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Comfort Systems USA (Arkansas), Inc. P.O. Box 16620 Little Rock, AR 72231 Phone 501-834-3320 Fax 501-834-5416

Date: 5/17/2024

Return Request: 5/27/2024

Project: CALS Main Library Renovations

Supplier: Powers of Arkansas

Manufacturer: Titus

Submittal: Air Terminal Units **Submittal Number:** 23 36 00-01

Drawing # and Installation: Mechanical Drawings

ARCHITECT

Polk Stanley Wilcox 801 South Spring St. Little Rock, AR 72201 501-378-0878

GENERAL CONTRACTOR

CDI 3000 Cantrell Rd. Little Rock, AR 72202 501-5666-4300 **ENGINEER**

Bernhard 1 Allied Drive, Bldg. 2, Suite 2600 Little Rock, AR 72202 501-666-6776

MECHANICAL SUBCONTRACTOR

Comfort Systems USA (Arkansas), Inc. 9924 Landers Rd.
N. Little Rock, AR 72117
501-834-3320

1	Notes:				

CSUSA PROJECT NO. 23-8016

dpierce@comfortar.com



SUBMITTAL

PRODUCT VAV Boxes with Hot Water Re-Heat

MANUFACTURER Titus

JOB NAME CALS Main Library Renovation

LOCATION Little Rock, AR

ENGINEER Bernhard TME

CONTRACTOR Comfort Systems

DATE 5/14/2024

SUBMITTED BY Courtney Michael

5440 Northshore Drive - North Little Rock, Arkansas 72118 - Tel: 501.374.5420 Fax: 501.370.9298

Single Duct Terminal Unit Schedule

Tag	Model		Size	CF	-M	Static Pressure		Hot Water Heat Coil									
		Unit	Outlet	Max	Min	Inlet	Down	Min	CFM	MBH	EAT	EWT	LAT	APd	GPM	LWT	WPd
ST-1-01	DESV	06	12x8	255	140	1	0.25	0.14	140	5.3	55	140	89.9	0.09	0.6	122.1	0.08
ST-1-02	DESV	10	14x12.5	950	250	1	0.25	0.28	525	19.8	55	140	89.7	0.27	3	126.6	0.6
ST-1-03	DESV	10	14x12.5	990	600	1	0.25	0.46	740	28.7	55	140	90.8	0.45	2.3	114.6	0.33
ST-1-04	DESV	12	16x15	1480	230	1	0.25	0.34	735	27.1	55	140	89	0.33	3.3	123.3	0.84
ST-2-01	DESV	10	14x12.5	740	300	1	0.25	0.19	470	17.8	55	140	89.9	0.18	2.3	124.3	0.36
ST-2-02	DESV	08	12x10	540	255	1	0.25	0.21	320	12.2	55	140	90.2	0.2	1.6	124.5	0.39
ST-2-03	DESV	06	12x8	250	120	1	0.25	0.14	130	5.1	55	140	91.3	0.09	0.6	122.7	0.08
ST-2-04	DESV	06	12x8	225	200	1	0.25	0.12	200	7.6	55	140	90.1	0.08	1	124.5	0.18
ST-3-06	DESV	06	12x8	425	115	1	0.25	0.36	240	9.2	55	140	90.2	0.21	1.4	126.7	0.25
ST-4-06	DESV	08	12x10	850	315	1	0.25	0.44	425	13.3	55	140	83.8	0.41	1.3	119.2	0.33
ST-B-01	DESV	08	12x10	580	145	1	0.25	0.23	445	16.3	55	140	88.7	0.22	3.5	130.6	1.69
ST-B-02	DESV	08	12x10	520	245	1	0.25	0.2	350	13.3	55	140	90	0.19	2	126.5	0.59
ST-B-03	DESV	06	12x8	240	145	1	0.25	0.13	165	6.4	55	140	90.9	0.08	8.0	123.7	0.13
ST-B-04	DESV	08	12x10	415	170	1	0.25	0.14	370	14.1	55	140	90.1	0.13	2.4	128.1	0.83
ST-B-05	DESV	06	12x8	310	145	1	0.25	0.21	155	5.9	55	140	90.3	0.13	0.7	122.8	0.11
ST-B-06	DESV	08	12x10	525	500	1	0.25	0.3	500	19.2	55	140	90.3	0.29	1.6	115.6	0.27
ST-B-07	DESV	08	12x10	440	405	1	0.25	0.23	405	15.7	55	140	90.8	0.22	1.2	113.4	0.18
ST-B-08	DESV	16	24x18	2240	1047	1	0.25	0.42	1200	46.6	55	140	90.8	0.4	2.8	106.1	0.15
ST-B-09	DESV	16	24x18	2240	1047	1	0.25	0.42	1200	46.6	55	140	90.8	0.4	2.8	106.1	0.15
ST-B-10	DESV	08	12x10	680	374	1	0.25	0.31	400	15.1	55	140	89.8	0.29	3	129.8	1.26
ST-B-11	DESV	08	12x10	527	390	1	0.25	0.3	490	19	55	140	90.8	0.29	1.6	115.8	0.27
ST-B-12	DESV	08	12x10	580	275	1	0.25	0.35	555	21.2	55	140	90.2	0.34	1.9	117.3	0.33

