlet		Inlet	Length
		B	C	A	L
10	1800	14	12 1/2	10	40 1/4

Digital Controls



UNIT SIZE	S, IN(mm)
4-12	6 5/8"(168)
14,16	4 5/8"(117)

- Controls are factory mounted, supplied by controls contractor
- Controls Enclosure will be supplied as illustrated on right hand side unless specified otherwise
- Control assembly will be supplied on left hand side (right hand shown)
- Multi-point Primary Airflow Sensor supplied by Price

Notes

- 22 Ga. zinc coated terminal and 20 Ga. heater, mechanically sealed, leak resistant construction
- Rectangular discharge opening with slip and drive cleat duct connection

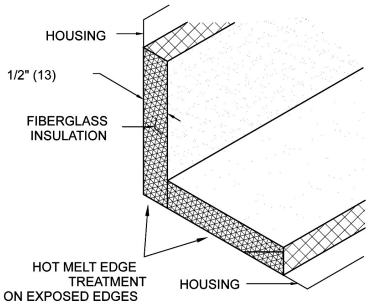
AHRI CERTIFIED™ www.ahridirectory.org VAV Terminals AHRI Standard 880

C ETL LISTED US Intertek

Assembly UL1995 & CSA236 certified

Liner FG50

Internal Insulation – Fiberglass ½" (13mm) thick, min. 1.5 lb/cu.ft density, meets requirements of NFPA90A and UL 181. R-Value = 2.1



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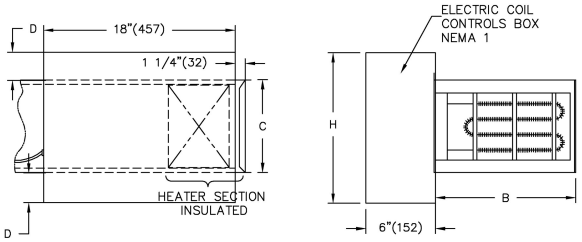
SUBMITTAL DATE: 12/31/2021
DESCRIPTION: Single Duct - DDC By Others
SDV5//I/2001/10/FAC/CFM//EC/6.0/480-3/SCRV-DAT/FUS/IDSW/INSUL///////FG50//HB/PS/CLH/////////////////////SCR-112/

Electric Coil



Unit Size	B	C	H	D
10	14	12 1/2	12	See Notes

Standard Coil Notes

- Automatic reset thermal cutout
- Manual reset thermal cutout
- Hinged access door
- Refer to submitted control diagrams for standard control components to be supplied
- Control box doesn't overhang SDV if the Unit Size is 9,10,14,16, or 24x16
- Low watt density elements, high grade nickel-chrome alloy
- Air flow switch
- Single point electrical connection
- Magnetic Contactors
- 24 VAC / 50 VAC Class 2 Transformer

Electrical Configuration

Supply Voltage:

- 480/3ø (3 Wire)

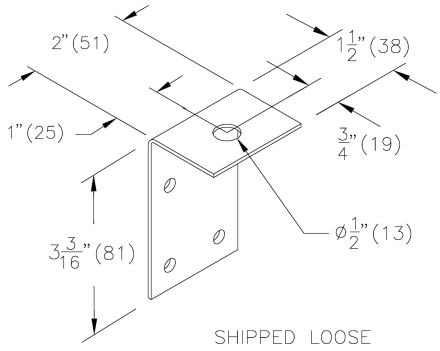
Stages/Control: SCRV-DAT

- SCR voltage control with 0-10 VDC control signal & DAT control
- SCR-112 (3 Phase SCR, 10 Amps Max / 480 Volts Max)

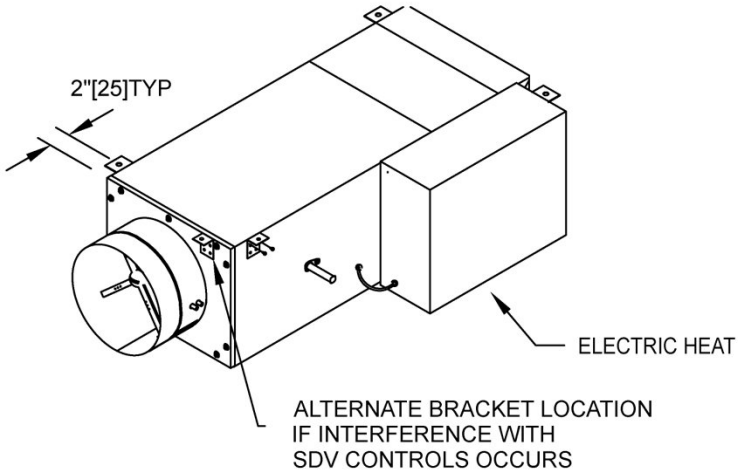
Selected Coil Features

- FUS - Main line fusing
- IDSW - Door Interlock Disconnect
- INSUL - Insulated Electric Coil

Hanger Bracket HB



Suggested HB Location



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SDV5//I/2001/10/FAC/CFM//EC/6.0/480-3/SCRV-DAT/FUS/IDSW/INSUL///////FG50//HB/PS/CLH////////////////////SCR-112/

PERFORMANCE DATA

SDV – Recommended Air Volume Ranges

Pneumatic

Unit Size	cfm Min.3	cfm Max.
4	50	225
5	63	350
6	66	450
7	99	650
8	132	800
9	167	1050
10	221	1350
12	304	2100
14	439	3000
16	568	4000
24 x 16	1187	8000

Digital Controls

Unit Size	cfm Min.[4]	cfm Max.
4	45	400
5	60	500
6	65	550
7	95	800
8	125	1100
9	160	1400
10	210	1800
12	300	2600
14	430	3700
16	575	5000
24 x 16	1185	8400

Notes:

1. Factory calibrated controls must be selected within the above flow range limits. A minimum value of 0 is also available. When an auxiliary flow setting is specified, the value must be greater than the minimum setting and within the range limits.
2. On controls mounted by Price but supplied by others, the air volume ranges are guidelines only.
3. Minimum airflow limit for pneumatic controls is based on min 0.02 in.w.g. differential pressure signal from airflow sensor. Maximum airflow limit is based on max 1.0 in.w.g. differential pressure signal from the airflow sensor.
4. Minimum airflow limit for digital controls is based on min 0.02 in.w.g. differential pressure signal from airflow sensor. Maximum airflow limit is based on max 1.5 in.w.g. differential pressure signal from airflow sensor.
5. Selection of airflow limits outside the listed values is not recommended. Stability and accuracy may not be acceptable at lower than recommended airflow limits. The actual performance will vary depending on the terminal unit controls supplied.

