

Submittal #233600-3.0 - Product Data – VAV Units (Bulletin #6) 233600 - AIR TERMINAL UNITS

Revision	0	Submittal Manager	Matthew Crawford (Megen Construction Company)
Status	Open	Date Created	Dec 18, 2025
Issue Date	Dec 18, 2025	Spec Section	233600 - AIR TERMINAL UNITS
Responsible Contractor	Feldkamp Enterprises, Inc	Received From	Heather Wyatt (Feldkamp Enterprises, Inc)
Received Date		Submit By	
Final Due Date	Jan 20, 2026	Lead Time	
		Cost Code	
Location		Type	
Submittal Package			
Approvers	Matthew Crawford (Megen Construction Company), Tanya Tedesco (Motz Engineering), Brian Trettenero (Motz Engineering), Jessica Scholl (MSA Architects), Brad Sir Louis (MSA Architects)		
Ball in Court	Tanya Tedesco (Motz Engineering), Brian Trettenero (Motz Engineering)		
Distribution	Brad Sir Louis (MSA Architects), Christopher Todd (Megen Construction Company), Jeff Williams (Megen Construction Company), Jessica Scholl (MSA Architects), Stacy Beck (Megen Construction Company)		
Description	Please see the attached VAV units submittal for your review and approval.		

Submittal Workflow

Name	Sent Date	Due Date	Returned Date	Response	Attachments
General Information Attachments					233600 - Air Terminal Units REV1.pdf
Matthew Crawford	Dec 18, 2025	Dec 18, 2025	Dec 30, 2025	Approved	233600 - Air Terminal Units REV1.pdf (Current)
Comment	For Review				
Tanya Tedesco	Dec 30, 2025	Jan 13, 2026		Pending	
Brian Trettenero	Dec 30, 2025	Jan 13, 2026		Pending	
Jessica Scholl		Jan 20, 2026		Pending	
Brad Sir Louis		Jan 20, 2026		Pending	

C546B - Princeton Athletic Facilities Renovation

11080 Chester Road
CINCINNATI, Ohio 45246
United States

Megen
Construction

Megen Construction
11130 Ashburn Road
Cincinnati, Ohio 45240
United States
(513) 742-9191

Title
Product Data - VAV Units (Bulletin #6)

Submittal Manager
Matthew Crawford

Spec Section
233600 - AIR TERMINAL UNITS

Type
None

Number	Rev
233600-3	0

Description

Please see the attached VAV units submittal for your review and approval.

Megen Construction Company, Inc.	
Project: Millikin Locker/Weight Room	
Job# C-545B	
Reviewed	
Submittal No:	233600-3
Reviewed By:	Matt Crawford
Date:	12/30/25
<p>This submittal has been reviewed for compliance with contract documents unless otherwise noted herein. This review does not constitute nor does it assume design responsibility nor does it relieve the trade contractor/supplier from complying with the contract requirements, coordinating their work with other trade contractors and verifying field dimensions.</p>	

SHOP DRAWINGS	
<input checked="" type="checkbox"/> Reviewed	<input type="checkbox"/> Furnish as Corrected
<input type="checkbox"/> Rejected	<input type="checkbox"/> Revise and Resubmit
<small>This review is only for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Corrections or comments made on the shop drawings during this review do not relieve contractor from compliance with the requirements of the plans and specifications. Approval of a specific item shall not include approval of an assembly of which the item is a component. Contractor is responsible for: dimensions to be confirmed and correlated at the job site; information that pertains solely to the fabrication process or to the means, methods, techniques, sequences and procedures of construction; coordination of the work of all trades; and for performing all work in a safe and satisfactory manner.</small>	
<small>Note: Errors in shop drawings or undue delays in making corrections are not an acceptable excuse for changing delivery dates from imperfect fabrication.</small>	
MOTZ CONSULTING ENGINEERS, INC.	
By: <u>Jeff Haynay</u>	Date: <u>01/06/2026</u>



Feldkamp Enterprises
 3642 Muddy Creek Rd
 Cincinnati, Ohio 45238
 P: (513) 347-4500