- 1. Selections are based on Titus as Manufacturer.
- 2. All performance based on tests conducted in accordance with ASHRAE 130-2008 and
- 3. All NC levels determined using AHRI 885-2008 Appendix E.
- 4. All airflow, pressure losses and heating performance values have been corrected for
- 5. Units of measure: dimensions (in), airflow (cfm), water flow (gpm), air pressure (in wg),
- 6. Water pressure drop (WPd) units is in ft. water.

ST-1-03 changed to 10" to meet airflow. Will coordinate to the sheet metal contractor

The results of this program are only an aid to the designer, and are not a substitute for professional design services

CALS Main Library Renova **Architect** Engineer

Date Office **Preparer** 05/09/2024 Powers of Arkansas

DESV-1

CMICHAEL

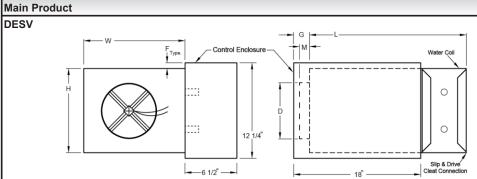
Version 2014.0.563

Contractor Designation VAV

Project

DESV

Single Duct Terminal Unit, Direct Digital Control, Pressure Independent



Right Hand Unit with Right Hand HWC Connections shown

Air Inlet (D) is 1/8" smaller than its Nom. Inlet.

All dimensions are in inches.

Unit-Size	CFM Range	Nom. Inlet	F	G	W	Н	М	L
06	0 - 500	6" Dia.	2 1/8"	7 3/8"	12"	8"	3 3/8"	20 1/2"
10	0 - 1400	10" Dia.	-	5 3/8"	14"	12 1/2"	3 3/8"	20 1/2"
12	0 - 2000	12" Dia.	-	5 3/8"	16"	15"	3 3/8"	20 1/2"
08	0 - 900	8" Dia.	1 1/8"	7 3/8"	12"	10"	3 3/8"	20 1/2"

General Description DESV-1

- · Heavy gauge steel housing. Mechanically sealed and gasketed, leak resistant construction. Less than 2% of nominal CFM at 1.5" sp wg.
- Dual density internal insulation, treated to resist air erosion. Meets requirements of NFPA 90A and UL 181.
- Rectangular discharge opening is designed for slip and drive cleat duct connection.
- Multipoint center averaging inlet velocity sensor.
- Digital control packages can be factory mounted by Titus.
- · Choice of right hand or left hand control location.
- · Model DESV can be installed horizontally, vertically, or at any angle. Operation is not affected by position.
- · Gauge tees for CFM measurement.