PERFORMANCE DATA

SDV – Typical Selection Guide

Unit Size	Airflow cfm	Basic Unit in.w.g.	w/Atten. in.w.g.	Minimum ΔPs Across Assembly in.w.g.		Min. ΔPt. Basic Unit in.w.g.	Discharge NC Basic Unit ΔPs Across Unit			Discharge NC c/w 36 in. Attenuator ΔPs Across Unit			Radiated NC Basic Unit ΔPs Across Unit		
				1 Row Coil	2 Row Coil		0.5 in.w.g.	1.5 in.w.g.	3.0 in.w.g.	0.5 in.w.g.	1.5 in.w.g.	3.0 in.w.g.	0.5 in.w.g.	1.5 in.w.g.	3.0 in.w.g.
4	75	0.01	0.01	0.02	0.03	0.06	--	--	--	--	--	--	--	--	--
	150	0.01	0.01	0.03	0.06	0.19	29	29	29	21	24	26	--	--	--
	200	0.01	0.01	0.04	0.09	0.33	35	35	35	26	29	31	21	22	23
	300	0.01	0.01	0.08	0.16	0.74	40	40	40	28	31	33	29	31	31
	400	0.01	0.01	0.12	0.25	1.31	46	46	47	33	36	38	35	36	37
5	125	0.01	0.01	0.03	0.05	0.06	--	--	20	--	--	--	--	--	--
	250	0.01	0.01	0.06	0.12	0.21	24	30	33	--	24	28	--	20	23
	300	0.01	0.01	0.08	0.16	0.3	23	29	32	--	23	27	--	24	27
	400	0.01	0.01	0.12	0.25	0.53	27	34	38	--	27	31	22	29	32
	500	0.01	0.01	0.16	0.35	0.82	31	38	42	22	30	34	26	32	36
6	150	0.02	0.02	0.04	0.07	0.05	--	20	23	--	--	--	--	--	--
	225	0.05	0.05	0.09	0.14	0.13	20	26	30	--	20	24	--	--	20
	300	0.08	0.08	0.15	0.23	0.21	21	27	31	--	--	23	--	21	25
	400	0.14	0.14	0.25	0.38	0.38	26	36	36	--	23	27	20	26	29
	550	0.27	0.27	0.45	0.67	0.72	31	37	41	21	27	31	25	31	34
7	250	0.02	0.02	0.06	0.10	0.07	--	23	26	--	--	20	--	--	--
	350	0.03	0.03	0.09	0.17	0.13	--	24	28	--	--	21	--	--	20
	550	0.07	0.07	0.20	0.37	0.31	25	31	36	--	24	28	--	24	27
	625	0.1	0.1	0.26	0.47	0.41	27	33	38	--	25	30	20	25	29
	800	0.16	0.16	0.41	0.72	0.66	28	36	41	20	27	32	23	28	33
8	400	0.01	0.01	0.09	0.19	0.08	--	22	26	--	--	21	--	--	21
	500	0.01	0.01	0.12	0.27	0.12	20	26	30	--	--	24	--	--	24
	700	0.01	0.01	0.21	0.46	0.22	26	31	36	--	24	28	--	24	29
	900	0.01	0.01	0.31	0.69	0.35	27	34	38	--	24	29	22	28	33
	1100	0.01	0.01	0.43	0.96	0.52	31	37	41	--	27	32	26	31	36
9	450	0.01	0.01	0.06	0.13	0.07	--	22	28	--	--	25	--	--	22
	700	0.01	0.01	0.12	0.25	0.15	--	26	33	--	22	28	--	21	26
	900	0.01	0.01	0.17	0.38	0.23	20	27	34	--	22	29	--	23	29
	1100	0.01	0.01	0.24	0.52	0.35	23	30	37	--	24	30	--	25	31
	1400	0.01	0.01	0.35	0.77	0.55	26	33	39	--	26	32	20	28	33
10	550	0.01	0.01	0.08	0.17	0.06	--	21	28	--	--	23	--	--	22
	950	0.01	0.01	0.19	0.41	0.16	--	26	32	--	21	27	--	22	28
	1100	0.01	0.01	0.24	0.52	0.21	--	28	34	--	23	28	--	24	30
	1500	0.01	0.01	0.39	0.87	0.39	23	31	38	--	26	32	21	27	33
	1800	0.01	0.01	0.53	1.17	0.55	25	34	40	20	28	34	23	30	35
12	900	0.01	0.01	0.11	0.23	0.07	--	21	29	--	--	25	--	20	26
	1200	0.01	0.01	0.17	0.37	0.12	--	24	31	--	22	28	--	24	29
	1600	0.01	0.01	0.27	0.58	0.21	--	26	33	--	24	31	--	26	32
	1800	0.01	0.01	0.32	0.71	0.27	--	28	34	--	25	32	--	28	34
	2600	0.01	0.01	0.58	1.29	0.54	21	32	38	21	30	36	23	32	38
14	1000	0.01	0.01	0.08	0.16	0.05	--	--	27	--	23	30	--	--	26
	1500	0.01	0.01	0.14	0.29	0.11	--	22	30	--	25	32	--	23	30
	2100	0.01	0.01	0.23	0.50	0.2	--	26	33	--	28	35	--	26	34
	2700	0.01	0.01	0.35	0.76	0.33	--	28	35	--	29	36	--	29	36
	3700	0.01	0.01	0.58	1.28	0.61	20	31	38	20	32	39	23	33	40
16	1500	0.01	0.01	0.10	0.21	0.07	--	20	28	--	21	29	--	22	29
	2000	0.01	0.01	0.15	0.33	0.11	--	23	31	--	24	32	--	25	32
	2600	0.01	0.01	0.23	0.50	0.18	--	26	33	--	26	34	--	28	35
	3200	0.01	0.01	0.32	0.70	0.27	--	28	35	--	28	36	20	31	38
	4000	0.01	0.01	0.46	1.01	0.41	--	30	37	--	31	38	23	33	40
	5000	0.01	0.01	0.67	1.47	0.64	20	32	40	21	33	40	26	36	43
24x16	3000	0.01	0.01	0.16	0.33	0.06	23	32	37	--	27	32	24	31	35
	4000	0.01	0.01	0.25	0.52	0.11	27	35	41	23	31	36	29	35	39
	5300	0.01	0.01	0.39	0.83	0.18	30	39	44	27	35	40	30	39	43
	6000	0.01	0.01	0.47	1.02	0.23	32	41	46	28	37	42	31	41	45
	7000	0.01	0.01	0.61	1.32	0.3	34	42	48	30	39	44	32	43	47
	8400	0.01	0.01	0.83	1.80	0.43	36	45	50	33	41	46	33	46	50

Performance Notes:

1. NC's are derived from sound power levels, which are obtained in accordance with AHRI Standard 880-2017 and ASHRAE Standard 130-2016.
2. Dashes (--) indicate sound power levels below 20.
3. ΔPs is the difference in static pressure from inlet to discharge of the unit.
4. ΔPt is the difference in total pressure from inlet to discharge of the unit.
5. NC values are calculated based on typical attenuation values outlined in Appendix E, AHRI Standard 885-2008, "A Procedure for Estimating Occupied Space Sound Levels in the Application of Air Terminals and Air Outlets."