Project: 1351 Princeton Athletic Facility
 1100 Viking Way
 Cincinnati, Ohio 45246

Submittal #23 36 00-1.1 - VAV Units 23 36 00 - Air Terminal Units

Revision	1	Submittal Manager	Heather Wyatt (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises)
Status	Open	Date Created	Dec 17, 2025
Issue Date	Dec 17, 2025	Spec Section	23 36 00 - Air Terminal Units
Responsible Contractor	Controlled Air, Inc.	Received From	Patrick Tepe (Controlled Air, Inc.)
Received Date		Submit By	
Final Due Date	Jan 3, 2026	Lead Time	
		Cost Code	
Location		Type	Product Information
Submittal Package			
Manufacturer	Titus		
Approvers	Heather Wyatt (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Matt Crawford (Megen Construction)		
Ball in Court	Heather Wyatt (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises)		
Distribution	Brian Linblad (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), David Doremus (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Frank Izzo (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Jack Rahn (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Jason Hageman (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Jonathan Vogelpohl (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Josh Zins (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Kelly Jones (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Matt Flower (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Rob Bush (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Shawn Heeney (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises)		
Description	2.02 SINGLE-DUCT, □VARIABLE-VOLUME□ UNITS A Manufacturers: 1. Krueger-HVAC 2. Price Industries, Inc 3. Trane, a brand of Ingersoll Rand 4. Tuttle and Bailey 5. □Titus□. B Basis of Design: Price Industries, Inc: www.priceindustries.com/#sle. 1. Single-Duct Terminal Unit: SDV, (direct digital controls). 2. Quiet Controller, Single-Duct Terminal Unit: SDVQ, (direct digital controls). 3. Single-Duct Terminal Units for Electric Coils: SDV-EC, (electric heating coil with direct digital controls).		

Submittal Workflow

Name	Sent Date	Due Date	Returned Date	Response	Attachments
General Information Attachments					
Patrick Tepe		Dec 22, 2025	Dec 17, 2025	Submitted	
Comment	Please see attached submittals for VAV's that are being added as part of Bulletin 6				
Heather Wyatt	Dec 17, 2025	Dec 20, 2025		Pending	
Matt Crawford		Jan 3, 2026		Pending	

Princeton Athletics Bull #6

Titus VAV Submittals

Feldkamp Enterprises

Controlled Air, Inc

Patrick Tepe

12009 Tramway Dr

Cincinnati, OH 45241

513-769-6600

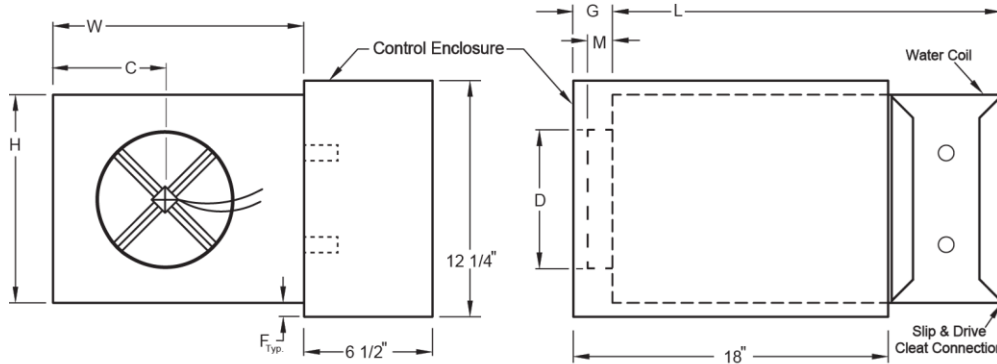
12/16/2025

DESV

Single Duct Terminal Unit, Direct Digital Control, Pressure Independent

Main Product **DESV-1**

DESV



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	H	M	L
10	0 - 1400	10" Dia.	-	5 3/8"	14"	12 1/2"	3 3/8"	20 1/2"
06	0 - 500	6" Dia.	2 1/8"	7 3/8"	12"	8"	3 3/8"	20 1/2"

General Description **DESV-1**

- Standard construction uses G40 22-gauge galvanized steel housing, and optional construction uses G40 20-gauge galvanized 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.
- Unit in accordance with UL-1996
- Model DESV can be installed horizontally, vertically, or at any angle. Operation is not affected by position.
- Gauge tees for CFM measurement.