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DESV-1

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Project

Architect

Engineer

Contractor

ption Sch	nedule				
ID	Quantity	Tag	UNIT SIZE	MAX PRIMARY CFM	MIN PRIMARY CFM
1	1	ST-1-01	06	255	140
2	1	ST-1-02	10	950	250
4	1	ST-1-04	12	1480	230
5	1	ST-2-01	10	740	300
6	1	ST-2-02	08	540	255
7	1	ST-2-03	06	250	120
8	1	ST-2-04	06	225	200
9	1	ST-3-06	06	425	115
10	1	ST-4-06	08	850	315
11	1	ST-B-01	08	580	145
12	1	ST-B-02	08	520	245
13	1	ST-B-03	06	240	145
14	1	ST-B-04	08	415	170
15	1	ST-B-05	06	310	145
20	1	ST-B-10	08	680	374

SENSOR CODE 3 - AEROCROSS

UNIT CONFIG 0 -BASIC

LINER OPTION M - 1" EcoShield (Foil Face)

CASING CONFIG OR -STD 22GA RH

DIGITAL CONTROLLER 0000 - NONE

ACTUATOR TYPE 0000 -NONE CONTROL ACC1 00 -NONE

CONTROL ACC2 00 -NONE

CONTROL ACC3 00 - NONE

UNIT ACC1 E -METAL CTRL ENCLOS UNIT ACC2 B -HANGER BRACKET UNIT ACC3 D -TOGGLE DISC SW.

UNIT ACC4 0 -NONE

UNIT ACC5 0 - NONE

WATER COIL W12 -2 ROW RH

ELECTRIC HEAT TYPE 000 -NONE

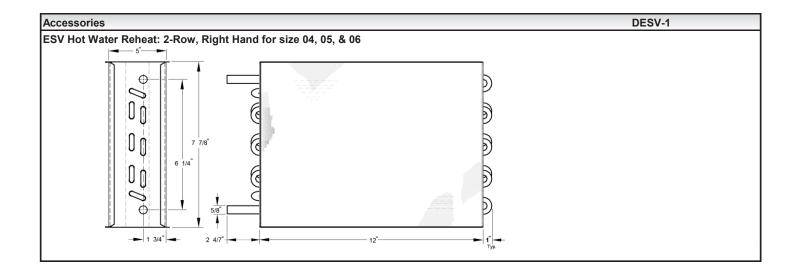
KW 0

ELEC COIL ACC1 0 - NONE

ELEC COIL ACC2 0 - NONE

ELEC COIL ACC3 0 - NONE

ELEC COIL ACC4 0 -NONE



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Designation VAV

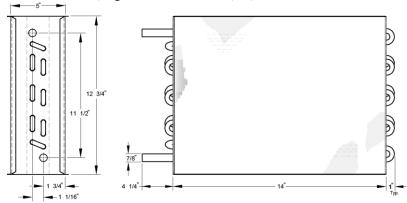
Contractor

Accessories (continued) DESV-1

- Coil tubing is 1/2" diameter 0.016" thick copper.
- Coil connection tubing is 0.032" thick copper.
- Aluminum plate fins, 10 per inch.
- Casing is 20 Gauge galvanized steel.
- Copper male solder connections.
- Connection is slip and drive to duct work down stream of terminal.
- · Leak tested to 450 PSIG.
- Maximum working pressure, 360 PSIG
- Maximum 200 degree F water
- Coils rated and certified to AHRI Standard 410

Water Weight (lbs.)	Water Volume (gal)
1.26	0.15

ESV Hot Water Reheat: 2-Row, Right Hand for size 09 10, 7E, & 8E



- Coil tubing is 1/2" diameter 0.016" thick copper.
- Coil connection tubing is 0.032" thick copper.
- · Aluminum plate fins, 10 per inch.
- · Casing is 20 Gauge galvanized steel.
- · Copper male solder connections.
- · Connection is slip and drive to duct work down stream of terminal.
- Leak tested to 450 PSIG.
- · Maximum working pressure, 360 PSIG
- Maximum 200 degree F water
- Coils rated and certified to AHRI Standard 410

Water Weight (lbs.)	Water Volume (gal)
2.32	0.28

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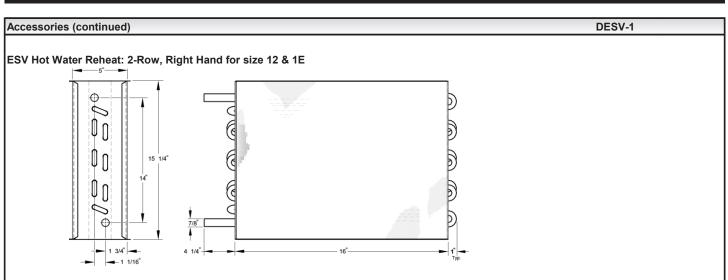
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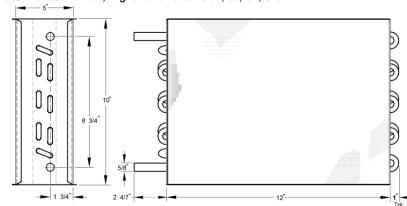
Contractor