Radiated NC is based on 5/8" mineral fiber tile ceiling per AHRI 885-2008 attenuation values.

Radiated Sound

Total Deduction	Octave Band Mid Frequency, Hz					
	120	250	500	1000	2000	4000
All Sizes	18	19	20	26	31	36

Discharge NC is based on environmental effect, end reflection, flex duct, sound power division and lined duct per AHRI 885-2008 attenuation values

Discharge Sound

Total Deduction	Octave Band Mid Frequency, Hz					
	120	250	500	1000	2000	4000
< 300 cfm	24	28	39	53	59	40
300-700 cfm	27	29	40	51	53	39
> 700 cfm	29	30	41	51	52	39

PERFORMANCE DATA

SDV – Discharge Sound Power Levels, Basic Assembly

Unit Size	Airflow cfm	Sound Power Levels Lw dB re 10^{-12} Watts																							
		0.5 in.w.g. Octave Band						1.0 in.w.g. Octave Band						1.5 in.w.g. Octave Band						3.0 in.w.g. Octave Band					
		2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7
4	75	60	53	41	37	35	31	60	53	43	40	39	35	60	53	45	42	42	38	60	54	48	45	46	41
	150	71	65	51	47	43	39	71	66	54	51	48	43	71	66	56	52	50	45	71	66	58	56	55	49
	200	76	71	56	52	47	43	76	71	58	55	51	46	76	71	60	57	54	49	76	72	63	60	58	53
	275	81	77	60	56	51	46	81	77	63	59	55	50	81	77	65	61	58	52	81	78	68	64	62	56
5	125	58	52	44	40	36	33	61	55	48	43	41	38	62	56	50	45	44	41	64	59	54	49	49	47
	250	69	63	53	48	43	40	71	66	57	52	48	45	72	67	59	54	51	48	74	70	63	57	56	53
	300	71	66	56	51	45	41	74	68	60	54	50	47	75	70	62	56	53	50	77	72	66	60	58	55
	375	75	69	59	54	47	43	77	72	63	57	52	49	78	73	65	59	55	52	80	76	69	63	60	57
6	150	60	51	43	39	34	33	62	55	47	43	40	39	64	57	50	45	44	42	67	61	54	49	49	49
	225	64	57	49	44	38	35	67	61	53	48	44	42	69	63	55	50	47	45	72	67	59	54	53	51
	300	68	61	52	47	40	37	71	65	57	51	46	43	73	67	59	53	49	47	75	71	63	58	55	53
	400	72	66	56	50	43	39	74	69	61	55	48	45	76	71	63	57	52	49	79	75	67	61	58	55
	550	75	70	61	54	45	41	78	74	65	58	51	47	80	76	67	61	54	51	83	80	72	65	60	57
7	250	62	52	42	40	37	35	65	57	47	44	43	41	66	60	50	46	46	44	69	64	55	50	51	50
	350	66	57	47	44	40	37	69	62	51	48	46	43	70	64	54	50	49	47	73	69	59	54	54	53
	550	71	63	53	49	44	41	74	68	57	53	50	46	75	71	60	55	53	50	78	75	65	59	58	56
	625	72	65	54	51	45	42	75	70	59	54	51	47	77	73	62	57	54	51	80	77	67	61	59	57
	800	75	69	58	53	47	43	78	73	62	57	53	49	80	76	65	60	56	53	82	81	70	64	62	58
8	400	64	54	46	44	40	36	67	59	50	47	46	43	69	61	53	49	49	46	72	66	57	52	54	52
	500	67	58	49	47	43	38	70	62	53	50	48	44	72	65	56	52	51	48	75	69	60	55	56	54
	700	72	63	54	52	46	41	75	67	58	55	51	47	76	70	61	57	54	51	80	74	65	60	60	57
	900	75	66	58	56	48	43	78	71	62	59	54	49	80	73	65	61	57	53	83	78	69	64	62	59
	1050	77	69	60	58	50	45	80	73	64	61	55	51	82	76	67	63	58	54	85	80	71	67	64	60
9	450	61	54	45	44	42	38	65	60	50	47	47	44	67	63	53	49	50	48	70	69	58	52	56	54
	700	66	58	51	50	46	42	70	64	56	53	51	48	72	67	58	55	54	52	75	73	63	58	59	58
	900	69	60	54	53	48	44	72	66	59	56	53	50	74	69	61	58	56	54	78	75	66	62	61	60
	1100	71	62	56	56	50	46	75	68	61	59	55	52	77	71	64	61	58	56	80	77	69	64	63	62
	1400	74	64	59	59	52	48	77	70	64	62	57	54	79	73	67	64	60	58	83	79	72	68	65	64
10	550	61	54	44	43	41	38	66	60	48	47	47	44	68	63	51	49	50	47	72	68	56	53	55	53
	950	67	60	50	50	46	43	71	65	55	54	51	48	73	68	58	56	54	52	78	73	63	60	60	58
	1100	68	61	52	52	47	44	72	66	57	56	52	50	75	69	60	58	55	53	79	75	65	62	61	59
	1500	71	64	56	56	50	46	75	69	61	60	55	52	78	72	64	62	58	56	82	78	68	66	63	61
	1800	73	66	58	58	51	48	77	71	63	62	56	54	80	74	66	64	60	57	84	79	71	68	65	63
12	900	61	54	49	46	44	42	66	60	54	51	49	48	69	64	57	54	52	51	74	70	62	59	58	57
	1200	63	56	52	49	46	44	69	62	57	54	52	50	72	66	60	57	55	53	77	72	66	62	60	59
	1600	66	58	55	52	49	46	71	64	60	57	54	52	74	68	63	60	57	55	79	74	69	65	62	61
	1800	67	59	56	53	49	47	72	65	62	58	55	53	75	69	65	61	58	56	80	75	70	66	63	62
	2500	70	61	60	57	52	49	75	67	65	62	57	55	78	71	69	64	60	59	83	77	74	69	66	65
14	1000	59	52	47	45	44	41	65	58	52	50	49	48	68	62	55	53	52	51	73	69	60	57	57	58
	1500	62	54	52	49	47	44	68	61	57	54	52	50	71	65	60	56	55	54	76	71	66	61	60	60
	2100	65	57	57	52	50	46	70	63	62	57	55	52	74	67	65	59	57	56	79	74	70	64	62	62
	2500	66	58	60	53	51	47	72	64	65	58	56	53	75	68	68	61	59	57	80	75	73	66	64	64
	3500	69	60	65	56	54	49	74	67	70	61	59	55	78	70	73	64	61	59	83	77	78	69	66	66
16	1500	60	52	49	49	47	43	66	59	55	54	52	49	69	63	58	57	56	53	75	70	63	62	62	60
	2000	62	54	53	51	49	45	68	61	58	56	54	51	72	65	61	59	58	55	77	72	66	65	63	62
	2500	64	56	55	53	50	46	70	63	60	58	56	53	73	67	63	61	59	56	79	73	68	67	65	63
	2800	65	57	56	54	51	47	71	63	61	59	57	53	74	67	64	62	60	57	80	74	70	68	66	64
	3500	67	58	59	56	52	48	73	65	64	61	58	55	76	69	67	64	61	59	82	76	72	69	67	65
	4500	69	60	61	58	54	50	74	67	67	63	60	56	78	71	70	66	63	60	84	77	75	71	69	67
24x16	3000	68	66	60	58	58	51	72	70	66	65	64	58	74	73	69	69	67	62	78	78	75	75	73	69
	4000	72	69	62	60	60	53	76	73	68	67	65	60	78	76	71	71	69	64	82	81	77	77	75	71
	5300	76	72	65	62	61	55	79	76	70	68	67	62	82	79	74	72	71	66	85	84	79	79	76	72
	6000	77	73	66	62	62	55	81	77	71	69	68	62	83	80	75	73	71	66	87	85	80	79	77	73
	7000	79	74	67	63	63	56	83	79	73	70	69	63	85	82	76	74	72	67	89	86	82	80	78	74
	8400	81	76	68	64	64	57	85	81	74	71	70	64	87	84	77	75	74	68	91	88	83	81	79	75