Option Schedule **DESV-1**

ID	Quantity	Tag	UNIT SIZE	MAX PRIMARY CFM	MIN PRIMARY CFM
1	1	VAV-02-03	10	800	400
2	1	VAV-02-04	06	150	100
3	3	VAV-02-05,06,07	06	150	75

*** CONTROLS & MTG OF CONTROLS BY OTHERS. ***

Project PRINCETON ATHLETICS
Architect
Engineer
Contractor
Designation



Date 12/16/2025
Office Controlled Air, Inc
Preparer Patrick
Version 2014.0.594

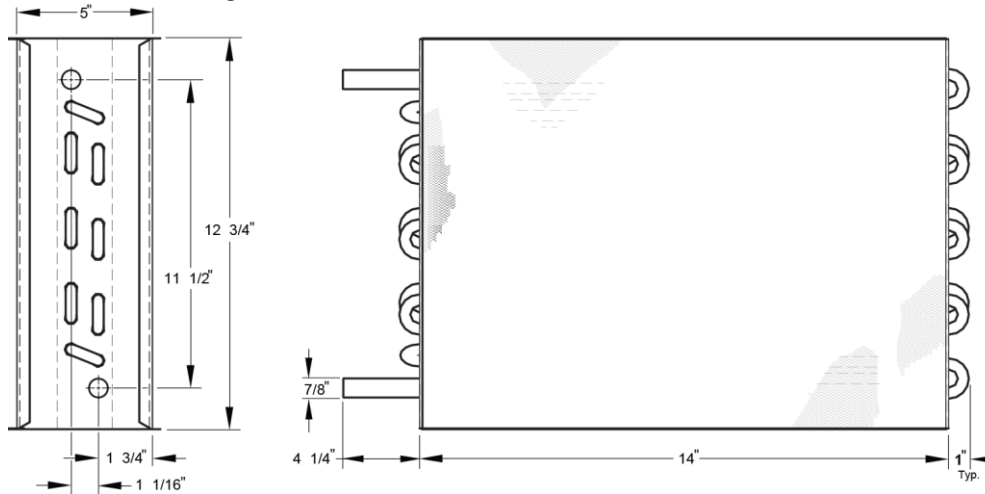
Option Schedule (continued)	DESV-1
SENSOR CODE 3 - AEROCROSS	UNIT ACC3 0 -NONE
UNIT CONFIG 0 -BASIC	UNIT ACC4 0 -NONE
LINER OPTION M - 1" EcoShield (Foil Face)	UNIT ACC5 0 -NONE
CASING CONFIG 0R -STD 22GA RH	WATER COIL W12 -2 ROW RH
DIGITAL CONTROLLER 0000 -NONE	ELECTRIC HEAT TYPE 000 -NONE
ACTUATOR TYPE 0000 -NONE	KW 0
CONTROL ACC1 00 -NONE	ELEC COIL ACC1 0 -NONE
CONTROL ACC2 00 -NONE	ELEC COIL ACC2 0 -NONE
CONTROL ACC3 00 -NONE	ELEC COIL ACC3 0 -NONE
UNIT ACC1 E -METAL CTRL ENCLOS	ELEC COIL ACC4 0 -NONE
UNIT ACC2 0 -NONE	

Accessories	DESV-1
Selected Liner: 1" EcoShield Insulation (Foil Face)	
Insulation Characteristics:	
Material: Foil Face Natural Fiber Duct Liner	
Thickness: 1 inch	
R-Value: 4.0 ft ² °F h/Btu @ 75°F	
Density: 1.5 lbs/ft ³	
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 723 - Flame / Smoke Spread (25/50)	
ASTM C 411 - Operating Temperature Limits	
ASTM E84 - Flame / Smoke Spread (25/50)	
ASTM C 1071 - Maximum Air Velocity	
ASTM C 739 - Corrosion Resistance	
ASTM G 21 - Fungi Resistance	
ASTM G 22 - Bacteria Resistance	