- Coil tubing is 1/2" diameter 0.016" thick copper.
- · Coil connection tubing is 0.032" thick copper.
- · Aluminum plate fins, 10 per inch.
- Casing is 20 Gauge galvanized steel.
- Copper male solder connections.
- · Connection is slip and drive to duct work down stream of terminal.
- · Leak tested to 450 PSIG.
- Maximum working pressure, 360 PSIG
- Maximum 200 degree F water
- Coils rated and certified to AHRI Standard 410

Water Weight (ibs.)	Water Volume (gal)
3.45	0.41

ESV Hot Water Reheat: 2-Row, Right Hand for size 07, 08, 5E, & 6E



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Accessories (continued) DESV-1

- Coil tubing is 1/2" diameter 0.016" thick copper.
- · Coil connection tubing is 0.032" thick copper.
- Aluminum plate fins, 10 per inch.
- Casing is 20 Gauge galvanized steel.
- Copper male solder connections.
- Connection is slip and drive to duct work down stream of terminal.
- Leak tested to 450 PSIG.
- Maximum working pressure, 360 PSIG
- Maximum 200 degree F water
- Coils rated and certified to AHRI Standard 410

Water Weight (lbs.)	Water Volume (gal)
1.82	0.22

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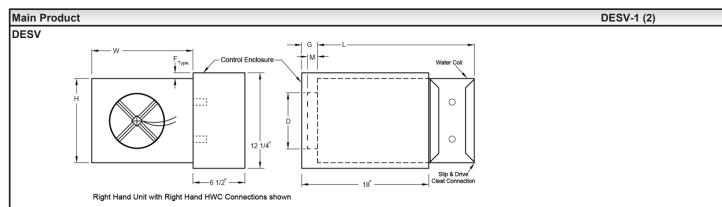
Project

Architect

Engineer

DESV

Single Duct Terminal Unit, Direct Digital Control, Pressure Independent



Air Inlet (D) is 1/8" smaller than its Nom. Inlet.

All dimensions are in inches.

Unit-Size	CFM Range	Nom. Inlet	F	G	W	Н	М	L
10	0 - 1400	10" Dia.	-	5 3/8"	14"	12 1/2"	3 3/8"	22 3/4"
08	0 - 900	8" Dia.	1 1/8"	7 3/8"	12"	10"	3 3/8"	22 3/4"
16	0 - 4000	16" Dia.	-	3 3/8"	24"	18"	3 3/8"	25 1/4"

General Description DESV-1 (2)

- Heavy gauge steel housing. Mechanically sealed and gasketed, leak resistant construction. Less than 2% of nominal CFM at 1.5" sp wg.
- Dual density internal insulation, treated to resist air erosion. Meets requirements of NFPA 90A and UL 181.
- Rectangular discharge opening is designed for slip and drive cleat duct connection.
- · Multipoint center averaging inlet velocity sensor.
- Digital control packages can be factory mounted by Titus.
- Choice of right hand or left hand control location.
- · Model DESV can be installed horizontally, vertically, or at any angle. Operation is not affected by position.
- · Gauge tees for CFM measurement.

tion Sched	dule					DESV-1 (2)
ID	Quantity	Tag	UNIT SIZE	MAX PRIMARY CFM	MIN PRIMARY CFM	
3	1	ST-1-03	10	990	600	
16	1	ST-B-06	80	525	500	
17	1	ST-B-07	80	440	405	
18	1	ST-B-08	16	2240	1047	
19	1	ST-B-09	16	2240	1047	
21	1	ST-B-11	80	527	390	
22	1	ST-B-12	08	580	275	

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DESV-1 (2)

Designation VAV

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Engineer

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Option Schedule (continued)

SENSOR CODE 3 - AEROCROSS

UNIT CONFIG 0 -BASIC

LINER OPTION M - 1" EcoShield (Foil Face)

CASING CONFIG 0R -STD 22GA RH

DIGITAL CONTROLLER 0000 - NONE

ACTUATOR TYPE 0000 - NONE

CONTROL ACC1 00 -NONE

CONTROL ACC2 00 - NONE

CONTROL ACC3 00 - NONE

UNIT ACC1 E - METAL CTRL ENCLOS

UNIT ACC2 B - HANGER BRACKET

UNIT ACC3 D -TOGGLE DISC SW.