Performance Notes:

1. Test data obtained in accordance with AHRI Standard 880-2017 and ASHRAE Standard 130-2016.
2. Sound power levels include duct end corrections per AHRI Standard 880-2017.
3. AHRI certified data is highlighted in blue. All other data are application ratings.
4. Application ratings are outside the scope of the AHRI 880-2017 Certification Program.

PERFORMANCE DATA

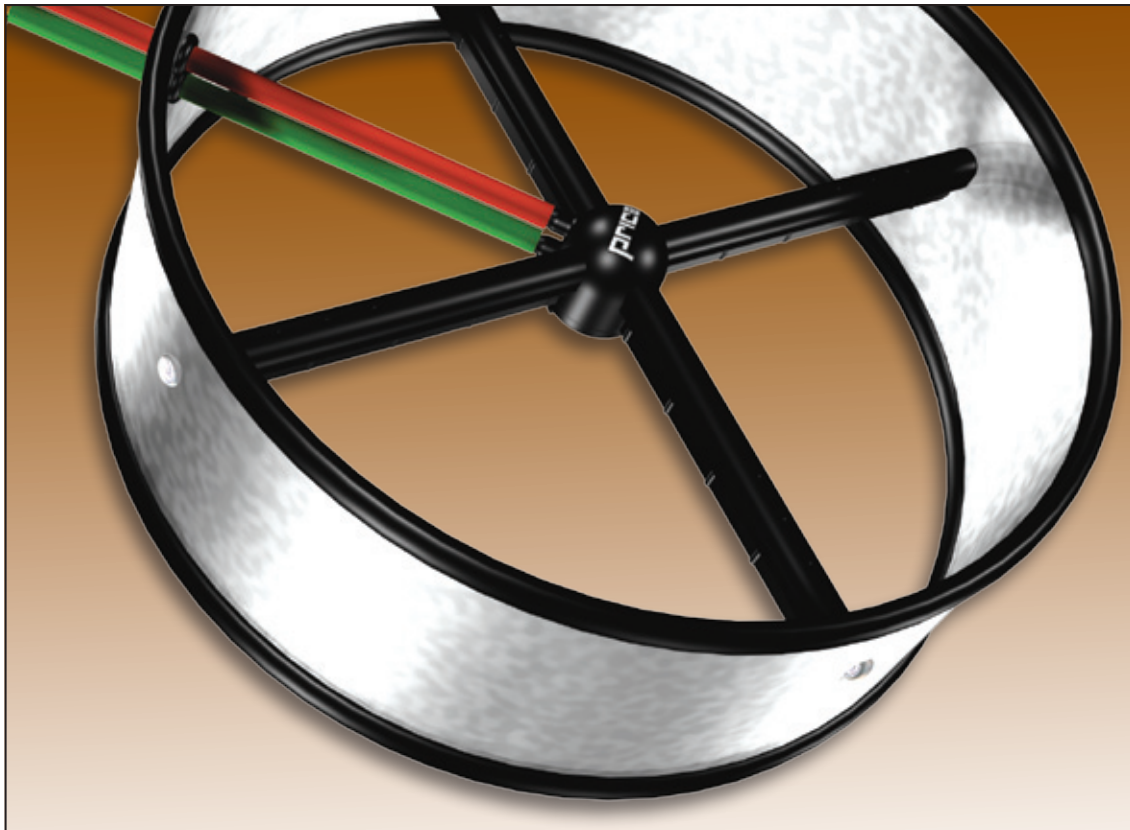
SDV – Radiated Sound Power Levels

Unit Size	Airflow cfm	Sound Power Levels Lw dB re 10^{-12} Watts																							
		0.5 in.w.g. Octave Band						1.0 in.w.g. Octave Band						1.5 in.w.g. Octave Band						3.0 in.w.g. Octave Band					
		2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7
4	75	45	36	26	22	20	20	46	37	29	25	23	23	46	37	31	27	24	25	47	38	34	30	27	28
	150	54	48	35	30	27	25	55	49	39	33	30	28	56	49	41	35	31	30	57	50	44	38	34	34
	200	58	53	40	34	30	27	59	53	43	37	32	30	60	54	45	39	34	32	61	55	48	41	37	36
	275	63	58	44	38	33	29	64	59	47	41	36	33	64	59	49	42	37	35	65	60	53	45	40	38
5	125	45	37	29	22	19	18	47	39	33	25	22	20	49	40	35	27	24	22	51	42	38	30	26	24
	250	55	48	38	31	27	24	58	50	42	34	30	26	59	51	44	36	32	28	61	53	48	39	34	30
	300	58	51	41	33	29	26	60	53	44	37	32	28	61	54	46	38	34	29	64	56	50	42	37	31
	375	61	54	44	36	32	28	63	56	47	40	35	30	65	57	49	41	36	31	67	59	53	45	39	33
6	150	47	39	29	26	23	21	49	42	33	30	28	26	51	44	36	32	31	29	53	47	41	37	35	35
	225	51	45	34	30	26	23	54	47	39	34	31	28	55	49	41	37	34	31	58	52	46	41	38	36
	300	55	48	38	33	29	24	57	51	42	37	33	29	59	53	45	40	36	32	61	56	50	44	40	37
	400	58	52	42	36	31	25	61	55	46	40	35	30	62	57	49	43	38	33	65	60	54	47	42	38
	550	62	56	46	40	33	26	64	59	50	44	37	31	66	61	53	46	40	34	68	64	58	51	45	40
7	250	48	38	32	24	20	18	51	42	36	27	24	21	52	44	38	29	25	24	55	48	43	33	29	27
	350	52	42	35	27	23	20	54	46	40	31	26	24	56	48	42	33	28	26	58	52	46	36	31	30
	550	57	47	41	32	27	23	59	51	45	36	30	27	61	54	47	38	32	29	63	58	52	41	35	33
	625	58	49	42	34	28	24	60	53	46	37	31	28	62	55	49	39	33	30	64	59	53	42	36	34
	800	61	52	45	36	30	26	63	56	49	40	33	29	65	59	52	42	35	32	67	63	56	45	38	35
8	400	49	42	32	28	24	20	52	46	37	31	27	23	54	48	40	33	29	25	56	53	44	36	32	29
	500	52	44	35	31	26	21	55	49	39	34	29	24	57	51	42	36	30	26	59	56	46	39	34	30
	700	57	49	39	34	28	23	59	53	43	38	31	26	61	55	46	39	33	28	64	60	50	43	36	32
	900	60	52	41	37	30	24	63	56	46	40	33	28	64	59	49	42	35	30	67	63	53	45	38	33
	1050	62	54	43	39	32	25	65	58	48	42	35	28	66	60	50	44	36	30	69	65	55	47	40	34
9	450	48	41	35	28	25	23	52	46	39	31	28	28	54	49	42	33	30	30	58	54	46	36	34	35
	700	52	44	39	33	29	24	56	49	44	36	32	29	58	52	46	38	34	32	62	57	51	41	38	36
	900	55	46	42	35	31	25	58	51	46	39	34	30	60	54	49	41	36	32	64	59	54	44	40	37
	1100	56	48	44	38	33	26	60	53	48	41	36	30	62	56	51	43	38	33	66	61	56	46	41	37
	1400	58	50	46	40	35	26	62	55	51	44	38	31	64	58	54	46	40	33	68	63	58	49	43	38
10	550	49	41	34	26	21	22	52	46	38	30	24	25	54	49	41	32	25	27	57	54	45	35	28	31