Accessories (continued)

DESV-1

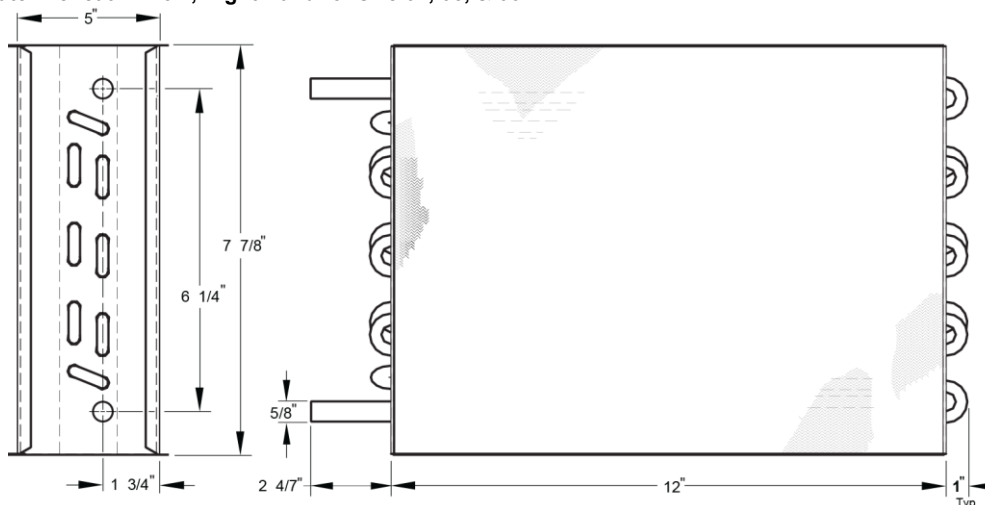
ESV Hot Water Reheat: 2-Row, Right Hand for size 09 10, 7E, & 8E



- 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

ESV Hot Water Reheat: 2-Row, Right Hand for size 04, 05, & 06



Project PRINCETON ATHLETICS
Architect
Engineer
Contractor
Designation



Date 12/16/2025
Office Controlled Air, Inc
Preparer Patrick
Version 2014.0.594

Accessories (continued) **DESV-1**

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- 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

Single Duct Terminal Unit Schedule

Tag	Model	Size		CFM		Static Pressure			NC Levels		Hot Water Heat Coil										Unit	
		Unit	Outlet	Max	Min	Inlet	Down	Min	Rad	Dis	CFM	MBH	EAT	EWT	LAT	APd	GPM	LWT	WPd	Rows	FPI	Hand
VAV-02-03	DESV	10	14x12.5	800	400	1	0.25	0.21	18	24	600	30.7	55	180	102.1	0.2	2.6	155.8	0.44	2-RH	10	RH
VAV-02-04	DESV	06	12x8	150	100	1	0.25	0.06	-	18	125	7.5	55	180	110.3	0.04	0.5	151.5	0.06	2-RH	10	RH
VAV-02-05,06,07	DESV	06	12x8	150	75	1	0.25	0.06	-	18	100	5.9	55	180	109.3	0.04	0.4	149.7	0.04	2-RH	10	RH

- Not 1. Selections are based on Titus as Manufacturer.
 2. All performance based on tests conducted in accordance with ASHRAE 130-2008 and AHRI 880-2011.
 3. All NC levels determined using AHRI 885-2008 Appendix E.
 4. All airflow, pressure losses and heating performance values have been corrected for altitude.
 5. Units of measure: dimensions (in), airflow (cfm), water flow (gpm), air pressure (in wg), water head losses (ft) and
 6. Water pressure drop (WPd) units is in ft. water.

*** CONTROLS & MTG OF CONTROLS IS BY OTHERS. ***
*** CONTRACTOR TO CONFIRM HANDEDNESS OF BOX PRIOR TO RELEASE. ***