UNIT ACC4 0 -NONE

UNIT ACC5 0 - NONE

WATER COIL W13 -3 ROW RH

ELECTRIC HEAT TYPE 000 -NONE

KW 0

ELEC COIL ACC1 0 - NONE

ELEC COIL ACC2 0 - NONE

ELEC COIL ACC3 0 - NONE

ELEC COIL ACC4 0 -NONE

DESV-1 (2) Accessories ESV Hot Water Reheat: 3-Row, Right Hand for size 09, 10, 7E, & 8E

10 7/8

Coil tubing is 1/2" diameter 0.016" thick copper.

----2 3/16"

- Coil connection tubing is 0.032" thick copper.
- Aluminum plate fins, 10 per inch.
- Casing is 20 Gauge galvanized steel.
- · Copper male solder connections.
- Connection is slip and drive to duct work down stream of terminal.
- Leak tested to 450 PSIG.
- Maximum working pressure, 360 PSIG
- Maximum 200 degree F water
- Coils rated and certified to AHRI Standard 410

Water Weight (lbs.)	Water Volume (gal)
3.47	0.42

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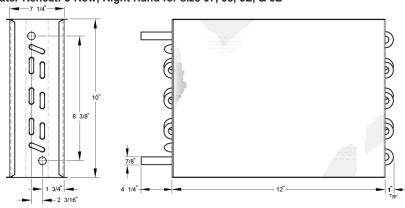
Architect

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Contractor

Accessories (continued) DESV-1 (2)

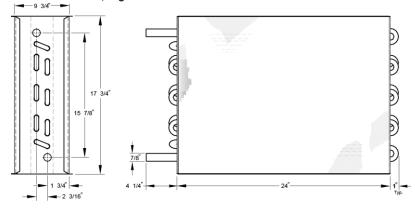
ESV Hot Water Reheat: 3-Row, Right Hand for size 07, 08, 5E, & 6E



- Coil tubing is 1/2" diameter 0.016" thick copper.
- · Coil connection tubing is 0.032" thick copper.
- · Aluminum plate fins, 10 per inch.
- Casing is 20 Gauge galvanized steel.
- Copper male solder connections.
- · Connection is slip and drive to duct work down stream of terminal.
- · Leak tested to 450 PSIG.
- Maximum working pressure, 360 PSIG
- Maximum 200 degree F water
- Coils rated and certified to AHRI Standard 410

Water Weight (lbs.)	Water Volume (gal)
3.92	0.48

ESV Hot Water Reheat: 3-Row, Right Hand for size 16 & 4E



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Accessories (continued) **DESV-1 (2)**

- Coil tubing is 1/2" diameter 0.016" thick copper.
- · Coil connection tubing is 0.032" thick copper.
- Aluminum plate fins, 10 per inch.
- Casing is 20 Gauge galvanized steel.
- Copper male solder connections.
- Connection is slip and drive to duct work down stream of terminal.
- Leak tested to 450 PSIG.
- Maximum working pressure, 360 PSIG
- Maximum 200 degree F water
- Coils rated and certified to AHRI Standard 410