	950	54	46	39	32	26	24	58	51	43	36	29	28	59	54	46	38	31	30	63	59	50	41	33	34
	1100	56	48	41	33	28	25	59	52	45	37	30	29	61	55	47	39	32	31	64	60	51	43	35	35
	1500	59	51	43	37	30	27	62	55	48	40	33	30	64	58	50	43	35	33	67	63	54	46	38	36
	1800	61	52	45	39	32	28	64	57	49	42	35	31	66	60	52	45	37	33	69	64	56	48	39	37
12	900	50	41	39	32	24	24	54	47	44	37	29	28	56	51	47	39	31	30	60	57	52	44	35	33
	1200	53	44	42	35	27	27	57	50	47	39	32	31	59	53	49	42	34	33	62	59	55	46	38	36
	1600	56	46	44	37	31	30	59	52	49	42	35	33	61	55	52	44	37	35	65	61	57	49	42	39
	1800	57	47	46	38	32	31	60	53	51	43	36	35	63	56	54	46	39	37	66	62	59	50	43	40
	2500	60	49	49	41	36	34	64	55	54	46	40	38	66	59	57	48	42	40	69	65	62	53	47	43
14	1000	48	41	34	28	23	23	52	47	39	32	27	27	55	51	42	34	29	29	60	57	46	38	33	32
	1500	52	45	39	32	28	27	56	51	44	36	31	30	59	54	46	38	34	32	63	60	51	42	37	36
	2100	55	48	43	35	31	30	59	54	48	39	35	34	62	57	50	41	37	35	66	63	55	45	41	39
	2500	56	50	45	37	33	32	61	56	50	41	37	35	63	59	52	43	39	37	68	65	57	47	43	40
	3500	60	53	49	40	37	35	64	59	54	44	41	38	67	62	56	47	43	40	71	68	61	50	47	43
16	1500	47	44	38	32	28	25	52	50	43	37	32	28	55	53	46	40	35	30	60	59	52	45	39	34
	2000	51	47	41	35	32	28	56	53	47	40	36	31	59	56	50	43	39	33	64	62	55	48	43	37
	2500	53	49	44	38	36	31	58	55	49	43	40	34	61	58	52	46	42	36	66	64	57	51	46	40
	2800	55	50	45	40	37	32	59	56	50	45	41	35	62	59	53	48	44	37	67	65	59	53	48	41
	3500	57	52	47	43	40	35	62	58	53	48	45	38	65	62	56	51	47	40	70	68	61	56	51	44
	4500	60	55	50	46	44	38	65	61	56	51	48	41	68	64	59	54	51	43	73	70	64	59	55	47
24x16	3000	61	55	50	42	36	28	64	59	54	45	38	30	65	61	56	46	39	31	68	64	59	49	41	33
	4000	65	59	53	45	40	32	68	62	57	48	42	34	69	65	59	50	43	36	72	68	63	53	45	38
	5300	69	62	57	48	44	37	71	66	60	51	46	39	73	68	62	53	47	40	75	72	66	56	49	42
	6000	70	64	58	50	46	39	73	67	62	53	48	41	74	70	64	55	49	42	77	73	68	58	51	44
	7000	72	66	60	52	48	41	75	69	64	55	50	43	76	71	66	57	51	45	79	75	69	60	53	47
	8300	75	68	62	54	51	44	77	72	66	57	53	46	79	74	68	59	54	47	81	77	71	62	56	50

Performance Notes:

1. Test data obtained in accordance with AHRI Standard 880-2017 and ASHRAE Standard 130-2016.
2. Sound power levels include duct end corrections per AHRI Standard 880-2017.
3. AHRI certified data is highlighted in blue. All other data are application ratings.
4. Application ratings are outside the scope of the AHRI 880-2017 Certification Program.

price® Patented

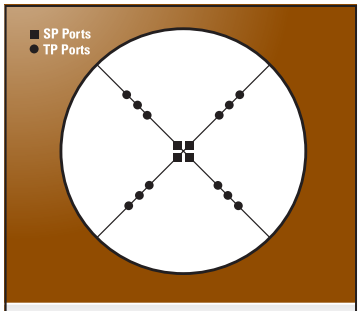


SP300 Sensor

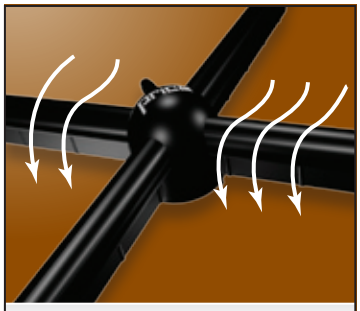
SINGLE DUCT – CONTROLLER TYPE

The Price SP300 Velocity Pressure Sensor, developed by Price Engineering, addresses many of the sensor issues that are critical to today's modern HVAC designs. The SP300 multipoint sensor ensures accurate flow measurement, even at low inlet velocities and non-uniform entry conditions.

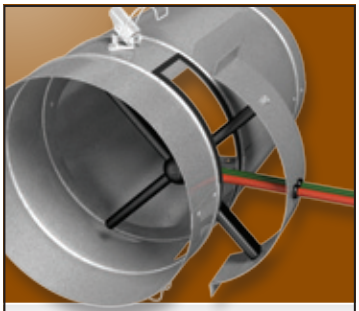
Overcomes the effects of poor inlet conditions by averaging and amplifying pressure signals.



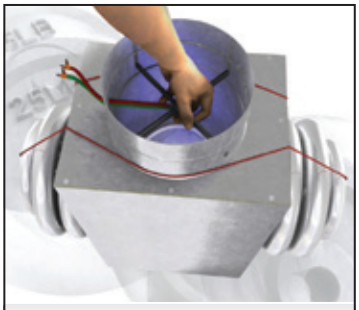
Multiple pressure ports are strategically located to maximize accuracy



Aerodynamic profile results in negligible pressure drop or noise contribution



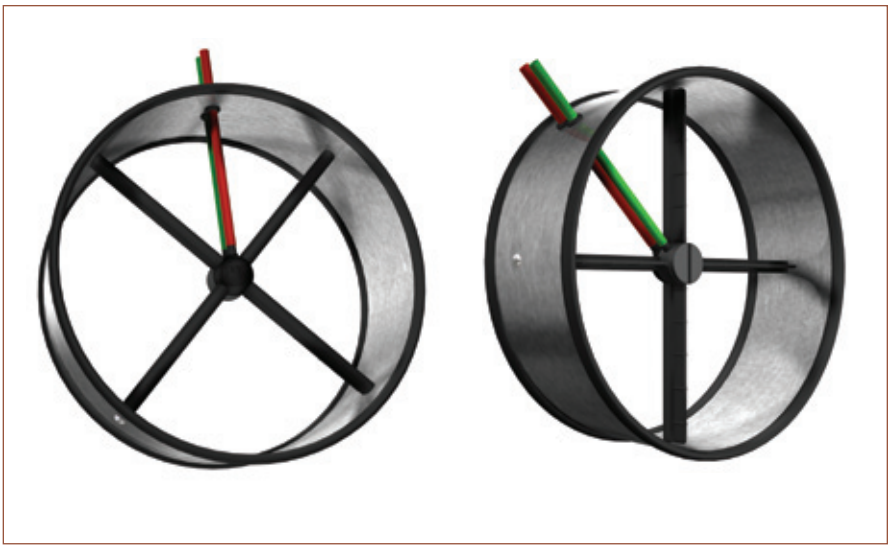
Optional removable SP300 sensor available for periodic cleaning



A rigid support frame in the back of the sensor provides superior structural integrity

www.priceindustries.com for additional product information, including product videos and brochures.

SP300 Sensor



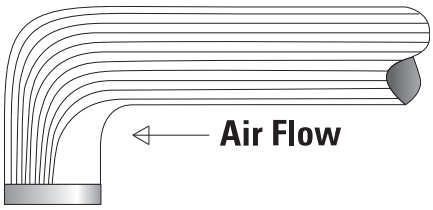
The **Price SP300 Velocity Pressure Sensor** represents the next generation of airflow measurement devices, significantly advancing VAV sensing technology. Developed by Price Engineering, the SP300 addresses many of the sensor issues that are critical to today's modern HVAC designs:

Improved Accuracy

Traditional Velocity Pressure Sensors function best under ideal inlet conditions. Most devices require at least four inlet diameters of straight duct before the air terminal connection – a condition that may not exist for a jobsite installation. Space constraints, other mechanical system components, and structural elements, are factors that can influence air terminal inlet conditions.

When poor inlet conditions exist, the profile of the air moving through the terminal and across the sensor becomes distorted, resulting in non-uniform velocity distribution, and inaccurate airflow measurements. Under these conditions, the flow sensor must provide a true averaged velocity pressure signal for proper control.

The Price SP300 overcomes the effects of variable inlet velocities by averaging and amplifying pressure signals.



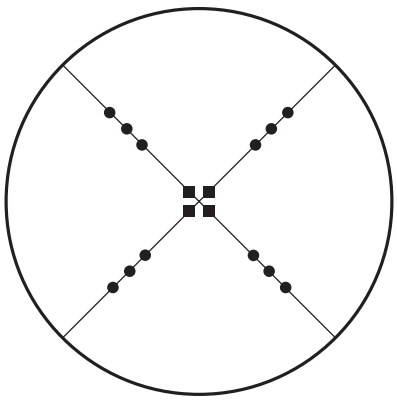
Optimal Center Averaging

To compensate for variations in pressure within the inlet, the Price SP300 averages the high and low Velocity Pressures that are found on opposing sides of the duct. These measurements are collected and averaged in a chamber located at the center of the sensor. The signal is then sent to the airflow controller.

Multiple ports for sensing both Total (tp) and Static (sp) Pressures are designed and located to maximize accuracy. Extensive research and lab testing was conducted under various airflow conditions to determine the proper location of the multiple sensing ports. Twelve total pressure ports are located on the upstream side of the sensor legs. Four static pressure ports are located on the downstream side of the averaging chamber. The multiple sensing ports not only provide a good indication of velocity across the duct but prevent loss of signal due to blockage by dust or dirt.

While equal area velocity pressure traverses are recommended for uniform flow conditions, substantial errors occur with non-uniform flow created by a 90° elbow, for example. The total and static pressure port locations for each size of the Price SP300 sensor have been determined by extensive lab tests and experimentation. The end result is flow measurement accuracy within 5% with a 90° sheet metal elbow connected directly to the terminal unit inlet.

Elbows, transitions and duct takeoffs, within three duct diameters of the terminal unit inlet should be avoided due to sound and pressure drop considerations. However, when job conditions do necessitate less than ideal inlet conditions, the Price SP300 will maintain flow accuracy.



Optimal Signal Amplification

Amplifying the Velocity Pressure signal that is sent to the controller will enhance accuracy, especially under low airflow conditions. It is important to note, however, that too much amplification, and the methods used to achieve it, can be detrimental to sensor performance. In fact, sensors that provide excess amplification may require the use of controllers with higher velocity pressure ranges, thereby reducing low end resolution. The amplification of the SP300 sensor has been designed to provide velocity pressure signals which fall within the standard 0-1.0 in. range of most flow controllers and transducers. By matching the sensor output to the controller input range, optimum flow accuracy is obtained.

Generally, VAV controllers require a minimum differential pressure signal of .03 in. w.g. to maintain reasonable control accuracy. The Price SP300 will provide a .03 in. w.g. signal for flows as low as 400 fpm at the inlet. Most sensors require more airflow and a higher differential pressure, and many will not function properly below 700 fpm.

Precise control at minimum settings is critical in maintaining the air change rates called for by ASHRAE and good IAQ design practices. Accurate control at minimum flow can also reduce the requirement for reheat and increase room comfort conditions by prevention of overcooling.

All Metric dimensions ( ) are soft conversion.
Imperial dimensions are converted to metric and rounded to the nearest millimetre.