Water Weight (lbs.)	Water Volume (gal)
6.83	0.82



SUBMITTAL

PRODUCT Underfloor Fan-Powered Boxes

MANUFACTURER Titus

JOB NAME CALS Main Library Renovation

LOCATION Little Rock, AR

ENGINEER Bernhard TME

CONTRACTOR Comfort Systems

DATE 5/14/2024

SUBMITTED BY Courtney Michael

5440 Northshore Drive - North Little Rock, Arkansas 72118 - Tel: 501.374.5420 Fax: 501.370.9298

	Fan Powered Terminal Unit Schedule																						
Tag	Model		Size		CF	M		atic ssure		F	Fan Hot Water Heat Coil				Electric								
		Unit	Inlet	Outlet	Max	Min	Inlet	Down	CFM	ESP	Нр	Volt/Ph	CFM	MBH	EAT	LAT	APd	GPM	EWT	LWT	WPd	MCA	МОР
FPT-5-1	DLHK	04	10	18.5x13	465	465	1	0.25	930	0.41	0.33	277/1	930	16.1	65	83	0.16	0.8	140	99	0.25	3.1	15
FPT-5-2	DLHK	04	10	18.5x13	850	850	1	0.25	1000	0.43	0.33	277/1	1000	25.3	57.3	81.5	0.18	1.5	140	106	0.59	3.1	15
FPT-5-3	DLHK	04	10	18.5x13	850	850	1	0.25	1000	0.43	0.33	277/1	1000	23.5	63.3	84.9	0.18	1.5	140	108	0.59	3.1	15
FPT-5-4	DLHK	03	09	18.5x10	200	200	1	0.25	450	0.3	0.25	277/1	450	14.5	63.9	93.5	0.05	1	140	111	0.36	2.2	15
FPT-5-5	DLHK	03	09	18.5x10	320	320	1	0.25	640	0.34	0.25	277/1	640	15.6	65	87.4	0.09	0.9	140	105	0.3	2.2	15
FPT-5-6	DLHK	04	10	18.5x13	325	325	1	0.25	960	0.42	0.33	277/1	960	21.4	61.8	82.3	0.17	1.2	140	104	0.47	3.1	15
FPT-5-7	DLHK	03	09	18.5x10	365	365	1	0.25	730	0.31	0.25	277/1	730	12.5	65	83.8	0.06	2	140	127	0.49	2.2	15
FPT-5-8	DLHK	03	09	18.5x10	175	175	1	0.25	540	0.28	0.25	277/1	540	11.6	61.5	82.2	0.03	2	140	128	0.49	2.2	15
FPT-5-9	DLHK	03	09	18.5x10	290	290	1	0.25	700	0.35	0.25	277/1	700	14.7	66.7	86	0.1	0.8	140	103	0.25	2.2	15
FPT-5-10	DLHK	03	09	18.5x10	290	290	1	0.25	580	0.29	0.25	277/1	580	12.5	65	84.8	0.04	4.1	140	134	1.88	2.2	15
FPT-5-11	DLHK	04	10	18.5x13	575	575	1	0.25	1050	0.45	0.33	277/1	1050	18.9	66	82.5	0.2	1	140	102	0.36	3.1	15
FPT-5-12	DLHK	04	10	18.5x13	575	575	575	0.25	1050	0.45	0.33	277/1	1050	20.8	66	84.2	0.2	1.2	140	105	0.46	3.1	15
FPT-5-13	DLHK	03	09	18.5x10	275	275	1	0.25	550	0.29	0.25	277/1	550	11.2	65	83.7	0.04	2	140	129	0.49	2.2	15

- 1. Selections are based on Titus as Manufacturer.
- 2. All performance based on tests conducted in accordance with ASHRAE 130-
- 3. All NC levels determined using AHRI 885-2008 Appendix E.
- 4. All airflow, pressure losses and heating performance values have been
- 5. Units of measure: dimensions (in), airflow (cfm), water flow (gpm), air pressure
- 6. Water pressure drop (WPd) units is in ft. water.

SUBMITTAL NOTES

FPT-5-2: Adjusted heating and fan CFM to get close to design LAT/MBH

FPT-5-3: Adjusted heating and fan CFM to get close to design LAT/MBH

FPT-5-4: Changed to size 3. Airflow was less than minimum for size. Adjusted fan and heat cfms to get close to design and meet the minimum for the box.

FPT-5-9: Changed to size 3

FPT-5-10: Changed to size 3

FPT-5-11: Changed airflow to 1,050 instead of 1,150 and adjusted heating cfm to stay within the maximum for the box and meet design.