SP300 Sensor

Aerodynamic Profile

The Price SP300 sensor utilizes aero-dynamic principles to optimize the velocity pressure signal amplification. Strategic location of the total and static pressure ports provides the necessary amplification without the need to increase the sensor profile. An increased sensor profile can result in added noise levels and higher minimum static pressure requirements, both of which are undesirable. The Price SP300 sensor has been designed with minimum cross-section and an aerodynamic profile which has negligible pressure drop or noise contribution.

Structural Integrity

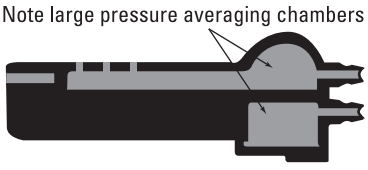
The Price SP300 has superior tensile strength compared to other flow sensors on the market. Price does not recommend lifting terminals by the airflow sensor, however, it is often a common practice in the field. With this in mind the Price SP300 has been designed with molded reinforcement to prevent accidental handling damage. To ensure reliability, the SP300 was subjected to numerous tensile strength tests. These tests prove that the SP300 successfully withstands loads beyond 115lbs., significantly exceeding the weight of typical Single Duct Terminal Units.

All plastic components are Fire Resistant and meet UL 94-VO.

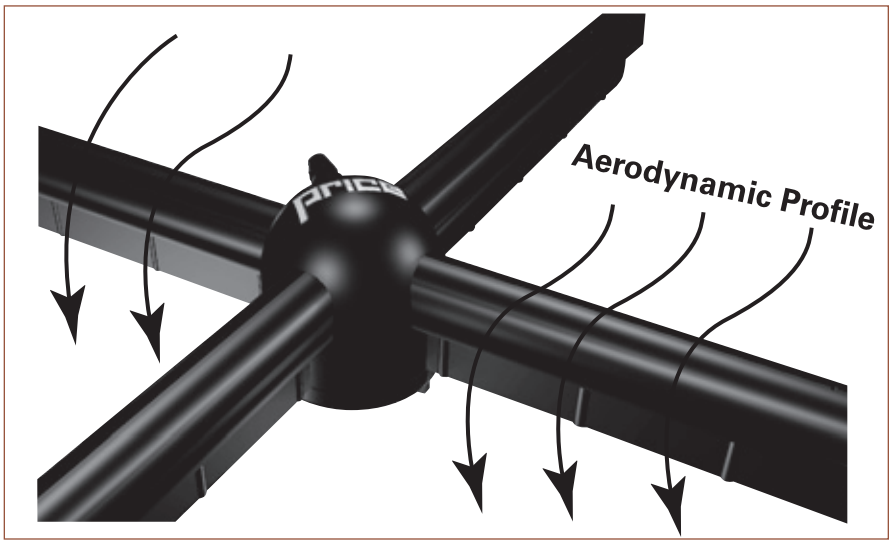
Control tubing is protected by grommets at the duct wall, and is securely fastened to the sensor.

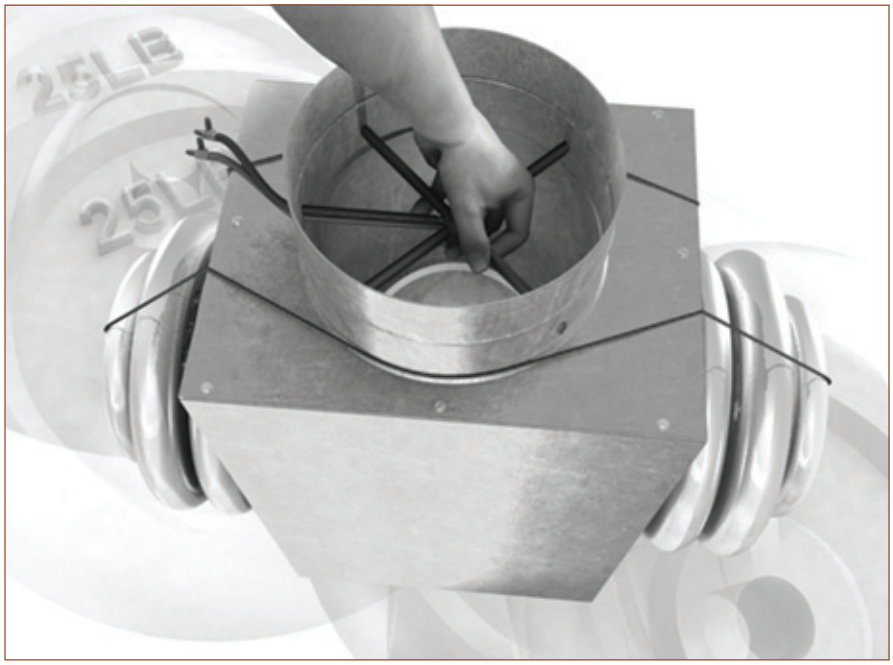
The rugged construction features of the SP300 sensor ensure a trouble free installation and reliable operation.

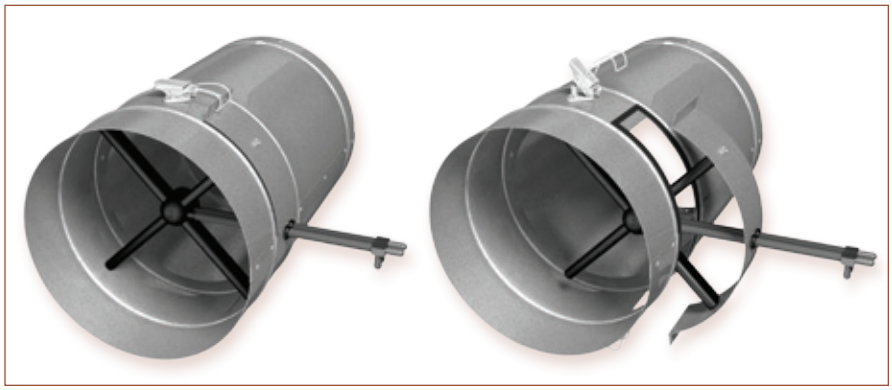
Sensor X-Section



Optional removable SP300 Sensor is available and suggested for hospital grade jobs where sensor needs to be removed and periodically cleaned due to build up of lint.







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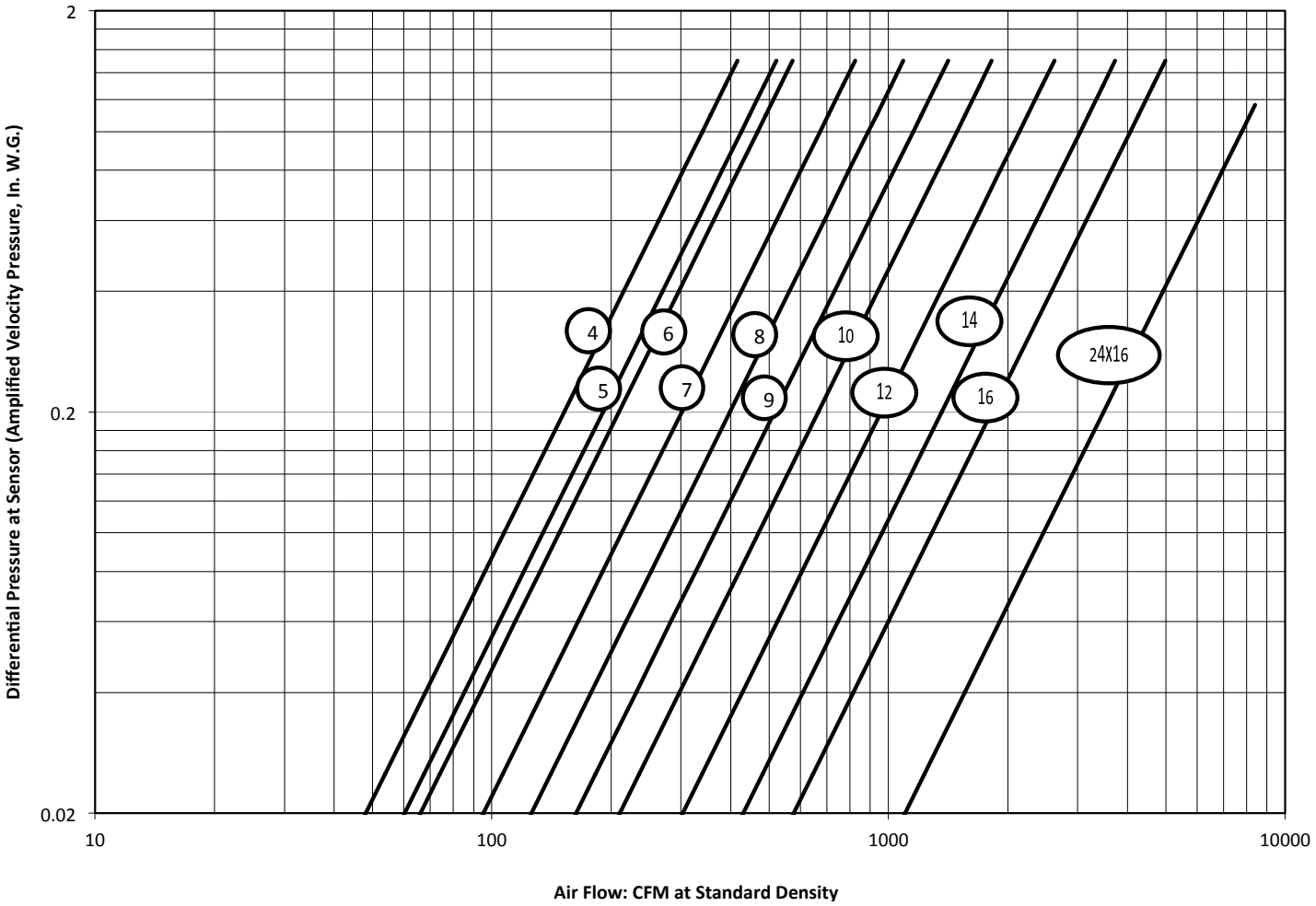
SINGLE DUCT VARIABLE VOLUME CONTROL ASSEMBLIES

INSTALLATION INSTRUCTIONS

SP300 Calibration Curves



Calibration Equation

$$VP = \left(\frac{Q}{K}\right)^2$$

VP - differential pressure at sensor, inches w.g.

Q - air flow rate, cfm at standard density.

K - calibration constant

Unit Size	K
4	340
5	426
6	468
7	673
8	890
9	1155
10	1487
12	2141
14	3045
16	4074
24 x 16	7785

1. Setting flow limits for a differential pressure of less than 0.02 inches is NOT recommended. Stability and accuracy of flow limits may not be acceptable due to low velocity pressure signal. Performance will vary depending on the terminal unit controls provided.
2. For field calibration of air flow limits refer to the control contractor's documentation.

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Price Industries warrants and guarantees for a period limited to one (1) year from date of shipment that the products manufactured by Price Industries are manufactured in accordance with Price Industries' published catalog specifications and of specified material. Terminal units will be 18 months from date of shipment.

Since product improvement is a continuing endeavor at Price Industries, catalog specifications are subject to change without notice. Price Industries shall provide the representative with current specifications.

In the event the goods supplied do not comply with published catalog specifications and/or material quality standards within the warranty period, Price Industries will either repair the goods supplied or provide free replacement of such goods from their factory. This decision is made at the discretion of Price Industries. In either case, Price Industries will not be responsible for labor and freight charges incurred in replacing goods, nor will they be responsible for incidental, consequential or punitive damages.

In the event Price Industries elects to repair the goods supplied, the representative will assist by providing Price Industries with all details of the problem and a written quotation for the costs of such work to be carried out. If the repair is authorized by Price Industries, then the representative will assist by coordinating and supervising the repair work.

Price Industries makes no warranty whatsoever with respect to components or items supplied which may be warranted separately by their manufacturer. Price Industries does not warrant factory mounted controls and components supplied and owned by a third party for mounting by Price. Backcharges to Price Industries for equipment under warranty by others will only be accepted if prior written approval is given by Price Industries.

The warranties and liabilities set forth in the prior paragraphs are the only warranties or liabilities of Price Industries, and are in lieu of all other warranties and liabilities, express or implied, whether arising from contract or negligence, in law or in fact; Price Industries makes no warranties of merchantability or fitness for particular purpose or use.

The foregoing warranty shall not take effect unless the representative shall inform Price Industries in writing of any flaw, defect or deficiency in the product promptly after such flaw, defect or deficiency becomes apparent and, in any case, within one year from date of shipment.

The representative will be responsible for notifying its clients of this policy. Unauthorized repair by others of equipment claimed to be defective will void the warranty and/or guarantee of Price Industries.

Warranty - Replacement HE, HEPA, and ULPA Filters Introduction Replaceable HE, HEPA, and ULPA media filters used in Price's cleanroom product families are extremely delicate. Any contact with the filter media either by hands or object can easily cause the filter to fail the installed leakage qualification testing. Specific installation instructions must be followed to prevent damaging the filter media.
Replacement Policy:

Shipping Damage:
Visible: Prior to installation, a freight claim should be immediately initiated by the customer should there be any visible damage noticed to the filter packaging and the filters in their packaging.

Concealed: If there is visible damage to filters when removed from their packaging according to the product manufacturer's instructions, a freight claim should be filed with the carrier. A claim for concealed damage MUST be initiated within 15 days of receiving the material.

Filter Damage After Installation or Filters Failing Leak Qualification Testing:
Due to the delicate nature of these filters, Price will not replace filters under warranty that have been installed and are reported to have damage or failing through the filter media. 100% of filters are tested by the filter supplier and certified as passing their leakage test.

This policy matches our filter suppliers policy for filter warranty. Price is not able to claim back for any filters with damage to the filter face.