FPT-5-12: Same as 5-11 above

FPT-5-13: Changed to size 3

Project CALS Main Library Renovat
Architect
Engineer
Contractor
Designation FAN VAV



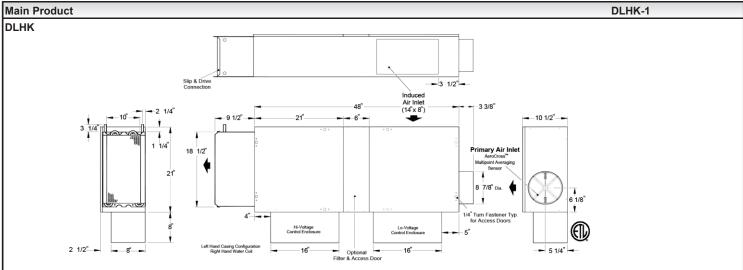
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DLHK

Digital Access Floor Series Fan Powered Terminal



- 1/2" copper tubes
- Aluminum ripple fins, 10 per inch
- Connections: Male solder, 1/2" for 1-row and 7/8" for 2-row. Left or right hand connections.
- · Galvanized steel casing.
- Slip and drive duct connection.
- · Coil is installed at discharge of unit.

General Description DLHK-1

- The LHK fan powered terminal is designed to be installed in the underfloor plenum of an access floor grid system.
- 20 gauge steel casing.
- Dual density insulation, coated to prevent air erosion, meet requirements of NFPA 90A and UL 181.
- Adjustable SCR fan speed control with minimum voltage stop.
- Multipoint, center averaging velocity sensor.
- Top access panels can be removed for service of damper, blower, or filter sections.
- Energy efficient fan motor, permanent split capacitor type, mounted in vibration isolators.
- Primary air flow balancing connections.
- Pressure independent primary flow control.
- · Single point electrical connections.
- Rectangular discharge opening is designed for flanged duct connections.

Option Sche	Option Schedule DLHK-1									
		_					l			
ID	Quantity	Tag	UNIT SIZE	FAN BOX INLET SIZE	MAX PRIMARY CFM	MIN PRIMARY CFM	FAN CFM			
8	1	FPT-5-7	3	09	365	365	730			
9	1	FPT-5-8	3	09	175	175	540			
11	1	FPT-5-10	3	09	290	290	580			
14	1	FPT-5-13	3	09	275	275	550			

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CALS Main Library Renovat Project **Architect**

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UNIT ACC3 D -TOGGLE DISC SW.

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DLHK-1

DLHK-1

Designation FAN VAV

Engineer

Contractor

Option Schedule (continued)

SENSOR CODE 3 - AEROCROSS

LINER OPTION 0 - 1/2" Fiberglass

FAN MOTOR VOLTAGE C -277V

DIGITAL CONTROLLER 0000 - NONE

ACTUATOR TYPE 0000 - NONE

CONTROL ACC1 00 - NONE

CONTROL ACC2 00 -NONE

CONTROL ACC3 00 - NONE

UNIT ACC1 E - METAL CTRL ENCLOS

UNIT ACC2 F -IND. AIR FILTER

ELEC COIL ACC1 0 -NONE ELEC COIL ACC2 0 - NONE

UNIT ACC4 0 -NONE

UNIT ACC5 0 - NONE

KW 0

WATER COIL W11 -1 ROW RH

ELEC COIL ACC3 0 - NONE

ELEC COIL ACC4 0 -NONE

ELECTRIC HEAT TYPE 000 -NONE

Accessories

Motor Amperage Rating

FLA = Full Load Amperage, as tested in accordance with UL 1995 All fan motors are single phase, same voltage as electric coil (when supplied), with exception that 277V motors are used with 480V, 3 phase coils (4 wire wye).

UNIT SIZE	Motor HP	Voltage/Type	FLA		
3	1/4	277V PSC	1.8		

Selected Liner: 1/2" Fiberglass Insulation

Insulation Characteristics:

Material: Dual Density Fiberglass

Thickness: 1/2 inch

R-Value: 1.9 ft2 °F h/Btu @ 75°F Density: 1.5 lbs/ft3 with 4.0 lbs/ft3 face

Flame Spread: less than 25 Smoke Density: less than 50

Mold Growth: None

Code Compliances:

NFPA 90A & 90B - Appliances

NFPA 255 - Flame / Smoke Spread (25/50)

UL 181 - Air Erosion

UL 181 - Mold Growth and Humidity

UL 723 - Flame / Smoke Spread (25/50)

ASTM E84 - Flame / Smoke Spread (25/50)

ASTM C 1071 - Maximum Air Velocity

CALS Main Library Renovat Project **Architect** Engineer Contractor **Designation** FAN VAV



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DLHK

Digital Access Floor Series Fan Powered Terminal

General Description

DLHK-1 (2)

- The LHK fan powered terminal is designed to be installed in the underfloor plenum of an access floor grid system.
- 20 gauge steel casing.
- Dual density insulation, coated to prevent air erosion, meet requirements of NFPA 90A and UL 181.
- · Adjustable SCR fan speed control with minimum voltage stop.
- Multipoint, center averaging velocity sensor.
- Top access panels can be removed for service of damper, blower, or filter sections.
- Energy efficient fan motor, permanent split capacitor type, mounted in vibration isolators.
- · Primary air flow balancing connections.
- Pressure independent primary flow control.
- · Single point electrical connections.
- Rectangular discharge opening is designed for flanged duct connections.

Option Sche	dule	DLHK-1 (2)					
ID	Quantity	Tag	UNIT SIZE	FAN BOX INLET SIZE	MAX PRIMARY CFM	MIN PRIMARY CFM	FAN CFM
2	1	FPT-5-1	4	10	465	465	930
3	1	FPT-5-2	4	10	850	850	1000
4	1	FPT-5-3	4	10	850	850	1000
5	1	FPT-5-4	3	09	200	200	450
6	1	FPT-5-5	3	09	320	320	640
7	1	FPT-5-6	4	10	325	325	960
10	1	FPT-5-9	3	09	290	290	700
12	1	FPT-5-11	4	10	575	575	1050
13	1	FPT-5-12	4	10	575	575	1050

SENSOR CODE 3 - AEROCROSS

LINER OPTION 0 - 1/2" Fiberglass

FAN MOTOR VOLTAGE C -277V

DIGITAL CONTROLLER 0000 - NONE

ACTUATOR TYPE 0000 - NONE

CONTROL ACC1 00 - NONE

CONTROL ACC2 00 - NONE

CONTROL ACC3 00 - NONE

UNIT ACC1 E -METAL CTRL ENCLOS

UNIT ACC2 F -IND. AIR FILTER

UNIT ACC3 D - TOGGLE DISC SW.

UNIT ACC4 0 -NONE

UNIT ACC5 0 - NONE

WATER COIL W12 -2 ROW RH

ELECTRIC HEAT TYPE 000 -NONE

KW 0

ELEC COIL ACC1 0 -NONE

ELEC COIL ACC2 0 - NONE

ELEC COIL ACC3 0 -NONE

ELEC COIL ACC4 0 -NONE

Accessories **DLHK-1 (2)**

Motor Amperage Rating

FLA = Full Load Amperage, as tested in accordance with UL 1995 All fan motors are single phase, same voltage as electric coil (when supplied), with exception that 277V motors are used with 480V, 3 phase coils (4 wire wye).

Project CALS Main Library Renovat

Architect Engineer Contractor TITUS
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Designation FAN VAV

Accessories (continued)	DLHK-1 (2)

UNIT SIZE	Motor HP	Motor HP Voltage/Type				
4	1/3	277V PSC	2.5			
3	1/4	277V PSC	1.8			

Selected Liner: 1/2" Fiberglass Insulation

Insulation Characteristics:

Material: Dual Density Fiberglass

Thickness: 1/2 inch

R-Value: 1.9 ft2 °F h/Btu @ 75°F Density: 1.5 lbs/ft3 with 4.0 lbs/ft3 face

Flame Spread: less than 25 Smoke Density: less than 50

Mold Growth: None

Code Compliances:

NFPA 90A & 90B - Appliances

NFPA 255 - Flame / Smoke Spread (25/50)

UL 181 - Air Erosion

UL 181 - Mold Growth and Humidity

UL 723 - Flame / Smoke Spread (25/50)

ASTM E84 - Flame / Smoke Spread (25/50)

ASTM C 1071 - Maximum Air Velocity